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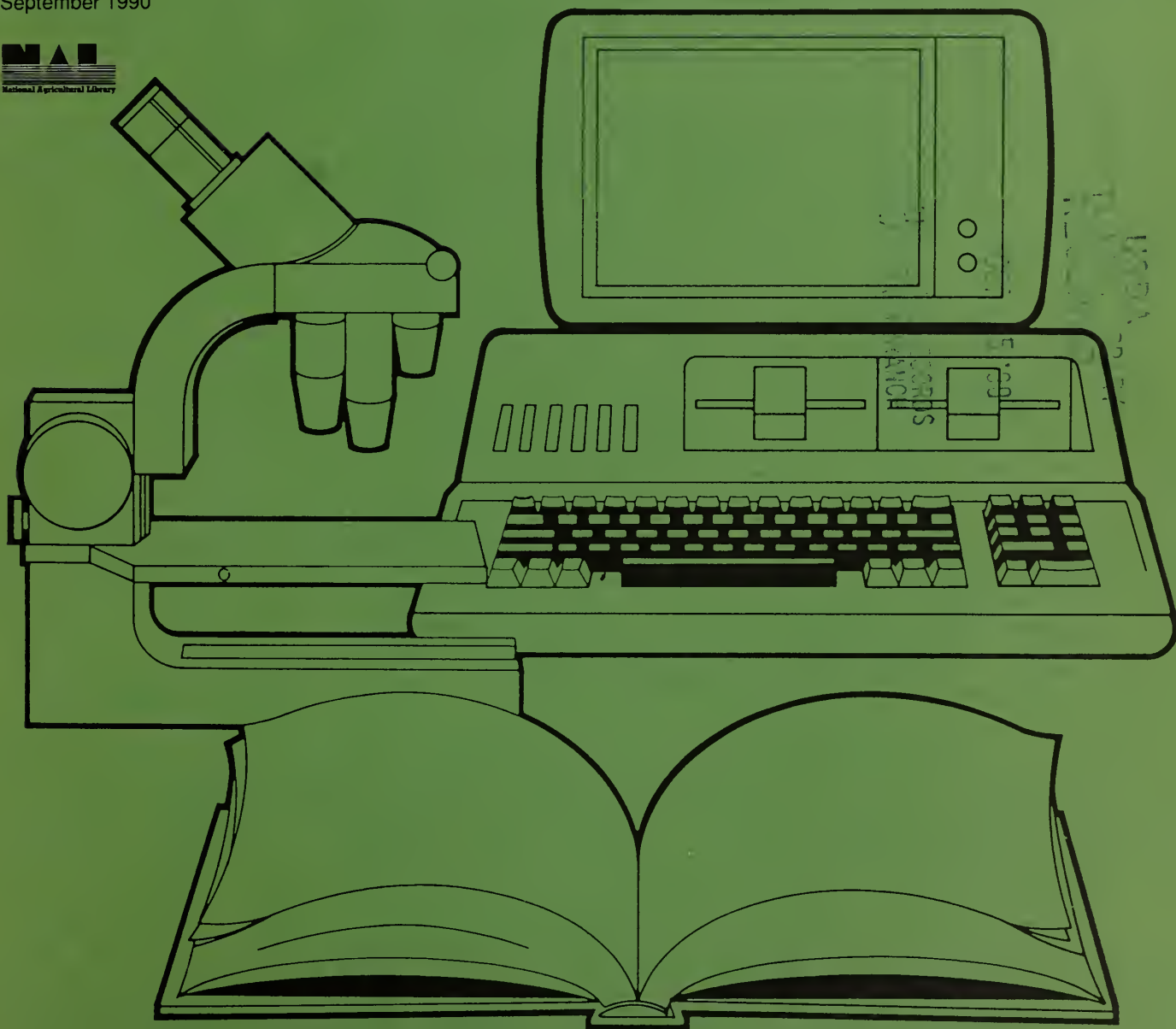
Bibliographies
and Literature
of Agriculture
Number 98

September 1990



The Protection of Cucurbits, 1979 - April 1990

Citations from AGRICOLA Concerning Diseases and other Environmental Considerations





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Compiled and Edited by

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National Agricultural Library

National Agricultural Library
Beltsville, Maryland
1990

National Agricultural Library Cataloging Record:

Bebee, Charles N.

The protection of cucurbits, 1979-April 1990 : citations from AGRICOLA concerning diseases and other environmental considerations.

(Bibliographies and literature of agriculture ; no. 98)

1. Cucurbitaceae -- Protection -- Bibliography. 2. Plants, Protection of -- Bibliography. I. Title.

aZ5076.A1U54 no.98

FOREWORD

This is the 35th volume in a series of commodity-oriented environmental bibliographies resulting from a memorandum of understanding between the U.S. Department of Agriculture, National Agricultural Library (USDA-NAL), and the U.S. Environmental Protection Agency, Office of Pesticide Programs (EPA-OPP).

This close working relationship between the two agencies will produce a series of bibliographies which will be useful to EPA in the regulation of pesticides, as well as to any researcher in the field of plant or commodity protection. The broad scope of information contained in this series will benefit USDA, EPA, and the agricultural community as a whole.

The sources referenced in these bibliographies include the majority of the latest available information from U.S. publications involving commodity protection throughout the growing and processing stages for each agricultural commodity.

We welcome the opportunity to join this cooperative effort between USDA and EPA in support of the national agricultural community.

JOSEPH H. HOWARD, Director
National Agricultural Library

DOUGLAS D. CAMPT, Director
Office of Pesticide Programs

INTRODUCTION

The citations in this bibliography, The Protection of Cucurbits, are selected from the AGRICOLA (AGRICultural OnLine Access) database limited to those produced by North American authors. They cover articles or monographic publications added to the database from 1979 - April 1990.

This is the 35th bibliography in a series of commodity-oriented listings of citations from AGRICOLA jointly sponsored by the U.S. Department of Agriculture, National Agricultural Library (USDA-NAL), and the U.S. Environmental Protection Agency, Office of Pesticide Programs (EPA-OPP). Additional volumes issued recently include The Protection of Cotton, 1985 - 1989, The Protection of Soybeans, 1985 - 1989, The Protection of Small Fruits and Berries, The Protection of Grapes and Cherries, The Protection of Ornamental Plants, The Protection of Farm Animals, and The Protection of Wildlife and Vertebrate Pest Control. The 1990 volumes include The Protection of Tropical and Subtropical Fruits, The Protection of Small Grains (other than Wheat, Rice or Sorghums), The Protection of Cucurbits, The Protection of Minor Vegetable Crops, The Protection of Beans, Peas, and Lentils, and The Protection of Forestry.

Entries in the bibliography are subdivided into a series of section headings used in the contents of the Bibliography of Agriculture. Each item appears under every section heading assigned to the cited document. A personal author index is also included in the publication and a site index to plants follows the personal author index.

The U.S. Environmental Protection Agency contact for this project is Richard B. Peacock, Office of Pesticides and Toxic Substances.

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Errata
222,869

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LEGISLATION

0001

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Lunmsden, R.D. Sasser, M. Washington, D.C.? : The Department. Abstract: A new biotype, SDL-POP-S-1, of the soilborne beneficial bacterium Pseudomonas cepacia NRRL B-14149 has been discovered. The biotype is very effective in controlling Pythium diseases of cucumbers and peas. A new medium that is exclusively selective for the bacterium Pseudomonas cepacia has also been developed. United States Department of Agriculture patents. Copies of USDA patents are available for a fee from the Commissioner of Patents and Trademarks, U.S. Patents and Trademarks Office, Washington, D.C. 20231. May 13, 1986. (4,588,584). 1 p. Includes references. (NAL Call No.: DNAL aT223.V4A4).

comparable to its natural counterpart, whereas the synthetic racemic mixture is characterized by approximately half the activity for a given amount. Related diabroticites such as the western spotted cucumber beetle also respond to the synthetic comounds. By attracting adult beetles to field traps, 10-M-2-T is a useful tool for the monitoring and control of these major agricultural pests. United States patent - United States Patent Office. Copies of USDA patents are available for a fee from the Commissioner of Patents and Trademarks, U.S. Patents and Trademarks Office, Washington, D.C. 20231.~ Includes abstract. Oct 2, 1984. (4,474,991). 1 p. Includes 5 references. (NAL Call No.: DNAL NO CALL NO. (PAT)).

0002

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Guss, P.L. Tumlinson, J.H. III; Sonnet, P.E.; McLaughlin, J.R. Washington, D.C.? : The Department. Abstract: A pheromonal compound produced by the southern corn rootworm has been identified as 10-methyl-2-tridecanone (10-M-2-T). The synthetic R-enantiomer of 10-M-2-T demonstrates activity toward the southern corn rootworm comparable to its natural counterpart, whereas the synthetic racemic mixture is characterized by approximately half the activity for a given amount. Related diabroticites such as the western spotted cucumber beetle also respond to the synthetic compounds. By attracting adult beetles to field traps, 10-M-2-T is a useful tool for the monitoring and control of these major agricultural pests. United States Department of Agriculture patents. Copies of USDA patents are available for a fee from the Commissioner of Patents and Trademarks, U.S. Patents and Trademarks Office, Washington, D.C. 20231. Jan 21, 1986. (4,565,695). 1 p. Includes references. (NAL Call No.: DNAL aT223.V4A4).

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Synthetic pheromone 10-methyl-2-tridecanone and its use in controlling the southern corn rootworm and related diabroticites.

Guss, P.L. Tumlinson, J.H. III; Sonnet, P.E.; McLaughlin, J.R. Washington, D.C. : The Office. Abstract: A pheromonal compound produced by the southern corn rootworm has been identified as 10-methyl-2-tridecanone (10-M-2-T). The synthetic R-enantiomer of 10-M-2-T demonstrates activity toward the southern corn rootworm

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0004

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0005

Economic evaluation of plastic mulch and row tunnels for use in muskmelon production.

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0006

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0007

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Rij, R.E. Hinsch, R.T. Berkeley, Calif., The Administration. Abstract: California nectarines and cantaloupes packed in corrugated fiberboard boxes were unitized and shipped on slipsheets in refrigerated trailers to determine if slipsheets could replace the currently used disposable wooden pallets as a base for unitizing shipping containers. In general, the slipsheets loads performed as well as the wooden pallet loads in regard to maintenance of transit temperatures, container damage, and product condition. The most important factor influencing transit temperature was the performance of the trailers' refrigeration unit. Conversion to slipsheet handling can be accomplished with some modification of current handling practices at shipping points and at receiving warehouses. The major equipment investment for conversion to slipsheet handling is a push-pull unit for forklift trucks. Additional training also would be required for forklift operators. Slipsheets made of solid fiberboard or of plastic performed equally well; however, under high moisture conditions, the plastic or another water resistant-type sheet should be used. Advances in agricultural technology AAT-W - United States, Dept. of Agriculture, Science and Education Administration, Western Region. Sept 1980. Sept 1980. (15). 16 p. ill. Includes bibliography. (NAL Call No.: aS21.A76U66).

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0013

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PLANT PRODUCTION - HORTICULTURAL CROPS

0016

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HJHSA. Teasdale, J.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1985. v. 20 (5). p. 871-872. Includes 4 references. (NAL Call No.: DNAL SB1.H6).

0017

Calcium deficiency reduces cucumber fruit and seed quality.
JDSHB. Frost, D.J. Kretchman, D.W. Alexandria, Va. : The Society. 'Sumter' cucumber plants (*Cucumis sativus* L.) were grown in an acid-washed sand with a modified Hoagland's solution containing calcium (Ca) at 160 (control), 80, or 40 mg.liter⁻¹. Fruits grown under low Ca levels developed water-soaked and necrotic lesions on the epidermis and pericarp of the distal end of the fruits. Some Ca-stressed fruits also developed a placental disruption near the stem-end forming a cylindrical air pocket. Fruit fresh and dry weights from 40 mg Ca/liter were lower than those of the control between weeks 4 to 7 of development. The Ca content of the fruit pericarp sections decreased with increased Ca stress. Regardless of treatment, the proximal peduncle portion contained the highest levels of Ca, while the distal section contained the lowest. Seed quality was also reduced from Ca stress. Almost all dry seeds from the control but only 70% of those from 40 mg Ca/liter germinated with the standard germination test. Drying seed at 25C for 5 days reduced the viability of Ca-stressed seeds, when compared to undried seed (72% vs. 99% germination). The vigor of the control seeds was significantly higher when dried. Seeds from the 40 mg Ca/liter treatment produced a significantly higher proportion of abnormal seedlings than the control seeds (58% vs. 4%). Journal of the American Society for Horticultural Science. July 1989. v. 114 (4). p. 552-556. ill. Includes references. (NAL Call No.: DNAL 81 S012).

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0022

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0025

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0026

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0034

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V.N.M. Chicago, Institute of Food
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1982. v. 47 (1). p. 306-310. ill. Includes 16
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0037

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0042

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0043

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(PLANT PRODUCTION - HORTICULTURAL CROPS)

0047

The effect of slit, perforated and net row covers and mulch on soil and crop temperatures and periodicity of muskmelon yield.

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0048

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Caldwell, J.S. Morse, R.D.; O'Dell, C.R. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1986. (19th, suppl.). p. 28-33. Includes references. (NAL Call No.: DNAL 309.9 N216).

0049

Effect of soil acidity and magnesium on muskmelon leaf composition and fruit yield.

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0050

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HJHSA. Bhella, H.S. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1988. v. 23 (1). p. 123-125. Includes references. (NAL Call No.: DNAL SB1.H6).

0051

Effect of trickle irrigation on yield and quality of summer squash.

Haynes, R. AR. Herring, S. Fayetteville, Ark., The Station. Arkansas farm research - Arkansas Agricultural Experiment Station. Sept/Oct 1980. v. 29 (5). p. 6. 111. (NAL Call No.: 100 AR42F).

0052

The effect of various fertilizer and manure treatments on the yield, size, stand, and disease resistance of cantaloupes /by E.M. Rahn and W.H. Phillips.

Rahn, E. M. Phillips, W. H. Newark, Del. : University of Delaware Agricultural Experiment Station, 1945. Cover title. 42 p. ; 23 cm. Bibliography: p. 42. (NAL Call No.: DNAL 100 D37S (1) no.256).

0053

Effect of VisPore (R) row cover and polyethylene mulch on early production of watermelon in Alabama.

Khan, V.A. Stevens, C.; Tang, A.Y. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 252-256. Includes references. (NAL Call No.: DNAL 309.9 N216).

0054

The effects of different levels of fertilizer and previous crop on the yield of cucumber.

Tiwari, S.C. Windham, S.L.; Collins, J.B.; Igbokwe, P.E.; Russell, L. Mississippi State, Miss. : The Station. MAFES research highlights - Mississippi Agricultural & Forestry Experiment Station. Oct 1984. v. 47 (10). p. 1-2. (NAL Call No.: DNAL 100 M69MI).

0055

The effects of different levels of fertilizer and previous crop on the yield of cucumber (Cucumis sativus L.).

Tiwari, S.C. Windham, S.L.; Collins, J.B.; Igbokwe, P.E.; Russell, L. Mississippi State, Miss. : The Station. Research report - Mississippi Agricultural and Forestry Experiment Station. Apr 1984. v. 8 (20). 3 p. Includes references. (NAL Call No.: S79.E37).

0056

Effects of ethephon-gibberellin combinations on yield, size, and quality of muskmelon (Cucumis melo).

Batal, K.M. JOSHB. Alexandria : The Society. Journal of the American Society for Horticultural Science. Jan 1983. v. 108 (1). p. 77-80. Includes references. (NAL Call No.: 81 S012).

0057

Effects of fumigant and nonfumigant nematicides on nematode populations and yields of broccoli and squash in Florida.

NMTPA. Rhoades, H.L. Auburn, Ala. : Organization of Tropical American Nematologists. Nematropica. Dec 1987. v. 17 (2). p. 193-198. Includes references. (NAL Call No.: DNAL SB998.N4N4).

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0058

Effects of honeybee (*Apis mellifera*) on cantaloupe yield in the Lower Rio Grande Valley of Texas.

Chandler, L.D. Cocke, J. Jr. College Station, Tex., Southwestern Entomological Society. The Southwestern entomologist. Sept 1981. v. 6 (3). p. 233-236. 6 ref. (NAL Call No.: QL461.S65).

0059

Effects of irrigation regimes on yield and water use of summer squash.

JOSHB. Stansell, J.R. Smittle, D.A. Alexandria, Va. : The Society. Summer squash (*Cucurbita pepo* L. cv. Dixie hybrid) were grown in drainage lysimeters under closely controlled and monitored soil water regimes. Variables included three irrigation treatments, three growing seasons, and two soil types. Marketable fruit yield was greatest and production cost per kilogram of marketable fruit was least when squash was irrigated at 25 kPa of soil water tension. Yields were greatest for the spring season of production and least for the fall season. Regression equations are provided to describe the relationships of water use to plant age and to compute daily evapotranspiration : pan evaporation ratios (crop factors) for squash irrigated at 25, 50, and 75 kPa of soil water tension during the spring, summer, or fall production season. Journal of the American Society for Horticultural Science. Mar 1989. v. 114 (2). p. 196-199. Includes references. (NAL Call No.: DNAL 81 S012).

0060

Effects of plant density on growth and biomass partitioning in pickling cucumbers.

JOSHB. Widders, I.E. Price, H.C. Alexandria, Va. : The Society. Pickling cucumbers (*Cucumis sativus* L. cv. Tamor and Castlepick) were direct-seeded at six plant densities (in thousands, 44, 77, 97, 121, 152, 194) using two between-row spacings (71 and 36 cm) and three within-row spacings (29, 14, and 11 cm between plants). Compared with the 29 cm within-row spacing, the 11- and 14-cm spacings resulted in significantly lower total above-ground plant dry weights, growth rates, and total leaf areas for both cultivars as early as 21 to 27 days after planting. The between-row spacing effects on plant growth were similar, but were of a lower magnitude and appeared later in plant development than for the within-row spacing effects. Leaf lamina and fruit tissue exhibited the largest reduction in tissue dry weights per plant compared to stem and petiole tissue when plant density was increased from approximately 4.5 to 20 plants/m² (45,000 to 200,000 plants/ha). Lower fruit productivity per plant at higher plant densities resulted from fewer fruit set per plant and lower fruit: shoot ratios. Unit leaf rate (g dry weight/day per g of lamina dry weight) was not affected by plant spacing during the fruit development period. Increased densities resulted in significantly

higher leaf indexes, and vegetative and total above-ground dry weights/m². Total fruit yield with a single harvest did not increase above approximately 77,000 plants/ha for both cultivars. A high correlation ($r = 0.877$) between leaf lamina dry weight and fruit growth rate indicates that net photosynthetic capacity might be limiting fruit productive potential in pickling cucumbers. Journal of the American Society for Horticultural Science. Sept 1989. v. 114 (5). p. 751-755. Includes references. (NAL Call No.: DNAL 81 S012).

0061

Effects of planting densities, irrigation, and hornworm larvae on yields in experimental intercrops of tomatoes and cucumbers.

JOSHB. Schultz, B. McGuinness, H.; Horwith, B.; Vandermeer, J.; Phillips, C.; Perfecto, I.; Rosset, P.; Ambrose, R.; Hansen, M. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1987. v. 112 (5). p. 747-755. Includes references. (NAL Call No.: DNAL 81 S012).

0062

Effects of seed preconditioning treatments on emergence of cucumber populations.

HJHSA. Staub, J.E. Nienhuis, J.; Lower, R.L. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1986. v. 21 (6). p. 1356-1359. Includes references. (NAL Call No.: DNAL SB1.H6).

0063

The effects of shoot tip removal and various levels of defoliation on the growth and yield of cucumbers (*Cucumis sativus*, L.).

OARCB. Roberts, M. Gorski, S.F. Wooster, Ohio : The Center. Research circular - Ohio Agricultural Research and Development Center. Sept 1985. (288). p. 22-24. Includes references. (NAL Call No.: DNAL 100 OH3R).

0064

Effects of slitted row covers on enhancing seedless watermelon production in northern Ohio.

Hassell, R.L. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1981. (16th). p. 87-91. Includes references. (NAL Call No.: DNAL 309.9 N216).

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0065

Effects of sludge, bed, and genotype on cucumber growth and elemental concentrations in fruit and peel.

JOSHB. Harrison, H.C. Staub, J.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Mar 1986. v. 111 (2). p. 205-211. Includes 30 references. (NAL Call No.: DNAL 81 S012).

0066

Evaluation of herbicides for use between plastic mulch in cucurbit and solanaceous crop production.

Bonanno, A.R. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1986. (19th). p. 339-347. Includes references. (NAL Call No.: DNAL 309.9 N216).

0067

Greenhouse CO2 enrichment alternatives: effects of increasing concentration or duration of enrichment on cucumber yields.

JOSHB. Peet, M.M. Willits, D.H. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Mar 1987. v. 112 (3). p. 236-241. Includes references. (NAL Call No.: DNAL 81 S012).

0068

The greenhouse red spider attacking cucumbers and methods for its control /by Stuart C. Vinal.

Vinal, Stuart Cunningham, 1894-. Amherst, Mass. : Massachusetts Agricultural Experiment Station, 1917. Cover title. p. 153 -182 : ill. ; 23 cm. Bibliography: p. 181-182. (NAL Call No.: DNAL 100 M38H (1) no.179).

0069

Growing cucumbers, melons, squash, pumpkins and gourds.

Chamberlain, Juliann. Burkhardt, Poly. & Yard & garden. 1981. This publication discusses growing and maintaining cucurbits in home gardens. Document available from: Purdue University, Mailing Room, Agricultural Administration Bldg., West Lafayette, Indiana 47907. 6 p. : ill. (NAL Call No.: Not available at NAL.). (NAL Call No.: HO-8).

0070

Growing watermelons.

Williams, J.L. Gazaway, W.S.; Strother, G.; Patterson, M. Auburn, Ala. : The Service. Circular ANR - Cooperative Extension Service, Auburn University. Nov 1986. (81). 4 p. ill. (NAL Call No.: DNAL S544.3.A2C47).

0071

Growth inhibitors in cucumber plants and seeds (Autotoxicity, allelopathy).

Lockerman, R.H. Putnam, A.R. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. July 1981. v. 106 (4). p. 418-422. 15 ref. (NAL Call No.: 81 S012).

0072

Harvesting, packaging, storage and shipping of greenhouse vegetables.

Schales, F.D. Honolulu, Hawaii, USA : International Center for Special Studies, c1985. Hydroponics worldwide : state of the art in soilless crop production / Adam J. Savage, editor. p. 70-76. ill. Includes references. (NAL Call No.: DNAL SB126.5.H94).

0073

Influence of fumigation on the sowing qualities of vegetable (cucumber, tomato, onion and beet) seeds.

Kononkov, P.F. Mordkovich, YA.B.; Kuznetsov, I.D. New York, Allerton Press. Soviet agricultural sciences. 1979. 1979. (4). p. 16-18. 2 ref. (NAL Call No.: S1.S68).

0074

Influence of HPS supplementary lighting on growth and yield of greenhouse cucumbers.

HJHSA. Blain, J. Gosselin, A.; Trudel, M.J. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1987. v. 22 (1). p. 36-38. Includes references. (NAL Call No.: DNAL SB1.H6).

0075

Influence of pH on cadmium and zinc concentrations of cucumber grown in sewage sludge.

HJHSA. Falahi-Ardakani, A. Corey, K.A.; Gouin, F.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1988. v. 23 (6). p. 1015-1017. Includes references. (NAL Call No.: DNAL SB1.H6).

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0076

The influence of row covers and herbicides on the growth and yield of muskmelons in North Carolina.

Motsenbocker, C.E. Bonanno, A.R. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1986. (19th). p. 366-377. Includes references. (NAL Call No.: DNAL 309.9 N216).

0077

Irrigation and plant spacing effects on seed production of buffalo and coyote gourds.

AGJOAT. Nelson, J.M. Scheerens, J.C.; McGriff, T.L.; Gathman, A.C. Madison, Wis. : American Society of Agronomy. Buffalo gourd (*Cucurbita foetidissima* HBK) and coyote gourd (*Cucurbita digitata* Gray) are xerophytic perennial cucurbits with potential as oilseed or starch crops for arid and semiarid lands. This study investigated irrigation and plant spacing effects on growth, water requirements, and oilseed production of these species. Irrigation of first-season buffalo gourds planted in 1981 at a 610-m elevation site on Pima clay loam fine-silty, mixed (calcareous) thermic typic Torrifuvent, and irrigation and plant spacing were evaluated on first-season buffalo and coyote gourds at a 360-m site in 1983 on Casa Grande sandy loam (fine-loamy, mixed, hyperthermic Typic Natrargid) and Trix clay-clay loam fine-loamy, mixed (calcareous), hyperthermic Typic Torrifuvent, respectively. Irrigation and plant spacing were evaluated on second-season buffalo gourds planted in 1983. Irrigation did not affect first-season buffalo gourd yields. Second-season yields were reduced by irrigating when the available soil water was 75% depleted (I2) compared to irrigating when soil water was 50% depleted (I1). Coyote gourd yields were reduced by the I2 treatment in 1983 but not in 1984. Consumptive water use for first season buffalo gourds in the I1 treatment at the 610- and 360-m sites was 870 and 645 mm, respectively. Consumptive water use was similar for coyote and buffalo gourds at the 360-m site. In the first season, these species derived up to 50% of water used from the top 0.4 m of soil, and extracted water to a depth of at least 2.6 m. Irrigation did not affect water-use efficiency (WUE) of either species. Buffalo gourds had higher WUE in the second season (0.09 kg seed m³ water) than the first season (0.04 kg m³). Plant spacings of 0.25 to 2 m in 1-m spaced rows had no effect on first-season yield in 1983 but in 1984 a quadratic relationship indicated that the closest and widest spacings reduced yields. Coyote gourd consistently out-yielded buffalo gourd at the 360-m site. Although. *Agronomy journal*. Jan/Feb 1988. v. 80 (1). p. 60-65. Includes references. (NAL Call No.: DNAL 4 AM34P).

0078

Irrigation effects on water use, and production of tap roots and starch of buffalo gourd.

AGJOAT. Nelson, J.M. Scheerens, J.C.; Bucks, D.A.; Berry, J.W. Madison, Wis. : American Society of Agronomy. The buffalo gourd (*Cucurbita foetidissima* HBK) is a possible new root starch crop for semiarid regions. Information on water use relationships of this species is needed to determine its suitability for arid lands agriculture. The objective of this study was to assess the influence of water management on buffalo gourd tap root production and water use. Five irrigation levels were evaluated for an annual buffalo gourd crop in 1985 and 1986 at a 360-m elevation field site on Casa Grande sandy loam (fine-loamy, mixed, hyperthermic Typic Natrargid) using plant populations of 400 000 to 450 000 plants ha⁻¹. Irrigating at 50% available soil water (ASW) content (I1) gave higher fresh tap root yields than irrigating at 75% ASW (I2) (27.8 vs. 24.1 Mg ha⁻¹) in 1985 with identical starch yields. In 1986 the I2 treatment was higher than the I1 treatment in starch yield (3.1 vs. 2.1 Mg ha⁻¹) and tap root starch concentration (47.5 vs. 38.1%). Vines of water stressed plants (I2) grew rapidly when irrigated. Consumptive water use was 649 and 487 mm in I1 and I2, respectively. Peak consumptive use rates were less than 6.5 mm d⁻¹. As much as 48% of seasonal water use was from the 0 to 0.4 m soil depth. Water was extracted to a depth of 2.6m. The I2 treatment had the highest water-use efficiency (WUE), 4.9 kg m⁻³, for fresh root production. The WUE for starch production was higher for the I2 treatment (0.62KG m⁻³) than the I1 treatment (0.42 kg m⁻³). Irrigation scheduling to provide moderate stress reduces buffalo gourd water use without reducing starch yield, increasing its potential as a semiarid starch crop. *Agronomy journal*. May/June 1989. v. 81 (3). p. 439-442. Includes references. (NAL Call No.: DNAL 4 AM34P).

0079

Modeling row cover effects on microclimate and yield. I. Growth response of tomato and cucumber.

JDSHB. Wolfe, D.W. Albright, L.D.; Wyland, J. Alexandria, Va. : The Society. Several polyethylene and fabric row cover materials, and clear and black polyethylene mulch, were evaluated in a 2-year field study. For cucumbers *Cucumis sativus* (L.), visible wilting and slowed growth rates of young transplants exposed to cold nights were minimized when grown under row covers that maintained high humidities and higher air and soil temperatures than in the exposed controls. Early cucumber yields were increased 2- to 6-fold by the use of covers. In contrast, tomatoes *Lycopersicon esculentum* (Mill.) showed no significant early yield increases, but a 63% reduction in early yield in 1985 under a perforated clear polyethylene cover. The frequency and duration of daytime air temperatures exceeding 35C had a negative impact on tomato fruit size, quality, and percentage marketable. For cucumber, the

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relationship between cumulative degree days (during the covered interval) and biomass, early, and total yields was linear (r^2 between 0.70 and 0.82) with positive slope. Tomato yields could not be accurately predicted using this approach, but correlations were improved (for the 1985 data set) by using modified degree-day formulas incorporating a negative high-temperature factor. Journal of the American Society for Horticultural Science. July 1989. v. 114 (4). p. 562-568. Includes references. (NAL Call No.: DNAL 81 S012).

0080

Muskmelon weed control under clear plastic tunnels.

Vrabel, T.E. Warholc, D.T. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1981. (16th). p. 79-86. Includes references. (NAL Call No.: DNAL 309.9 N216).

0081

New tunnel materials for early vegetable production in New York State.

Kohm, P.C. Wien, H.C. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1983. (17th). p. 31-36. Includes references. (NAL Call No.: DNAL 309.9 N216).

0082

Paclobutrazol--a plant growth retardant for increasing yield and fruit quality in muskmelon.

JOSH. Nerson, H. Cohen, R.; Edelstein, M.; Burger, Y. Alexandria, Va. : The Society. The effects of paclobutrazol (cultar, PP333) on yield and fruit quality of muskmelon (*Cucumis melo* L. var. *reticulatus* Naud. cv. *Galia*) were examined in a series of field experiments, in the spring at Neve Ya'ar (northern Israel) and in autumn at Biq'at HaYarden (lower Jordan Valley, eastern Israel). In the spring experiments, paclobutrazol applied at 2 and 4 mg-liter⁻¹ as a drench to the media-mix of muskmelon transplants increased total fruit yield 15% to 20% at various plant populations and in combination with ethephon and/or chlorflurenol, but tended to decrease the early yield. Yield increase was due to an increase in fruit weight rather than number. Paclobutrazol, in general, tended to improve marketable yield, yield concentration, and netting index. In the autumn experiment, paclobutrazol was applied at 250 mg.liter⁻¹ as a spray from flowering through fruit maturation and compared with benzyladenine (BA), and N, P, and K fertilization. Paclobutrazol reduced early leaf-yellowing symptoms, but was not as effective as BA. Paclobutrazol in the autumn experiment did not affect yield or yield components, but soluble solids content was significantly increased and keeping-quality was

unaffected. Journal of the American Society for Horticultural Science. Sept 1989. v. 114 (5). p. 762-766. Includes references. (NAL Call No.: DNAL 81 S012).

0083

Pecan shells as an organic component of container potting media.

HJHSA. Wang, T.Y. Pokorny, F.A. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1989. v. 24 (1). p. 75-78. Includes references. (NAL Call No.: DNAL SB1.H6).

0084

Pest control in commercial pickling cucumber production.

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison, Wis., The Programs. Publication - Cooperative Extension Programs, University of Wisconsin Extension. May 1981. May 1981. (A2358). 4 p. ill. (NAL Call No.: S544.3.W6W53).

0085

Pest control in commercial pickling cucumber production (Weeds, insects and diseases).

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. Jan 1983. Jan 1983. (2358). 4 p. ill. (NAL Call No.: S544.3.W6W53).

0086

Pest control in commercial vine crop production (Cucumbers, melons, squash, pumpkins, diseases, insects, weeds).

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. 1983. 1983. (A2465). 12 p. ill. (NAL Call No.: S544.3.W6W53).

0087

Pest control in commercial vine crop production (Weed, insect and disease control in watermelons and cucurbits in Wisconsin).

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. Jan 1983. Jan 1983. (2465). 12 p. ill. (NAL Call No.: S544.3.W6W53).

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0088

Pickling cucumbers.

Motes, J. E. Document available from: Michigan State University, Bulletin Office, P.O. Box 231, East Lansing, Michigan 48824. 1977. This discusses pickling cucumbers including planting, field selection, fertilization, irrigation, pollination, and has a table of diseases. 8 p. : ill. (NAL Call No.: Document available from source.). (NAL Call No.: Extension Bulletin E-837).

0089

Polyethylene tunnels and other protective structures for production of early vegetables in New York State.

Wien, H.C. Bell, D. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1981. (16th). p. 92-102. Includes references. (NAL Call No.: DNAL 309.9 N216).

0090

Response of tomato and watermelon to row solarization.

AAREEZ, Hartz, T.K. Bogle, C.R. New York, N.Y. : Springer. The effect of soil solarization on the production of fresh market tomato (*Lycopersicon esculentum* Mill.) and watermelon (*Citrullus lanatus* (Thund.) Matsum. and Nakai) grown in succession was investigated. Individual soil beds were covered with transparent 40 microns polyethylene film and solarized for seven weeks. Afterwards, the film was either removed or painted and utilized as a mulch. Solarization increased yield of fall grown tomato with the film removed 69% and painted 140%, respectively, when compared to the nonsolarized (control) treatment. Solarization had a significant residual effect on watermelon grown the following spring on stale soil beds, increasing marketable yield 54%, when compared to the nonsolarized treatment. Use of the original solarizing polyethylene as a mulch for the watermelon crop also increased earliness, with a 262% greater yield on mulch, when compared to the control. The increase in preharvest cost of this solarization procedure was approximately 20%. The very large increase in yield of tomato and watermelon and enhanced earliness of watermelon make this cultural practice very economical. Applied agricultural research. Winter 1989. v. 4 (1). p. 15-18. Includes references. (NAL Call No.: DNAL S539.5.A77).

0091

Response of vegetables to floating row covers and plant protectors in central Oregon.

OASPA. Nelson, J.L. Brevig, R.; Young, M. Corvallis, Or. : The Station. Special report - Oregon State University, Agricultural Experiment Station. July 1985. (747). p. 82-86. ill. (NAL Call No.: DNAL 100 OR3M).

0092

Root growth and water status of trickle-irrigated cucumber and tomato.

JOSH. Randall, H.C. Locascio, S.J. Alexandria, Va. : The Society. Two trickle irrigation experiments were conducted during two successive years with cucumber (*Cucumis sativus* L.) and tomato (*Lycopersicon esculentum* Mill.) grown on a coarse-textured soil in ground beds in a greenhouse. Several trickle irrigation design characteristics (emitter spacings of 15, 30, and 45 cm and one or two laterals per crop row) and water management variables (2 or 8 liters/hr per emitter water application rates and water quantities equivalent to 0.25- and 0.50-times pan evaporation) were examined for their effect on soil water content, root distribution, and plant water status. Water application rates did not influence root density distributions or plant water status; however, the 8 liters.hr⁻¹ water application rate resulted in higher water content in the top 20 cm of soil than the lower application rate. The higher water quantity resulted in higher soil water content, higher root density, and improved plant water status than with the lower quantity. Mature plants had root systems that were well-adapted to the different soil water distributions. Only the amount of water applied influenced the water status of mature cucumber plants and cucumber fruit yields. Journal of the American Society for Horticultural Science. Nov 1988. v. 113 (6). p. 830-835. Includes references. (NAL Call No.: DNAL 81 S012).

0093

Row arrangement, plant spacing, and nitrogen rate effects on zucchini squash yield.

HJHSA. Dweikat, I.M. Kostewicz, S.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1989. v. 24 (1). p. 86-88. Includes references. (NAL Call No.: DNAL SB1.H6).

0094

Row cover effects on air and soil temperatures and yield of muskmelon.

HJHSA. Motsenbocker, C.E. Bonanno, A.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Aug 1989. v. 24 (4). p. 601-603. Includes references. (NAL Call No.: DNAL SB1.H6).

0095

Row cover effects on harvest date of watermelons.

Miller, G. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 123-126. (NAL Call No.: DNAL 309.9 N216).

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0096

Salinity effects on germination, growth, and yield of two squash cultivars.
HJHSA. Francois, L.E. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1985. v. 20 (6). p. 1102-1104. Includes references. (NAL Call No.: DNAL SB1.H6).

0097

Seed orientation, seed quality and their effect on emergence and sex expression in cucumber.
Cantliffe, D.J. s.l. : The Society. Proceedings of the ... annual meeting of the Florida State Horticulture Society. June 1985. v. 97. p. 174-176. ill. Includes references. (NAL Call No.: DNAL SB319.2.F6F56).

0098

Soil fumigation controls sudden wilt of melon (Pythium fungus infections, California).
Munnecke, D.E. Laemmlen, F.F.; Bricker, J. Berkeley : The Station. California agriculture - California Agricultural Experiment Station. May/June 1984. v. 38 (5/6). p. 8-9. ill. (NAL Call No.: 100 C12CAG).

0099

Source limitation by defoliation and its effect on dry matter production and yield of cucumber.
HJHSA. Ramirez, D.R. Wehner, T.C.; Miller, C.H. Alexandria, Va. : American Society for Horticultural Science. HortScience. Aug 1988. v. 23 (4). p. 704-706. Includes references. (NAL Call No.: DNAL SB1.H6).

0100

The speed at which ethephon enters cucumber leaves.
HJHSA. Miller, C.H. Sheets, S.M. Alexandria, Va. : American Society for Horticultural Science. HortScience. Apr 1986. v. 21 (2). p. 276-278. Includes references. (NAL Call No.: DNAL SB1.H6).

0101

Spent mushroom compost in soilless media and its effects on the yield and quality of transplants (Lettuce, tomatoes, cucumbers, Tagetes patula).
Lohr, V.I. D'Brien, R.G.; Coffey, D.L. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1984. v. 109 (5). p. 693-697. Includes 23 references. (NAL Call No.: 81 S012).

0102

Spoilage of squash in storage /by E.F. Guba.
Guba, Emil Frederick, 1897-. Amherst, Mass. : University of Massachusetts, 1950. Cover title. 52 p. : ill. ; 23 cm. Bibliography: p. 49-50. (NAL Call No.: DNAL 100 M38H (1) no.457).

0103

Sponge and bottle gourds, Luffa and Lagenaria (Includes composition, nutritional, and toxic values, Puerto Rico, cucurbitaceous vegetables, varieties).
Martin, F.W. New Orleans, La. : USDA Southern Region. Vegetables for the hot, humid Tropics - United States Dept. of Agriculture, Agriculture Research Service. Jan 1979. Jan 1979. (pt.4). 19 p. ill. Includes references. (NAL Call No.: aSB320.8.T7U5).

0104

Squash production.
Gazaway, W.S. Patterson, M.; Brown, S.L.; Williams, J.L.; Marvel, M. Auburn, Ala. : The Service. Circular ANR - Cooperative Extension Service, Auburn University. In subseries: Horticulture. Aug 1987. (75). 4 p. ill. (NAL Call No.: DNAL S544.3.A2C47).

0105

Squash production in Florida.
Olson, S.M. Sherman, M. Gainesville, Fla. : The Service. Circular - Florida Cooperative Extension Service. 1985. (103). 4 p. ill. (NAL Call No.: DNAL 275.29 F66C).

0106

Staminate floral induction on gynoecious buffalo gourd following application of AVG.
HJHSA. Scheerens, J.C. Scheerens, H.M.; Ralowicz, A.E.; McGriff, T.L.; Kopplin, M.J.; Gathman, A.C. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1988. v. 23 (1). p. 138-140. Includes references. (NAL Call No.: DNAL SB1.H6).

0107

Sweet Princess a high quality, disease resistant watermelon, with a wide range of adaptation / prepared by Warren R. Henderson, Nash N. Winstead, S.F. Jenkins, Jr. .
Henderson, Warren R. Winstead, Nash Nicks, 1925-; Jenkins, S. F. Raleigh, N.C. : Agricultural Experiment Station, North Carolina State University at Raleigh, 1967. Cover title. ~ "May, 1967."--P. 2 of cover. 11 p. : ill. ; 23 cm. Bibliography: p. 11. (NAL Call No.: DNAL 100 N81 (1) no.431).

(PLANT PRODUCTION - HORTICULTURAL CROPS)

0108

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Putnam, Alan R., 1939-. Hess, A. R. East Lansing : Michigan State University, Agricultural Experiment Station, 1971. Cover title. 8 p. : ill. ; 28 cm. Bibliography: p. 8 . (NAL Call No.: DNAL 284.9 M58 no.140).

0109

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0110

This 'feed' kills weeds.
Mattingly, J.C. Emmaus, Pa. : Regenerative Agriculture Association. The New farm. Sept/Oct 1985. v. 7 (6). p. 35-37. ill. (NAL Call No.: DNAL S1.N32).

0111

Tolerance of transplanted muskmelon (Cucumis melo) to oxyfluorfen applied preemergent.
WETEE9. Masiunas, J.B. Weller, S.C. Champaign, Ill. : The Society. Weed technology : a journal of the Weed Science Society of America. Jan/Mar 1989. v. 3 (1). p. 30-32. Includes references. (NAL Call No.: DNAL SB610.W39).

0112

Transplant quality, yield, and heavy-metal accumulation of tomato, muskmelon, and cabbage grown in media containing sewage sludge compost (Toxicity, vegetable, Brassica oleracea, Lycopersicon esculentum).
Sterrett, S.B.JOSHB. Reynolds, C.W.; Schales, F.D.; Chaney, R.L.; Douglass, L.W. Alexandria : The Society. Journal of the American Society for Horticultural Science. Jan 1983. v. 108 (1). p. 36-41. Includes references. (NAL Call No.: 81 S012).

0113

Uniconazole-induced alleviation of low-temperature damage in relation to antioxidant activity.
HUHSA. Upadhyaya, A. Davis, T.D.; Walser, R.H.; Galbraith, A.B.; Sankhla, N. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1989. v. 24 (6). p. 955-957. Includes references. (NAL Call No.: DNAL SB1.H6).

0114

Use of fumigants and clear plastic mulch on muskmelons /by Howard S. Potter, Robert Harrison and Byron Hodgkin.
Potter, Howard S. Harrison, Robert.; Hodgkin, Byron. East Lansing : Michigan State University, Agricultural Experiment Station, 1967 . Cover title. 12 p. : ill. ; 28 cm. Bibliography: p. 12. (NAL Call No.: DNAL 284.9 M58 no.62).

0115

Utilization of minesoils for production of vegetable crops.
Morse, R. O'Dell, C. Lexington, Ky. : OES Publications, College of Engineering, University of Kentucky, c1983. Proceedings, 1983 Symposium on Surface Mining, Hydrology, Sedimentology and Reclamation, November 28-December 2, 1983 / editor, Donald H. Graves. p. 163-168. Includes 23 references. (NAL Call No.: DNAL TS195.S75S95 1983).

0116

Vegetable abundance: from yardlong cowpeas to bitter melons.
Wittwer, S. East Lansing : Michigan State University Press, 1987. Feeding a billion : frontiers of Chinese agriculture / by Sylvan Wittwer ... et al. . p. 253-269. ill. Includes references. (NAL Call No.: DNAL HD2098.F45).

0117

Vegetable gardening: growing melons.
Colt, W.M. Bell, S.M.; Beaver, R.G.; Cook, W.F. Moscow, Idaho : The Service. Current information series - Cooperative Extension Service, University of Idaho. Feb 1987. (799). 4 p. ill. (NAL Call No.: DNAL 275.29 ID131DC).

0118

Vegetables varieties of sweet potatoes, onions, melons, celery, beans, cabbage, cauliflower, and tomatoes ; Insecticides / R.H. Price .
Price, R. H. 1864-. College Station, Tex. : Texas Agricultural Experiment Station, 1895. Cover title. p. 607-651 : ill. ; 23 cm. (NAL

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Call No.: DNAL 100 T31S (1) no.36).

0119

Yield and plant nutrient content of vegetables trickle-irrigated with municipal wastewater.
HJHSA. Neilsen, G.H. Stevenson, D.S.; Fitzpatrick, J.J.; Brownlee, C.H. Alexandria, Va. : American Society for Horticultural Science. HortScience. Apr 1989. v. 24 (2). p. 249-252. Includes references. (NAL Call No.: DNAL SB1.H6).

0120

Yield of cucumbers in multiple-harvest trials with dissimilar genotypes in border rows.
HJHSA. Wehner, T.C. Miller, C.H. Alexandria, Va. : American Society for Horticultural Science. HortScience. Includes statistical data. Jan 1990. v. 25 (1). p. 106-108. Includes references. (NAL Call No.: DNAL SB1.H6).

0121

1979 pesticide use on Florida vegetables, a preliminary report.
Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Extract: According to the 1979 Vegetable Pesticide Survey, nearly 4.6 million pounds of pesticides were used to control weeds, insects, diseases, and nematodes on six vegetable crops in Florida. The six vegetable crops included cabbage, celery, lettuce, sweet corn, tomatoes, and watermelon. About 4.6 million acre-treatments were made ranging from 2.2 million for tomatoes to 148,800 for cabbage. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. July 1981. Available from NTIS. July 1981. (AGES810708). 23 p. 6 ref. (NAL Call No.: 916762(AGE)).

0122

1979 pesticide use on vegetables in the Northeast, a preliminary report.
Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Extract: According to the U.S. Department of Agriculture's 1979 Vegetable Pesticide Survey, approximately 1.3 million pounds of pesticides were used to control weeds, insects, diseases and nematodes on 10 vegetable crops in New York and New Jersey. The 10 vegetable crops include cabbage, carrots, celery, cucumbers, green peas, lettuce, onions, snap beans, sweet corn, and tomatoes. Approximately 825,000 acre-treatments were made ranging from 262,000 for sweet corn to 700 for carrots. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. Dec 1981. Available from NTIS. Dec 1981. (AGES811218). 37 ref. 7 ref. (NAL Call No.: 916762(AGE)).

0123

1979 pesticide use on vegetables in the Southeast, a preliminary report.
Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Extract: In this report, patterns of pesticide use in the Southeast (North Carolina, South Carolina, and Georgia) in 1979 are discussed for cabbage, cantaloups, cucumbers, snap beans, sweet corn, tomatoes, and watermelons. Survey data were collected on quantities of pesticides used, acres treated, acre-treatments, number of applications, annual rates, and rate per acre-treatment. This report provides information useful to policymakers, researchers, extension specialists, and industry personnel. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. Oct 1981. Available from NTIS. Oct 1981. (AGES811029). 32 p. 11 ref. (NAL Call No.: 916762(AGE)).

0124

1979 pesticide use on vegetables in the Southwest, a preliminary report.
Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Abstract: According to U.S. Department of Agriculture's 1979 Vegetable Pesticide Survey, about 1.7 million pounds of pesticides were used to control weeds, insects, diseases, and nematodes on 10 vegetable crops in Arizona, Colorado, and Texas. The 10 vegetable crops included cabbage, cantaloups, carrots, cucumbers, lettuce, onions, snap beans, sweet corn, tomatoes, and watermelons. Nearly 1.1 million acre-treatments were made ranging from about 284,000 for onions to 4,000 for cucumbers and snap beans. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. Dec 1981. Available from NTIS - order no. PB82-166-885. Dec 1981. (AGES811221). 45 p. 7 ref. (NAL Call No.: 916762(AGE)).

PLANT PRODUCTION - FIELD CROPS

0125

Allelopathy in cucumber (*Cucumis sativus* L.)
/by Ronald Hollis Lockerman. --.
Lockerman, Ronald Hollis, 1946-. 1977. Thesis
(Ph.D.)--Michigan State University, 1977.
Photocopy. Ann Arbor, Mich. : University
Microfilms International, 1985. 2, viii, 112
leaves : ill. ; 21 cm. Bibliography: leaves
104-112. (NAL Call No.: DNAL DISS 78-3,522).

0126

**Ashe and Fletcher two downy mildew and scab
resistant cucumbers / prepared by W.S. Barham,
N.N. Winstead .**
Barham, W. S. 1919-. Winstead, Nash
Nicks, 1925-. Raleigh, N.C. : Agricultural
Experiment Station, N.C. State College 1959.
Cover title.~ "June, 1959."--P. 2 . 7 p. :
ill. ; 23 cm. Bibliography: p. 4 of cover.
(NAL Call No.: DNAL 100 N81 (1) no.409).

0127

Commercial pickling cucumber production.
Curwen, D. Schulte, E. E. 1982. This
publication gives methods designed for the
large acreage producer using either hand or
mechanical harvesting methods. Topics include
climate, cultivars, soils, planting and pest
control. Document available from: University of
Wisconsin, Agricultural Bulletin Building, 1535
Observatory Drive, Madison, Wisconsin 53706. 4
p. (NAL Call No.: Not available at NAL.).(NAL
Call No.: A1587).

0128

**Control of bur gherkins (*Cucumis anguria*) in
peanuts (*Arachis hypogaea*) with herbicides.**
Buchanan, G.A. Hauser, E.W.; Patterson, R.M.
Yoakum, Tex., American Peanut Research and
Education Society. Peanut science. Jan/June
1981. v. 8 (1). p. 66-73. 4 ref. (NAL Call No.:
SB351.P3P39).

0129

**Influence of weed control programs in intensive
cropping systems.**
WEESA6. Glaze, N.C. Dowler, C.C.; Johnson,
A.W.; Sumner, D.R. Champaign, Ill. : Weed
Science Society of America. Weed science. Nov
1984. v. 32 (6). p. 762-767. Includes 10
references. (NAL Call No.: DNAL 79.8 W41).

0130

**Seed and soil treatments to improve emergence
of muskmelon from cold or crusted soils.**
CRPSAY. Bradford, K.J. May, D.M.; Hoyle, B.U.;
Skibinski, Z.S.; Scott, S.J.; Tyler, K.B.
Madison, Wis. : Crop Science Society of
America. Cold soil temperatures, seedling
diseases, and soil crusting may limit stand
establishment of early-season muskmelons
(*Cucumis melo* L.). We tested the ability of
seed and soil treatments to overcome these
factors and improve seedling emergence. The
seed treatments were priming (6 d at 25 degrees
C in aerated 0.3 M KNO₃ solution followed by
drying) to improve the rate of germination at
low temperatures, and metalaxyl
N-(2,6-dimethylphenyl)-N-(methoxyacetyl)
alanine methyl ester fungicide (Apron 25W) to
prevent damping-off diseases. The soil
treatments were spot applications of soil
drenches containing metalaxyl fungicide (100
microgram L-1 Ridomil 2E), an anticrustant 2%
Nalco 2190, (Nalco Chemical Corp. Carson, CA)
or both fungicide and anticrustant. In
laboratory tests at 18 degrees C, both
germination rate and final germination were
markedly improved by seed priming in 'PMR 45',
'Magnum 45', 'Topmark', and 'Topscore' plants.
Seedling emergence from sterilized soil in
flats under ambient outdoor temperatures (7-23
degrees C) was also improved by seed priming.
Seed priming resulted in more rapid emergence
or increased final emergence in five of seven
field trials in two locations. Anticrustant
applications to the soil covering the seed
consistently improved stand establishment,
particularly in badly crusted soils. Metalaxyl
application to the seed or soil generally
improved emergence, but the effect varied with
cultivar, location, and planting method. None
of the treatments significantly influenced
final fruit yield. The combination of seed
priming, fungicides, and anticrustants could
allow lower seeding rates of expensive hybrid
seed while achieving earlier emergence and
adequate plant densities in early-season
muskmelon crops. Crop science. Nov/Dec 1988. v.
28 (6). p. 1001-1005. Includes references. (NAL
Call No.: DNAL 64.8 C883).

PLANT PRODUCTION – MISC. CROPS

0131

**Irrigation effects on root and starch
production and water use of the potential
domesticated, coyote gourd.**

JAZAA. Nelson, J.M. McGriff, T.L.; Scheerens,
J.C. Tempe, Ariz. : The Academy. Journal of the
Arizona-Nevada Academy of Science. 1989. v. 23
(1). p. 39-43. Includes references. (NAL Call
No.: DNAL 500 AR44).

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0132

Ashe and Fletcher two downy mildew and scab resistant cucumbers / prepared by W.S. Barham, N.N. Winstead .
Barham, W. S. 1919-. Winstead, Nash Nicks, 1925-. Raleigh, N.C. : Agricultural Experiment Station, N.C. State College 1959. Cover title.~ "June, 1959."--P. 2 . 7 p. : ill. ; 23 cm. Bibliography: p. 4 of cover. (NAL Call No.: DNAL 100 N81 (1) no.409).

0133

Assessment of numbers of striped cucumber beetle adults and frequency of feeding injury on muskmelon cultivars.
PIACA. Reed, G.L. Reed, D.K. Indianapolis, Ind. : The Academy. Proceedings of the Indiana Academy of Science. Includes abstract. 1985. v. 94. p. 304. (NAL Call No.: DNAL 500 IN2).

0134

Breeding high-quality wilt-resistant watermelons /D.R. Porter.
Porter, D. R. 1900-. Berkeley, Cal. : Agricultural Experiment Station, 1937. Cover title. 43 p. : ill., charts ; 24 cm. Bibliography: p. 42-43. (NAL Call No.: DNAL 100 C12S no.614).

0135

Cantaloupes (Cultivation, varieties, pests and diseases).
McLaurin, W.J. Barber, J.M.; Colditz, P. Athens, Ga. : The Service. Circular - Cooperative Extension Service, University of Georgia. Oct 1983. Oct 1983. (480,rev.). 3 p. (NAL Call No.: 275.29 G29C).

0136

Cell size of seedling containers influences early vine growth and yield of transplanted watermelon.
HJHSA. Hall, M.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1989. v. 24 (5). p. 771-773. Includes references. (NAL Call No.: DNAL SB1.H6).

0137

Chemical defoliation of cucumber vines for simulation of once-over harvest in small-plot yield trials (Breeding lines).
Wehner, T.C. Monaco, T.J.; Bonanno, A.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1984. v. 19 (5). p. 671-673. Includes 3 references. (NAL Call No.: SB1.H6).

0138

Climacteric and nonclimacteric ripening in Cucumis melo.
Kendall, S. Ng, T. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 41-42. Includes 2 references. (NAL Call No.: DNAL SB337.C94).

0139

Combining ability analyses of fruit yield and quality in near-homozygous lines derived from cucumber.
JOSH. Fredrick, L.R. Staub, J.E. Alexandria, Va. : The Society. Combining ability estimates for characters relating to yield and fruit quality were undertaken to determine if lines derived from *Cucumis sativus* var. *hardwickii* (R.) Alef. (*hardwickii*) could be used in the development of higher-yielding commercial cucumbers. General and specific combining ability estimates were obtained in a North Carolina Design II experiment for nine near-homozygous processing cucumber (*Cucumis sativus* L.) lines, five of which were derived from *hardwickii* germplasm. Lines were evaluated under two planting densities (29,000 and 58,000 plants/ha) for three harvests, and environments sampled were two planting times (2 weeks apart within the same year). Traits evaluated included fruit number per plant, primary lateral branch number, percentage of pistillate flowers, days to anthesis, fruit length, and fruit length: diameter (L:D) ratio. General combining ability (GCA) mean squares were significant at both planting densities for all traits when combined over planting times, except for fruit L:D ratio at the higher density. Specific combining ability mean squares were significant for days to anthesis. Of the lines evaluated, WI 2963 and 4H261 produced the greatest GCA female and male effects, respectively, for three harvest yield and primary lateral branch number, but the lowest effects for fruit size. Our results suggest that further selection within these high-performance *hardwickii* derivatives for fruit shape will produce lines that perform well at a high planting density when crossed with *sativus* lines having good general combining ability. *Journal of the American Society for Horticultural Science*. Mar 1989. v. 114 (2). p. 332-338. Includes references. (NAL Call No.: DNAL 81 S012).

0140

Combining ability estimates for muskmelon tolerance to *Myrothecium roridum* and its toxic metabolite, roridin E.
JOSH. Kuti, J.O. Ng, T.J. Alexandria, Va. : The Society. Five parental cutivars of muskmelon (*Cucumis melo* L.) and 16 F1 hybrids, including six reciprocals, were evaluated in a diallel design for reaction to inoculations with *Myrothecium roridum* and its phytotoxic metabolite roridin E using a detached leaf screening test. Analyses of variance revealed

genetic variability for tolerance to the fungus and to the toxin; the correlation coefficient between inoculations with the pathogen and the toxin was 0.94. Disease and toxin tolerance were associated with highly significant general combining ability (GCA) effects, but specific combining ability were significant only for inoculations involving the pathogen. The GCA component accounted for 95.8% of the genotypic variation for pathogen tolerance and 99.3% for toxin tolerance. Reciprocal effects were not present in either set of inoculations. Journal of the American Society for Horticultural Science. Mar 1989. v. 114 (2). p. 319-321. Includes references. (NAL Call No.: DNAL 81 S012).

0141

Cytokinin gene fused with a strong promoter enhances shoot organogenesis and zeatin levels in transformed plant cells.
PNASA. Smigocki, A.C. Owens, L.D. Washington, D.C. : The Academy. Proceedings of the National Academy of Sciences of the United States of America. July 1988. v. 85 (14). p. 5131-5135. ill. Includes references. (NAL Call No. DNAL 500 N21P).

0142

Differential Cucurbita spp. tolerance to the herbicide trifluralin.
JOSH. Poe, R.R. Coyne, D.P.; Swisher, B.A.; Clegg, M.D. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Jan 1988. v. 113 (1). p. 35-40. Includes references. (NAL Call No.: DNAL 81 S012).

0143

Differential sensitivity of muskmelon and watermelon cultivars to ozone-induced foliar injury.
PIACA. Simini, M. Snyder, R.G.; Simon, J.E. Indianapolis, Ind. : The Academy. Proceedings of the Indiana Academy of Science. Meeting held November 13-15, 1986, University of Indianapolis, Indianapolis, Indiana. 1987. v. 96. p. 121-127. Includes references. (NAL Call No.: DNAL 500 IN2).

0144

The effect of dusting sulfur on muskmelons (to protect plants against various diseases, especially effective in controlling powdery mildews, Sphaerotheca fuliginea, resistant to injury, cultivars).
Johnson, H. Jr. Mayberry, K.S. Alexandria, Va., American Society for Horticultural Science. HortScience. Oct 1980. v. 15 (5). p. 652-654. ill. 7 ref. (NAL Call No.: SB1.H6).

0145

Effect of end borders on plot yield of once-over harvested pickling and fresh-market cucumbers.
Wehner, T.C. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 31-34. Includes references. (NAL Call No.: DNAL SB337.C94).

0146

Effect of inbreeding on horticultural performance of cucumber families developed from a variable population.
Rubino, D.B. Wehner, T.C. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 21-22. Includes 5 references. (NAL Call No.: DNAL SB337.C94).

0147

Effect of methodology on expression of intercultivar differences in response to NaCl stress in melons.
Nerson, H. Paris, H.S.; Karchi, Z.; Burger, Y.; Edelstein, M. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 49-50. Includes 4 references. (NAL Call No.: DNAL SB337.C94).

0148

The effect of source and culture host on the larviposition of the melon aphid on several test plants.
HUHSA. Kishaba, A.N. Coudriet, D.L. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1985. v. 20 (6). p. 1097-1099. Includes references. (NAL Call No.: DNAL SB1.H6).

0149

Effects of Fusarium inoculum density and root-knot nematodes on wilt resistance in summer squash.
PLDRA. Caperton, C.M. Martyn, R.D.; Starr, J.L. St. Paul, Minn. : American Phytopathological Society. Plant disease. Mar 1986. v. 70 (3). p. 207-209. ill. Includes 16 references. (NAL Call No.: DNAL 1.9 P69P).

0150

Effects of genotype and within-row spacing on the stability of sex expression in cucumber (Cucumis sativus, vegetable breeding).
Nienhuis, J. Lower, R.L.; Miller, C.H. Alexandria, Va. : American Society for Horticultural Science. HortScience. Apr 1984.

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v. 19 (2). p. 273-274. Includes references.
(NAL Call No.: SB1.H6).

0151

Effects of sludge, bed, and genotype on cucumber growth and elemental concentrations in fruit and peel.

JOSHB. Harrison, H.C. Staub, J.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Mar 1986. v. 111 (2). p. 205-211. Includes 30 references.
(NAL Call No.: DNAL 81 S012).

0152

Elicitation of disease resistance in plants by the expression of latent genetic information.

ACSMC. Salt, S.D. Kuc, J. Washington, D.C. : The Society. ACS Symposium series - American Chemical Society. 1985. (276). p. 47-68. Includes references. (NAL Call No.: DNAL QD1.A45).

0153

Endogenous gibberellins in the shoots of normal- and bush-type Cucumis sativus L.

JPGRDI. Nakayama, M. Yamane, H.; Yamaguchi, I.; Murofushi, N.; Takahashi, N.; Katsumi, M. New York, N.Y. : Springer. Journal of plant growth regulation. 1989. v. 8 (3). p. 237-247. Includes references. (NAL Call No.: DNAL QK745.J6).

0154

Evaluating effect of Naptalam on sex expression of cucumber (Plant growth regulator used as a pre-emergent herbicide for cucurbits).

Edney, N.A. Rizvi, M.A.; Parker, A. (s.l.), The Academy. Journal of the Mississippi Academy of Sciences. 1980. v. 25. p. 59-62. 16 ref. (NAL Call No.: 500 M697).

0155

Evidence for pollen competition in plants and its relationship to progeny fitness: a comment.

AMNTA. Charlesworth, D. Chicago, Ill. : University of Chicago Press. The American naturalist. Aug 1988. v. 132 (2). p. 298-302. Includes references. (NAL Call No.: DNAL 470 AM36).

0156

Expression of coat protein genes in transgenic plants confers protection against alfalfa mosaic virus, cucumber mosaic virus and potato virus X.

NASSD. Tumer, N. Hemenway, C.; O'Connell, K.; Cuzzo, M.; Fang, R.X.; Kaniewski, W.; Chua, N.H. New York, N.Y. : Plenum Press. NATO advanced science institutes series : Series A : Life sciences. In the series analytic: Plant molecular biology / edited by D. Von Wettstein and N.H. Chua. Proceedings of a NATO Advanced Study Institute, June 10-19, 1987, Copenhagen, Denmark. 1987. v. 140. p. 351-356. Includes references. (NAL Call No.: DNAL QH301.N32).

0157

Floral development, flowering patterns, and growth rate of monoecious and gynoeious buffalo gourd.

JOSHB. Scheerens, J.C. Yousef, Y.M.R.; Ralowicz, A.E.; Gathman, A.C.; Scheerens, H.M. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1987. v. 112 (3). p. 574-578. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0158

Flowering, fruit set, and fruit development in birdnest-type muskmelons.

JOSHB. McCollum, T.G. Cantliffe, D.J.; Paris, H.S. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Jan 1987. v. 112 (1). p. 161-164. Includes 16 references. (NAL Call No.: DNAL 81 S012).

0159

Further notes on the silvery-leaf trait in Cucurbita.

Shifriss, O. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 81-83. Includes 9 references. (NAL Call No.: DNAL SB337.C94).

0160

Fusarium wilt resistance in muskmelon and watermelon varieties.

Latin, R.X. West Lafayette : The Service. BP - Purdue University, Cooperative Extension Service. In subseries: Plant Disease Control. Feb 1987. (19). 2 p. ill. (NAL Call No.: DNAL SB950.2.I6B6).

0161

Genotype and plastic mulch effects on earliness, fruit characteristics, and yield in muskmelon.

HUHSA. Maiero, M. Schales, F.D.; Ng, T.J. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1987. v. 22 (5). p. 945-946. Includes references. (NAL Call No.: DNAL SB1.H6).

0162

Growing watermelons.

Williams, J.L. Gazaway, W.S.; Strother, G.; Patterson, M. Auburn, Ala. : The Service. Circular ANR - Cooperative Extension Service, Auburn University. Nov 1986. (81). 4 p. ill. (NAL Call No.: DNAL S544.3.A2C47).

0163

Growth analysis of three cucumber lines differing in plant habit and yield.

Ramirez, D.R. Wehner, T.C. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 17-18. Includes 2 references. (NAL Call No.: DNAL SB337.C94).

0164

Hormone (cytokinin) and light effects in Rubisco gene expression.

NASSD. Lerbs, S. Lerbs, W.; Wollgiehn, R.; Parthier, B. New York, N.Y. : Plenum Press. NATO advanced science institutes series : Series A : Life sciences. Paper presented at the congress on the "Molecular Form and Function of the Plant Genome," July 4-14, 1984, Renesse, Netherlands. 1985. v. 83. p. 267-275. ill. Includes references. (NAL Call No.: DNAL QH301.N32).

0165

Identification of ozone-induced injury on field-grown muskmelons.

HUHSA. Simini, M. Simon, J.E.; Reinert, R.A.; Eason, G. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1989. v. 24 (6). p. 909-912. ill. Includes references. (NAL Call No.: DNAL SB1.H6).

0166

Induction of perfect flowers on gynoeocious muskmelon by silver nitrate and aminoethoxyvinylglycine (for producing hybrid seed, phytotoxicity).

Owens, K.W. AR-NC. Peterson, C.E.; Tolla, G.E. Alexandria, Va., American Society for Horticultural Science. HortScience. Oct 1980. v. 15 (5). p. 654-655. 19 ref. (NAL Call No.:

SB1.H6).

0167

Inheritance of resistance to races 0 and 2 of Fusarium oxysporum f. sp. melonis in a gynoeocious muskmelon.

PLDRA. Zink, F.W. Gubler, W.D. St. Paul, Minn. : American Phytopathological Society. Plant disease. July 1986. v. 70 (7). p. 676-678. Includes 12 references. (NAL Call No.: DNAL 1.9 P69P).

0168

Inheritance of resistance to trifluralin toxicity in Cucurbita moschata Poir.

Adeniji, A.A. Coyne, D.P. Alexandria, Va., American Society for Horticultural Science. HortScience. Dec 1981. v. 16 (6,sect.1). p. 774-775. Includes 7 ref. (NAL Call No.: SB1.H6).

0169

Isolation of a complementary DNA encoding a chitinase with structural homology to a bifunctional lysozyme/chitinase.

PNASA. Metraux, J.P. Burkhart, W.; Moyer, M.; Dincher, S.; Middlesteadt, W.; Williams, S.; Payne, G.; Carnes, M.; Ryals, J. Washington, D.C. : The Academy. Proceedings of the National Academy of Sciences of the United States of America. Feb 1989. v. 86 (3). p. 896-900. ill. Includes references. (NAL Call No.: DNAL 500 N21P).

0170

Isozymes and general proteins from various watermelon cultivars and tissue types.

HUHSA. Biles, C.L. Martyn, R.D.; Wilson, H.D. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1989. v. 24 (5). p. 810-812. ill. Includes references. (NAL Call No.: DNAL SB1.H6).

0171

It's code named CARNA 5.

AGREA. McBride, J. Washington, D.C. : The Administration. Agricultural research - U.S. Department of Agriculture, Agricultural Research Service. Mar 1988. v. 36 (3). p. 10-11. (NAL Call No.: DNAL 1.98 AG84).

(PLANT BREEDING)

0172

Leaf cell membrane thermostabilities of Cucumis melo.

JOSHB. Lester, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1985. v. 110 (4). p. 506-509. Includes 13 references. (NAL Call No.: DNAL 81 S012).

0173

Linkage between an isozyme locus and one of the genes controlling resistance to watermelon mosaic virus 2 in Cucurbita ecuadorensis.

Weeden, N.F. Robinson, R.W.; Ignart, F. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 86-87. Includes 3 references. (NAL Call No.: DNAL SB337.C94).

0174

Ozone-induced injury on field-grown watermelons.

HJHSA. Decoteau, D.R. Simon, J.E.; Eason, G.; Reinert, R.A. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1986. v. 21 (6). p. 1369-1371. ill. Includes references. (NAL Call No.: DNAL SB1.H6).

0175

Pictorial assessment key to determine fungicide concentrations that control anthracnose development on cucumber cultivars with varying resistance levels.

PLDRA. Thompson, D.C. Jenkins, S.F. St. Paul, Minn. : American Phytopathological Society. Plant disease. Oct 1985. v. 69 (10). p. 833-836. ill. Includes 10 references. (NAL Call No.: DNAL 1.9 P69P).

0176

Pollen competition improves performance and reproductive output of the common zucchini squash under field conditions.

JOSHB. Davis, L.E. Stephenson, A.G.; Winsor, J.A. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1987. v. 112 (4). p. 712-716. Includes references. (NAL Call No.: DNAL 81 S012).

0177

Pollen competition, nonrandom fertilization, and progeny fitness: a reply to Charlesworth.

AMNTA. Stephenson, A.G. Winsor, J.A.; Schlichting, C.D.; Davis, L.E. Chicago, Ill. : University of Chicago Press. The American naturalist. Aug 1988. v. 132 (2). p. 303-308.

Includes references. (NAL Call No.: DNAL 470 AM36).

0178

Primary structure of cucumber (Cucumis sativus) ascorbate oxidase deduced from cDNA sequence: homology with blue copper proteins and tissue-specific expression.

PNASA. Ohkawa, J. Okada, N.; Shinmyo, A.; Takano, M. Washington, D.C. : The Academy. Proceedings of the National Academy of Sciences of the United States of America. Feb 1989. v. 86 (4). p. 1239-1243. ill. Includes references. (NAL Call No.: DNAL 500 N21P).

0179

Response of various cucurbits to infection by plasmid-harboring strains of Agrobacterium.

PLPHA. Smarrelli, J. Jr. Watters, M.T.; Diba, L.H. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Oct 1986. v. 82 (2). p. 622-624. ill. Includes references. (NAL Call No.: DNAL 450 P692).

0180

Salinity influences cucumber growth and yield.

JOSHB. Jones, R.W. Jr. Pike, L.M.; Yourman, L.F. Alexandria, Va. : The Society. Germination and radicle elongation experiments were performed with six cultivars of cucumber (Cucumis sativus L.) at seven salinity concentrations (0, 0.8, 4.0, 6.0, 9.0, 12, and 15 dS.m⁻¹). Increasing salinity has no effect on final germination percentage after 5 days, but did decrease radicle elongation. In seedling growth studies with salinity levels ranging from 0.8 to 12 dS.m⁻¹, increasing salt levels decreased shoot length and shoot dry weight. Analysis of shoot tissue from these seedlings indicated that higher salinity levels increased concentrations of Ca and Na, while Mg and K concentrations decreased. Yield and fruit quality were measured in a greenhouse study at two salinity levels (1.6 and 4.0 dS.m⁻¹). Salinity significantly decreased fruit yield in five of six cultivars, but had no effect on fruit quality. Seedling shoot length of a cultivar grown at 9.0 dS.m⁻¹ was correlated with relative yield at 4.0 dS.m⁻¹. A salinity screening technique based on this relationship is proposed. Journal of the American Society for Horticultural Science. July 1989. v. 114 (4). p. 547-551. Includes references. (NAL Call No.: DNAL 81 S012).

0181

Single gene control of anthracnose resistance in citrullus?

Love, S.L. Rhodes, B.B. College Park, Md. : Department of Horticulture, University of Maryland. Report: Cucurbit genetics cooperative. July 1988. (11). p. 64-67.

Includes references. (NAL Call No.: DNAL SB337.C94).

0182

Some effects of the white spine, uniform color and gynocious alleles on quality and certain other characters in the cucumber variety Wisconsin SMR 18 / by Benjamin F. George. -
George, Benjamin F., 1939-. 1971. Thesis (Ph.D.)--Cornell University, 1971. Photocopy of typescript. Ann Arbor: University Microfilms, 1972. v, 113 leaves ; 21 cm. Bibliography: leaves 96-106. (NAL Call No.: DISS 72-13,156).

0183

Sponge and bottle gourds, Luffa and Lagenaria (Includes composition, nutritional, and toxic values, Puerto Rico, cucurbitaceous vegetables, varieties).
Martin, F.W. New Orleans, La. : USDA Southern Region. Vegetables for the hot, humid Tropics - United States Dept. of Agriculture, Agriculture Research Service. Jan 1979. Jan 1979. (pt.4). 19 p. ill. Includes references. (NAL Call No.: aSB320.8.T7U5).

0184

Squash containing toxic cucurbitacin compounds occurring in California and Alabama (Genetic aspects of the substances in the plants).
Rymal, K.S. Chambliss, D.L.; Bond, M.D.; Smith, D.A. Ames, Iowa : International Association of Milk, Food, and Environmental Sanitarians. Journal of food protection. Apr 1984. v. 47 (4). p. 270-271. Includes references. (NAL Call No.: 44.8 J824).

0185

Storability of summer squash as affected by gene B and genetic background.
HJHSA. Sherman, M. Paris, H.S.; Allen, J.J. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1987. v. 22 (5). p. 920-922. Includes references. (NAL Call No.: DNAL SB1.H6).

0186

A study of the effects of environmental and genetic factors on sex expression in cucumber, Cucumis sativus L. / by Joseph Rudolph Novak. -
Novak, Joseph Rudolph. Ann Arbor, Mich. University Microfilms 1973. Thesis--Cornell University, 1972. Facsimile produced by microfilm-xerography. xiii, 180 leaves. Bibliography: leaves 173-180. (NAL Call No.: DISS 73-353).

0187

Sweet Princess a high quality, disease resistant watermelon, with a wide range of adaptation / prepared by Warren R. Henderson, Nash N. Winstead, S.F. Jenkins, Jr. .
Henderson, Warren R. Winstead, Nash Nicks, 1925-; Jenkins, S. F. Raleigh, N.C. : Agricultural Experiment Station, North Carolina State University at Raleigh, 1967. Cover title.~ "May, 1967."--P. 2 of cover. 11 p. : ill. ; 23 cm. Bibliography: p. 11. (NAL Call No.: DNAL 100 N81 (1) no.431).

0188

Yield of cucumbers in multiple-harvest trials with dissimilar genotypes in border rows.
HJHSA. Wehner, T.C. Miller, C.H. Alexandria, Va. : American Society for Horticultural Science. HortScience. Includes statistical data. Jan 1990. v. 25 (1). p. 106-108. Includes references. (NAL Call No.: DNAL SB1.H6).

PLANT ECOLOGY

0189

Effects of host plant patch size on herbivore density: patterns.

ECOLA. Bach, C.E. Tempe, Ariz. : Ecological Society of America. Ecology : a publication of the Ecological Society of America. Aug 1988. v. 69 (4). p. 1090-1102. ill. Includes references. (NAL Call No.: DNAL 410 EC7).

0190

Effects of host plant patch size on herbivore density: underlying mechanisms.

ECOLA. Bach, C.E. Tempe, Ariz. : Ecological Society of America. Ecology : a publication of the Ecological Society of America. Aug 1988. v. 69 (4). p. 1103-1117. ill. Includes references. (NAL Call No.: DNAL 410 EC7).

0191

Effects of plant density and diversity on the population dynamics of a specialist herbivore, the striped cucumber beetle, *Acalymma vittata* (Fab.) (on cucumbers).

Bach, C.E. Durham, Ecological Society of America. Ecology. Dec 1980. v. 61 (6). p. 1515-1530. ill. Bibliography p. 1528-1530. (NAL Call No.: 410 EC7).

0192

Floral resource variation, pollinator response, and potential pollen flow in *Psiguria warscewiczii*.

ECOLA. Murawski, D.A. Tempe, Ariz : Ecological Society of America. Ecology : a publication of the Ecological Society of America. Oct 1987. v. 68 (5). p. 1273-1282. Includes references. (NAL Call No.: DNAL 410 EC7).

PLANT STRUCTURE

0193

Comparison of testa development in normal and hull-less seeded strains of Cucurbita pepo L. (Pumpkins, histochemistry, anatomy).
Stuart, S.G. Loy, J.B. Chicago : University of Chicago Press. Botanical gazette. Dec 1983. v. 144 (4). p. 491-500. ill. Includes references. (NAL Call No.: 450 B652).

0194

Developmental anatomy of seedlings and tubers of anchote, Coccinia abyssinica (Cucurbitaceae) / by Amare Getahun. -
Getahun, Amare, 1937-. 1969. Thesis (Ph.D.)--University of Florida, 1969. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. ix, 113 leaves : ill. ; 21 cm. Bibliography: leaves 107-111. (NAL Call No.: DISS 70-20,757).

0195

Immunocytochemical analysis shows that glyoxysomes are directly transformed to leaf peroxisomes during greening of pumpkin cotyledons.
PLPHA. Nishimura, M. Yamaguchi, J.; Mori, H.; Akazawa, T.; Yokota, S. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. May 1986. v. 81 (1). p. 313-316. ill. Includes 15 references. (NAL Call No.: DNAL 450 P692).

0196

Immunocytochemical localization of isocitrate and hydroxypyruvate reductase.
JULRA. Sautter, C. New York, N.Y. : Academic Press. Journal of ultrastructure research. Nov 1984. v. 89 (2). p. 187-197. ill. Includes references. (NAL Call No.: DNAL 440.8 J822).

0197

Solution depth affects root morphology and growth of cucumber plants grown in circulating nutrient solution.
JDSHB. Chung, G.C. Rowe, R.N.; Field, R.J. Alexandria, Va. : The Society. Defruited cucumber (*Cucumis sativus* L.) plants were grown hydroponically for 28 days in containers with 4.5 liters of capacity, in which constant solution depths of 1, 5, 50, and 170 mm were maintained. The plants grown in the 1- and 5-mm-deep solutions grew more slowly than those in the deeper solutions. Both root and shoot growth were reduced at the shallow depths, but shoot growth was affected more than root growth. Thus, the shoot : root ratios were considerably smaller in the shallower than in the deeper solutions. The root systems in the shallower solutions, initially, were relatively more branched than in the deeper solutions. The shallow solutions caused the plants to allocate

a higher proportion of their photosynthetic resources to the root at the expense of leaf growth. In the shallow solutions, a progressively higher proportion of this root growth became exposed above the solution, and, therefore, could not contribute to the absorption of water and nutrients. Control of solution depth may be a useful tool for controlling the vigor of the shoots of cucumber and the data presented may explain why growth problems have been experienced with this crop, particularly where a very thin film of nutrient is used, as in nutrient film technique. Journal of the American Society for Horticultural Science. Nov 1989. v. 114 (6). p. 890-893. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0198

Wound healing in stems of lianas after twisting and girdling injuries.
BOGAA. Fisher, J.B. Ewers, F.W. Chicago, Ill. : University of Chicago Press. Botanical gazette. Sept 1989. v. 150 (3). p. 251-265. ill. Includes references. (NAL Call No.: DNAL 450 B652).

PLANT NUTRITION

0199

Assessing critical nitrogen supply by means of nitrate reductase activity in tomato and cucumber plants.

JPNUDS. Valenzuela, J.L. Sanchez, A.; Romero, L. New York, N.Y. : Marcel Dekker. Journal of plant nutrition. Paper presented at the "Tenth International Plant Nutrition Colloquium", August 4-9, 1986, Beltsville, Maryland. 1987. v. 10 (9/16). p. 1733-1741. Includes references. (NAL Call No.: DNAL QK867.J67).

0200

Biochemical indicators and iron index for the appraisal of the mineral status in leaves of cucumber and tomato.

JPNUDS. Valenzuela, J.L. Romero, L. New York, N.Y. : Marcel Dekker. Journal of plant nutrition. Paper presented at the "Fourth International Symposium on Iron Nutrition and Interactions in Plants," July 6-9, 1987, University of New Mexico, Albuquerque. June/Nov 1988. v. 11 (6/11). p. 1177-1184. Includes references. (NAL Call No.: DNAL QK867.J67).

0201

Ca²⁺ uptake by endoplasmic reticulum from zucchini hypocotyls: The use of chlorotetracycline as a probe for Ca²⁺ uptake.

PLPHA. Lew, R.R. Briskin, D.P.; Wyse, R.E. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Sept 1986. v. 82 (1). p. 47-53. Includes 34 references. (NAL Call No.: DNAL 450 P692).

0202

The control of growth of hybrid squash (*Cucurbita maxima* L. cv. *Delica*) by nitrogen.

JPNUDS. Buwalda, J.G. New York, N.Y. : Marcel Dekker. Journal of plant nutrition. Paper presented at the "Tenth International Plant Nutrition Colloquium", August 4-9, 1986, Beltsville, Maryland. 1987. v. 10 (9/16). p. 1843-1851. Includes references. (NAL Call No.: DNAL QK867.J67).

0203

Effect of magnesium and manganese nutrition on muskmelon growth and manganese toxicity.

JOSHB. Elamin, O.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1986. v. 111 (4). p. 582-587. Includes references. (NAL Call No.: DNAL 81 S012).

0204

Effect of magnesium and manganese nutrition on watermelon growth and manganese toxicity.

JOSHB. Elamin, O.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1986. v. 111 (4). p. 588-593. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0205

Effect of soil acidity and magnesium on muskmelon leaf composition and fruit yield.

JOSHB. Elamin, O.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1986. v. 111 (5). p. 682-685. Includes references. (NAL Call No.: DNAL 81 S012).

0206

Effects of mineral deficiencies upon fungus infected plants: energy dispersive X-ray microanalysis of antimony precipitation products in *Cucurbita pepo* (pumpkin) infected by *Sclerotinia sclerotiorum*.

Luke, K.E. Hess, W.M.; Smith, B.N. New York, Marcel Dekker. Journal of plant nutrition. 1981. v. 3 (1/4). p. 93-111. ill. 13 ref. (NAL Call No.: QK867.J67).

0207

The effects of secondary and micronutrient applications on the yield and quality of watermelons.

Thompson, P.G. Mississippi State, Miss. : The Station. MAFES research highlights - Mississippi Agricultural & Forestry Experiment Station. Dec 1983. v. 46 (12). p. 6-7. (NAL Call No.: 100 M69MI).

0208

The effects of secondary and micronutrient applications on the yield and quality of watermelons (Calcium, Boron, magnesium, Mississippi).

Thompson, P.G. RRMSD. Mississippi State : The Station. Research report - Mississippi Agricultural and Forestry Experiment Station. Aug 1983. v. 8 (9). 3 p. Includes references. (NAL Call No.: S79.E37).

0209

Evidence for a specific uptake system for iron phytosiderophores in roots of grasses.

PLPHA. Romheld, V. Marschner, H. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Jan 1985. v. 80 (1). p. 175-180. ill. Includes 29 references. (NAL Call No.: DNAL 450 P692).

0210

Lime and nitrogen influence soil acidity, nutritional status, vegetative growth, and yield of muskmelon.

JOSHB. Bhella, H.S. Wilcox, G.E. Alexandria, Va. : The Society. A field study was conducted on an acidic loamy sand to evaluate Muskmelon (*Cucumis melo* L. cv. Classic) response to calcitic limestone and 0, 67, and 100 kg N/ha. Lime application increased soil pH and Ca concentration and lowered soil NH₄-N and Mn concentrations. Higher levels of N increased soil NH₄-N, NO₃-N, and K concentrations and decreased soil pH. Plants developed Mn toxicity symptoms in unlimed plots and the severity of foliar injury increased with increasing N levels. Lime application increased P, Ca, and Mg and reduced Mn and Zn concentrations in leaf tissue. Tissue concentrations of N, Mn, and Zn were higher and Ca, Mg, and B were lower as N level increased from 0 to 100 kg N/ha. Muskmelon fruit yields and soluble solids content were increased and culls reduced both by lime and N. Maximum vegetative growth and total fruit yield were obtained at 67 kg N/ha with lime application. *Journal of the American Society for Horticultural Science*. July 1989. v. 114 (4). p. 606-610. Includes references. (NAL Call No.: DNAL 81 S012).

0211

Manganese toxicity development in muskmelons as influenced by nitrogen form.

JOSHB. Elamin, O.M. Wilcox, G.E. Alexandria, Va. : The Society. *Journal of the American Society for Horticultural Science*. May 1986. v. 111 (3). p. 323-327. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0212

Manganese toxicity in watermelon plants as influenced by nitrogen form.

JOSHB. Elamin, O.M. Wilcox, G.E. Alexandria, Va. : The Society. *Journal of the American Society for Horticultural Science*. Sept 1986. v. 111 (5). p. 765-768. Includes references. (NAL Call No.: DNAL 81 S012).

0213

Metabolic changes in *Citrullus* subjected to zinc stress.

Sharma, C.P. Gupta, J.P.; Agarwala, S.C. New York, Marcel Dekker. *Journal of plant nutrition*. 1981. v. 3 (1/4). p. 337-344. Bibliography p. 342-344. (NAL Call No.: QK867.J67).

0214

Metabolic requirement of *Cucurbita pepo* for boron.

PLPHA. Krueger, R.W. Lovatt, C.J.; Albert, L.S. Rockville, Md. : American Society of Plant Physiologists. *Plant physiology*. Feb 1987. v. 83 (2). p. 254-258. Includes references. (NAL Call No.: DNAL 450 P692).

0215

Nitrogen form ratio influence on muskmelon growth, composition, and manganese toxicity.

JOSHB. Elamin, O.M. Wilcox, G.E. Alexandria, Va. : The Society. *Journal of the American Society for Horticultural Science*. May 1986. v. 111 (3). p. 320-322. Includes references. (NAL Call No.: DNAL 81 S012).

0216

Watermelon genotype differences for total and active iron index, iron and other micronutrients.

JPNUDS. Vargas, L. Guzman, M.; Romero, L. New York, N.Y. : Marcel Dekker. *Journal of plant nutrition*. Paper presented at the "Fourth International Symposium on Iron Nutrition and Interactions in Plants," July 6-9, 1987, University of New Mexico, Albuquerque. June/Nov 1988. v. 11 (6/11). p. 763-776. Includes references. (NAL Call No.: DNAL QK867.J67).

0217

Yield losses and increases in certain vitamins in cucumbers treated with the herbicide 3-amino-2,5-dichlorobenzoate and urea fertilizer.

Hankin, L. Hill, D.E. Baltimore, Williams & Wilkins. *Soil science*. Sept 1982. v. 134 (3). p. 193-197. ill. 9 ref. (NAL Call No.: 56.8 S03).

PLANT PHYSIOLOGY AND BIOCHEMISTRY

0218

Acclimation to high CO₂ in monoecious cucumbers. I. Vegetative and reproductive growth.

PLPHA. Peet, M.M. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Jan 1985. v. 80 (1). p. 59-62. Includes 18 references. (NAL Call No.: DNAL 450 P692).

0219

Acclimation to high CO₂ in monoecious cucumbers. II. Carbon exchange rates, enzyme activities, and starch and nutrient concentrations.

PLPHA. Peet, M.M. Huber, S.C.; Patterson, D.T. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Jan 1985. v. 80 (1). p. 63-67. Includes 36 references. (NAL Call No.: DNAL 450 P692).

0220

Active auxin uptake by zucchini membrane vesicles: quantitation using ESR volume and delta pH determinations.

PNASA. Lomax, T.L. Mehlhorn, R.J.; Briggs, W.R. Washington, D.C. : The Academy. Proceedings of the National Academy of Sciences of the United States of America. Oct 1985. v. 82 (19). p. 6541-6545. Includes references. (NAL Call No.: DNAL 500 N21P).

0221

Activity in vivo and redox states in vitro of nitro- and chlorodiphenyl ether herbicide analogs (*Cucumis sativus*, cucumber cotyledons).

Orr, G.L. PLPHA. Elliott, C.M.; Hogan, M.E. Rockville : American Society of Plant Physiologists. Plant physiology. Dec 1983. v. 73 (4). p. 939-944. ill. Includes references. (NAL Call No.: 450 P692).

0222

Allelopathic potential of terpene secreting (aromatic) plants (*Cucumbers* (*Cucumis sativus*)).

Weaver, T. Kish, L. (S.I.), The Academy. Proceedings - Montana Academy of Sciences. 1982. v. 41. p. 51-56. 18 ref. (NAL Call No.: 500 M762).

0223

Allelopathy in cucumber (*Cucumis sativus* L.) /by Ronald Hollis Lockerman. --.

Lockerman, Ronald Hollis, 1946-. 1977. Thesis (Ph.D.)--Michigan State University, 1977. Photocopy. Ann Arbor, Mich. : University Microfilms International, 1985. 2, viii, 112. leaves : ill. ; 21 cm. Bibliography: leaves

104-112. (NAL Call No.: DNAL DISS 78-3,522).

0224

Alteration of sex expression in cucumber by partial or total removal of the cotyledons (Seedling vigor).

Cantliff, D.J. Omran, A.F. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. May 1981. v. 106 (3). p. 303-307. ill. 10 ref. (NAL Call No.: 81 S012).

0225

Alteration of sex expression in cucumber due to changes in temperature, light intensity, and photoperiod.

Cantliffe, D.J. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. Mar 1981. v. 106 (2). p. 133-136. ill. 18 ref. (NAL Call No.: 81 S012).

0226

Anaerobiosis and carbohydrate status of the embryonic axis of germinating cucumber seeds.

HJHSA. Pharr, D.M. Motomura, Y. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1989. v. 24 (1). p. 120-122. Includes references. (NAL Call No.: DNAL SB1.H6).

0227

The appearance of phytase and the changes in phytate and inorganic phosphorus during germination and early seedling growth of pumpkin (*Cucurbita moschata* Poir.).

Spittstoesser, W.E. Alexandria, Va., American Society for Horticultural Science. HortScience. June 1982. v. 17 (3). p. 402-403. 9 ref. (NAL Call No.: SB1.H6).

0228

Application of the thermal hysteresis of NMR relaxation times of water protons in leaf tissues for the estimation of chilling injury.

Iwaya-Inoue, M. Konagamitsu, Y.; Kaku, S. New York : Alan R. Liss. Plant biology. In the series analytic: Plant Cold Hardiness / edited by P.H. Li. Proceedings of an International Seminar, September 4-7, 1986, Shanghai, China. 1987. v. 5. p. 275-289. Includes references. (NAL Call No.: DNAL QH301.P535).

0229

Asexual embryogenesis and plantlet development in anther culture of *Cucumis sativus* L. (Cucumber, regeneration, tissue culture).
Lazarte, J.E. Sasser, C.C. Alexandria, Va., American Society for Horticultural Science. HortScience. Feb 1982. v. 17 (1). p. 88. ill. Includes 3 ref. (NAL Call No.: SB1.H6).

0230

Assessing critical nitrogen supply by means of nitrate reductase activity in tomato and cucumber plants.

JPNUDS. Valenzuela, J.L. Sanchez, A.; Romero, L. New York, N.Y. : Marcel Dekker. Journal of plant nutrition. Paper presented at the "Tenth International Plant Nutrition Colloquium", August 4-9, 1986, Beltsville, Maryland. 1987. v. 10 (9/16). p. 1733-1741. Includes references. (NAL Call No.: DNAL QK867.J67).

0231

Association of fruit quality with seed characters and oil and protein content of muskmelon seeds.

More, T.A. Seshadri, V.S. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics. cooperative. June 1984. (7). p. 46-48. Includes 3 references. (NAL Call No.: DNAL SB337.C94).

0232

Biosynthesis of ethylene and its regulation in plants.

Imaseki, H. Nakajima, N.; Todaka, I. Dordrecht : Kluwer Academic, 1988. Biomechanisms regulating growth and development : invited papers presented at a symposium held May 3-7, 1987, at the Beltsville Agricultural Research Center (BARC), Beltsville, MD / G.L. Steffens and T.S. Rumsey, editors. p. 205-227. ill. Includes references. (NAL Call No.: DNAL QH491.B47).

0233

Calcium stimulation of ethylene production induced by 1-aminocyclopropane-1-carboxylic acid and indole-3-acetic acid (*Vigna radiata*, mung bean hypocotyls, *Cucumis sativus*, cucumber cotyledons, *Malus sylvestris*, apple tissues).
Ferguson, I.B. JGRDI. New York : Springer. Journal of plant growth regulation. 1983. v. 2 (3). p. 205-214. Includes references. (NAL Call No.: QK745.J6).

0234

Ca²⁺ uptake by endoplasmic reticulum from zucchini hypocotyls: The use of chlorotetracycline as a probe for Ca²⁺ uptake.
PLPHA. Lew, R.R. Briskin, D.P.; Wyse, R.E. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Sept 1986. v. 82 (1). p. 47-53. Includes 34 references. (NAL Call No.: DNAL 450 P692).

0235

The cDNA of cucumber mosaic virus-associated satellite RNA has in vivo biological properties.

BBRC. Jacquemond, M. Lauquin, G.J.M. Duluth, Minn. : Academic Press. Biochemical and biophysical research communications. Feb 29, 1988. v. 151 (1). p. 388-395. ill. Includes references. (NAL Call No.: DNAL 442.8 B5236).

0236

Cell size of seedling containers influences early vine growth and yield of transplanted watermelon.

HJHSA. Hall, M.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1989. v. 24 (5). p. 771-773. Includes references. (NAL Call No.: DNAL SB1.H6).

0237

Cell surfaces in plant-microorganism interactions.

PLPHA. Roby, D. Toppan, A.; Esquerre-Tugaye, M.T. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Mar 1985. v. 77 (3). p. 700-704. Includes 24 references. (NAL Call No.: DNAL 450 P692).

0238

Cell surfaces in plant-microorganism interactions. IV. Fungal glycopeptides which elicit the synthesis of ethylene in plants (*Cantalopes*, soybeans, tobacco, *Colletotrichum lagenarium*, a melon pathogen, *Phytophthora phytoalexin* eliators).

Toppan, A. Esqueere-Tugaye, M.T. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Aug 1984. v. 75 (4). p. 1133-1138. ill. Includes references. (NAL Call No.: 450 P692).

0239

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PLPHA. Roby, D. Toppan, A.; Esquerre-Tugaye, M.T. Rockville, Md. : American Society of Plant

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Lomax-Reichert, T. CIWYA. Briggs, W.R. Washington : The Institute. Year book - Carnegie Institution of Washington. Dec 1982. Dec 1982. (81st). p. 18-21. Includes references. (NAL Call No.: 500 C21).

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Characterization of a translation inhibitory protein from Luffa Aegyptiaca.

BBRC. Ramakrishnan, S. Enghlid, J.J.; Bryant, H.L. Jr.; Xu, F.J. Duluth, Minn. : Academic Press. Biochemical and biophysical research communications. Apr 28, 1989. v. 160 (2). p. 509-516. ill. Includes references. (NAL Call No.: DNAL 442.8 B5236).

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Characterization of the mode of action of the experimental herbicide LS 82-556

(S)3-N-(Methylbenzyl)carbamoyl-5-propionyl-2,6-lutidine .

PCBPB. Matringe, M. Dufour, J.L.; Lherminier, J.; Scalla, R. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Oct 1986. v. 26 (2). p. 150-159. ill. Includes references. (NAL Call No.: DNAL SB951.P49).

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Chilling-enhanced photooxidation. Evidence for the role of singlet oxygen and superoxide in the breakdown of pigments and endogenous antioxidants.

PLPHA. Wise, R.R. Naylor, A.W. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Feb 1987. v. 83 (2). p. 278-282. Includes references. (NAL Call No.: DNAL 450 P692).

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Chilling-enhanced photooxidation. The peroxidative destruction of lipids during chilling injury to photosynthesis and ultrastructure.

PLPHA. Wise, R.R. Naylor, A.W. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Feb 1987. v. 83 (2). p. 272-277. ill. Includes references. (NAL Call No.: DNAL 450 P692).

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Chilling-induced ethylene production in cucumbers (Cucumis sativus L.).

Wang, C.Y. Adams, D.O. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Feb 1982. v. 69 (2). p. 424-427. Includes 28 ref. (NAL Call No.: 450 P692).

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Chilling sensitivity of cucumber cotyledon protoplasts and seedlings.

PLPHA. Pomeroy, M.K. Mudd, J.B. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. July 1987. v. 84 (3). p. 677-681. ill. Includes references. (NAL Call No.: DNAL 450 P692).

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Daniell, H. Rebeiz, C.A. New York, Academic Press. Biochemical and biophysical research communications. Jan 29, 1982. v. 104 (2). p. 837-843. Includes 27 references. (NAL Call No.: 442.8 B5236).

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JAFCAU. Sawaya, W.N. Dagher, N.J.; Khalil, J.K. Washington, D.C. : American Chemical Society. Journal of agricultural and food chemistry. Mar/Apr 1986. v. 34 (2). p. 285-288. Includes references. (NAL Call No.: DNAL 381 J8223).

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Kendall, S. Ng, T. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 41-42. Includes 2 references. (NAL Call No.: DNAL SB337.C94).

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Comparative effects of gibberellic acid and N6-benzyladenine on dry matter partitioning and osmotic and water potentials in seedling organs of dwarf watermelon.

Zack, C.D. Loy, J.B. New York, N.Y. : Springer. Journal of plant growth regulation. 1984. v. 3 (1). p. 65-73. ill. Includes references. (NAL Call No.: QK745.J6).

0251

Comparison of testa development in normal and hull-less seeded strains of Cucurbita pepo L. (Pumpkins, histochemistry, anatomy).
Stuart, S.G. Loy, J.B. Chicago : University of Chicago Press. Botanical gazette. Dec 1983. v. 144 (4). p. 491-500. ill. Includes references. (NAL Call No.: 450 B652).

0252

Competition for in vitro 13H gibberellin A4 binding in cucumber by gibberellins and their derivatives.
PLPHA. Yalpani, N. Srivastava, L.M. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Dec 1985. v. 79 (4). p. 963-967. Includes 13 references. (NAL Call No.: DNAL 450 P692).

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Composition of the floral odor of Cucurbita maxima Duchesne (Cucurbitaceae).
JAFCAU. Andersen, J.F. Washington, D.C. : American Chemical Society. Journal of agricultural and food chemistry. Jan/Feb 1987. v. 35 (1). p. 60-62. Includes references. (NAL Call No.: DNAL 381 J8223).

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The control of growth of hybrid squash (Cucurbita maxima L. cv. Delica) by nitrogen.
JPNUDS. Buwalda, J.G. New York, N.Y. : Marcel Dekker. Journal of plant nutrition. Paper presented at the "Tenth International Plant Nutrition Colloquium", August 4-9, 1986, Beltsville, Maryland. 1987. v. 10 (9/16). p. 1843-1851. Includes references. (NAL Call No.: DNAL QK867.J67).

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Conversion of xanthoxin to abscisic acid by cell-free preparations from bean leaves.
PLPHA. Sindhu, R.K. Walton, D.C. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Dec 1987. v. 85 (4). p. 916-921. Includes references. (NAL Call No.: DNAL 450 P692).

0256

Correlation between biological activity and partition characteristics for the cytokinin benzyladenine (BA).
PPGGD. Carlson, R.D. Shafer, W.E. Lake Alfred, Fla. : The Society. Proceedings of the Plant Growth Regulator Society of America. 1988. (15th). p. 175. (NAL Call No.: DNAL SB128.P5).

0257

Correlation of in vivo and in vitro auxin transport in developing Cucurbita pepo hypocotyls (Squashes).
Shinkle, J.R. CIWYA. Lomax-Reichert, T.; Hertel, R.; Briggs, W.R. Washington : The Institute. Year book - Carnegie Institution of Washington. Dec 1982. Dec 1982. (81st). p. 21-23. Includes references. (NAL Call No.: 500 C21).

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Correlations between rapid germination and seedling vigor in the common zucchini (Cucurbita pepo).
PPASA. Bixby, P.J. Davis, L.E.; Schlichting, C.D.; Stephenson, A.G. Allentown, Pa. : The Academy. Proceedings of the Pennsylvania Academy of Science. 1986. v. 60 (1). p. 33-35. Includes references. (NAL Call No.: DNAL 500 P383).

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Cotyledon shading and seedling growth of pumpkin.
Splittstoesser, W.E. Alexandria, Va., American Society for Horticultural Science. HortScience. Oct 1981. v. 16 (5). p. 669-670. 8 ref. (NAL Call No.: SB1.H6).

0260

Cytokinin gene fused with a strong promoter enhances shoot organogenesis and zeatin levels in transformed plant cells.
PNASA. Smigocki, A.C. Owens, L.D. Washington, D.C. : The Academy. Proceedings of the National Academy of Sciences of the United States of America. July 1988. v. 85 (14). p. 5131-5135. ill. Includes references. (NAL Call No.: DNAL 500 N21P).

0261

Development of summer squash seedlings damaged by striped and spotted cucumber beetles (Coleoptera: Chrysomelidae).
JEENAI. Brewer, M.J. Story, R.N.; Wright, V.L. College Park, Md. : Entomological Society of America. Journal of economic entomology. Oct 1987. v. 80 (5). p. 1004-1009. Includes references. (NAL Call No.: DNAL 421 J822).

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Developmental anatomy of seedlings and tubers of anchote, Coccinia abyssinica (Cucurbitaceae) / by Amare Getahun. -.
Getahun, Amare, 1937-. 1969. Thesis (Ph.D.)--University of Florida, 1969. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. ix, 113 leaves : ill. ; 21

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cm. Bibliography: leaves 107-111. (NAL Call No.: DISS 70-20,757).

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Developmental changes in the potential for H₂S (hydrogen sulfide) emission in cucurbit plants (Cucurbita pepo, pumpkins, Cucumis sativus, cucumbers).

Rennenberg, H. PLPHA. Filner, P. Rockville : American Society of Plant Physiologists. Plant physiology. Feb 1983. v. 71 (2). p. 269-275. 17 ref. (NAL Call No.: 450 P692).

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Diphenylether-like physiological and biochemical actions of S-23142, a novel N-phenyl imide herbicide.

PCBPB. Sato, R. Nagano, E.; Oshio, H.; Kamoshita, K. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. June 1987. v. 28 (2). p. 194-200. Includes references. (NAL Call No.: DNAL SB951.P49).

0265

Effect of benzyladenine treatment duration on delta-aminolevulinic acid accumulation in the dark, chlorophyll lag phase abolition, and long-term chlorophyll production in excised cotyledons of dark-grown cucumber seedlings (Cucumis sativus).

Lew, R. Tsuji, H. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Mar 1982. v. 69 (3). p. 663-667. Includes 25 ref. (NAL Call No.: 450 P692).

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Effect of chilling on ethylene production in cucumbers (Storage physiology).

Wang, C.Y. Adams, D.O. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Apr 1981. Abstract only. v. 67 (4). p. 63. (NAL Call No.: 450 P692).

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Effect of ethephon, gibberellic acid, and maleic hydrazide on vegetative growth, flowering, and fruiting of curbitaceous crops.

JOSHB. Arora, S.K. Pandita, M.L.; Partap, P.S.; Sidhu, A.S. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1985. v. 110 (3). p. 442-445. Includes 15 references. (NAL Call No.: DNAL 81 S012).

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Effect of growth regulators on germination of cucumber and other curcurbit seeds at suboptimal temperatures.

Nelson, J.M. Sharples, G.C. Alexandria, Va., American Society for Horticultural Science. HortScience. June 1980. v. 15 (3). p. 253-254. 13 ref. (NAL Call No.: SB1.H6).

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Effect of gynoeocious expression on yield and earliness of a fresh-market cucumber hybrid.

JOSHB. Wehner, T.C. Miller, C.H. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1985. v. 110 (4). p. 464-466. Includes 10 references. (NAL Call No.: DNAL 81 S012).

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Effect of high soil moisture on quality of muskmelon (cultivars).

Wells, J.A. AR-SO. Nugent, P.E. Alexandria, Va., American Society for Horticultural Science. HortScience. June 1980. v. 15 (3). p. 258-259. 11 ref. (NAL Call No.: SB1.H6).

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Effect of leaf detachment on chlorophyll fluorescence during chilling experiments.

PLPHA. Potvin, C. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Aug 1985. v. 78 (4). p. 883-886. Includes 11 references. (NAL Call No.: DNAL 450 P692).

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Effect of length of vegetative phase on total dry matter production and its partitioning.

Ramirez, D.R. Wehner, T.C. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 14-16. Includes 5 references. (NAL Call No.: DNAL SB337.C94).

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The effect of light quality and photoperiod on vegetative growth of Cucurbita maxima.

Zack, C.D. Loy, J.B. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. Nov 1980. v. 105 (6). p. 939-943. ill. 26 ref. (NAL Call No.: 81 S012).

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Effect of methodology on expression of intercultivar differences in response to NaCl stress in melons.
Nerson, H. Paris, H.S.; Karchi, Z.; Burger, Y.; Edelstein, M. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 49-50. Includes 4 references. (NAL Call No.: DNAL SB337.C94).

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Effect of photoperiod and nyctoperiod temperatures, and moisture stress on fruit enlargement in the cucumber, *Cucumis sativus* L., cv. "Mini-Cuke" / by Isaac Jose Lewin. -
Lewin, Isaac Jose, 1930-. 1970. Thesis (Ph.D.)--Pennsylvania State University, 1970. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. viii, 75 leaves ; 21 cm. Bibliography: leaves (58)-60. (NAL Call No.: DISS 71-21,769).

0276

Effect of restricted root growth on carbohydrate metabolism and whole plant growth of *Cucumis sativus* L.
PLPHA. Robbins, N.S. Pharr, D.M. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. June 1988. v. 87 (2). p. 409-413. Includes references. (NAL Call No.: DNAL 450 P692).

0277

The effect of root temperature upon the absorption of water by the cucumber /R.A. Schroeder.
Schroeder, R. A. 1912-. Columbia, Mo. : University of Missouri, College of Agriculture, Agricultural Experiment Station, 1939. "Publication authorized November 27, 1939"--T.p. 27 p. : ill. ; 23 cm. Bibliography: p. 27. (NAL Call No.: DNAL 100 M693 (3) no.309).

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Effect of stage of development on postharvest behavior of cucumber fruit.
HJHSA. Kanellis, A.K. Morris, L.L.; Saltveit, M.E. Jr. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1986. v. 21 (5). p. 1165-1167. Includes references. (NAL Call No.: DNAL SB1.H6).

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Effect of water stress on the carbohydrate metabolism of *Citrullus lanatus* seeds during germination.
PLPHA. Botha, F.C. Small, J.G.C. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Jan 1985. v. 77 (1). p. 79-82. ill. Includes 28 references. (NAL Call No.: DNAL 450 P692).

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Effects of acifluorfen-methyl on cucumber cotyledons: porphyrin accumulation.
PCBPB. Matringe, M. Scalla, R. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Oct 1988. v. 32 (2). p. 164-172. Includes references. (NAL Call No.: DNAL SB951.P49).

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Effects of acifluorfen on endogenous antioxidants and protective enzymes in cucumber (*Cucumis sativus* L.) cotyledons.
PLPHA. Kenyon, W.H. Duke, S.O. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Nov 1985. v. 79 (3). p. 862-866. Includes 33 references. (NAL Call No.: DNAL 450 P692).

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Effects of allelopathic compounds of corn pollen on respiration and cell division of watermelon.
JCECD. Ortega, R.C. Anaya, A.L.; Ramos, L. New York, N.Y. : Plenum Press. Journal of chemical ecology. Jan 1988. v. 14 (1). p. 71-86. ill. Includes references. (NAL Call No.: DNAL QD415.A1J6).

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Effects of embryo removal upon reserve protein degradation in *Cucurbita moschata* (Cyclohexamide, cotyledon expansion, globulin).
Splittstoesser, W.E. East Lansing, Mich. : Association of Official Seed Analysts. Journal of seed technology. 1983. v. 8 (1). p. 25-30. ill. Includes references. (NAL Call No.: SB113.2.J6).

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Effects of ferulic acid and some of its microbial metabolic products on radicle growth of cucumber.
Blum, U.P. Dalton, B.R.; Rawlings, J.O. New York, N.Y. : Plenum Press. Journal of chemical ecology. Aug 1984. v. 10 (8). p. 1169-1191. Includes references. (NAL Call No.: QD415.A1J6).

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Effects of ferulic and p-coumaric acids in nutrient culture of cucumber leaf expansion as influenced by pH.

JCECD. Blum, U. Dalton, B.R.; Shann, J.R. New York, N.Y. : Plenum Press. Journal of chemical ecology. Nov 1985. v. 11 (11). p. 1567-1582. Includes references. (NAL Call No.: DNAL QD415.A1J6).

0286

Effects of gibberellic acid and zeatin on the growth response of cucumber cotyledons.

JPGARDI. Muir, R.M. Cheng, Y.U. New York, N.Y. : Springer. Journal of plant growth regulation. 1988. v. 7 (4). p. 197-201. Includes references. (NAL Call No.: DNAL QK745.J6).

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Effects of glyphosine and triacontanol on growth, yield, and soluble solids content of 'PMR-45' muskmelons.

Bosland, J.M. Hughes, D.L.; Yamaguchi, M. Alexandria, Va., American Society for Horticultural Science. HortScience. Dec 1979. v. 14 (6). p. 729-730. ill. 14 ref. (NAL Call No.: SB1.H6).

0288

Effects of plant density on growth and biomass partitioning in pickling cucumbers.

JQSHB. Widders, I.E. Price, H.C. Alexandria, Va. : The Society. Pickling cucumbers (*Cucumis sativus* L. cv. Tamor and Castlepick) were direct-seeded at six plant densities (in thousands, 44, 77, 97, 121, 152, 194) using two between-row spacings (71 and 36 cm) and three within-row spacings (29, 14, and 11 cm between plants). Compared with the 29 cm within-row spacing, the 11- and 14-cm spacings resulted in significantly lower total above-ground plant dry weights, growth rates, and total leaf areas for both cultivars as early as 21 to 27 days after planting. The between-row spacing effects on plant growth were similar, but were of a lower magnitude and appeared later in plant development than for the within-row spacing effects. Leaf lamina and fruit tissue exhibited the largest reduction in tissue dry weights per plant compared to stem and petiole tissue when plant density was increased from approximately 4.5 to 20 plants/m² (45,000 to 200,000 plants/ha). Lower fruit productivity per plant at higher plant densities resulted from fewer fruit set per plant and lower fruit: shoot ratios. Unit leaf rate (g dry weight/day per g of lamina dry weight) was not affected by plant spacing during the fruit development period. Increased densities resulted in significantly higher leaf indexes, and vegetative and total above-ground dry weights/m². Total fruit yield with a single harvest did not increase above approximately 77,000 plants/ha for both cultivars. A high correlation ($r = 0.877$)

between leaf lamina dry weight and fruit growth rate indicates that net photosynthetic capacity might be limiting fruit productive potential in pickling cucumbers. Journal of the American Society for Horticultural Science. Sept 1989. v. 114 (5). p. 751-755. Includes references. (NAL Call No.: DNAL 81 S012).

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Effects of pollen load size on fruit maturation and sporophyte quality in zucchini.

Stephenson, A.G. Winsor, J.A.; Davis, L.E. New York : Springer-Verlag, c1986. Biotechnology and ecology of pollen : proceedings, International Conference on Biotechnology and Ecology of Pollen, 9-11 July 1985, Univ. of Massachusetts, Amherst, MA / ed. by D.L. Mulcahy, G.B. Mulcahy and E. Ottaviano. p. 429-434. Includes references. (NAL Call No.: DNAL QK658.B575).

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Effects of wounding on cytokinin activity in cucumber cotyledons.

PLPHA. Crane, K.E. Ross, C.W. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Dec 1986. v. 82 (4). p. 1151-1152. Includes references. (NAL Call No.: DNAL 450 P692).

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Effects of 2-chloro-2',6'-diethyl-N-(methoxymethyl) acetanilide on cucumber seedling growth / by John Byron Edmondson. -.

Edmondson, John Byron, 1942-. 1969. Thesis (Ph.D.)--University of Illinois, 1969. Photocopy. Ann Arbor, Mich. : University Microfilms, 1970. v, 45 leaves ; 21 cm. Bibliography: leaves 42-45. (NAL Call No.: DISS 69-15,298).

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Embryo culture of *Cucurbita andreana* and *Cucurbita martinii*.

Malter, A.B. Lebowitz, R.U.; Juvik, J.A. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 69-70. Includes 8 references. (NAL Call No.: DNAL SB337.C94).

0293

Endogenous gibberellins in the shoots of normal- and bush-type *Cucumis sativus* L.

JPGARDI. Nakayama, M. Yamane, H.; Yamaguchi, I.; Murofushi, N.; Takahashi, N.; Katsumi, M. New York, N.Y. : Springer. Journal of plant growth regulation. 1989. v. 8 (3). p. 237-247.

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Includes references. (NAL Call No.: DNAL QK745.J6).

0294

Enhancement of wound-induced ethylene synthesis by ethylene in preclimacteric cantaloupe (*Cucumis melo*).

Hoffman, N.E. Yang, S.F. Rockville, Md., American Society of Plant Physiologists. *Plant physiology*. Feb 1982. v. 69 (2). p. 317-322. Includes 28 ref. (NAL Call No.: 450 P692).

0295

Estimation of osmotic parameters accompanying zeatin-induced growth of detached cucumber cotyledons (*Cucumis sativus*, water, osmotic and pressure potential value, role in wall loosening and solute accumulation, growth promotion by zeatin).

Rayle, D.L. PLPHA. Ross, C.W.; Robinson, N. Rockville : American Society of Plant Physiologists. *Plant physiology*. Dec 1982. v. 70 (6). p. 1634-1636. 18 ref. (NAL Call No.: 450 P692).

0296

Ethylene production by chilled cucumbers (*Cucumis sativus* L.).

Wang, C.Y. AR-BARC. Adams, D.O. Rockville, Md., American Society of Plant Physiologists. *Plant physiology*. Nov 1980. v. 66 (5). p. 841-843. ill. 19 ref. (NAL Call No.: 450 P692).

0297

Evaluating effect of Naptalam on sex expression of cucumber (Plant growth regulator used as a pre-emergent herbicide for cucurbits).

Edney, N.A. Rizvi, M.A.; Parker, A. (s.l.), The Academy. *Journal of the Mississippi Academy of Sciences*. 1980. v. 25. p. 59-62. 16 ref. (NAL Call No.: 500 M697).

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Evidence for a specific uptake system for iron phytosiderophores in roots of grasses.

PLPHA. Romheld, V. Marschner, H. Rockville, Md. : American Society of Plant Physiologists. *Plant physiology*. Jan 1985. v. 80 (1). p. 175-180. ill. Includes 29 references. (NAL Call No.: DNAL 450 P692).

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Evidence for pollen competition in plants and its relationship to progeny fitness: a comment. AMNTA. Charlesworth, D. Chicago, Ill. : University of Chicago Press. *The American naturalist*. Aug 1988. v. 132 (2). p. 298-302. Includes references. (NAL Call No.: DNAL 470 AM36).

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Examination of North American bison saliva for potential plant growth regulators (Oats, cucumber).

Detling, J.K. Ross, C.W.; Walmsley, M.H.; Hilbert, D.W.; Bonilla, C.A.; Dyer, M.I. New York, Plenum Press. *Journal of chemical ecology*. Mar 1981. v. 7 (2). p. 239-246. ill. 27 ref. (NAL Call No.: QD415.A1J6).

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Facilitation of self-pollination in gynoeious cucumber with silver nitrate treatment of cuttings.

Kwack, S.N. Fujieda, K. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 6-7. Includes references. (NAL Call No.: DNAL SB337.C94).

0302

Factors affecting absorption, transport, and form of plutonium in plants.

Garland, T.R. Cataldo, D.A.; McFadden, K.M.; Wildung, R.E. Oak Ridge, TN : Office of Scientific and Tech Information, United States Dept. of Energy, 1987. Environmental research on actinide elements : proceedings of a symposium held at Hilton Head, South Carolina, November 7-11, 1983 / editors, John E. Pinder III ... et al. . p. 83-96. Includes references. (NAL Call No.: DNAL QH545.A23E58).

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Factors influencing distribution of *Diabrotica* spp. in blossoms of cultivated *Cucurbita* spp.

JCECD. Andersen, J.F. Metcalf, R.L. New York, N.Y. : Plenum Press. *Journal of chemical ecology*. Apr 1987. v. 13 (4). p. 681-699. Includes references. (NAL Call No.: DNAL QD415.A1J6).

0304

Ferric-citrate reductase activity of nitrate reductase and it's role in iron assimilation by plants (Squash, maize).

Campbell, W.H. Redinbaugh, M.G. New York, N.Y. : Marcel Dekker. *Journal of plant nutrition*. 1984. Presented at the "Second International

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Symposium on Iron Nutrition and Interactions in Plants," August 2-5, 1983, Utah State University, Logan. v. 7 (1/5). p. 799-806. ill. Includes references. (NAL Call No.: QK867.J67).

0305

Floral development, flowering patterns, and growth rate of monoecious and gynoeceous buffalo gourd.

JOSHB. Scheerens, J.C. Yousef, Y.M.R.; Ralowicz, A.E.; Gathman, A.C.; Scheerens, H.M. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1987. v. 112 (3). p. 574-578. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0306

Floral resource variation, pollinator response, and potential pollen flow in *Psiguria warscewiczii*.

ECOLA. Murawski, D.A. Tempe, Ariz : Ecological Society of America. Ecology : a publication of the Ecological Society of America. Oct 1987. v. 68 (5). p. 1273-1282. Includes references. (NAL Call No.: DNAL 410 EC7).

0307

Flowering, fruit set, and fruit development in birdsnest-type muskmelons.

JOSHB. McCollum, T.G. Cantliffe, D.J.; Paris, H.S. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Jan 1987. v. 112 (1). p. 161-164. Includes 16 references. (NAL Call No.: DNAL 81 S012).

0308

Fluxes of atmospheric hydrogen sulphide to plant shoots.

NEPHA. Kok, L.J. de. Stahl, K.; Rennenberg, H. New York, N.Y. : Cambridge University Press. The New phytologist. Aug 1989. v. 112 (4). p. 533-542. Includes references. (NAL Call No.: DNAL 450 N42).

0309

Formation of Mg (magnesium) containing chlorophyll precursors from protoporphyrin IX, delta-aminolevulinic acid, and glutamate in isolated, photosynthetically competent, developing chloroplasts (*Cucumis sativus*, greening cucumbers).

Fufsler, T.P. Casterlfranco, P.A.; Wong, Y.S. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Apr 1984. v. 74 (4). p. 928-933. Includes references. (NAL Call No.: 450 P692).

0310

Fruit set problems in squash, melons, and cucumbers in home gardens.

Johnson, H. Jr. Berkeley, Calif., The Service. Leaflet - University of California, Cooperative Extension Service. 1981. 1981. (21242). 2 p. (NAL Call No.: S544.3.C2C3).

0311

A germination and seedling development assay for PGR (potential growth regulating) activity (*Echinochloa crusgalli*, cucumber, mung bean).

Russo, L. Jr. Longmont, Colo., The Group. Proceedings of the Plant Growth Regulator Working Group; annual meeting. 1980. 1980. (7th). p. 134-136. ill. (NAL Call No.: SB128.P5).

0312

Growth analysis of three cucumber lines differing in plant habit.

HJHSA. Ramirez, D.R. Wehner, T.C.; Miller, C.H. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1988. v. 23 (1). p. 145-148. Includes references. (NAL Call No.: DNAL SB1.H6).

0313

Growth analysis of three cucumber lines differing in plant habit and yield.

Ramirez, D.R. Wehner, T.C. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 17-18. Includes 2 references. (NAL Call No.: DNAL SB337.C94).

0314

Growth inhibitors in cucumber plants and seeds (Autotoxicity, allelopathy).

Lockerman, R.H. Putnam, A.R. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. July 1981. v. 106 (4). p. 418-422. 15 ref. (NAL Call No.: 81 S012).

0315

High-performance liquid chromatography of amino acid conjugates of indole-3-acetic acid (Isolated from cucumber seedlings).

Hollenberg, S.M. Chappell, T.G.; Purves, W.K. Washington, D.C., American Chemical Society. Journal of agricultural and food chemistry. Nov/Dec 1981. v. 29 (6). p. 1173-1174. ill. 7 ref. (NAL Call No.: 381 J8223).

(PLANT PHYSIOLOGY AND BIOCHEMISTRY)

0316

High temperature stress affects pollen viability in bottle gourd.

JOSHB. Iapichino, G.F. Loy, J.B. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Mar 1987. v. 112 (3). p. 372-374. Includes references. (NAL Call No.: DNAL 81 S012).

0317

Hormonal control and herbicidal influence on dipeptidase synthesis in squash cotyledons (*Cucurbita maxima*, inhibition).

Ashton, F.M. Tsay, R. Honolulu, The Station. Technical Bulletin - Hawaii Agricultural Experiment Station, University of Hawaii. June 1981. June 1981. (100). p. 5-30. ill. 4 p. ref. (NAL Call No.: 100 H313T).

0318

Hormone (cytokinin) and light effects in Rubisco gene expression.

NASSD. Lerbs, S. Lerbs, W.; Wollgiehn, R.; Parthier, B. New York, N.Y. : Plenum Press. NATO advanced science institutes series : Series A : Life sciences. Paper presented at the congress on the "Molecular Form and Function of the Plant Genome," July.4-14, 1984. Renesse, Netherlands. 1985. v. 83. p. 267-275. ill. Includes references. (NAL Call No.: DNAL QH301.N32).

0319

Identification of triterpenoid feeding deterrent of red pumpkin beetles (*Aulacophora foveicollis*) from *Momordica charantia*.

JCECD. Chandravadana, M.V. New York, N.Y. : Plenum Press. Journal of chemical ecology. July 1987. v. 13 (7). p. 1689-1694. Includes references. (NAL Call No.: DNAL QD415.A1J6).

0320

Immunocytochemical analysis shows that glyoxysomes are directly transformed to leaf peroxisomes during greening of pumpkin cotyledons.

PLPHA. Nishimura, M. Yamaguchi, J.; Mori, H.; Akazawa, T.; Yokota, S. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. May 1986. v. 81 (1). p. 313-316. ill. Includes 15 references. (NAL Call No.: DNAL 450 P692).

0321

Immunocytochemical localization of isocitrate and hydroxypyruvate reductase.

JULRA. Sautter, C. New York, N.Y. : Academic Press. Journal of ultrastructure research. Nov 1984. v. 89 (2). p. 187-197. ill. Includes references. (NAL Call No.: DNAL 440.8 J822).

0322

Immunocytochemistry of phloem lectins.

Smith, L.M. Sabnis, D.D. New York : Alan R. Liss. Plant biology. In the series analytic: Phloem Transport / edited by J. Cronshaw, W.J. Lucas and R.T. Giaquinta. Proceedings of an International Conference, August 18-23, 1985, Asilomar, California. 1986. v. 1. p. 157-159. ill. Includes references. (NAL Call No.: DNAL QH301.P535).

0323

An immunological approach to gibberellin purification and quantification.

PLPHA. Smith, V.A. MacMillan, J. Rockville, Md. : American Society of Plant Physiologists. Gibberellin (GA) specific, high-affinity monoclonal antibodies have been used to assay the GA content of various plant tissues and to purify selected GAs by immunoaffinity chromatography. These immunological techniques may not stand alone as a general method of GA analysis. The results of this study indicate, however, that in conjunction with gas chromatography-mass spectrometry for positive GA identification, radioimmunoassay and immunoaffinity chromatography are extremely powerful tools for purifying and quantifying GAs from plant tissues. Plant physiology. July 1989. v. 90 (3). p. 1148-1155. Includes references. (NAL Call No.: DNAL 450 P692).

0324

Increased arginine biosynthesis during phosphorus deficiency: a response to the increased ammonia content of leaves.

PLPHA. Rabe, E. Lovatt, C.J. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. July 1986. v. 81 (3). p. 774-779. Includes 29 references. (NAL Call No.: DNAL 450 P692).

0325

Influence of chloroplast development on the activation of the diphenyl ether herbicide acifluorfen-methyl.

PLPHA. Halling, B.P. Peters, G.R. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Aug 1987. v. 84 (4). p. 1114-1120. Includes references. (NAL Call No.: DNAL 450 P692).

(PLANT PHYSIOLOGY AND BIOCHEMISTRY)

0326

The influence of dark adaptation temperature on the reappearance of variable fluorescence following illumination.

PLPHA. Peeler, T.C. Naylor, A.W. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Jan 1988. v. 86 (1). p. 152-154. Includes references. (NAL Call No.: DNAL 450 P692).

0327

Influence of HPS supplementary lighting on growth and yield of greenhouse cucumbers.

HJHSA. Blain, J. Gosselin, A.; Trudel, M.J. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1987. v. 22 (1). p. 36-38. Includes references. (NAL Call No.: DNAL SB1.H6).

0328

Influence of light quality during seed development and drying on germination in watermelon (Phytochrome).

Fritts, S.K. Loy, J.B. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. May 1981. v. 106 (3). p. 262-266. 18 ref. (NAL Call No.: 81 S012).

0329

Influence of seed harvesting and handling procedures on germination of cucumber seeds.

JOSH.B. Edwards, M.D. Lower, R.L.; Staub, J.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1986. v. 111 (4). p. 507-512. Includes references. (NAL Call No.: DNAL 81 S012).

0330

Inhibition of chloroplast-mediated reactions by quizalofop herbicide.

WEESA6. Ruizzo, M.A. Gorski, S.F. Champaign, Ill. : Weed Science Society of America. A mechanism of action of the ethyl ester of quizalofop was determined in monocotyledonous and dicotyledonous plants. Quizalofop inhibited electron transport in both cucumber and corn chloroplasts. In corn, inhibition of electron transport was more pronounced under phosphorylating conditions. Half-maximal inhibition (I50) of ATP synthesis was achieved with a 75-microM concentration of quizalofop in coupled corn chloroplasts. Cucumber chloroplast ATP synthesis was not inhibited at herbicide concentrations up to 100 microM. Corn chloroplast fractions contained greater quantities of bound U-14C quizalofop ester following incubation in light and dark assays. Thin-layer radiochromatograms of 14C-labeled quizalofop showed no metabolism or degradation of parent ester incubated in light and dark chloroplast-mediated reactions. In our studies,

it is apparent that the inhibitory action of quizalofop was due to the parent ester. The ester formulation of quizalofop appears to exhibit multiple activity in susceptible plant chloroplasts. Weed science. Nov 1988. v. 36 (6). p. 713-718. Includes references. (NAL Call No.: DNAL 79.8 W41).

0331

Inhibition of ent-kaurene oxidation by cytokinins.

JPGRDI. Coolbaugh, R.C. New York, N.Y. : Springer. Journal of plant growth regulation. 1984. v. 3 (2). p. 97-109. ill. Includes references. (NAL Call No.: DNAL QK745.J6).

0332

Inhibition of gibberellin biosynthesis by paclobutrazol in cell-free homogenates of Cucurbita maxima endosperm and Malus pumila embryos.

JPGRDI. Hedden, P. Graebe, J.E. New York, N.Y. : Springer. Journal of plant growth regulation. 1985. v. 4 (2). p. 111-122. Includes references. (NAL Call No.: DNAL QK745.J6).

0333

Inhibition of plant protoporphyrinogen oxidase by the herbicide acifluorfen-methyl.

PLPHA. Witkowski, D.A. Halling, B.P. Rockville, Md. : American Society of Plant Physiologists. The effect of acifluorfen-methyl on tetrapyrrole synthesis in greening chloroplasts of Cucumis sativus was examined. Formation of Mg-proto-porphyrin IX from omega-aminolevulinate was reduced 98% by 10 micromolar acifluorfen-methyl. Conversion of protoporphyrin IX to Mg-protoporphyrin IX was unaffected, but protoporphyrin IX synthesis from omega-aminolevulinate was blocked, indicating a site of inhibition prior to the Mg-chelatase. The enzymic oxidation of protoporphyrinogen IX to protoporphyrin IX was highly sensitive to acifluorfen-methyl, indicating that the site of action of the herbicide is the protoporphyrinogen oxidase. Plant physiology. Aug 1989. v. 90 (4). p. 1239-1242. Includes references. (NAL Call No.: DNAL 450 P692).

0334

An inhibitor of catalase induced by cold in chilling-sensitive plants.

PLPHA. Patterson, B.D. Payne, L.A.; Chen, Y.Z.; Graham, D. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Dec 1984. v. 76 (4). p. 1014-1018. ill. Includes 27 references. (NAL Call No.: DNAL 450 P692).

0335

Interaction of ethylene and a cytokinin in promoting hypocotyl elongation in a dwarf strain of watermelon.
Loy, J.B. Pollard, J.E. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Oct 1981. v. 68 (4). p. 876-879. 13 ref. (NAL Call No.: 450 P692).

0336

Isolation of a complementary DNA encoding a chitinase with structural homology to a bifunctional lysozyme/chitinase.
PNASA. Metraux, J.P. Burkhardt, W.; Moyer, M.; Dincher, S.; Middlesteadt, W.; Williams, S.; Payne, G.; Carnes, M.; Ryals, J. Washington, D.C. : The Academy. Proceedings of the National Academy of Sciences of the United States of America. Feb 1989. v. 86 (3). p. 896-900. 111. Includes references. (NAL Call No.: DNAL 500 N21P).

0337

Isozymes and general proteins from various watermelon cultivars and tissue types.
HUHSA. Biles, C.L. Martyn, R.D.; Wilson, H.D. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1989. v. 24 (5). p. 810-812. 111. Includes references. (NAL Call No.: DNAL SB1.H6).

0338

Low-temperature germination of birds-nest muskmelons (Cucumis melo).
Nerson, H. Cantliffe, D.J.; Paris, H.S.; Karchi, Z. Alexandria, Va., American Society for Horticultural Science. HortScience. Aug 1982. v. 17 (4). p. 639-640. 111. 3 ref. (NAL Call No.: SB1.H6).

0339

Manganese toxicity development in muskmelons as influenced by nitrogen form.
JOSHB. Elamin, O.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1986. v. 111 (3). p. 323-327. 111. Includes references. (NAL Call No.: DNAL 81 S012).

0340

Mefluidide protection of severely chilled crop plants (Maize, cucumbers).
Tseng, M.J. Li, P.H. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. May 1984. v. 75 (1). p. 249-250. 111. Includes 8 references. (NAL Call No.: 450 P692).

0341

Metabolic requirement of Cucurbita pepo for boron.
PLPHA. Krueger, R.W. Lovatt, C.J.; Albert, L.S. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Feb 1987. v. 83 (2). p. 254-258. Includes references. (NAL Call No.: DNAL 450 P692).

0342

Metabolism of exogenous indoleacetic acid to its amide conjugates in Cucumis sativus L. (Cucumbers).
Purves, W.K. Hollenberg, S.M. Rockville, American Society of Plant Physiologists. Plant physiology. July 1982. v. 70 (1). p. 283-286. 11 ref. (NAL Call No.: 450 P692).

0343

Modification of flowering, sex expression and fruiting of selected cucurbits by growth-regulating chemicals / by Mohamed Abdel-Rahman. -
Abdel-Rahman, Mohamed, 1941-. 1970. Thesis (Ph.D.)--University of Florida, 1970. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. x, 90 leaves ; 21 cm. Bibliography: leaves 81-89. (NAL Call No.: DISS 71-16,757).

0344

Modulation of arginine decarboxylase activity in cucumber (Cucumis sativus) cotyledons in short-term organ culture.
JPGRDI. Prasad, G.L. Adiga, P.R. New York, N.Y. : Springer. Journal of plant growth regulation. 1985. v. 4 (1). p. 49-61. Includes references. (NAL Call No.: DNAL QK745.J6).

0345

Nitrogen and phosphorus stress repair in muskmelon (Cucumis melo) seedlings.
JPNUDS. Nerson, H. Paris, H.S.; Edelstein, M. New York, N.Y. : Marcel Dekker. Journal of plant nutrition. Paper presented at the "Tenth International Plant Nutrition Colloquium", August 4-9, 1986, Beltsville, Maryland. 1987. v. -10 (9/16). p. 1835-1841. Includes references. (NAL Call No.: DNAL QK867.J67).

0346

Nitrogen form ratio influence on muskmelon growth, composition, and manganese toxicity.
JOSHB. Elamin, O.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1986. v. 111 (3). p. 320-322. Includes references. (NAL Call No.: DNAL 81 S012).

0347

The nutritive qualities of plant foods: chemical and nutritional composition of breadfruit (*Artocarpus utilis*) and climbing melon seed (*Colocynthis vulgaris*). Achinewhu, S.C. Los Altos, Calif., Geron-X. Nutrition reports international. Apr 1982. v. 25 (4). p. 643-647. Includes 7 ref. (NAL Call No.: RC620.A1N8).

0348

Oxadiazon activity is similar to that of p-nitro-diphenyl ether herbicides. WEESA6. Duke, S.O. Lydon, J.; Paul, R.N. Champaign, Ill. : Weed Science Society of America. Oxadiazon (10 micromole) caused rapid, light-dependent membrane damage to cucumber cotyledon discs. Electrolyte leakage was detected within 1 h of exposure to light, as were cytoplasmic vesiculation and breakage of the tonoplast and plasmalemma. The ultrastructure of chloroplasts was not affected until the cytoplasm was dispersed. Photosynthetic inhibitors had no effect on activity and, after a period of dark incubation with oxadiazon, there was little effect of temperature on the light-caused membrane destruction. Porphyrin synthesis inhibitors (gabaculine and 4,6-dioxoheptanoic acid) almost completely prevented the herbicidal activity of oxadiazon. Oxadiazon treatment caused accumulation of protoporphyrin IX, a photodynamic pigment. Oxadiazon caused physiological effects on cucumber cotyledons that were virtually identical to those of p-nitro-diphenyl ether herbicides like acifluorfen and its methyl ester, which have recently been shown to also cause protoporphyrin IX accumulation. Weed science. Mar 1989. v. 37 (2). p. 152-160. ill. Includes references. (NAL Call No.: DNAL 79.8 W41).

0349

Partial purification and characterization of a guanylate cyclase inhibitor with cytotoxic properties from the bitter melon (*Momordica charantia*). Takemoto, D.J. Kresie, R.; Vaughn, D. New York, Academic Press. Biochemical and biophysical research communications. May 14, 1980. v. 94 (1). p. 332-339. ill. 25 ref. (NAL Call No.: 442.8 B5236).

0350

Pectic polysaccharide breakdown of cell walls in cucumber roots grown with calcium starvation. PLPHA. Konno, H. Yamaya, T.; Yamasaki, Y.; Matsumoto, H. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Nov 1984. v. 76 (3). p. 633-637. ill. Includes 27 references. (NAL Call No.: DNAL 450 P692).

0351

Photoinhibition at low temperature in chilling-sensitive and -resistant plants. PLPHA. Hetherington, S.E. He, J.; Smillie, R.M. Rockville, Md. : American Society of Plant Physiologists. Photoinhibition resulting from exposure at 7 degrees C to a moderate photon flux density (300 micromoles per square meter per second, 400-700 nanometers) for 20 hours was measured in leaves of annual crops differing widely in chilling tolerance. The incidence of photoinhibition, determined as the decrease in the ratio of induced to total chlorophyll fluorescence emission at 693 nanometers (F_v/F_{max}) measured at 77 Kelvin, was not confined to chilling-sensitive species. The extent of photoinhibition in leaves of all chilling-resistant plants tested (barley *Hordeum vulgare* L., broad bean *Vicia faba* L., pea *Pisum sativum* L., and wheat *Triticum aestivum* L.) was about half of that measured in chilling-sensitive plants (bean *Phaseolus vulgaris* L., cucumber *Cucumis sativus* L., lablab *Lablab purpureus* L., maize *Zea mays* L., pearl millet *Pennisetum typhoides* (Burm. F.) Stapf & Hubbard, pigeon pea *Cajanus cajan* (L.) Millsp., sesame *Sesamum indicum* L., sorghum *Sorghum bicolor* L. Moench, and tomato *Lycopersicon esculentum* Mill.). Rice (*Oryza sativa* L.) leaves of the indica type were more susceptible to photoinhibition at 7 degrees C than leaves of the japonica type. Photoinhibition was dependent both on temperature and light, increasing nonlinearly with decreasing temperature and linearly with increasing light intensity. In contrast to photoinhibition during chilling, large differences, up to 166-fold, were found in the relative susceptibility of the different species to chilling injury in the dark. It was concluded that chilling temperatures increased the likelihood of photoinhibition in leaves of both chilling-sensitive and -resistant plants. Further, while the photoinhibition during chilling generally occurred more rapidly in chilling-sensitive plants, this was not related directly to chilling sensitivity. Plant physiology. Aug 1989. v. 90 (4). p. 1609-1615. Includes references. (NAL Call No.: DNAL 450 P692).

0352

Photophosphorylation after chilling in the light. PLPHA. Wise, R.R. Ort, D.R. Rockville, Md. : American Society of Plant Physiologists. The response of in situ photophosphorylation in attached cucumber (*Cucumis sativus* L. cv Ashley) leaves to chilling under strong illumination was investigated. A single-beam kinetic spectrophotometer fitted with a clamp-on, whole leaf cuvette was used to measure the flash-induced electrochromic absorbance change at 518 minus 540 nanometers ($\Delta A_{518-540}$) in attached leaves. The relaxation kinetics of the electric field-indicating $\Delta A_{518-540}$ measures the rate of depolarization of the thylakoid membrane. Since this depolarization process is

normally dominated by proton efflux through the coupling factor during ATP synthesis, this technique can be used, in conjunction with careful controls, as a monitor of in situ ATP formation competence. Whole, attached leaves were chilled at 5 degrees C and 1000 microeinsteins per square meter per second for up to 6 hours then rewarmed in the dark at room temperature for 30 minutes and 100% relative humidity. Leaf water potential, chlorophyll content, and the effective optical pathlength for the absorption measurements were not affected by the treatment. Light- and CO₂-saturated leaf disc oxygen evolution and the quantum efficiency of photosynthesis were inhibited by approximately 50% after 3 hours of light chilling and by approximately 75% after 6 hours. Despite the large inhibition to net photosynthesis, the measurements of delta A518-540 relaxation kinetics showed photophosphorylation to be largely unaffected by the chilling and light exposure. The amplitude of the delta A518-540 measures the degree of energization of the photosynthetic membranes and was reduced significantly by chilling in the light. The cause of the decreased energization was traced to impaired turnover of photosystem II. Our measurements showed that the chilling of whole leaves in the light caused neither an uncoupling of photophosphorylation from photosynthetic electron transport nor any irreversible inhibition of the chloroplast coupling factor in si. *Plant physiology*. June 1989. v. 90 (2). p. 657-664. Includes references. (NAL Call No.: DNAL 450 P692).

0353

Photosynthesis is not involved in the mechanism of action of acifluorfen in cucumber (*Cucumis sativus* L.).
PLPHA. Duke, S.O. Kenyon, W.H. Rockville, Md. : American Society of Plant Physiologists. *Plant physiology*. July 1986. v. 81 (3). p. 882-888. ill. Includes 32 references. (NAL Call No.: DNAL 450 P692).

0354

Phthalimide-inhibition of the ethylene effect on sex expression in monoecious cucumber plants (Staminate, pistillate, flower formation).
Xu, S.Y. JOSHB. Bukovac, M.J. Alexandria : The Society. *Journal of the American Society for Horticultural Science*. Mar 1983. v. 108 (2). p. 282-284. ill. Includes references. (NAL Call No.: 81 S012).

0355

Phthalimide-modification of sex expression in gynoeceous and monoecious cucumbers (Growth-regulating chemicals).
Xu, S.Y. JOSHB. Bukovac, M.J. Alexandria : The Society. *Journal of the American Society for Horticultural Science*. Mar 1983. v. 108 (2). p. 278-282. Includes references. (NAL Call No.: 81

S012).

0356

Physiology of dwarfism in cucumber (*Cucumis sativus* L.) / by Milwant Singh Sandhu. -
Sandhu, Milwant Singh, 1928-. 1971. Thesis (Ph.D.)--University of Kentucky, 1971. Photocopy of typescript. Ann Arbor: University Microfilms, 1972. vii, 87 leaves ; 21 cm. Bibliography: leaves 77-87. (NAL Call No.: DISS 72-9,413).

0357

Physiology of melon leaf membrane thermostability during heat conditioning.
JOSHB. Lester, G.E. Alexandria, Va. : The Society. *Journal of the American Society for Horticultural Science*. July 1986. v. 111 (4). p. 561-564. Includes references. (NAL Call No.: DNAL 81 S012).

0358

Pollen competition improves performance and reproductive output of the common zucchini squash under field conditions.
JOSHB. Davis, L.E. Stephenson, A.G.; Winsor, J.A. Alexandria, Va. : The Society. *Journal of the American Society for Horticultural Science*. July 1987. v. 112 (4). p. 712-716. Includes references. (NAL Call No.: DNAL 81 S012).

0359

Pollen competition, nonrandom fertilization, and progeny fitness: a reply to Charlesworth.
AMNTA. Stephenson, A.G. Winsor, J.A.; Schlichting, C.D.; Davis, L.E. Chicago, Ill. : University of Chicago Press. *The American naturalist*. Aug 1988. v. 132 (2). p. 303-308. Includes references. (NAL Call No.: DNAL 470 AM36).

0360

Primary structure of cucumber (*Cucumis sativus*) ascorbate oxidase deduced from cDNA sequence: homology with blue copper proteins and tissue-specific expression.
PNASA. Ohkawa, J. Okada, N.; Shinmyo, A.; Takano, M. Washington, D.C. : The Academy. *Proceedings of the National Academy of Sciences of the United States of America*. Feb 1989. v. 86 (4). p. 1239-1243. ill. Includes references. (NAL Call No.: DNAL 500 N21P).

(PLANT PHYSIOLOGY AND BIOCHEMISTRY)

0361

Promotion by ethylene of the capability to convert 1-aminocyclopropane-1-carboxylic acid to ethylene in preclimacteric tomato and cantaloupe fruits.

PLPHA. Liu, Y. Hoffman, N.E.; Yang, S.F. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Feb 1985. v. 77 (2). p. 407-411. ill. Includes 24 references. (NAL Call No.: DNAL 450 P692).

0362

Purification and characterization of a cytostatic factor with anti-viral activity from the bitter melon (*Momordica charantia*).

Takemoto, D.U. PRBCB. Jilka, C.; Rockenbach, S.; Hughes, J.V. New York : Marcel Dekker. Preparative biochemistry. 1983. v. 13 (5). p. 397-421. ill. Includes references. (NAL Call No.: QD415.A1P7).

0363

Quantitative analysis of transpiration stream dynamics in an intact cucumber stem by a heat flux control method.

PLPHA. Kitano, M. Eguchi, H. Rockville, Md. : American Society of Plant Physiologists. Water flux of transpiration stream in an intact stem of the 10 leaf stage cucumber plant (*Cucumis sativus* L. cv. Chojitsu-Ochiai) was measured by a novel system of heat flux control method with a resolution of 1×10^{-3} grams per second and a time constant of 1 minute; two heat flux control sensors were attached to the seventh internode and the stem base. The transpiration stream responded clearly to leaf transpiration and root water absorption when the plant was exposed to light, and the water flux at the stem base corresponded to the transpiration rate per plant in steady state. Root water absorption lagged about 10 minutes behind leaf transpiration. Dynamics of water fluxes were affected by the lag of water absorption in roots, and temporary water loss caused by rapid increase in leaf transpiration was buffered by about 5% of the water content in the stem. Plant physiology. Feb 1989. v. 89 (2). p. 643-647. Includes references. (NAL Call No.: DNAL 450 P692).

0364

Rapid suppression of growth by blue light. Biophysical mechanism of action (Cucumber and sunflower seeds).

Cosgrove, D.J. Green, P.B. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Dec 1981. v. 68 (6). p. 1447-1453. 25 ref. (NAL Call No.: 450 P692).

0365

Rearrangement of the chloroplast thylakoid at chilling temperature in the light.

PLPHA. Maenpaa, P. Aro, E.M.; Somersalo, S.; Tyystjarvi, E. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. July 1988. v. 87 (3). p. 762-766. Includes references. (NAL Call No.: DNAL 450 P692).

0366

Regulation of cell division in the subapical shoot meristem of dwarf watermelon seedlings by gibberellic acid and polyethylene glycol 4000.

JPGRDI. Edelman, L. Loy, J.B. New York, N.Y. : Springer. Journal of plant growth regulation. 1987. v. 5 (3). p. 149-161. Includes references. (NAL Call No.: DNAL QK745.J6).

0367

Regulation of fruit set in *Cucumis sativus* (cucumber) by auxin and an auxin transport inhibitor.

Watkins, J.T. Cantliffe, D.U. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. July 1980. v. 105 (4). p. 603-607. ill. 11 ref. (NAL Call No.: 81 S012).

0368

The regulation of gelation of phloem exudate from *Cucurbita* fruit by dilution, glutathione, and glutathione reductase.

PLPHA. Alosi, M.C. Melroy, D.L.; Park, R.B. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Apr 1988. v. 86 (4). p. 1089-1094. Includes references. (NAL Call No.: DNAL 450 P692).

0369

Release of Ca^{2+} from plant hypocotyl microsomes by inositol-1,4,5-trisphosphate.

BBRCA. Drobak, B.K. Ferguson, I.B. New York, N.Y. : Academic Press. Biochemical and biophysical research communications. Aug 15, 1985. v. 130 (3). p. 1241-1246. Includes 21 references. (NAL Call No.: DNAL 442.8 B5236).

0370

Removal forces for pickling cucumbers (Removal from plants, harvesting).

Casada, J.H. Walton, L.R.; Swetnam, L.D.; Wood, R.K.; Roberts, C.R. St. Joseph, Mich. : The Society. Paper - American Society of Agricultural Engineers (Microfiche collection). 1982. Paper presented at the 1982 Summer Meeting of the American Society of Agricultural Engineers. Available for purchase from: The

American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. 1982. (fiche no. 82-3058). 1 microfiche : ill. Includes references. (NAL Call No.: FICHE S-72).

0374

Salinity effects on germination, growth, and yield of two squash cultivars.
HUJSA. Francois, L.E. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1985. v. 20 (6). p. 1102-1104. Includes references. (NAL Call No.: DNAL SB1.H6).

0371

Response of cantaloupe and cotton plants to the antitranspirant Farnesol.

Walter, H. Gausman, H.W.; Escobar, D.E.; Rodriguez, R.R.; Rittig, F.R. Westlaco, Tex., The Society. Journal of the Rio Grande Valley Horticultural Society. 1982. v. 35. p. 27-33. Includes 10 ref. (NAL Call No.: 81 L95).

0375

Salinity influences cucumber growth and yield.
JOSHB. Jones, R.W. Jr. Pike, L.M.; Yourman, L.F. Alexandria, Va. : The Society. Germination and radicle elongation experiments were performed with six cultivars of cucumber (*Cucumis sativus* L.) at seven salinity concentrations (0, 0.8, 4.0, 6.0, 9.0, 12, and 15 dS.m⁻¹). Increasing salinity has no effect on final germination percentage after 5 days, but did decrease radicle elongation. In seedling growth studies with salinity levels ranging from 0.8 to 12 dS.m⁻¹, increasing salt levels decreased shoot length and shoot dry weight. Analysis of shoot tissue from these seedlings indicated that higher salinity levels increased concentrations of Ca and Na, while Mg and K concentrations decreased. Yield and fruit quality were measured in a greenhouse study at two salinity levels (1.6 and 4.0 dS.m⁻¹). Salinity significantly decreased fruit yield in five of six cultivars, but had no effect on fruit quality. Seedling shoot length of a cultivar grown at 9.0 dS.m⁻¹ was correlated with relative yield at 4.0 dS.m⁻¹. A salinity screening technique based on this relationship is proposed. Journal of the American Society for Horticultural Science. July 1989. v. 114 (4). p. 547-551. Includes references. (NAL Call No.: DNAL 81 S012).

0372

Responses of parthenocarpic cucumbers to low-oxygen storage.

JOSHB. Kanellis, A.K. Morris, L.L.; Saltveit, M.E. Jr. Alexandria, Va. : The Society. Parthenocarpic cucumber fruit (*Cucumis sativus* L. cv. Deliva) of marketable maturity (10 to 14 days after anthesis) were held at 12.5 degrees or 20 degrees C in reduced O₂ levels for 5 or 18 days before transfer to air. Carbon dioxide production at reduced O₂ levels was generally less than in air; however, at O₂ levels less than 0.5%, anaerobic respiration resulted in increased rates of CO₂ production. Upon transfer to air after 18 days, all samples from reduced O₂ showed increased CO₂ production rates that equalled or exceeded that of the air controls. Except at 0.0% and 0.25% O₂ levels, ethylene production was increased in reduced O₂. After transfer to air, ethylene production increased and the increase was inversely related to the previous O₂ level. Ethanol and acetaldehyde production were measureable for fruit held in 1% O₂ after 18 days at 12.5 degrees and showed dramatic increases at lower O₂ levels. Low-O₂ injury (pitting) developed on most fruit held at 0.0% O₂ and on many fruit held at 0.25% O₂. Only minimal commercial benefits are likely to be realized from storage of 1 to 3 weeks in 0.5% to 2.0% O₂ at 12.5 degrees. Journal of the American Society for Horticultural Science. Sept 1988. v. 113 (5). p. 734-737. Includes references. (NAL Call No.: DNAL 81 S012).

0376

Salt tolerance of two muskmelon cultivars under two radiation levels.

Meiri, A. JOSHB. Hoffman, G.J.; Shannon, M.C.; Poss, J.A. Alexandria : The Society. Journal of the American Society for Horticultural Science. Nov 1982. v. 107 (6). p. 1168-1172. ill. 12 ref. (NAL Call No.: 81 S012).

0373

Reversal of fluridone-reduced chlorophyll accumulation in cucumber (*Cucumis sativus*) cotyledons by stimulatory compounds.

WEESA6. Fletcher, R.A. Meru, S.V.; Bhardwaj, S.N. Champaign, Ill. : Weed Science Society of America. Weed science. Nov 1984. v. 32 (6). p. 722-726. Includes 17 references. (NAL Call No.: DNAL 79.8 W41).

0377

Scytalone as a natural intermediate of melanin biosynthesis in appressoria of *Colletotrichum lagenarium* (Phytopathogenic fungi, pathogenicity tests with cucumbers, *Cucumis sativus*).

Kubo, Y. EXMYD. Suzuki, K.; Furusawa, I.; Yamamoto, M. New York : Academic Press. Experimental mycology. Sept 1983. v. 7 (3). p. 208-215. ill. Includes references. (NAL Call No.: QK600.E9).

0378

Seed and soil treatments to improve emergence of muskmelon from cold or crusted soils.

CRPSAY. Bradford, K.J. May, D.M.; Hoyle, B.J.; Skibinski, Z.S.; Scott, S.J.; Tyler, K.B. Madison, Wis. : Crop Science Society of America. Cold soil temperatures, seedling diseases, and soil crusting may limit stand establishment of early-season muskmelons (*Cucumis melo* L.). We tested the ability of seed and soil treatments to overcome these factors and improve seedling emergence. The seed treatments were priming (6 d at 25 degrees C in aerated 0.3 M KNO₃ solution followed by drying) to improve the rate of germination at low temperatures, and metalaxyl

N-(2,6-dimethylphenyl)-N-(methoxyacetyl) alanine methyl ester fungicide (Apron 25W) to prevent damping-off diseases. The soil treatments were spot applications of soil drenches containing metalaxyl fungicide (100 microgram L⁻¹ Ridomil 2E), an anticrustant 2% Nalco 2190, (Nalco Chemical Corp, Carson, CA) or both fungicide and anticrustant. In laboratory tests at 18 degrees C, both germination rate and final germination were markedly improved by seed priming in 'PMR 45', 'Magnum 45', 'Topmark', and 'Topscore' plants. Seedling emergence from sterilized soil in flats under ambient outdoor temperatures (7-23 degrees C) was also improved by seed priming. Seed priming resulted in more rapid emergence or increased final emergence in five of seven field trials in two locations. Anticrustant applications to the soil covering the seed consistently improved stand establishment, particularly in badly crusted soils. Metalaxyl application to the seed or soil generally improved emergence, but the effect varied with cultivar, location, and planting method. None of the treatments significantly influenced final fruit yield. The combination of seed priming, fungicides, and anticrustants could allow lower seeding rates of expensive hybrid seed while achieving earlier emergence and adequate plant densities in early-season muskmelon crops. Crop science. Nov/Dec 1988. v. 28 (6). p. 1001-1005. Includes references. (NAL Call No.: DNAL 64.8 C883).

0379

Selectivity mechanisms for foliar applications of diclofop-methyl. II. Metabolism (Studies with weeds, proso millet, soybeans and cucumber, uptake, tolerance).

Boldt, P.F. Putnam, A.R. Champaign, Ill., Weed Science Society of America. Weed science. Mar 1981. v. 29 (2). p. 237-241. ill. 15 ref. (NAL Call No.: 79.8 W41).

0380

Shifts in the carbon metabolism of *Xerosicyos danguyi* H. Humb. (Cucurbitaceae) brought about by water stress. II. Enzymology (Succulent plants).

Rayder, L.PLPHA. Ting, I.P. Rockville : American Society of Plant Physiologists. Plant

physiology. July 1983. v. 72 (3). p. 611-615. Includes references. (NAL Call No.: 450 P692).

0381

Shifts in the carbon metabolism of *Xerosicyos danguyi* H. Humb. (Cucurbitaceae) brought about by water stress. I. General characteristics (Succulent plants).

Rayder, L.PLPHA. Ting, I.P. Rockville : American Society of Plant Physiologists. Plant physiology. July 1983. v. 72 (3). p. 606-610. ill. Includes references. (NAL Call No.: 450 P692).

0382

Short-term cooling of cucumber roots alters leaf carbohydrate metabolism.

HJHSA. Robbins, N.S. Pharr, D.M. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1989. v. 24 (1). p. 140-142. Includes references. (NAL Call No.: DNAL SB1.H6).

0383

Solar radiation influences solar yellowing, chilling injury, and ACC accumulation in 'Honey Dew' melons.

JOSH.B. Lipton, W.J. Peterson, S.J.; Wang, C.Y. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1987. v. 112 (3). p. 503-505. Includes references. (NAL Call No.: DNAL 81 S012).

0384

Solution depth affects root morphology and growth of cucumber plants grown in circulating nutrient solution.

JOSH.B. Chung, G.C. Rowe, R.N.; Field, R.J. Alexandria, Va. : The Society. Defruited cucumber (*Cucumis sativus* L.) plants were grown hydroponically for 28 days in containers with 4.5 liters of capacity, in which constant solution depths of 1, 5, 50, and 170 mm were maintained. The plants grown in the 1- and 5-mm-deep solutions grew more slowly than those in the deeper solutions. Both root and shoot growth were reduced at the shallow depths, but shoot growth was affected more than root growth. Thus, the shoot : root ratios were considerably smaller in the shallower than in the deeper solutions. The root systems in the shallower solutions, initially, were relatively more branched than in the deeper solutions. The shallow solutions caused the plants to allocate a higher proportion of their photosynthetic resources to the root at the expense of leaf growth. In the shallow solutions, a progressively higher proportion of this root growth became exposed above the solution, and, therefore, could not contribute to the absorption of water and nutrients. Control of solution depth may be a useful tool for

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controlling the vigor of the shoots of cucumber and the data presented may explain why growth problems have been experienced with this crop, particularly where a very thin film of nutrient is used, as in nutrient film technique. *Journal of the American Society for Horticultural Science*. Nov 1989. v. 114 (6). p. 890-893. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0385

Solution volume and seed number: often overlooked factors in allelopathic bioassays.
JCECD. Weidenhamer, J.D. Morton, T.C.; Romeo, J.T. New York, N.Y. : Plenum Press. *Journal of chemical ecology*. June 1987. v. 13 (6). p. 1481-1491. Includes references. (NAL Call No.: DNAL QD415.A1J6).

0386

Source limitation by defoliation and its effect on dry matter production and yield of cucumber.
HUHSA. Ramirez, D.R. Wehner, T.C.; Miller, C.H. Alexandria, Va. : American Society for Horticultural Science. *HortScience*. Aug 1988. v. 23 (4). p. 704-706. Includes references. (NAL Call No.: DNAL SB1.H6).

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The speed at which ethephon enters cucumber leaves.
HUHSA. Miller, C.H. Sheets, S.M. Alexandria, Va. : American Society for Horticultural Science. *HortScience*. Apr 1986. v. 21 (2). p. 276-278. Includes references. (NAL Call No.: DNAL SB1.H6).

0388

The squash family of serine proteinase inhibitors. Amino acid sequences and association equilibrium constants of inhibitors from squash, summer squash, zucchini, and cucumber seeds.
BBRCA. Wiczorek, M. Otlewski, J.; Cook, J.; Parks, K.; Leluk, J.; Wilimowska-Pelc, A.; Polanowski, A. Wilusz, T.; Laskowski, M. Jr. New York, N.Y. : Academic Press. *Biochemical and biophysical research communications*. Jan 31, 1985. v. 126 (2). p. 646-652. Includes references. (NAL Call No.: DNAL 442.8 B5236).

0389

Staminate floral induction on gynoeious buffalo gourd following application of AVG.
HUHSA. Scheerens, J.C. Scheerens, H.M.; Ralowicz, A.E.; McGriff, T.L.; Kopplin, M.U.; Gathman, A.C. Alexandria, Va. : American Society for Horticultural Science. *HortScience*. Feb 1988. v. 23 (1). p. 138-140. Includes

references. (NAL Call No.: DNAL SB1.H6).

0390

Sterol composition during the life cycle of the soybean and the squash.
LPDSAP. Fenner, G.P. Patterson, G.W.; Koines, P.M. Champaign, Ill. : American Oil Chemists' Society. *Lipids*. Jan 1986. v. 21 (1). p. 48-51. ill. Includes 31 references. (NAL Call No.: DNAL QP751.L5).

0391

Sterol compositions of seeds and mature plants of family Cucurbitaceae.
JUASDH. Akihisa, T. Ghosh, P.; Thakur, S.; Rosenstein, F.U.; Matsumoto, T. Champaign, Ill. : The Society. *Journal of the American Oil Chemists' Society*. May 1986. v. 63 (5). p. 653-658. Includes 26 references. (NAL Call No.: DNAL 307.8 J82).

0392

Studies on the mechanism of photoinhibition in higher plants. I. Effects of high light intensity on chloroplast activities in cucumber adapted to low light.
Critchley, C. Rockville, Md., American Society of Plant Physiologists. *Plant physiology*. June 1981. v. 67 (6). p. 1161-1165. ill. 23 ref. (NAL Call No.: 450 P692).

0393

A study of the mitochondria and plastids in *Cucurbita maxima* cotyledons during germination / by John Norman Arthur Lott. -
Lott, John Norman Arthur, 1943-. 1969. Thesis (Ph.D.)--University of California, Davis, 1969. Photocopy. Ann Arbor, Mich. : University Microfilms, 1970. v. 242 leaves : ill. ; 21 cm. Bibliography: leaves 221-242. (NAL Call No.: DISS 70-3,144).

0394

Synthesis and biological activity of an azido derivative of paclobutrazol, an inhibitor of gibberellin biosynthesis.
PLPHA. Hallahan, D.L. Heasman, A.P.; Grossel, M.C.; Quigley, R.; Hedden, P.; Bowyer, J.R. Rockville, Md. : American Society of Plant Physiologists. *Plant physiology*. Dec 1988. v. 88 (4). p. 1425-1429. Includes references. (NAL Call No.: DNAL 450 P692).

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0395

Synthesis, salvage, and catabolism of uridine nucleotides in boron-deficient squash roots.
Lovatt, C.J. Albert, L.S.; Tremblay, G.C.
Rockville, Md., American Society of Plant Physiologists. Plant physiology. Dec 1981. v. 68 (6). p. 1389-1394. 37 ref. (NAL Call No.: 450 P692).

0396

Temperature effects on the activity of the alternative respiratory pathway in chill-sensitive *Cucumis sativus* (Cucumber seedlings).
Kiener, C.M. Bramlage, W.J. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Dec 1981. v. 68 (6). p. 1474-1478. 20 ref. (NAL Call No.: 450 P692).

0397

Tissue culture propagation of buffalo gourd.
HJHSA. Lee, C.W. Thomas, J.C. Alexandria, Va. : American Society for Horticultural Science. HortScience. Apr 1985. v. 20 (2). p. 218-219. ill. Includes 7 references. (NAL Call No.: DNAL SB1.H6).

0398

Transfer cell formation in the root epidermis: a prerequisite for Fe (iron) efficiency? (*Nicotiana tabacum*, tobacco, *Lycopersicon esculentum*, tomatoes, *Cucumis sativus*, cucumbers, *Glycine max*, soybeans).
Landsberg, E.C. New York ; Basel : Marcel Dekker, 1982. Iron nutrition and interactions in plants : Brigham Young University, August 12-14, 1981 / edited by S.D. Nelson ... (et al.). p. 415-432. ill. 30 ref. (NAL Call No.: QK867.J67 v. 5, nos. 4-7).

0399

Two different families of hydroxyproline-rich glycoproteins in melon callus. Biochemical and immunochemical studies.
PLPHA. Mazau, D. Rumeau, D.; Esquerre-Tugaye, M.T. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Feb 1988. v. 86 (2). p. 540-546. ill. Includes references. (NAL Call No.: DNAL 450 P692).

0400

Uniconazole-induced alleviation of low-temperature damage in relation to antioxidant activity.
HJHSA. Upadhyaya, A. Davis, T.D.; Walser, R.H.; Galbraith, A.B.; Sankhla, N. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1989. v. 24 (6). p. 955-957.

Includes references. (NAL Call No.: DNAL SB1.H6).

0401

Variation and function of cucurbitacins in *Cucurbita*: an examination of current hypotheses.
AMNTA. Tallamy, D.W. Krischik, V.A. Chicago, Ill. : University of Chicago Press. The American naturalist. June 1989. v. 133 (6). p. 766-786. Includes references. (NAL Call No.: DNAL 470 AM36).

0402

Water relations of seed development and germination in muskmelon (*Cucumis melo* L.). I. Water relations of seed and fruit development.
PLPHA. Welbaum, G.E. Bradford, K.J. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Feb 1988. v. 86 (2). p. 406-411. Includes references. (NAL Call No.: DNAL 450 P692).

0403

Water stress effects on pickling cucumber.
Ortega, D.G. Kretchman, D.W. Alexandria, Va., The Society. Journal of the American Society for Horticultural Science. May 1982. v. 107 (3). p. 409-412. 22 ref. (NAL Call No.: 81 S012).

0404

Wound healing in stems of lianas after twisting and girdling injuries.
BOGAA. Fisher, J.B. Ewers, F.W. Chicago, Ill. : University of Chicago Press. Botanical gazette. Sept 1989. v. 150 (3). p. 251-265. ill. Includes references. (NAL Call No.: DNAL 450 B652).

0405

10alpha-cucurbita-5, 24-dien-3beta-ol from gourd seed oil.
Itoh, T. Tamura, Tsutomu; Jeong, T.M.; Tamura, T.; Matsumoto, T. Champaign, Ill., American Oil Chemists' Society. Lipids. Feb 1980. v. 15 (2). p. 122-123. ill. 9 ref. (NAL Call No.: QP751.L5).

0406

(24R)-14alpha-Methyl-24-ethyl-5alpha-cholest-9-(11)-en-3beta-ol: a new 14alpha-methylsterol from *Cucumis sativus*.
LPDSAP. Akihisa, T. Shimizu, N.; Tamura, T.; Matsumoto, T. Champaign, Ill. : American Oil Chemists' Society. Lipids. Aug 1986. v. 21 (8).

p. 491-493. Includes references. (NAL Call No.: DNAL QP751.L5).

0407

3,4,5-Triiodobenzoic acid affects 3H verapamil binding to plant and animal membrane fractions and smooth muscle contraction.

BBRCA. Andrejauskas, E. Hertel, R.; Marme, D. Duluth, Minn. : Academic Press. Biochemical and biophysical research communications. Aug 14, 1986. v. 138 (3). p. 1269-1275. Includes references. (NAL Call No.: DNAL 442.8 B5236).

0408

4-Amino-5-hexynoic acid--a potent inhibitor of tetrapyrrole biosynthesis in plants.

PLPHA. Elich, T.D. Lagarias, J.C. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Nov 1988. v. 88 (3). p. 747-751. Includes references. (NAL Call No.: DNAL 450 P692).

0409

5'-azido-N-1-naphthylphthalamic acid, a photolabile analog of n-1-naphthylphthalamic acid. Synthesis and binding properties in *Curcubita pepo* L.

PLPHA. Voet, J.G. Howley, K.S.; Shumsky, J.S. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Sept 1987. v. 85 (1). p. 22-25. Includes references. (NAL Call No.: DNAL 450 P692).

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0410

Taxonomic rank and rarity of *Cucurbita okeechobeensis*.

Andres, T.C. Nabhan, G.P. College Park, Md. : Department of Horticulture, University of Maryland. Report: Cucurbit genetics cooperative. July 1988. (11). p. 83-85. Includes references. (NAL Call No.: DNAL SB337.C94).

PROTECTION OF PLANTS

0411

Ashe and Fletcher two downy mildew and scab resistant cucumbers / prepared by W.S. Barham, N.N. Winstead .

Barham, W. S. 1919-. Winstead, Nash Nicks, 1925-. Raleigh, N.C. : Agricultural Experiment Station, N.C. State College 1959. Cover title.~ "June, 1959."--P. 2 . 7 p. : ill. ; 23 cm. Bibliography: p. 4 of cover. (NAL Call No.: DNAL 100 N81 (1) no.409).

0412

Cantaloupes (Cultivation, varieties, pests and diseases).

McLaurin, W.J. Barber, J.M.; Colditz, P. Athens, Ga. : The Service. Circular - Cooperative Extension Service, University of Georgia. Oct 1983. Oct 1983. (480,rev.). 3 p. (NAL Call No.: 275.29 G29C).

0413

Cantaloupes without calamity.

ORGAA. Sussman, V. Emmaus, Pa. : Rodale Press. Organic gardening. May 1985. v. 32 (5). p. 56-59, 62-64. ill. (NAL Call No.: DNAL 57.8 DR32).

0414

Control of cucumber foliar diseases, fruit rot, and nematodes by chemicals (chlorothalonil, mancozeb, phenamiphos) applied through overhead sprinkler irrigation.

Summer, D.R. Phatak, S.C.; Smittle, D.; Johnson, A.W.; Glaze, N.C. St. Paul, Minn., American Phytopathological Society. Plant disease. May 1981. v. 65 (5). p. 401-404. 16 ref. (NAL Call No.: 1.9 P69P).

0415

Cucurbit diseases in North Carolina and their control / D.E. Ellis .

Ellis, D. E. 1908-. Raleigh, N.C. : Agricultural Experiment Station, 1953. Cover title.~ "August, 1953."~ "A N.C. State College publication.". 11 p. : ill. ; 28 cm. (NAL Call No.: DNAL 100 N81 (1) no.380).

0416

Effect of hydrocyanic acid gas on cucumber plants previously sprayed with copper fungicides /by E.F. Guba and E.B. Holland.

Guba, Emil Frederick, 1897-. Holland, E. B. 1872-. Amherst, Mass. : Massachusetts State College, 1933. Cover title. 16 p. : ill. ; 23 cm. Bibliography: p. 16. (NAL Call No.: DNAL 100 M38H (1) no.303).

0417

Growing watermelons.

Williams, J.L. Gazaway, W.S.; Strother, G.; Patterson, M. Auburn, Ala. : The Service. Circular ANR - Cooperative Extension Service, Auburn University. Nov 1986. (81). 4 p. ill. (NAL Call No.: DNAL S544.3.A2C47).

0418

Influence of fumigation on the sowing qualities of vegetable (cucumber, tomato, onion and beet) seeds.

Kononkov, P.F. Mordkovich, YA.B.; Kuznetsov, I.D. New York, Allerton Press. Soviet agricultural sciences. 1979. 1979. (4). p. 16-18. 2 ref. (NAL Call No.: S1.S68).

0419

Pest control in commercial pickling cucumber production.

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison, Wis. : The Research Division. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. Dec 1985. (A2358). 4 p. ill. (NAL Call No.: DNAL S544.3.W6W53).

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Pest control in commercial pickling cucumber production.

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison, Wis., The Programs. Publication - Cooperative Extension Programs, University of Wisconsin Extension. May 1981. May 1981. (A2358). 4 p. ill. (NAL Call No.: S544.3.W6W53).

0421

Pest control in commercial pickling cucumber production (Weeds, insects and diseases).

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. Jan 1983. Jan 1983. (2358). 4 p. ill. (NAL Call No.: S544.3.W6W53).

0422

Pest control in commercial vine crop production (Weed, insect and disease control in watermelons and cucurbits in Wisconsin).

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. Jan 1983. Jan 1983. (2465). 12 p. ill. (NAL Call No.: S544.3.W6W53).

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0423

Recommendations for cucumber, muskmelon, and watermelon disease control.

Latin, R.X. West Lafayette : The Service. BP - Purdue University, Cooperative Extension Service. Nov 1986. (18). 2 p. (NAL Call No.: DNAL SB950.2.I6B6).

0424

Reference guide for melon disease control.

Latin, R.X. West Lafayette : The Service. BP - Purdue University, Cooperative Extension Service. Dec 1984. (7,rev.). 4 p. (NAL Call No.: DNAL SB950.2.I6B6).

0425

Squash production.

Gazaway, W.S. Patterson, M.; Brown, S.L.; Williams, J.L.; Marvel, M. Auburn, Ala. : The Service. Circular ANR - Cooperative Extension Service, Auburn University. In subseries: Horticulture. Aug 1987. (75). 4 p. ill. (NAL Call No.: DNAL S544.3.A2C47).

0426

Squash production in Florida.

Olson, S.M. Sherman, M. Gainesville, Fla. : The Service. Circular - Florida Cooperative Extension Service. 1985. (103). 4 p. ill. (NAL Call No.: DNAL 275.29 F66C).

0427

Sweet Princess a high quality, disease resistant watermelon, with a wide range of adaptation / prepared by Warren R. Henderson, Nash N. Winstead, S.F. Jenkins, Jr. .

Henderson, Warren R. Winstead, Nash Nicks, 1925-; Jenkins, S. F. Raleigh, N.C. : Agricultural Experiment Station, North Carolina State University at Raleigh, 1967. Cover title.~ "May, 1967."--P. 2 of cover. 11 p. : ill. ; 23 cm. Bibliography: p. 11. (NAL Call No.: DNAL 100 N81 (1) no.431).

PESTS OF PLANTS - GENERAL AND MISC.

0428

Cantaloupe production.

Williams, J.L. Gazaway, W.S.; Strother, G.;
Patterson, M. Auburn, Ala. : The Service.
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Auburn University. In subseries: Horticulture.
Apr 1987. (109). 4 p. ill. (NAL Call No.: DNAL
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PESTS OF PLANTS - INSECTS

0429

Abundance, distribution, and dispersion indices of the oriental fruit fly and melon fly (Diptera: Tephritidae) on Kauai, Hawaiian Islands.

JEENAI. Vargas, R.I. Stark, J.D.; Nishida, T. Lanham, Md. : Entomological Society of America. Capture rates for male oriental fruit fly, *Dacus dorsalis* Hendel, were 5-10 times higher on the windward side than on the leeward side of the island of Kauai. In contrast, capture rates for melon fly, *D. cucurbitae* Coquillett, were 3-8 times higher on the leeward side than on the windward side of the island. Peak *D. dorsalis* trap captures occurred during spring and fall after guava, *Psidium guajava* L. and *P. cattleianum* Sabine, fruited in a guava belt above coastal agricultural areas. Peak *D. cucurbitae* trap captures occurred during winter and spring after the wild hosts bitter melon, *Momordica charantia* L., and spiny cucumber, *Cucumis dipsaceus* Ehrenberg ex Spach, fruited and during summer when truck crops were cultivated in agricultural areas. In a typical agricultural area, *D. dorsalis* capture rates were higher outside than inside crop production areas. In contrast, *D. cucurbitae* capture rates were higher inside than outside crop production areas. Results are discussed with respect to population management programs for fruit flies. *Journal of economic entomology*. Dec 1989. v. 82 (6). p. 1609-1615. maps. Includes references. (NAL Call No.: DNAL 421 J822).

0430

Activity of avermectin B1 against the striped cucumber beetle (Coleoptera: Chrysomelidae). JEENAI. Reed, D.K. Reed, G.L. College Park, Md. : Entomological Society of America. *Journal of economic entomology*. Aug 1986. v. 79 (4). p. 943-947. Includes references. (NAL Call No.: DNAL 421 J822).

0431

Arthropod control on cucurbits and eggplant (Florida).

Schuster, D.J. S.I., The Society. Proceedings of the ... annual meeting of the Florida State Horticultural Society. 1981 (pub. 1982). v. 94. p. 147-149. Includes 3 ref. (NAL Call No.: 81 F66).

0432

Assessment of numbers of striped cucumber beetle adults and frequency of feeding injury on muskmelon cultivars.

PIACA. Reed, G.L. Reed, D.K. Indianapolis, Ind. : The Academy. Proceedings of the Indiana Academy of Science. Includes abstract. 1985. v. 94. p. 304. (NAL Call No.: DNAL 500 IN2).

0433

Biology and control of the southern corn rootworm /by F.S. Arant.

Arant, Frank Salman, 1904-. Auburn, Ala. : Agricultural Experiment Station of The Alabama Polytechnic Institute, 1929. Cover title. 46 p. : ill. ; 23 cm. Bibliography: p. 44-46. (NAL Call No.: DNAL 100 AL1s (1) no.230).

0434

The biology and control of the striped cucumber beetle / George E. Gould .

Gould, George Edward, 1905-. Lafayette, Ind. : Purdue University Agricultural Experiment Station, 1944. Based on the author's theses (Ph.D.--Purdue University, 1942). Cover title. 28 p. ; 23 cm. Bibliography: p. 26-28. (NAL Call No.: DNAL 100 In2P no.490).

0435

Bitter battles with cucumber beetles.

Pleasant, B. Emmaus, Pa. : Rodale Press. *Rodale's organic gardening*. June 1986. v. 33 (6). p. 42-44, 46, 48. ill. (NAL Call No.: DNAL S605.5.R64).

0436

California adds another fruit fly to invader list.

Los Angeles, Calif. : California Citrograph Pub. Co. Citrograph. Aug 1985. v. 70 (10). p. 223. (NAL Call No.: DNAL 80 C125).

0437

Chemical feeding deterrent mobilized in response to insect herbivory and counteradaptation by *Epilachna tredecimnotata* (Pest of *Cucurbita moschata*).

Carroll, C.R. Hoffman, C.A. Washington, D.C., American Association for the Advancement of Science. *Science*. July 18, 1980. v. 209 (4454). p. 414-416. 14 ref. (NAL Call No.: 470 SCI2).

0438

Comparative ecological studies of indigenous egg parasitoids (Hymenoptera: Scelionidae; Encyrtidae) of the squash bug, *Anasa tristis* (Hemiptera: Coreidae).

JKESA. Nechols, J.R. Vogt, E.A. Lawrence, Kan : The Society. *Journal of the Kansas Entomological Society*. Apr 1989. v. 62 (2). p. 177-188. Includes references. (NAL Call No.: DNAL 420 K13).

0439

Comparative rotenone toxicity in the predator, *Amblyseius fallacis* (Acari: Phytoseidae), and the herbivore, *Tetranychus urticae* (Acari: Tetranychidae), grown on lima beans and cucumbers.

EVETEX. Strickler, K. Croft, B.A. College Park, Md. : Entomological Society of America. Environmental entomology. June 1985. v. 14 (3). p. 243-246. ill. Includes references. (NAL Call No.: DNAL QL461.E532).

0440

A comparison of longevity and fecundity of adult *Trichogramma platneri* (Hymenoptera: Trichogrammatidae) reared from eggs of the cabbage looper and the angumous grain moth, with and without access to honey.

JEENAI. Hohmann, C.L. Luck, R.F.; Datman, E.R. College Park, Md. : Entomological Society of America. The effects of *Sitotroga cerealella* (Olivier) and *Trichoplusia ni* (Hubner) eggs on the size, fecundity, and longevity, and of honey on the fecundity and longevity of *Trichogramma platneri* Nagarkatti were investigated. Variation in the average length of the hind tibiae (HTL), a measure of a wasp's body size, accounted for 72% of the variance in the number of mature eggs present in the ovaries of a 24-h-old *T. platneri*. Females with longer HTLs produced significantly more eggs and lived longer than did those with shorter HTLs. Large females (HTL = 0.21 +/- 0.009 mm, -/x +/- SD) produced 2.3 times more offspring than medium-sized females (HTL = 0.17 +/- 0.009 mm) and 5.5 times more than small females (HTL = 0.15 +/- 0.004 mm). Females reared from *S. cerealella* eggs were significantly smaller (HTL = 0.14 +/- 0.006 mm) than those reared from *T. ni* eggs (HTL = 0.17 +/- 0.020 mm) and produced fewer offspring (18.2 +/- 13 eggs versus 42.6 +/- 25 eggs, respectively); hence, *S. cerealella* eggs apparently produce low-quality *T. platneri* females. Furthermore, *T. platneri* lived longer with than without honey whether or not host eggs were present. Thus, the absence of a carbohydrate source (e.g., honey or honeydew) at the time of field release may limit the effectiveness of *T. platneri*. Journal of economic entomology. Oct 1988. v. 81 (5). p. 1307-1312. Includes references. (NAL Call No.: DNAL 421 J822).

0441

Comparison of thermal responses, reproductive biologies, and population growth potentials of the squash bug egg parasitoids *Ooencyrtus anasae* and *O. sp.* (Hymenoptera: Encyrtidae).

EVETEX. Tracy, J.L. Nechols, J.R. College Park, Md. : Entomological Society of America. Laboratory investigations of the gregarious squash bug egg parasitoids *Ooencyrtus anasae* (Ashmead) and *O. sp.* were conducted at 20.8, 23.0, and 26.6 degrees C. Females of both species emerged with undeveloped ovaries. Oocyte development proceeded during the preovipositional period (ca. 35 h at 26.6

degrees C) but did not exceed half of the total fecundity at initial oviposition. Preovipositional periods, time to peak oviposition, and time to 75% oviposition were generally similar for both parasitoids at 20.8 degrees C. However, reproductive responses differed at temperatures above 20.8 degrees C. In *O. anasae*, oviposition occurred significantly earlier, and at a similarly higher rate, at 23.0 and 26.6 degrees C than at 20.8 degrees C, whereas significant changes in preovipositional and ovipositional biology of *O. sp.* occurred only after an increase from 23.0 to 26.6 degrees C. *O. sp.* had a significantly higher fecundity and longer ovipositional period at each temperature than did *O. anasae*. Mean fecundities did not change significantly with increasing temperature. Both parasitoids had an unusually long postreproductive period (ca. 1 mo) and a longevity of 40 to 50 d. At 26.6 degrees C, *O. sp.* had higher gross and net reproductive rates than *O. anasae*. However, *O. anasae* had a shorter generation time (21.4 versus 23.8 d) and higher innate capacity for increase (0.146 versus 0.134). Environmental entomology. Aug 1988. v. 17 (4). p. 636-643. Includes references. (NAL Call No.: DNAL QL461.E532).

0442

Compatibility of fungicide-insecticide combinations for disease and pickleworm control on honeydew melon.

Dougherty, D.E. Schuster, D.J. s.l. : The Society. Proceedings of the ... annual meeting of the Florida State Horticulture Society. June 1985. v. 97. p. 205-208. Includes references. (NAL Call No.: DNAL SB319.2.F6F56).

0443

Composition of the floral odor of *Cucurbita maxima* Duchesne (Cucurbitaceae).

JAFCAU. Andersen, J.F. Washington, D.C. : American Chemical Society. Journal of agricultural and food chemistry. Jan/Feb 1987. v. 35 (1). p. 60-62. Includes references. (NAL Call No.: DNAL 381 J8223).

0444

Control of insect pests of cucumber and squash /by E.G. Kelsheimer.

Kelsheimer, E. G. Gainesville, Fla. : University of Florida Agricultural Experiment Station, 1949. Cover title.~ "A contribution from the Vegetable Crops Laboratory"--T.p. 15 p. ; 23 cm. (NAL Call No.: DNAL 100 F66S (1) no.465).

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0445

Control of insect pests of cucumbers.
Hofmaster, R.N. VA. Norfolk, Va., The Service.
The Vegetable growers news. Virginia Polytechnic
Institute and State University. Cooperative
Extension Service. Apr 1980. v. 34 (10). p. 1.
(NAL Call No.: 275.28 V52).

0446

Control of insects and diseases of cucumbers.
Jones, B.F. Johnson, D.R.; McDaniel, M.C.
Little Rock, Ark. : The Service. EL -
University of Arkansas, Cooperative Extension
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0447

Control of insects and diseases of cucumbers.
Jones, B.F. Johnson, D.R.; McDaniel, M.C.;
Hirrel, M.C. Little Rock, Ark. : The Service.
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(NAL Call No.: DNAL 275.29 AR4LE).

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Control of insects and diseases of cucumbers.
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0449

**Control of insects and diseases of cucumbers
(Arkansas).**
Jones, B.F. Johnson, D.R.; McDaniel, M.C.;
Hirrel, M.C. Little Rock, Ark., The Service.
Leaflet EL - Arkansas University, Cooperative
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0450

**Control of red spider and powdery mildew on
greenhouse cucumbers /by W.D. Whitcomb and E.F.
Guba.**
Whitcomb, W. D. 1895-. Guba, Emil
Frederick, 1897-. Amherst, Mass. :
Massachusetts Agricultural Experiment Station,
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0451

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Chittenden, F. H. Washington, D.C. : U.S. Dept.
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0452

**The control of the squash vine borer in
Massachusetts /by Harlan N. Worthley.**
Worthley, Harlan Noyes, 1895-. Amherst, Mass. :
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**Control of the striped cucumber beetle /by H.D.
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0454

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0455

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Sanborn, C. E. 1877-. Stillwater, Okla. :
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0456

**Cucumber and other cucurbit species disorder:
bacterial wilt.**
Heimann, M.F. Pellitteri, P.U. Madison, Wis. :
The Programs. Publication - Cooperative
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0457

Cucumber beetles.

Ghidiu, G.M. New Brunswick, N.J. : The Service. FS - Cooperative Extension Service, Cook College. 1987. (225). 2 p. ill. (NAL Call No.: DNAL S544.3.N5F7).

0458

Cucurbit insect control.

York, Alan C. Document available from: Purdue University, Publication Mailing Room, 301 South Second Street, Lafayette, Indiana 47905 1978. Includes cucumber beetles, mites, aphids, squash bug, vine borer, seed corn maggot and their control. 4 p. : ill. (NAL Call No.: Document available from source.)(NAL Call No.: E-30).

0459

Development of summer squash seedlings damaged by striped and spotted cucumber beetles (Coleoptera: Chrysomelidae).

JEENAI. Brewer, M.J. Story, R.N.; Wright, V.L. College Park, Md. : Entomological Society of America. Journal of economic entomology. Oct 1987. v. 80 (5). p. 1004-1009. Includes references. (NAL Call No.: DNAL 421 J822).

0460

Effect of beetle regurgitant on plant virus transmission using the gross wounding technique.

PHYTAJ. Monis, J. Scott, H.A.; Gergerich, R.C. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Aug 1986. v. 76 (8). p. 808-811. Includes references. (NAL Call No.: DNAL 464.8 P56).

0461

The effect of black plastic film mulch and furadan upon yield of muskmelon infested with larvae of the striped cucumber beetle.

Reed, G.L. Reed, D.K.; York, A.C. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1987. v. 20. p. 206-208. Includes references. (NAL Call No.: DNAL 309.9 N216).

0462

Effect of root feeding by striped cucumber beetle larvae on the incidence and severity of Fusarium wilt of muskmelon.

PHYTAJ. Latin, R.X. Reed, G.L. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Feb 1985. v. 75 (2). p. 209-212. ill. Includes 15 references. (NAL Call No.: DNAL 464.8 P56).

0463

The effect of source and culture host on the larviposition of the melon aphid on several test plants.

HJHSA. Kishaba, A.N. Coudriet, D.L. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1985. v. 20 (6). p. 1097-1099. Includes references. (NAL Call No.: DNAL SB1.H6).

0464

Effects of host plant patch size on herbivore density: patterns.

ECOLA. Bach, C.E. Tempe, Ariz. : Ecological Society of America. Ecology : a publication of the Ecological Society of America. Aug 1988. v. 69 (4). p. 1090-1102. ill. Includes references. (NAL Call No.: DNAL 410 EC7).

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Effects of host plant patch size on herbivore density: underlying mechanisms.

ECOLA. Bach, C.E. Tempe, Ariz. : Ecological Society of America. Ecology : a publication of the Ecological Society of America. Aug 1988. v. 69 (4). p. 1103-1117. ill. Includes references. (NAL Call No.: DNAL 410 EC7).

0466

Effects of plant density and diversity on the population dynamics of a specialist herbivore, the striped cucumber beetle, *Acalymma vittata* (Fab.) (on cucumbers).

Bach, C.E. Durham, Ecological Society of America. Ecology. Dec 1980. v. 61 (6). p. 1515-1530. ill. Bibliography p. 1528-1530. (NAL Call No.: 410 EC7).

0467

Effects of planting densities, irrigation, and hornworm larvae on yields in experimental intercrops of tomatoes and cucumbers.

JOSH. Schultz, B. McGuinness, H.; Horwith, B.; Vandermeer, J.; Phillips, C.; Perfecto, I.; Rosset, P.; Ambrose, R.; Hansen, M. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1987. v. 112 (5). p. 747-755. Includes references. (NAL Call No.: DNAL 81 S012).

0468

Effects of pupal handling during laboratory rearing on adult eclosion and flight capability in three tephritid species (*Ceratitis capitata*, *Dacus cucurbitae*, *Dacus dorsalis*, horticultural pests).

Ozaki, E.T. Kobayashi, R.M. College Park, Md., Entomological Society of America. Journal of

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economic entomology. Oct 1981. v. 74 (5). p. 520-525. ill. 11 ref. (NAL Call No.: 421 J822).

0469

The effects of striped cucumber beetle larval infestations and of plastic film with trickle irrigation on yield of butternut squash (*Cucurbita moschata*, Indiana).

Reed, G.L. PIACA. Reed, D.K. Indianapolis : The Academy. Proceedings of the Indiana Academy of Science. 1981. v. 91. p. 306-308. Includes references. (NAL Call No.: 500 IN2).

0470

Effects of two triterpenoids from neem on feeding by cucumber beetles (Coleoptera: Chrysomelidae) (*Acalymma vittatum*, *Diabrotica undecimpunctata howardi*, *Azadirachta indica*).
Reed, D.K. JEENA. Warthen, J.D.; Uebel, E.C.; Reed, G.L. College Park : Entomological Society of America. Journal of economic entomology. Dec 1982. v. 75 (6). p. 1109-1113. 10 ref. (NAL Call No.: 421 J822).

0471

An efficient and practicable method for controlling melon lice /by C.E. Durst.
Durst, Charles Elmer, 1884-. Urbana, Ill. : University of Illinois Agricultural Experiment Station, 1914. Cover title. p. 319-334 : ill. ; 23 cm. (NAL Call No.: DNAL 100 I16S no.174).

0472

Enemies of cucumbers and related plants.
KAEB. Garman, H. Lexington : The Station. Bulletin - Kentucky, Agricultural Experiment Station. Documents available from: Agriculture Library, Agricultural Science Center - North, University of Kentucky, Lexington, Ky. 40546-0091. Mar 8, 1901. (91,pt.1). p. 1-56. ill., plates. (NAL Call No.: DNAL 100 K41 (2)).

0473

Enhanced longevity and species-specific resistance to malathion of adult Mediterranean fruit flies, melon flies, and oriental fruit flies fed on diets with hydrolyzed protein.
JESE. Keiser, I. Khattak, S.U.K.; Ashraf, M.; Silva, J.A. New York, N.Y. : Marcel Dekker. Journal of environmental science and health. Part A. Environmental science and engineering. 1988. v. 23 (4). p. 299-310. Includes references. (NAL Call No.: DNAL TD172.J6).

0474

Factors influencing distribution of *Diabrotica* spp. in blossoms of cultivated *Cucurbita* spp.
JCECD. Andersen, J.F. Metcalf, R.L. New York, N.Y. : Plenum Press. Journal of chemical ecology. Apr 1987. v. 13 (4). p. 681-699. Includes references. (NAL Call No.: DNAL QD415.A1J6).

0475

Floating row covers for the exclusion of virus vectors and the effect on disease incidence and yield of cantaloupe.

JEENAI. Perring, T.M. Royalty, R.N.; Farrar, C.A. Lanham, Md. : Entomological Society of America. The effects of floating row covers on aphid and whitefly densities in cantaloupe, *Cucumis melo* L. and the associated virus disease incidence and cantaloupe yield were evaluated. Reemay, Kimberly Farms Row Cover, and Agryl covers prevented aphids from feeding and delayed symptom expression of the spring viruses, zucchini yellow mosaic virus and watermelon mosaic virus 2. When weeds were controlled under the covers in spring plantings, there were significantly higher yields from plants in the covered plots. In fall plantings, Reemay prevented sweetpotato whiteflies, *Bemisia tabaci* (Gennadius), from feeding on the plants and this delayed symptom expression of disease caused by lettuce infectious yellows virus. Despite this delay, yields were not different probably because reduced light under the covers was compounded by low light conditions in late September and early October, offsetting any advantage from the delay in disease incidence. Further studies suggested that covers should be removed during the mid-vegetative period in the fall and during perfect flowering in the spring to maximize yields. Journal of economic entomology. Dec 1989. v. 82 (6). p. 1709-1715. Includes references. (NAL Call No.: DNAL 421 J822).

0476

The fruit fly problem in Hawaii.
OASPA. Mitchell, W.C. Corvallis, Or. : The Station. Special report - Oregon State University, Agricultural Experiment Station. In the series analytic: Ecology and management of economically important fruit flies / edited by M.T. AliNiasee. July 1988. (830). p. 4-12. Includes references. (NAL Call No.: DNAL 100 OR3M).

0477

Further notes on the silvery-leaf trait in *Cucurbita*.

Shifriss, O. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 81-83. Includes 9 references. (NAL Call No.: DNAL SB337.C94).

0478

The greenhouse red spider attacking cucumbers and methods for its control /by Stuart C. Vinal.
Vinal, Stuart Cunningham, 1894-. Amherst, Mass. : Massachusetts Agricultural Experiment Station, 1917. Cover title. p. 153 -182 : ill. ; 23 cm. Bibliography: p. 181-182. (NAL Call No.: DNAL 100 M38H (1) no.179).

0479

Hawaiian fruit flies (Diptera: Tephritidae): toxicity of benzyl isothiocyanate against eggs or 1st instars of three species (*Carica papaya*, *Ceratitis, capitata*, *Dacus cucurbitae*, *Dacus dorsalis*).
Seo, S.T. JEENA. Tang, C.S. College Park : Entomological Society of America. Journal of economic entomology. Dec 1982. v. 75 (6). p. 1132-1135. 7 ref. (NAL Call No.: 421 J822).

0480

Host effects on the survival and development of *Anasa tristis* (Heteroptera: Coreidae).
EVETEX. Bonjour, E.L. Fargo, W.S. Lanham, Md. : Entomological Society of America. The influence of five cucurbit hosts on survival, developmental time, and adult weight of the squash bug, *Anasa tristis* (De Geer), was determined. Percentage survival from egg to adult was significantly affected by host. Survival to the adult stage on the five hosts was highest on pumpkin, *Cucurbita pepo* L. var. pepo (70.0%), followed by squash, *Cucurbita pepo* L. var. melopepo (49.0%); watermelon, *Citrullus lanatus* (Thunb.) Matsum. & Nakai (14.4%); cucumber, *Cucumis sativus* L. (0.3%); and muskmelon, *Cucumis melo* L. (0%). Host type had a significant effect on developmental time to third and fifth instar and to adult, with a longer developmental time on watermelon. The adult sex ratio was 1:1. Adult females were significantly heavier than males. Greater adult weights for both males and females resulted when insects developed on squash. However, the effect of host on adult weight was significant only for males. Environmental entomology. Dec 1989. v. 18 (6). p. 1083-1085. Includes references. (NAL Call No.: DNAL QL461.E532).

0481

Identification of triterpenoid feeding deterrent of red pumpkin beetles (*Aulacophora foveicollis*) from *Momordica charantia*.
JCECD. Chandravadana, M.V. New York, N.Y. : Plenum Press. Journal of chemical ecology. July 1987. v. 13 (7). p. 1689-1694. Includes references. (NAL Call No.: DNAL QD415.A1J6).

0482

Insects injurious to cucurbs (melons, squashes, pumpkins, cucumbers, etc.) /by John B. Smith. Smith, John Bernhard, 1858-1912. New Brunswick, N.J. : New Jersey Agricultural Experiment Station, 1893. Caption title. 40 p. : ill. ; 23 cm. (NAL Call No.: DNAL 100 N465 (1) no.94).

0483

Introduction of entomogenous nematodes into trickle irrigation systems to control striped cucumber beetle (Coleoptera: Chrysomelidae).
JEENAI. Reed, D.K. Reed, G.L.; Creighton, C.S. College Park, Md. : Entomological Society of America. Journal of economic entomology. Oct 1986. v. 79 (5). p. 1330-1333. Includes references. (NAL Call No.: DNAL 421 J822).

0484

Introduction of *Phytoseiulus persimilis* for two-spotted spider mite (*Tetranychus urticae*) control on greenhouse cucumber.
Lindquist, R.K. Wooster, Ohio, The Center. Research circular - Ohio Agricultural Research and Development Center. Mar 1981. Mar 1981. (264). p. 8-10. ill. 10 ref. (NAL Call No.: 100 DH3R).

0485

Kinetics of thermal death in eggs and first instars of three species of fruit flies (Diptera: Tephritidae).
JEENAI. Jang, E.B. College Park, Md. : Entomological Society of America. Journal of economic entomology. June 1986. v. 79 (3). p. 700-705. Includes references. (NAL Call No.: DNAL 421 J822).

0486

Laboratory assessment of 73 insecticides against the oriental fruit fly, melon fly, and Mediterranean fruit fly.
JEENAI. Keiser, I. Kobayashi, R.M.; Schneider, E.L.; Tomikawa, I. College Park, Md. : Entomological Society of America. Journal of economic entomology. Aug 1973. v. 66 (4). p. 837-839. Includes references. (NAL Call No.: DNAL 421 J822).

0487

Laboratory bioassay to assess toxicity of insecticides to *Diabrotica* larvae (Western spotted cucumber beetle, *Diabrotica undecimpunctata*).
Gemrich, E.G. II. Goldsberry, D.M. College Park, Md., Entomological Society of America. Journal of economic entomology. Apr 1982. v. 75

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0488

A laboratory technique for culturing *Filipjevimermis leipsandra*, a nematode parasite of *Diabrotica balteata* larvae (Insecta: Coleoptera) (Cucumber beetle, biological control).

Creighton, C.S. Fassuliotis, G. Ames, Iowa, Society of Nematologists. *Journal of nematology*. Apr 1981. v. 13 (2). p. 226-227. 4 ref. (NAL Call No.: QL391.N4J62).

0489

Larval spatial patterns and sequential sampling plan for pickleworm, *Diaphania nitidalis* (Stoll) (Lepidoptera: Pyralidae), on summer squash.

EVETEX. Brewer, M.J. Story, R.N. Lanham, Md. : Entomological Society of America. The pickleworm, *Diaphania nitidalis* (Stoll), was studied to determine the spatial pattern of its five larval stages within reproductive structures of summer squash and to characterize the spatial pattern of larvae between plants to develop a sampling method for assessing pickleworm populations. Sampling green staminate flower buds greater than 5 cm in length was more reliable for detecting infestations than sampling smaller green staminate flower buds, blooming flowers, and fruit. Flower buds provided a more efficient (large reservoir of larvae), reliable (smaller sampling variance than other sample units), and acceptable (non-marketable plant structure) method of sampling pickleworm populations. Fruit damage was positively correlated with flower bud damage and larval counts. The between-plant spatial pattern was variable between samples but suggested a slightly contagious (overdispersed) larval dispersion. Based on this information, a sequential sampling plan was developed in which the required number of plant samples at a given level of sampling precision for specific larval densities can be calculated. *Environmental entomology*. Apr 1987. v. 16 (2). p. 539-544. Includes references. (NAL Call No.: DNAL QL461.E532).

0490

Leafminer (*Liriomyza sativae*) control increases summer squash yields.

Sharma, R.K. CA. Durazo, A. III.; Mayberry, K.S. Berkeley, Calif., The Station. California agriculture - California Agricultural Experiment Station. June 1980. v. 34 (6). p. 21-22. ill. (NAL Call No.: 100 C12CAG).

0491

Less pickleworm pesticide.

AGREA. Kaplan, K. Washington, D.C. : The Administration. Agricultural research - U.S. Department of Agriculture, Agricultural Research Service. June 1989. v. 37 (6). p. 19. ill. Includes references. (NAL Call No.: DNAL 1.98 AG84).

0492

Lethal and sublethal effects of avermectin B1 on three fruit fly species (Diptera: Tephritidae).

JEENAI. Albrecht, C.P. Sherman, M. College Park, Md. : Entomological Society of America. *Journal of economic entomology*. Apr 1987. v. 80 (2). p. 344-347. Includes references. (NAL Call No.: DNAL 421 J822).

0493

Melon aphid.

Ghidu, G.M. New Brunswick, N.J. : The Service. FS - Cooperative Extension Service, Cook College. 1988. (248). 2 p. ill. (NAL Call No.: DNAL S544.3.N5F7).

0494

The melon aphid and its control by F.H. Chittenden and W. H. White . --.

Chittenden, F. H. Washington, D.C. : U.S. Dept. of Agriculture, 1926. ii, 17 p. : ill. --. (NAL Call No.: DNAL Fiche S-70 no.1499).

0495

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Ghidu, G.M. New Brunswick, N.J. : The Service. FS - Cooperative Extension Service, Cook College. 1987. (238). 2 p. ill. (NAL Call No.: DNAL S544.3.N5F7).

0496

Methyl bromide quarantine fumigations for Hawaii-grown Cucumbers infested with melon fly and oriental fruit fly (Diptera: tephritidae).

JEENAI. Armstrong, J.W. Garcia, D.L. College Park, Md. : Entomological Society of America. *Journal of economic entomology*. Dec 1985. v. 78 (6). p. 1308-1310. Includes references. (NAL Call No.: DNAL 421 J822).

0497

Parasitization of *Liriomyza* spp. (Diptera: Agromyzidae) infesting commercial watermelon plantings in Hawaii.
JEENAI. Johnson, M.W. College Park, Md. : Entomological Society of America. Journal of economic entomology. Feb 1987. v. 80 (1). p. 56-61. Includes references. (NAL Call No.: DNAL 421 J822).

0498

Partitioning yield loss on yellow squash into nematode and insect components (Homestead area, Florida).
McSorley, R. Waddill, V.H. Ames, Iowa, Society of Nematologists. Journal of nematology. Jan 1982. v. 14 (1). p. 110-118. ill. Includes 11 ref. (NAL Call No.: QL391.N4J62).

0499

Pest control in commercial pickling cucumber production.
Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. 1983. 1983. (A2358). 4 p. ill. (NAL Call No.: S544.3.W6W53).

0500

Pest control in commercial pickling cucumber production (Weeds, insects and diseases).
Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. Jan 1983. Jan 1983. (2358). 4 p. ill. (NAL Call No.: S544.3.W6W53).

0501

Pest control in commercial vine crop production (Cucumbers, melons, squash and pumpkins, weeds, insects, diseases).
Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison, Wis., The Programs. Publication - Cooperative Extension Programs, University of Wisconsin Extension. Apr 1981. Apr 1981. (A2465). 11 p. ill. (NAL Call No.: S544.3.W6W53).

0502

Pest control in commercial vine crop production (Cucumbers, melons, squash, pumpkins, diseases, insects, weeds).
Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. 1983. 1983. (A2465). 12 p. ill. (NAL Call No.: S544.3.W6W53).

0503

Photoperiodic responses of the squash bug (Heteroptera: Coreidae): diapause induction and maintenance.
EVETEX. Nechols, J.R. College Park, Md. : Entomological Society of America. Abstract: The squash bug, *Anasa tristis* DeGeer, undergoes a reproductive diapause from late summer to spring in northeastern Kansas. In the laboratory, diapause was induced in 100% of adult females reared under photoperiods shorter than 14:10 (L:D) and in a variably lower percentage of the population under all longer photoperiods. The critical photoperiod for diapause induction falls between 14:10 and 14.5:9.5; this range compares closely with prevailing natural daylengths when 50% of the adult population enters diapause in the field. Between October and March, short daylengths maintained, and long daylengths terminated, diapause in field-sampled adults. Under natural daylength at 26 degrees C, the duration of diapause became progressively shorter with advancing sample data. In nature, the photoperiodic maintenance of diapause is completed in most of the population by late May. A prolonged diapause probably serves to prevent premature postdiapause development during the thermally variable spring conditions encountered in Kansas. Some implications of these findings for biological control and pest management programs are discussed. Environmental entomology. June 1988. v. 17 (3). p. 427-431. Includes references. (NAL Call No.: DNAL QL461.E532).

0504

Pickleworm.
Ghidu, G.M. New Brunswick, N.J. : The Service. FS - Cooperative Extension Service, Cook College. 1987. (239). 2 p. ill. (NAL Call No.: DNAL S544.3.N5F7).

0505

Pickleworm (*Diaphania nitidalis*, pest of cultivated cucurbits): Effect of temperature on development, fecundity, and survival.
Elsley, K.D. AR-SO. College Park, Md., Entomological Society of America. Environmental entomology. Feb 1980. v. 9 (1). p. 101-103. ill. 5 ref. (NAL Call No.: QL461.E532).

0506

Pickleworm sex pheromone: potential for use in cucumber pest management.
Elsley, K.D. Klun, J.A.; Schwartz, M. Clemson, S.C. : South Carolina Entomological Society. Journal of agricultural entomology. Oct 1989. v. 6 (4). p. 275-282. Includes references. (NAL Call No.: DNAL SB599.J69).

(PESTS OF PLANTS - INSECTS)

0507

Pickling cucumbers--pest control.

Binning, L.K. WI. Wyman, J.A.; Stevenson, W.R. Madison, Wis., The Programs. Publication - Cooperative Extension Programs, University of Wisconsin Extension. Wisconsin. University. Cooperative Extension Programs. Jan 1980. Jan 1980. (A2358). 3 p. ill. (NAL Call No.: S544.3.W6W53).

0508

Population trends of a newly introduced species, Thrips palmi (Thysanoptera: Thripidae), on commercial watermelon plantings in Hawaii.

JEENAI. Johnson, M.W. College Park, Md. : Entomological Society of America. Journal of economic entomology. June 1986. v. 79 (3). p. 718-720. Includes references. (NAL Call No.: DNAL 421 J822).

0509

Prediction of egg and nymphal developmental times of the squash bug (Hemiptera: Coreiidae) in the field.

JEENAI. Fielding, D.J. Ruesink, W.G. College Park, Md. : Entomological Society of America. Egg and nymphal developmental times of the squash bug, *Anasa tristis* DeGeer, were measured at five and six constant temperatures, respectively, in the laboratory. A linear equation was used to describe the effect of constant temperature on the mean rate of egg development. A degree-day model derived from the linear equation adequately predicted rates of egg development at two variable temperatures in the laboratory and in the field. A nonlinear equation, the two-parameter form of the enzyme kinetic model of Sharpe & DeMichele (1977), was used to describe the effect of constant temperatures on median nymphal development (egg hatch to adult eclosion). Although the nonlinear model under-estimated developmental rates at two variable temperatures in the laboratory by 12 and 14% and in the field by 25-32%, its predictions were consistent enough to permit accurate predictions of developmental times. Nymphal survivorship, teneral adult weights, and adult mesothoracic femur length decreased with decreasing rearing temperatures. Journal of economic entomology. Oct 1988. v. 81 (5). p. 1377-1382. Includes references. (NAL Call No.: DNAL 421 J822).

0510

Pyrethroids tested for cucurbit insect suppression.

AKFRAC. McLeod, P. Fayetteville, Ark. : The Station. Arkansas farm research - Arkansas Agricultural Experiment Station. Nov/Dec 1986. v. 35 (6). p. 6. (NAL Call No.: DNAL 100 AR42F).

0511

Radiation sterilization facility for melon fly. Danno, A. Honolulu : Hawaii Institute of Tropical Agric. & Human Resources, Univ. of Hawaii, Manoa, 1985. Radiation disinfestation of food and agricultural products : proceedings of an international conference, Honolulu, Hawaii, November 14-18, 1983 / edited by James H. Moy. p. 314-326. ill. Includes 5 references. (NAL Call No.: DNAL TP371.8.R284).

0512

Reflective mulch delays virus spread in summer squash.

LOAGA. Lancaster, D.M. Whitam, H.K.; Black, L.L. Baton Rouge, La. : The Station. Louisiana agriculture - Louisiana Agricultural Experiment Station. Spring 1987. v. 30 (3). p. 16-17. ill. (NAL Call No.: DNAL 100 L939).

0513

Seasonal abundance, spray timing and acaricidal control of spider mites on cantaloupe.

Perring, T.M. Clemson, S.C. : South Carolina Entomological Society. Journal of agricultural entomology. Jan 1987. v. 4 (1). p. 12-20. Includes references. (NAL Call No.: DNAL SB599.J69).

0514

Seedcorn maggot (Diptera:Anthomyiidae) infestation levels and effects on five crops.

EVETEX. Hough-Goldstein, J.A. Hess, K.A. College Park, Md. : Entomological Society of America. Environmental entomology. Aug 1984. v. 13 (4). p. 962-965. Includes references. (NAL Call No.: DNAL QL461.E532).

0515

Selected row cover materials: insect exclusion, virus disease suppression and yield enhancement.

Natwick, E.T. Laemmlen, F.F. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 288-296. Includes references. (NAL Call No.: DNAL 309.9 N216).

0516

Spraying cucumbers and melons /by C.D. Jarvis. Jarvis, C. D. 1876-1948. Storrs, Conn. : Storrs Agricultural Experiment Station, 1912. Cover title. p. 90-123 : ill. ; 23 cm. (NAL Call No.: DNAL 100 C76S no.72).

0517

Squash beetle feeding behavior: an adaptation against induced cucurbit defenses.
ECOLA. Tallamy, D.W. Tempe, Ariz : Ecological Society of America. Ecology : a publication of the Ecological Society of America. Oct 1985. v. 66 (5). p. 1574-1579. ill. Includes references. (NAL Call No.: DNAL 410 EC7).

0518

Squash bugs.
Ghidiu, G.M. New Brunswick, N.J. : The Service. FS - Cooperative Extension Service, Cook College. 1987. (228). 2 p. ill. (NAL Call No.: DNAL S544.3.N5F7).

0519

The squash vine borer, *Melittia satyriniformis* Hubner /R.B. Friend.
Friend, Roger Boynton, 1896-. New Haven : Connecticut Agricultural Experiment Station, 1931. p. 587 -608 : ill. ; 23 cm.
Bibliography: p.607-608. (NAL Call No.: DNAL 100 C76St (1) no.328).

0520

Squash vine borers.
Ghidiu, G.M. New Brunswick, N.J. : The Service. FS - Cooperative Extension Service, Cook College. 1987. (229). 2 p. ill. (NAL Call No.: DNAL S544.3.N5F7).

0521

Stick 'em up! Bt injections stop squash vine borers (Thuricide, pest control).
Pleasant, B. Atlanta, Ga. : Department of Agriculture. Farmers & consumers market bulletin. May 23, 1984. v. 70 (21). p. 65-66. ill. (NAL Call No.: 280.39 G292).

0522

Sticky trap for monitoring leafminers *Liriomyza sativae* and *Liriomyza trifolii* (Diptera: Agromyzidae) and their associated hymenopterous parasites in watermelon.
JEENAI. Robin, M.R. Mitchell, W.C. College Park, Md. : Entomological Society of America. Journal of economic entomology. Dec 1987. v. 80 (6). p. 1345-1347. ill. Includes references. (NAL Call No.: DNAL 421 J822).

0523

Stratified sampling of *Liriomyza* spp. (Diptera: Agromyzidae) and associated hymenopterous parasites on watermelon.
JEENAI. Lynch, J.A. Johnson, M.W. Lanham, Md. : Entomological Society of America. Field studies were conducted in two localities on Oahu, Hawaii, to evaluate the accuracy of random compared with stratified sampling of watermelon foliage with respect to leaf size and distance from the plant base for *Liriomyza sativae* Blanchard and *Liriomyza trifolii* (Burgess) larvae and associated hymenopterous parasites. Significantly greater numbers of live *Liriomyza* larvae and larval parasites per leaf were found as leaf size increased. Before full leaf-canopy establishment, significantly greater densities of *Liriomyza* larvae per leaf were recorded at the plant base as compared with the distal end of the vine. A significant increase in precision of the sample mean estimates for both *Liriomyza* larvae and hymenopterous parasites was obtained by leaf-size stratification. For *Liriomyza* larvae and larval parasites, standard errors were reduced by greater than 46 and 35%, respectively, when leaf sizes were stratified. Stratification with respect to distance from the plant base resulted in greater precision of *Liriomyza* density estimates before full leaf-canopy establishment. Journal of economic entomology. Dec 1987. v. 80 (6). p. 1254-1261. Includes references. (NAL Call No.: DNAL 421 J822).

0524

The striped cucumber beetle.
Jewett, H.H. Lexington, Ky. : The Station. Circular - University of Kentucky Agricultural Experiment Station. Documents available from: Agriculture Library, Agricultural Science Center - North, University of Kentucky, Lexington, Ky. 40546-0091. Mar 1927. (37). p. 19-34. ill. (NAL Call No.: DNAL 100 K41).

0525

The striped cucumber beetle / J.S. Houser and W.V. Balduf .
Houser, J. S. 1881-. Wooster, Ohio : Ohio Agricultural Experiment Station, 1925. Cover title. p. 239-364 : ill. ; 23 cm. Bibliography: p. 362-364. (NAL Call No.: DNAL 100 DH3S (2) no.388).

0526

The striped cucumber beetle and how to control it F.H. Chittenden . --.
Chittenden, F. H. Washington, D.C. : U.S. Dept. of Agriculture, 1923. 16 p. : ill. --. (NAL Call No.: DNAL Fiche S-70 no.1322).

(PESTS OF PLANTS - INSECTS)

0527

The striped cucumber beetle and its control F.H. Chittenden . --.

Chittenden, F. H. Washington, D.C. : U.S. Dept. of Agriculture, 1919. 19 p. : ill., map --. (NAL Call No.: DNAL Fiche S-70 no.1038).

0528

Susceptibility of *Liriomyza sativae* and *Liriomyza trifolii* (Diptera: Agromyzidae) to permethrin and fenvalerate.

JEENAI. Mason, G.A. Johnson, M.W.; Tabashnik, B.E. College Park, Md. : Entomological Society of America. Journal of economic entomology. Dec 1987. v. 80 (6). p. 1262-1266. Includes references. (NAL Call No.: DNAL 421 J822).

0529

Susceptibility of mediterranean fruit fly, melon fly, and oriental fruit fly (Diptera: Tephritidae) to the entomogenous nematode *Steinernema feltiae* in laboratory tests.

EVETEX. Lindegren, J.E. Vail, P.V. College Park, Md. : Entomological Society of America. Environmental entomology. June 1986. v. 15 (3). p. 465-468. Includes references. (NAL Call No.: DNAL QL461.E532).

0530

Sweetpotato whitefly: host plant preference and repellent effect of plant-derived oils on cotton, squash, lettuce and cantaloupe.

SENTD. Butler, G.D. Jr. Coudriet, D.L.; Henneberry, T.J. College Station, Tex. : Southwestern Entomological Society. The Southwestern entomologist. Mar 1989. v. 14 (1). p. 9-16. Includes references. (NAL Call No.: DNAL QL461.S65).

0531

Synthetic pheromone 10-methyl-2-tridecanone and its use in controlling the southern corn rootworm and related diabroticites.

Guss, P.L. Tumlinson, J.H. III; Sonnet, P.E.; McLaughlin, J.R. Washington, D.C.? : The Department. Abstract: A pheromonal compound produced by the southern corn rootworm has been identified as 10-methyl-2-tridecanone (10-M-2-T). The synthetic R-enantiomer of 10-M-2-T demonstrates activity toward the southern corn rootworm comparable to its natural counterpart, whereas the synthetic racemic mixture is characterized by approximately half the activity for a given amount. Related diabroticites such as the western spotted cucumber beetle also respond to the synthetic compounds. By attracting adult beetles to field traps, 10-M-2-T is a useful tool for the monitoring and control of these major agricultural pests. United States Department of Agriculture patents. Copies of

USDA patents are available for a fee from the Commissioner of Patents and Trademarks, U.S. Patents and Trademarks Office, Washington, D.C. 20231. Jan 21, 1986. (4,565,695). 1 p. Includes references. (NAL Call No.: DNAL aT223.V4A4).

0532

Synthetic pheromone 10-methyl-2-tridecanone and its use in controlling the southern corn rootworm and related diabroticites.

Guss, P.L. Tumlinson, J.H. III; Sonnet, P.E.; McLaughlin, J.R. Washington, D.C. : The Office. Abstract: A pheromonal compound produced by the southern corn rootworm has been identified as 10-methyl-2-tridecanone (10-M-2-T). The synthetic R-enantiomer of 10-M-2-T demonstrates activity toward the southern corn rootworm comparable to its natural counterpart, whereas the synthetic racemic mixture is characterized by approximately half the activity for a given amount. Related diabroticites such as the western spotted cucumber beetle also respond to the synthetic compounds. By attracting adult beetles to field traps, 10-M-2-T is a useful tool for the monitoring and control of these major agricultural pests. United States patent - United States Patent Office. Copies of USDA patents are available for a fee from the Commissioner of Patents and Trademarks, U.S. Patents and Trademarks Office, Washington, D.C. 20231.~ Includes abstract. Oct 2, 1984. (4,474,991). 1 p. Includes 5 references. (NAL Call No.: DNAL NO CALL NO. (PAT)).

0533

Tests of a spun polyester row cover as a barrier against seedcorn maggot (Diptera: Anthomyiidae) and cabbage pest infestations.

JEENAI. Hough-Goldstein, J.A. College Park, Md. : Entomological Society of America. Journal of economic entomology. Aug 1987. v. 80 (4). p. 768-772. Includes references. (NAL Call No.: DNAL 421 J822).

0534

Virus-suppression and aphid resistance effects on spatial and temporal spread of watermelon mosaic virus 2.

PHYTAJ. Gray, S.M. Moyer, J.W.; Kennedy, G.G.; Campbell, C.L. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Nov 1986. v. 76 (11). p. 1254-1259. Includes 27 references. (NAL Call No.: DNAL 464.8 P56).

0535

Viruses cause heavy melon losses in desert valleys.

CAGRA. Nameth, S.T. Laemmlen, F.F.; Dodds, J.A. Berkeley : The Station. California agriculture - California Agricultural Experiment Station. July/Aug 1985. v. 39 (7/8). p. 28-29. ill. (NAL Call No.: DNAL 100 C12CAG).

0536

Weed, insect, and disease control guide: Asparagus; cucumbers, melons, pumpkins, squash; rhubarb. Commercial vegetable.
Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pflieger, F. L.; Bissonnette, Howard L. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Outlines herbicide, insecticide and fungicide suggestions for asparagus, cucumbers, melons, pumpkins, squash and rhubarb. 4 p. : ill. (NAL Call No.: Document available from source.)(NAL Call No.: Ext. Folder 599).

0537

1985 alfalfa forage and seed insecticide research.
OASPA. Simko, B. Corvallis, Or. : The Station. Special report - Oregon State University, Agricultural Experiment Station. In the series analytic: Alfalfa, corn, melons, mint, small grains and new crops research. June 1987. (814). p. 19-24. (NAL Call No.: DNAL 100 OR3M).

PESTS OF PLANTS - NEMATODES

0538

Applying nematicides through an overhead sprinkler irrigation system for control of nematodes (*Meloidogyne incognita*, *Macroposthonia ornata*, in squash, southern peas, and corn).

Johnson, A.W. Young, J.R.; Mullinix, B.G. Ames, Iowa, Society of Nematologists. Journal of nematology. Apr 1981. v. 13 (2). p. 154-159. 4 ref. (NAL Call No.: QL391.N4J62).

0539

Assessment of yield losses due to root-knot nematode *Meloidogyne incognita* race 3 in tomato, brinjal and bittergourd.

Darekar, K.S. Mhase, N.L. Raleigh, N.C. : Crop Nematode Research & Control Project . International nematology network newsletter. Dec 1988. v. 5 (4). p. 7-9. Includes references. (NAL Call No.: DNAL SB998.N45I5).

0540

Control of insect pests of cucumber and squash /by E.G. Kelsheimer.

Kelsheimer, E. G. Gainesville, Fla. : University of Florida Agricultural Experiment Station, 1949. Cover title.~ "A contribution from the Vegetable Crops Laboratory"--T.p. 15 p. ; 23 cm. (NAL Call No.: DNAL 100 F66S (1) no.465).

0541

Control of root-knot nematode of cucumber, 1978 (*Cucumis sativus* 'Poinsett'), root-knot nematode; *Meloidogyne* spp.).

Kantzes, J.G. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 218. (NAL Call No.: 464.9 AM31R).

0542

Effect of fenamiphos on populations of *Heterodera schachtii* and subsequent plant injury in a cabbage-cucumber rotation (Florida).

Rhoades, H.L.NMTPA. Auburn : Organization of Tropical American Nematologists. Nematropica. Dec 1982. v. 12 (2). p. 289-293. Includes references. (NAL Call No.: SB998.N4N4).

0543

Effect of nematicidal seed treatment on root-knot nematode and yield of bottle-gourd.

Darekar, K.S. Mhase, N.L.; Shelke, S.S. Raleigh, N.C. : Crop Nematode Research & Control Project . International nematology network newsletter. Mar 1989. v. 6 (1). p. 14-16. Includes references. (NAL Call No.: DNAL

SB998.N45I5).

0544

Effect of nematicides applied through a sprinkler irrigation system on control of root-knot nematodes on squash, southern pea, and field corn.

Johnson, A.W. AR-SD. Young, J.R. Ames, Iowa, Society of Nematologists. Journal of nematology. Oct 1980. v. 12 (4). p. 227. (NAL Call No.: QL391.N4J62).

0545

Effect of temperature on infection and survival of *Rotylenchulus reniformis*.

JONEB. Heald, C.M. Inserra, R.N. Raleigh, N.C. : Society of Nematologists. Journal of nematology. July 1988. v. 20 (3). p. 356-361. Includes references. (NAL Call No.: DNAL QL391.N4J62).

0546

Effect of three plant species on population densities of *Xiphinema americanum* and *Xiphinema rivesi*.

JONEB. Georgi, L.L. Raleigh, N.C. : Society of Nematologists. Journal of nematology. July 1988. v. 20 (3). p. 474-477. Includes references. (NAL Call No.: DNAL QL391.N4J62).

0547

Effectiveness of Mocap for control of root-knot nematodes on greenhouse cucumbers--Mocap study II, 1980 (*Cucumis sativus* 'Farbio'), root-knot nematode; *Meloidogyne incognita*).

Kharbanda, P.D. Howard, R.J. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 192. (NAL Call No.: 464.9 AM31R).

0548

Effectiveness of Mocap for control of root-knot nematodes on greenhouse cucumbers--Mocap study III, 1981 (*Cucumis sativus* 'Farbio'), root-knot nematode; *Meloidogyne incognita*).

Kharbanda, P.D. Howard, R.J. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 193. (NAL Call No.: 464.9 AM31R).

(PESTS OF PLANTS - NEMATODES)

0549

Effects of fumigant and nonfumigant nematicides on nematode populations and yields of broccoli and squash in Florida.

NMTPA. Rhoades, H.L. Auburn, Ala. : Organization of Tropical American Nematologists. *Nematropica*. Dec 1987. v. 17 (2). p. 193-198. Includes references. (NAL Call No.: DNAL SB998.N4N4).

0550

Effects of Fusarium inoculum density and root-knot nematodes on wilt resistance in summer squash.

PLDRA. Caperton, C.M. Martyn, R.D.; Starr, J.L. St. Paul, Minn. : American Phytopathological Society. *Plant disease*. Mar 1986. v. 70 (3). p. 207-209. ill. Includes 16 references. (NAL Call No.: DNAL 1.9 P69P).

0551

Effects of rhizobacteria on root-knot nematodes and gall formation.

PHYTAJ. Becker, J.D. Zavaleta-Mejia, E.; Colbert, S.F.; Schroth, M.N.; Weinhold, A.R.; Hancock, J.G.; Van Gundy, S.D. St. Paul, Minn. : American Phytopathological Society. Three hundred and fifty-four randomly selected bacteria from plant rhizospheres, when tested for activity against *Meloidogyne incognita*, caused a wide range of effects from a reduction to an increase of root galling on tomato and cucumber in greenhouse tests. Results were highly variable, even with strains that previously had given significant differences. A bioassay, based on selecting bacterial strains that produced nematocidal compounds in vitro, proved to be a better and more rapid means of identifying promising nematode antagonists. About 1% of more than 5,000 bacteria isolated from rhizospheres of different plants produced detectable compounds that affected the vitality of second-stage juveniles of *M. incognita* in an in vitro test. Twenty percent of these subsequently reduced the number of galls on cucumber in a soil-free pouch system when applied as a seed treatment. Selected strains were applied as a drench to nonsterile soil infested with *M. incognita*. White clover plants growing in bacteria-treated soil had fewer galls and larger root systems. Both plant top and root weights were significantly greater compared with the nontreated control. *Phytopathology*. Nov 1988. v. 78 (11). p. 1466-1469. ill. Includes references. (NAL Call No.: DNAL 464.8 P56).

0552

Inhibitory effect of watermelon mosaic virus on *Meloidogyne javanica* (Treub) Chitwood infecting *Cucurbita pepo* L.

JONEB. Huang, S.P. Chu, E.Y. Raleigh, N.C. : Society of Nematologists. *Journal of nematology*. Jan 1984. v. 16 (1). p. 109-121.

ill. Includes 4 references. (NAL Call No.: DNAL QL391.N4J62).

0553

Management of root-knot nematodes by phenamiphos applied through an irrigation simulator with various amounts of water.

JONEB. Johnson, A.W. Young, J.R.; Wright, W.C. Raleigh, N.C. : Society of Nematologists. *Journal of nematology*. July 1986. v. 18 (3). p. 364-369. Includes 13 references. (NAL Call No.: DNAL QL391.N4J62).

0554

Nematicides and *Paecilomyces lilacinus* in nematode control in watermelon.

JAUPA. Vicente, N.E. Acosta, N.; Sanchez, L.A. Mayaguez : University of Puerto Rico, Agricultural Experiment Station. *The Journal of agriculture of the University of Puerto Rico*. Jan 1989. v. 73 (1). p. 75-77. (NAL Call No.: DNAL 8 P832J).

0555

Partitioning yield loss on yellow squash into nematode and insect components (Homestead area, Florida).

McSorley, R. Waddill, V.H. Ames, Iowa, Society of Nematologists. *Journal of nematology*. Jan 1982. v. 14 (1). p. 110-118. ill. Includes 11 ref. (NAL Call No.: QL391.N4J62).

0556

Soil amendments with oil cakes and chicken litter for control of *Meloidogyne arenaria* (in greenhouse experiments with squash (*Cucurbita pepo* L.)).

Mian, I.H. NMTPA. Rodriguez-Kabana, R. Auburn : Organization of Tropical American Nematologists. *Nematropica*. Dec 1982. v. 12 (2). p. 205-220. Includes references. (NAL Call No.: SB998.N4N4).

0557

A soil-free system for assaying nematicidal activity of chemicals (*Cucumber*, *Meloidogyne incognita*).

Preiser, F.A. Babu, J.R.; Haidri, A.A. Ames, Iowa, Society of Nematologists. *Journal of nematology*. Oct 1981. v. 13 (4). p. 535-537. 4 ref. (NAL Call No.: QL391.N4J62).

(PESTS OF PLANTS - NEMATODES)

0558

Soil treatments under plastic film mulch for root knot nematode control during two consecutive crops, 1979 (Cucumber (*Cucumis sativus* 'Poinsett'), pepper (*Capsicum annuum* 'Keystone Resistant Giant'), root-knot; *Meloidogyne incognita*).

Black, L.L. Clark, C.A.; Overstreet, C. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 179-180. (NAL Call No.: 464.9 AM31R).

PLANT DISEASES - GENERAL

0559

Cantaloupe production.

Williams, J.L. Gazaway, W.S.; Strother, G.; Patterson, M. Auburn, Ala. : The Service. Circular ANR - Cooperative Extension Service, Auburn University. In subseries: Horticulture. Apr 1987. (109). 4 p. ill. (NAL Call No.: DNAL S544.3.A2C47).

0560

Commercial vegetable production: Squash.

Granberry, D.M. Colditz, P.; McLaurin, W.J. Athens, Ga. : The Service. Circular - Cooperative Extension Service, University of Georgia. Jan 1986. (527,rev.). 4 p. (NAL Call No.: DNAL 275.29 G29C).

0561

Control diseases of cucurbits.

McDaniel, M.C. Little Rock, Ark. : The Service. EL - University of Arkansas, Cooperative Extension Service. May 1989. (152,rev.). 4 p. (NAL Call No.: DNAL 275.29 AR4LE).

0562

Control diseases of cucurbits.

McDaniel, M.C. AR. Goode, M.J. Little Rock, Ark., The Service. EL - Cooperative Extension Service, University of Arkansas. Arkansas. University. Cooperative Extension Service. Apr 1980. Apr 1980. (152). 12 p. ill. (NAL Call No.: 275.29 AR4LE).

0563

Control diseases of cucurbits (cucumbers, cantaloupe, watermelon, squash).

McDaniel, M.C. Goode, M.J. Little Rock, Ark. : The Service. Leaflet EL - Arkansas University, Cooperative Extension Service. Mar 1986. (152,rev.). 12 p. (NAL Call No.: DNAL 275.29 AR4LE).

0564

Control of cucumber diseases (in eastern Virginia).

Baldwin, R.E. Virginia Beach : Virginia Polytechnic Inst. and State University Cooperative Extension Service. The Vegetable growers news. July/Aug 1983. v. 38 (1). p. 1-2. (NAL Call No.: 275.28 V52).

0565

Control of insects and diseases of cucumbers.

Jones, B.F. Johnson, D.R.; McDaniel, M.C.; Hirnel, M.C. Little Rock, Ark. : The Service. Leaflet EL - Arkansas University, Cooperative Extension Service. Mar 1986. (273,rev.). 12 p. (NAL Call No.: DNAL 275.29 AR4LE).

0566

Control of insects and diseases of cucumbers.

Jones, B.F. Johnson, D.R.; McDaniel, M.C.; Hirnel, M.C. Little Rock : The Service. Leaflet EL - Arkansas University, Cooperative Extension Service. Oct 1983. Oct 1983. (273,rev.). 12 p. (NAL Call No.: 275.29 AR4LE).

0567

Control of insects and diseases of cucumbers (Arkansas).

Jones, B.F. Johnson, D.R.; McDaniel, M.C.; Hirnel, M.C. Little Rock, Ark., The Service. Leaflet EL - Arkansas University, Cooperative Extension Service. May 1982. May 1982. (273). 12 p. (NAL Call No.: 275.29 AR4LE).

0568

Cucurbit diseases : an aid to identification and control / prepared by Clemson University Cooperative Extension Service's Entomology -Plant Pathology and Agricultural Communications Sections. -.

(Clemson, S.C.?) Clemson University, Cooperative Extension Service's Entomology - Plant Pathology and Agricultural Communications Sections (Washington, D.C.?) Federal Extension Service 1968. (1) leaf : col. ill. ; 28 cm. (NAL Call No.: MLCM 84/932).

0569

Diseases of cucumbers /by G.F. Weber.

Weber, George Frederick, 1894-. Gainesville, Fla. : University of Florida Agricultural Experiment Station, 1925. Cover title. p. 25 -71 : ill. ; 23 cm. (NAL Call No.: DNAL 100 F66S (1) no.177).

0570

Diseases of watermelons /by G.K. Parris.

Parris, G. K. 1908-. Gainesville, Fla. : University of Florida Agricultural Experiment Station, 1952. Cover title.~ "A revision of Bulletins 225 and 459"--T.p. 48 p. : ill. ; 23 cm. (NAL Call No.: DNAL 100 F66S (1) no.491).

(PLANT DISEASES - GENERAL)

0571

Market diseases of cabbage, cauliflower, turnips, cucumbers, melons, and related crops Glen B. Ramsey and M.A. Smith. --. Ramsey, Glen B., 1889-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Marketing Service, Market Quality Research Division, 1961. ii, 49, 24 p. : ill. --. Bibliography: p. 45-49. (NAL Call No.: DNAL Fiche S-85 no.184).

0572

Pest control in commercial pickling cucumber production.

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. 1983. 1983. (A2358). 4 p. ill. (NAL Call No.: S544.3.W6W53).

0573

Pest control in commercial vine crop production (Cucumbers, melons, squash and pumpkins, weeds, insects, diseases).

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison, Wis., The Programs. Publication - Cooperative Extension Programs, University of Wisconsin Extension. Apr 1981. Apr 1981. (A2465). 11 p. ill. (NAL Call No.: S544.3.W6W53).

0574

Pest control in commercial vine crop production (Cucumbers, melons, squash, pumpkins, diseases, insects, weeds).

Binning, L.K. Wyman, J.A.; Stevenson, W.R. Madison : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. 1983. 1983. (A2465). 12 p. ill. (NAL Call No.: S544.3.W6W53).

0575

Pickling cucumbers--pest control.

Binning, L.K. WI. Wyman, J.A.; Stevenson, W.R. Madison, Wis., The Programs. Publication - Cooperative Extension Programs, University of Wisconsin Extension. Wisconsin. University. Cooperative Extension Programs. Jan 1980. Jan 1980. (A2358). 3 p. ill. (NAL Call No.: S544.3.W6W53).

0576

Pumpkin diseases and their control.

Latin, R.X. West Lafayette : The Service. BP - Purdue University, Cooperative Extension Service. Oct 1986. (17,rev.). 4 p. ill. (NAL Call No.: DNAL SB950.2.I6B6).

0577

Spoilage of squash in storage /by E.F. Guba. Guba, Emil Frederick, 1897-. Amherst, Mass. : University of Massachusetts, 1950. Cover title. 52 p. : ill. ; 23 cm. Bibliography: p. 49-50. (NAL Call No.: DNAL 100 M38H (1) no.457).

0578

Weed, insect, and disease control guide:Asparagus; cucumbers, melons, pampkins, squash; rhubarb. Commercial vegetable.

Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pflieger, F. L.; Bissonnette, Howard L. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Outlines herbicide, insecticide and fungicide suggestions for asparagus, cucumbers, melons, pumpkins, squash and rhubarb. 4 p. : ill. (NAL Call No.: Document available from source.).(NAL Call No.: Ext. Folder 599).

0579

Wilt disorders of cucurbits.

NCREB. Stephens, C.T. Latin, R.X.; Price, H.C.; Grafius, E. Urbana-Champaign : The Service. North Central regional extension publication - Michigan State University. Cooperative Extension Service. Aug 1987. (261). 14 p. ill. (NAL Call No.: DNAL S544.N6).

PLANT DISEASES - FUNGAL

0580

Biocontrol of Fusarium wilt of cucumber resulting from interactions between *Pseudomonas putida* and nonpathogenic isolates of *Fusarium oxysporum*.

PHYTAJ. Park, C.S. Paulitz, T.C.; Baker, R. St. Paul, Minn. : American Phytopathological Society. *Phytopathology*. Feb 1988. v. 78 (2). p. 190-194. Includes references. (NAL Call No.: DNAL 464.8 P56).

0581

Biological control of Pythium damping-off of cucumbers with *Pythium nunn*: influence of soil environment and organic amendments.

PHYTAJ. Paulitz, T.C. Baker, R. St. Paul, Minn. : American Phytopathological Society. *Phytopathology*. Feb 1987. v. 77 (2). p. 341-346. Includes references. (NAL Call No.: DNAL 464.8 P56).

0582

Biological control of Pythium damping-off of cucumbers with *Pythium nunn*: population dynamics and disease suppression.

PHYTAJ. Paulitz, T.C. Baker, R. St. Paul, Minn. : American Phytopathological Society. *Phytopathology*. Feb 1987. v. 77 (2). p. 335-340. Includes references. (NAL Call No.: DNAL 464.8 P56).

0583

Biological control of Texas gourd with an endemic fungal disease.

AKFRAC. Weidemann, G.J. Templeton, G.E.; Boyette, C.D. Fayetteville, Ark. : The Station. Arkansas farm research - Arkansas Agricultural Experiment Station. Nov/Dec 1988. v. 37 (6). p. 14. (NAL Call No.: DNAL 100 AR42F).

0584

Breeding high-quality wilt-resistant watermelons /D.R. Porter.

Porter, D. R. 1900-. Berkeley, Cal. : Agricultural Experiment Station, 1937. Cover title. 43 p. : ill., charts ; 24 cm. Bibliography: p. 42-43. (NAL Call No.: DNAL 100 C12S no.614).

0585

Cantaloupe diseases (*Pseudoperonospora cubensis*, *Erysiphe cichoracearum*, *Colletotrichum lagenarium*, *Mycosphaerella citrullina*, control).

Gay, J.D. Athens, Ga., The Service. Leaflet - Cooperative Extension Service, University of Georgia. May 1982. (67). 4 p. ill. (NAL Call No.: 275.29 G29L).

0586

Cell surfaces in plant-microorganism interactions.

PLPHA. Roby, D. Toppan, A.; Esquerre-Tugaye, M.T. Rockville, Md. : American Society of Plant Physiologists. *Plant physiology*. Mar 1985. v. 77 (3). p. 700-704. Includes 24 references. (NAL Call No.: DNAL 450 P692).

0587

Cell surfaces in plant-microorganism interactions. IV. Fungal glycopeptides which elicit the synthesis of ethylene in plants (*Cantalopes*, soybeans, tobacco, *Colletotrichum lagenarium*, a melon pathogen, *Phytophthora phytoalexin* eliutors).

Toppan, A. Esqueere-Tugaye, M.T. Rockville, Md. : American Society of Plant Physiologists. *Plant physiology*. Aug 1984. v. 75 (4). p. 1133-1138. ill. Includes references. (NAL Call No.: 450 P692).

0588

Cell surfaces in plant-microorganism interactions. VI. Elicitors of ethylene from *Colletotrichum lagenarium* trigger chitinase activity in melon plants.

PLPHA. Roby, D. Toppan, A.; Esquerre-Tugaye, M.T. Rockville, Md. : American Society of Plant Physiologists. *Plant physiology*. May 1986. v. 81 (1). p. 228-233. Includes 34 references. (NAL Call No.: DNAL 450 P692).

0589

Cell surfaces in plant-microorganisms interactions. III. In vivo effect of ethylene on hydroxyproline-rich glycoprotein accumulation in the cell wall of diseased plants (Melon (*Cucumis melo* cv. *Cantaloup charentais*) seedlings infected with *Colletotrichum lagenarium*).

Toppan, A. Roby, D.; Esquerre-Tugaye, M.T. Rockville, American Society of Plant Physiologists. *Plant physiology*. July 1982. v. 70 (1). p. 82-86. 30 ref. (NAL Call No.: 450 P692).

0590

Characterization of bacteria that suppress *Rhizoctonia* damping-off in bark compost media by analysis of fatty acid biomarkers.

APMBA. Tunlid, A. Hoitink, H.A.J.; Low, C.; White, D.C. Washington, D.C. : American Society for Microbiology. Examination of cucumber roots (*Cucumis sativus* L.) grown in bark compost media and of the surrounding edaphic substrate showed profiles of polar lipid fatty acids commonly found in bacteria. The composition of fatty acids in these profiles differed significantly between roots grown in a medium naturally suppressive to *Rhizoctonia*

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damping-off and roots from a conductive medium. Cucumber roots from the suppressive medium had higher proportions of cis-vaccenic acid (18:1omega7cis) and the iso-branched monoenoic fatty acid i17:1omega8 but lower proportions of several is- and anteiso-branched fatty acids compared with roots from the conductive medium. The concentrations of the bacterial fatty acids were significantly lower in the surrounding media. However, the suppressive and conductive growth substrates had differences in the composition of the bacterial fatty acids similar to those found between the cucumber roots proper. These results suggest major differences in bacterial community composition between suppressive and conductive systems. Fatty acid analyses were also utilized to examine the effects on bacterial community composition of root colonization by *Flavobacterium balustinum* 299, a biocontrol agent. The concentration of the most prominent fatty acid in this bacterium, i17:1omega8, was increased on roots produced from inoculated seeds in a medium rendered suppressive by the treatment. This change was concomitant with a significant increase in the concentration of 18:1omega7cis, not present in the lipids of the microflora from a conductive to a suppressive bacterial community. Applied and environmental microbiology. June 1989. v. 55 (6). p. 1368-1374. Includes references. (NAL Call No.: DNAL 448.3 AP5).

0591

Combining ability estimates for muskmelon tolerance to *Myrothecium roridum* and its toxic metabolite, roridin E.

JOSHB. Kuti, J.O. Ng, T.J. Alexandria, Va. : The Society. Five parental cultivars of muskmelon (*Cucumis melo* L.) and 16 F1 hybrids, including six reciprocals, were evaluated in a diallel design for reaction to inoculations with *Myrothecium roridum* and its phytotoxic metabolite roridin E using a detached leaf screening test. Analyses of variance revealed genetic variability for tolerance to the fungus and to the toxin; the correlation coefficient between inoculations with the pathogen and the toxin was 0.94. Disease and toxin tolerance were associated with highly significant general combining ability (GCA) effects, but specific combining ability were significant only for inoculations involving the pathogen. The GCA component accounted for 95.8% of the genotypic variation for pathogen tolerance and 99.3% for toxin tolerance. Reciprocal effects were not present in either set of inoculations. Journal of the American Society for Horticultural Science. Mar 1989. v. 114 (2). p. 319-321. Includes references. (NAL Call No.: DNAL 81 S012).

0592

Compatibility of fungicide-insecticide combinations for disease and pickleworm control on honeydew melon.

Dougherty, D.E. Schuster, D.J. s.l. : The Society. Proceedings of the ... annual meeting of the Florida State Horticulture Society. June 1985. v. 97. p. 205-208. Includes references. (NAL Call No.: DNAL SB319.2.F6F56).

0593

Control of anthracnose and powdery mildew of cucumbers.

Baldwin, R.E. Virginia Beach, Va. : Virginia Polytechnic Inst. and State University Cooperative Ext. Service. The Vegetable growers news. July/Aug 1984. v. 39 (1). p. 1, 4. (NAL Call No.: DNAL 275.28 V52).

0594

Control of belly rot and cottony leak of cucumber by fungigation, 1981 (Cucumber (*Cucumis sativus* 'Calypso'), belly rot; *Rhizoctonia solani*, cottony leak; *Pythium aphanidermatum*).

Jenkins, S.F. Jr. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 67-68. (NAL Call No.: 464.9 AM31R).

0595

Control of belly rot of cucumber by fungigation, 1979, 1980 (Cucumber (*Cucumis sativus* 'Calypso'), belly rot; *Rhizoctonia solani*).

Potter, H.S. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 61. (NAL Call No.: 464.9 AM31R).

0596

Control of cucumber anthracnose, 1979 (Cucumber (*Cucumis sativus* 'Marketmore 70'), anthracnose; *Colletotrichum lagenarium*).

Lewis, G.D. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 68. (NAL Call No.: 464.9 AM31R).

0597

Control of cucumber diseases with foliar sprays, 1980 (Cucumber (*Cucumis sativus* 'Marketmore 70'), anthracnose; *Colletotrichum lagenarium*, powdery mildew; *Erysiphe cichoracearum*).

Johnston, S.A. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 59.

(NAL Call No.: 464.9 AM31R).

0598

Control of cucumber diseases with foliar sprays, 1981 (Cucumber (*Cucumis sativus* 'Marketmore 70'), anthracnose; *Colletotrichum lagenarium*, powdery mildew; *Erysiphe cichoracearum*).

Johnston, S.A. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 69. (NAL Call No.: 464.9 AM31R).

0599

Control of cucumber diseases with foliar sprays, 1982 (*Cucumis sativus*).

Johnston, S.A.FNETD. (s.l.) : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1983. v. 38. p. 98-99. (NAL Call No.: 464.9 AM31R).

0600

Control of downy and powdery mildews of cucumber, 1982 (*Cucumis sativus*).

Lewis, G.D.FNETD. (s.l.) : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1983. v. 38. p. 99. (NAL Call No.: 464.9 AM31R).

0601

Control of downy mildew of cucumbers, 1980 (Cucumber (*Cucumis sativus* 'Model'), downy mildew; *Pseudoperonospora cubensis*).

Jenkins, S.F. Jr. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 68-69. (NAL Call No.: 464.9 AM31R).

0602

Control of foliar diseases of cucumber with resistant cultivars and fungicides.

AAREEZ. Sumner, D.R. Phatak, S.C. New York : Springer. Applied agricultural research. 1987. v. 2 (5). p. 324-329. Includes references. (NAL Call No.: DNAL S539.5.A77).

0603

Control of insects and diseases of cucumbers.

Jones, B.F. Johnson, D.R.; McDaniel, M.C. Little Rock, Ark. : The Service. EL - University of Arkansas, Cooperative Extension Service. 1988. (273,rev.). 4 p. (NAL Call No.: DNAL 275.29 AR4LE).

0604

Control of insects and diseases of cucumbers.

Jones, B.F. Johnson, D.R.; McDaniel, M.C.; Hirrel, M.C. Little Rock, Ark. : The Service. Leaflet EL - Arkansas University, Cooperative Extension Service. Mar 1986. (273,rev.). 12 p. (NAL Call No.: DNAL 275.29 AR4LE).

0605

Control of leafspots and fruit rot in summer squash, 1982 (*Cucurbita pepo* var. *melopepo*).

Sumner, D.R.FNETD. Phatak, S.C. (s.l.) : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1983. v. 38. p. 108. (NAL Call No.: 464.9 AM31R).

0606

Control of metalaxyl-resistant causal agents of late blight in potato and tomato and downy mildew in cucumber by cymoxanil.

PHYTAJ. Cohen, Y. Grinberger, M. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Sept 1987. v. 77 (9). p. 1283-1288. Includes references. (NAL Call No.: DNAL 464.8 P56).

0607

Control of powdery mildew and anthracnose on cucumbers, 1981 (Cucumber (*Cucumis sativus* 'Pacer'), powdery mildew; *Erysiphe cichoracearum*, anthracnose; *Colletotrichum lagenarium*).

Baldwin, R.E. Francis, J.A. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 67. (NAL Call No.: 464.9 AM31R).

0608

Control of powdery mildew (*Erysiphe cichoracearum*) on squash.

Baldwin, R.E. Norfolk, Va., The Service. The Vegetable growers news - Virginia Polytechnic Institute and State University, Cooperative Extension Service. July 1981. v. 36 (1). p. 1. (NAL Call No.: 275.28 V52).

0609

Control of powdery mildew of acorn squash by fungicidal sprays, 1982 (*Erysiphe cichoracearum*, *Cucurbita pepo* var. *condensa*).

Lewis, G.D.FNETD. (s.l.) : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1983. v. 38. p. 107-108. (NAL Call No.: 464.9 AM31R).

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0610

Control of powdery mildew of acorn squash, 1980 (Squash (*Curcubita pepo* var *condensa* 'Table Queen'), powdery mildew; *Erysiphe cichoracearum*).

Lewis, G.D. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1981. v. 36. p. 76. (NAL Call No.: 464.9 AM31R).

0611

Control of powdery mildew of cucumber, 1980 (Cucumber (*Cucumis sativus* 'Marketmore 70'), powdery mildew; *Erysiphe cichoracearum*).

Lewis, G.D. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1981. v. 36. p. 60-61. (NAL Call No.: 464.9 AM31R).

0612

Control of powdery mildew of cucumbers and beans throughout a greenhouse room by Vanguard vapor activity, 1981 (Cucumber (*Cucumis sativus* 'Marketer'), powdery mildew; *Sphaerotheca fuliginea*, bean (dry) (*Phaseolus vulgaris* 'Red Kidney'), powdery mildew; *Erysiphe polygoni*).

Szkolnik, M. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1982. v. 37. p. 70-71. (NAL Call No.: 464.9 AM31R).

0613

Control of powdery mildew of squash, 1982 (*Erysiphe cichoracearum*, *Cucurbita* sp.).

Lambe, R.C.FNETD. Price, P.L. (s.l.): The Society. Fungicide and nematocidic tests : results - American Phytopathological Society. 1983. v. 38. p. 107. (NAL Call No.: 464.9 AM31R).

0614

Control of powdery mildew on muskmelon, 1979 (Muskmelon (*Cucumis melo* var. *reticulatus* 'Harper Hybrid'), powdery mildew; *Erysiphe cichoracearum*, downy mildew; *Pseudoperonospora cubensis*).

Dougherty, D.E. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1980. v. 35. p. 74-75. (NAL Call No.: 464.9 AM31R).

0615

Control of red spider and powdery mildew on greenhouse cucumbers /by W.D. Whitcomb and E.F. Guba.

Whitcomb, W. D. 1895-. Guba, Emil Frederick, 1897-. Amherst, Mass. : Massachusetts Agricultural Experiment Station,

1928. Cover title.~ "Contribution from the Market Garden Field Station of the Massachusetts Agricultural College, Cedar Hill, Waltham." p. 280-294 : ill. ; 23 cm. (NAL Call No.: DNAL 100 M38H (1) no.246).

0616

Control of root and hypocotyl rot in cucumber, 1981 (*Pythium aphanidermatum*, *Rhizoctonia solani*, *Cucumis sativus*).

Summer, D.R.FNETD. Phatak, S.C. (s.l.) : The Society. Fungicide and nematocidic tests : results - American Phytopathological Society. 1983. v. 38. p. 100. (NAL Call No.: 464.9 AM31R).

0617

Controlling cucumber powdery mildew (*Sphaerotheca fuliginea*) in greenhouse and field.

Paulus, A.O. CA. Brendler, R.A.; Hall, B.J.; Ede, L.L.; Nelson, J. Berkeley, The Service. California plant pathology - Cooperative Extension, University of California. Sept 1980. Sept 1980. (50). p. 2-4. (NAL Call No.: SB599.C3).

0618

Cross-resistance to four systemic fungicides in metalaxyl-resistant strains of *Phytophthora infestans* and *Pseudoperonospora cubensis* (Tested on late blight-susceptible potato cultivars and downy-mildew suscepected cucumber cultivars).

Cohen, Y. Samoucha, Y. St. Paul, American Phytopathological Society. Plant disease. Feb 1984. v. 68 (2). p. 137-139. Includes references. (NAL Call No.: 1.9 P69P).

0619

Cucumber downy mildew control, 1979 (Cucumber (*Cucumis sativus* 'Marketmore 70'), downy mildew; *Pseudoperonospora cubensis*).

Lewis, G.D. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1980. v. 35. p. 68-69. (NAL Call No.: 464.9 AM31R).

0620

Cucumber fruit rots and leafspot control with fungicide sprays, 1985.

FNETD. Averre, C.W. Jones, T.J. s.l. : The Society. Fungicide and nematocidic tests : results - American Phytopathological Society. 1986. v. 41. p. 53-54. (NAL Call No.: DNAL 464.9 AM31R).

0621

Cucurbit diseases.

Stevenson, Walter R. Scott, Donald H.; Pecknold, Paul C. & An aid to identification and control. Document available from: Purdue University, Publication Mailing Room, 301 South Second Street, Lafayette, Indiana 47905 1974. Lists cucurbit diseases and how to identify them. 1 sheet : ill. (NAL Call No.: Document available from source.). (NAL Call No.: BP-8-15).

0622

Cucurbit diseases in '86 have implications for '87.

Zitter, T. Batavia, N.Y. : Agricultural Div. of Coop Extension, Four Western Plain Counties, N.Y. State. Ag impact. May 1987. v. 14 (5). p. 8, 10-11. ill. (NAL Call No.: DNAL S544.3.N7A45).

0623

Cucurbits disorder: anthracnose.

Heimann, M.F. Stevenson, W.R. Madison, Wis. : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. 1984. (A3279). 3 p. ill. (NAL Call No.: DNAL S544.3.W6W53).

0624

Detection of cucurbit viruses in New Jersey.

PLDRA. Davis, R.F. Mizuki, M.K. St. Paul, Minn. : American Phytopathological Society. Plant disease. Jan 1987. v. 71 (1). p. 40-44. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0625

Downy mildew and anthracnose control of cucumbers, 1979 (Cucumber (*Cucumis sativus* 'SMR58'), downy mildew; *Pseudoperonospora cubensis*, anthracnose; *Colletotrichum lagenarium*).

Baldwin, R.E. Francis, J.A. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 66. (NAL Call No.: 464.9 AM31R).

0626

Downy mildew and gummy stem blight control on watermelon with new fungicides, 1979 (Watermelon (*Citrullus vulgaris* 'Charleston Gray'), downy mildew; *Pseudoperonospora cubensis*, gummy stem blight; *Mycosphaerella citrullina*).

Dougherty, D.E. (s.l.), The Society. Fungicide and nematicide tests; results - American

Phytopathological Society. 1980. v. 35. p. 98. (NAL Call No.: 464.9 AM31R).

0627

Dusting cucumbers to control downy mildew / by D.E. Ellis and R.S. Cox .

Ellis, D. E. 1908-. Cox, R. S. Raleigh, N.C. : Agricultural Experiment Station North Carolina State College and N.C. Department of Agriculture, cooperating, 1948. Cover title. 16 p. : ill. (some col.) ; 23 cm. Bibliography: p. 15-16. (NAL Call No.: DNAL 100 N81 (1) no.362).

0628

Dusting cucumbers to control downy mildew / by D.E. Ellis and R.S. Cox .

Ellis, D. E. 1908-. Cox, R. S. Raleigh, N.C. : Agricultural Experiment Station N.C. State College and N.C. Department of Agriculture cooperating, 1950. Cover title. ~ "April, 1950.". 16 p. : ill. (some col.) ; 23 cm. Bibliography: p. 16. (NAL Call No.: DNAL 100 N81 (1) no.362 rev.).

0629

The effect of dusting sulfur on muskmelons (to protect plants against various diseases, especially effective in controlling powdery mildews, *Sphaerotheca fuliginea*, resistant to injury, cultivars).

Johnson, H. Jr. Mayberry, K.S. Alexandria, Va., American Society for Horticultural Science. HortScience. Oct 1980. v. 15 (5). p. 652-654. ill. 7 ref. (NAL Call No.: SB1.H6).

0630

Effect of fungicide, pruning method and cultivar on grey mold disease of greenhouse cucumbers, 1980 (Cucumber (*Cucumis sativus*), grey mold; *Botrytis cinerea*).

Kharbanda, P.D. Howard, R.U. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 60. (NAL Call No.: 464.9 AM31R).

0631

Effect of mineral fertilizers on the incidence of blossom-end rot of watermelon.

Cirulli, M. Ciccarese, F. St. Paul, Minn., American Phytopathological Society. Phytopathology. Jan 1981. v. 71 (1). p. 50-53. ill. 27 ref. (NAL Call No.: 464.8 P56).

(PLANT DISEASES - FUNGAL)

0632

Effect of nonhost crop plants on watermelon Fusarium wilt (*Fusarium oxysporum niveum*, control obtained by planting on land not previously used for watermelons, using resistant cultivars or crop rotation). Hopkins, D.L. Elmstrom, G.W. St. Paul, Minn. : American Phytopathological Society. Plant disease. Mar 1984. v. 68 (3). p. 239-241. Includes references. (NAL Call No.: 1.9 P69P).

0633

Effect of planting date and fungicide timing on muskmelon *Alternaria* leaf blight, fruit yield, and fruit quality, 1981 (Muskmelon (*Cucumis melo* var. *reticulatus* 'Gold Star'), leaf blight; *Alternaria cucumerina*). MacNab, A.A. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 65. (NAL Call No.: 464.9 AM31R).

0634

Effect of root feeding by striped cucumber beetle larvae on the incidence and severity of Fusarium wilt of muskmelon. PHYTAJ. Latin, R.X. Reed, G.L. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Feb 1985. v. 75 (2). p. 209-212. ill. Includes 15 references. (NAL Call No.: DNAL 464.8 P56).

0635

Effect of rotation and fungicide timing on muskmelon *Alternaria* leaf blight, fruit yield, and fruit quality, 1981 (Muskmelon (*Cucumis melo* var. *reticulatus* 'Gold Star'), leaf blight; *Alternaria cucumerina*). MacNab, A.A. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 65-66. (NAL Call No.: 464.9 AM31R).

0636

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Effectiveness of fungicides for the control of grey mold of greenhouse cucumbers, 1980 (Cucumber (*Cucumis sativus* 'Brilliant'), grey mold; *Botrytis cinerea*). Kharbanda, P.D. Howard, R.J. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1981. v. 36. p. 59. (NAL Call No.: 464.9 AM31R).

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Effects of climatic conditions in polyethylene-covered structures on gray mold disease of winter cucumbers. AAREEZ. Elad, Y. Yunis, H.; Mahrer, Y. New York, N.Y. : Springer. Gray mold disease caused by *Botrytis cinerea* Pers. is a constant threat to winter-grown cucumber. Cucumber plants were grown in 24 commercial greenhouses covered with either ultraviolet absorbing (UVA) polyethylene or with one of five different brands of infrared absorbing (IRA) polyethylene sheets. During the relatively dry winter of 1985-1986, disease development in the plant canopy was limited due to nonpersistence of dew. Disease severity under the different IRA sheets was closely correlated with number of dew hours ($r = 0.965$). During the rainy winter season of 1986-1987, dew persistence was greater and the gray mold epidemic was correlated with cumulative degree hours around the optimum for disease development, i.e., 15-25 degrees C. It can be concluded that epidemics are influenced by air temperature, relative humidity, and dew duration on the canopy. On the one hand the IRA plastics reduce dew duration on plants, but on the other hand they extend the period of time of temperatures around the optimum for occurrence of epidemics. Applied agricultural research. 1988. v. 3 (5). p. 243-247. Includes references. (NAL Call No.: DNAL S539.5.A77).

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Effects of Fusarium inoculum density and root-knot nematodes on wilt resistance in summer squash. PLDRA. Caperton, C.M. Martyn, R.D.; Starr, J.L. St. Paul, Minn. : American Phytopathological Society. Plant disease. Mar 1986. v. 70 (3). p. 207-209. ill. Includes 16 references. (NAL Call No.: DNAL 1.9 P69P).

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Effects of mineral deficiencies upon fungus infected plants: energy dispersive X-ray microanalysis of antimony precipitation products in *Cucurbita pepo* (pumpkin) infected by *Sclerotinia sclerotiorum*.
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PLDIDE. Weidemann, G.J. St. Paul, Minn. : American Phytopathological Society. Plant disease. Sept 1988. v. 72 (9). p. 757-759. Includes references. (NAL Call No.: DNAL 1.9 P69P).

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Effects of temperature, moisture, and cucumber cultivar resistance on lesion size increase and conidial production by *Colletotrichum lagenarium*.
PHYTAJ. Thompson, D.C. Jenkins, S.F. St. Paul, Minn. : American Phytopathological Society. Phytopathology. July 1985. v. 75 (7). p. 828-832. Includes 11 references. (NAL Call No.: DNAL 464.8 P56).

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0647

The efficacy of various fungicides for the control of powdery mildew of greenhouse cucumbers, 1980 (*Cucumis sativus* 'Burpee'), powdery mildew; *Erysiphe cichoracearum*).
Kharbanda, P.D. Howard, R.J. (s.l.), The Society. Fungicide and nematocide tests; results - American Phytopathological Society. 1981. v. 36. p. 59-60. (NAL Call No.: 464.9 AM31R).

0648

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FNETD. Johnston, S.A. s.l. : The Society. Fungicide and nematocide tests : results - American Phytopathological Society. 1985. v. 40. p. 72-73. (NAL Call No.: DNAL 464.9 AM31R).

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0650

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Potter, H.S. (s.l.), The Society. Fungicide and nematocide tests; results - American Phytopathological Society. 1980. v. 35. p. 88. (NAL Call No.: 464.9 AM31R).

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Evaluation of fungicides for powdery mildew control on acorn squash and pumpkin, 1977 (*Squash, acorn* (*Cucurbita pepo* 'Table Queen'), pumpkin (*Cucurbita pepo* 'Jack-O-Lantern'), powdery mildew; *Erysiphe cichoracearum*).
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Potter, H.S. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1980. v. 35. p. 69. (NAL Call No.: 464.9 AM31R).

0653

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Potter, H.S. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1980. v. 35. p. 63-64. (NAL Call No.: 464.9 AM31R).

0654

Evaluation of fungicides for powdery mildew control on summer squash, 1977 (Summer squash (*Cucurbita pepo* 'Early Prolific', 'Ambassador'), powdery mildew; *Erysiphe cichoracearum*).

Potter, H.S. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1980. v. 35. p. 88. (NAL Call No.: 464.9 AM31R).

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Evaluation of soil fumigants and application methods for the control of *Fusarium (Oxysporum niveum)* wilt of watermelon (Florida).

Hopkins, D.L. SEA. Elmstrom, G.W. Beltsville, Md., The Administration. Plant disease reporter. United States. Dept. of Agriculture. Science and Education Administration. Dec 1979. v. 63 (12). p. 1003-1006. ill. 8 ref. (NAL Call No.: 1.9 P69P).

0656

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Hadar, Y. PHYTAJ. Harman, G.E.; Taylor, A.G. St. Paul: American Phytopathological Society. Phytopathology. Jan 1984. v. 74 (1). p. 106-110. Includes references. (NAL Call No.: 464.8 P56).

0657

Foliar fungicide evaluations on cantaloupe, 1979 (Cantaloupe (*Cucumis melo* 'Supreme Delight'), downy mildew; *Pseudoperonospora cubensis*, powdery mildew; *Erysiphe cichoracearum*, anthracnose; *Colletotrichum* spp.).

Abdel-Rahman, M. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1980. v. 35. p. 63. (NAL Call No.: 464.9 AM31R).

0658

Foliar sprays for cucumber disease control, 1979 (Cucumber (*Cucumis sativus* 'Marketmore 70'), powdery mildew; *Erysiphe cichoracearum*, downy mildew; *Pseudoperonospora cubensis*, anthracnose; *Colletotrichum lagenarium*).

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Fruit and foliar diseases control of cucumbers.

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0661

Fungicidal control of downy mildew of acorn squash, 1979 (Squash (*Cucurbita pepo* var. *condensa* 'Table Queen'), downy mildew; *Pseudoperonospora cubensis*).

Lewis, G.D. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1980. v. 35. p. 87. (NAL Call No.: 464.9 AM31R).

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0662

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Hashishou, H.A.FNETD. Saad, A.T. (s.l.) : The Society. Fungicide and nematicide tests : results - American Phytopathological Society. 1983. v. 38. p. 98. (NAL Call No.: 464.9 AM31R).

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Fungicidal control of powdery mildew of acorn squash, 1981 (*Squash (Cucurbita pepo* var. *condenda 'Table Queen'*), powdery mildew; *Erysiphe cichoracearum*).

Lewis, G.D. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 82. (NAL Call No.: 464.9 AM31R).

0664

Fungicidal control of powdery mildew of cucumber, 1981 (*Cucumber (Cucumis sativus 'Marketmore 70'*), powdery mildew; *Erysiphe cichoracearum*).

Lewis, G.D. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 70. (NAL Call No.: 464.9 AM31R).

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Fungicidal control of powdery mildew of cucumber, 1982 (*Erysiphe cichoracearum, Cucumis sativus*).

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Jenkins, S.F. Jr. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 68. (NAL Call No.: 464.9 AM31R).

0667

Fungicide evaluation for control of pickle foliar diseases, 1978 (*Cucumber (Cucumis sativus 'SMR58'*), downy mildew; *Pseudoperonospora cubensis*, anthracnose; *Colletotrichum lagenarium*).

Kantzes, J.G. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 67.

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0668

Fungicide evaluation for powdery mildew control on honeydew, 1979 (*Honeydew (Cucumis sp. 'Morgan'*), powdery mildew; *Erysiphe cichoracearum*).

Dougherty, D.E. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 71. (NAL Call No.: 464.9 AM31R).

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Fungicide evaluation on cucumbers, 1979 (*Cucumber (Cucumis sativus 'Table Green', 'Spartan Salad', 'Marketmore'*), powdery mildew; *Erysiphe cichoracearum*, anthracnose; *Colletotrichum sp.*, downy mildew; *Peronospora parasitica*).

Abdel-Rahman, M. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 65. (NAL Call No.: 464.9 AM31R).

0670

Fungicide evaluations for control of powdery mildew of cucumber, 1979 (*Cucumber (Cucumis sativus 'Marketmore 70'*), anthracnose; *Colletotrichum lagenarium*).

Kharbanda, P.D. Howard, R.J. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 68. (NAL Call No.: 464.9 AM31R).

0671

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Abdel-Rahman, M. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1980. v. 35. p. 87. (NAL Call No.: 464.9 AM31R).

0672

Fungicide tests on fall cucumbers in Louisiana, 1938-1951 /by J.G. Atkins, Jr. ... et al. . Atkins, John G., 1916-. Baton Rouge, La. : Louisiana State University and Agricultural and Mechanical College, Agricultural Experiment Station, 1953. 15 p. : ill. ; 23 cm. Bibliography: p. 14. (NAL Call No.: DNAL 100 L93 (1) no.472).

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0673

Fungicide timing for leaf blight control on muskmelons planted on two dates, 1980 (Muskmelon (*Cucumis melo* var. *reticulatus* 'Gold Star'), leaf blight; *Alternaria cucumerina*). MacNab, A.A. (s.l.), The Society. Fungicide and nematocide tests; results - American Phytopathological Society. 1981. v. 36. p. 64. (NAL Call No.: 464.9 AM31R).

0674

Fungicide timing for muskmelon foliar disease control, 1979 (Muskmelon (*Cucumis melo* var. *reticulatus* 'Gold Star'), leaf blight; *Alternaria cucumerina*, scab; *Cladosporium cucumerinum*). MacNab, A.A. (s.l.), The Society. Fungicide and nematocide tests; results - American Phytopathological Society. 1980. v. 35. p. 75. (NAL Call No.: 464.9 AM31R).

0675

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0676

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Fungicides for the control of squash powdery mildew and bean rust (*Erysiphe cichoracearum*, *Uromyces phaseoli*). McMillan, R.T. Jr. PFSHA. Ellal, G.; Bryan, H.H. Lake Alfred : The Society. Proceedings of the ... annual meeting - Florida State Horticultural Society. 1982. v. 95. p. 304-307. ill. Includes references. (NAL Call No.: 81 F66).

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Further studies on botanical derivatives as antifeedants against cucumber beetle (Coleoptera: Chrysomelidae). Reed, D.K. Jacobson, M. Clemson, S.C. : South Carolina Entomological Society. Journal of agricultural entomology. Jan 1989. v. 6 (1). p. 1-4. Includes references. (NAL Call No.: DNAL SB599.J69).

0679

Fusarium wilt of watermelons | Effect of soil temperature on the wilt disease and the growth of watermelon seedlings / by M.N. Walker. Walker, M. N. 1900-. Gainesville, Fla. : University of Florida Agricultural Experiment Station, 1941. Cover title. 29 p. : ill., charts ; 23 cm. Bibliography: p. 29. (NAL Call No.: DNAL 100 F66S (1) no.363).

0680

Fusarium wilt resistance in muskmelon and watermelon varieties. Latin, R.X. West Lafayette : The Service. BP - Purdue University, Cooperative Extension Service. In subseries: Plant Disease Control. Feb 1987. (19). 2 p. ill. (NAL Call No.: DNAL SB950.2.I6B6).

0681

Fusarium wilt suppression and agglutinability of *Pseudomonas putida*. APMBA. Tari, P.H. Anderson, A.J. Washington, D.C. : American Society for Microbiology. Mutants of *Pseudomonas putida* (Agg-) that lack the ability to agglutinate with components present in washes of bean and cucumber roots showed limited potential to protect cucumber plants against *Fusarium oxysporum* f. sp. *cucumerinum*. However, a higher level of protection was observed against *Fusarium* wilt in cucumber plants coinoculated with the parental bacterium (Agg+), which was agglutinable. The Agg- mutants did not colonize the roots of cucumber plants as extensively as the Agg+ parental isolate did. In competition experiments involving bean roots inoculated with a mixture of Agg+ and Agg- bacteria, the Agg+ strains colonized roots to a greater extent than the Agg- cells did. These data suggest that the Agg+ phenotype provides additional interactions that aid in the beneficial character of *P. putida*. Applied and environmental microbiology. Aug 1988. v. 54 (8). p. 2037-2041. Includes references. (NAL Call No.: DNAL 448.3 AP5).

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0682

Gummy stem blight control with fungicides, 1978 (Cucumber (Cucumis sativus 'Carolina', 'Galaxy'), gummy stem blight; Mycosphaerella citrulina).

Kantzes, J.G. (s.l.), The Society. Fungicide and nematocidic tests; results - American Phytopathological Society. 1980. v. 35. p. 68. (NAL Call No.: 464.9 AM31R).

0683

The importance of monitoring races of powdery mildew on muskmelon.

Thomas, C.E. Kishaba, A.N.; McCreight, J.D.; Nugent, P.E. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 58-59. Includes 4 references. (NAL Call No.: DNAL SB337.C94).

0684

Improved seedling performance by integration of biological control agents at favorable pH levels with solid matrix priming.

PHYTAU. Harman, G.E. Taylor, A.G. St. Paul, Minn. : American Phytopathological Society. Phytopathology. May 1988. v. 78 (5). p. 520-525. ill. Includes references. (NAL Call No.: DNAL 464.8 P56).

0685

Induced systemic protection in cucumber: effects of inoculum density on symptom development caused by Colletotrichum lagenarium in previously infected and uninfected plants.

PHYTA. Dean, R.A. Kuc, J. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Feb 1986. v. 76 (2). p. 186-189. Includes 24 references. (NAL Call No.: DNAL 464.8 P56).

0686

Induced systemic protection in cucumber: time of production and movement of the signal.

PHYTAU. Dean, R.A. Kuc, J. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Oct 1986. v. 76 (10). p. 966-970. Includes references. (NAL Call No.: DNAL 464.8 P56).

0687

The induction of disease resistance by heat shock.

Stermer, B.A. Hammerschmidt, R. New York : Alan R. Liss. UCLA symposia on molecular and cellular biology. Paper presented at the "Symposium on Molecular and Cellular Biology of Plant Stress," April 15-21, 1984, Keystone,

Colorado. 1985. v. 22. p. 291-302. Includes references. (NAL Call No.: DNAL QH506.U34).

0688

Induction of systemic resistance to anthracnose in cucumber by phosphates.

PHYTAU. Gottstein, H.D. Kuc, J.A. St. Paul, Minn. : American Phytopathological Society. Solutions of K₃P₀₄, K₂H₂P₀₄, NA₃P₀₄, and NA₂H₂P₀₄ sprayed on the undersides of the first and second true leaves of cucumber induced systemic resistance in leaves 3 and 4 to anthracnose caused by Colletotrichum lagenarium. Solutions of KH₂P₀₄, NAH₂P₀₄, CaHP₀₄, (NH₄)₂H₂P₀₄, and NH₄H₂P₀₄ were less active, and a suspension of Ca₃P₀₄ was inactive. Induced resistance in leaves 3 and 4 depended on the concentration of K₃P₀₄ applied to leaves 1 and 2. Spraying leaves 1 and 2 each with 1-2 ml of a solution K₃P₀₄ at concentrations of 100, 50, 10, 5, and 1 mM protected leaves 3 and 4 499, 96, 78, 54, and 15%, respectively. The level of protection was based on the total necrotic lesion area of plants sprayed on leaves 1 and 2 with water. A pH greater than 7.0 was required for high activity of potassium phosphates, and activity of di- and tripotassium phosphates was markedly reduced at lower pHs. Induction of systemic resistance, however, was not solely a result of an alkaline pH, because 50 mM potassium hydroxide (pH 11.7) was inactive. Induced systemic resistance was associated with the gradual appearance of chlorotic and necrotic stippling on leaves 1 and 2. The lack of stippling or rapid death of leaves 1 and 2 was associated with little or no induced systemic resistance. Induced systemic resistance in newly developing leaves above leaves 3 and 4 was apparent for at least 5 wk in greenhouse and outdoor tests. These data suggest that induced systemic resistance to disease caused by infection is not due to a specific component of the pathogen, but rather to the persistence of a low level of metabolic perturbation. One cause of such perturbation may be the sequestering of calcium ions. Phytopathology. Feb 1989. v. 79 (2). p. 176-179. Includes references. (NAL Call No.: DNAL 464.8 P56).

0689

Influence of cultivar resistance, initial disease, environment, and fungicide concentration and timing on anthracnose development and yield loss in pickling cucumbers.

PHYTA. Thompson, D.C. Jenkins, S.F. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Dec 1985. v. 75 (12). p. 1422-1427. Includes 14 references. (NAL Call No.: DNAL 464.8 P56).

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0690

Inheritance of resistance to downy mildew in Cucumis melo.

PLDIDE. Thomas, C.E. Cohen, Y.; McCreight, J.D.; Jourdain, E.L.; Cohen, S. St. Paul, Minn. : American Phytopathological Society. Plant disease. Jan 1988. v. 72 (1). p. 33-35. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0691

Inheritance of resistance to races 0 and 2 of Fusarium oxysporum f. sp. melonis in a gynoecious muskmelon.

PLDRA. Zink, F.W. Gubler, W.D. St. Paul, Minn. : American Phytopathological Society. Plant disease. July 1986. v. 70 (7). p. 676-678. Includes 12 references. (NAL Call No.: DNAL 1.9 P69P).

0692

Integrated control of Rhizoctonia (solani) fruit rot of cucumber.

Lewis, J.A. AR-BARC. Papavizas, G.C. St. Paul, Minn., American Phytopathological Society. Phytopathology. Feb 1980. v. 70 (2). p. 85-89. ill. 18 ref. (NAL Call No.: 464.8 P56).

0693

Introductory remarks: Biological control strategies in the phylloplane.

Leben, C. St. Paul, Minn. : American Phytopathological Society, c1985. Biological control on the phylloplane / edited by Carole E. Windels and Steven E. Lindow. Papers presented at a symposium entitled "Biological Control Strategies in the Phylloplane," Aug 15, 1984, Guelph, Ontario. p. 1-5. (NAL Call No.: DNAL SB732.6.B5).

0694

Investigations of the market diseases of cantaloups and honey dew and honey ball melons by James S. Wiant. -.

Wiant, James S. Washington, D.C. U.S. Dept. of Agriculture 1937. 48 p., 21 leaves of plates : ill. --. Bibliography: p. 44-47. (NAL Call No.: Fiche S-69 no.573).

0695

Involvement of ethylene in herbicide-induced resistance to Fusarium oxysporum f. sp. melonis.

PHYTAJ. Cohen, R. Riov, J.; Lisker, N.; Katan, J. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Dec 1986. v. 76 (12). p. 1281-1285. Includes 14 references. (NAL Call No.: DNAL 464.8 P56).

0696

Isozymes and general proteins from various watermelon cultivars and tissue types.

HUHSA. Biles, C.L. Martyn, R.D.; Wilson, H.D. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1989. v. 24 (5). p. 810-812. ill. Includes references. (NAL Call No.: DNAL SB1.H6).

0697

Local and systemic resistance induced in watermelons by formae speciales of Fusarium oxysporum.

PHYTA. Biles, C.L. Martyn, R.D. St. Paul, Minn. : American Phytopathological Society. Watermelon cultivars differentially resistant to Fusarium wilt were preinoculated (induced) with Fusarium oxysporum f. sp. cucumerinum or avirulent races of F. o. niveum 24 or 72 hr prior to challenge with a virulent race of F. o. niveum. All of the inducer treatments significantly reduced wilt symptoms (P less than or equal to 0.05). Avirulent races of F. o. niveum induced a higher level of resistance than did F. o. cucumerinum. An interval of 24 hr between induction and challenge provided significant protection; a 72-hr interval further enhanced resistance. When roots of the wilt-susceptible watermelon cultivar Black Diamond were induced with F. o. cucumerinum and the leaves inoculated with Colletotrichum lagenarium 24 or 72 hr later, 50% fewer lesions developed on leaves of induced plants than on noninduced inoculated controls. This suggests that induced resistance to F. o. niveum is both local and systemic, as well as nonspecific. Phytopathology. Aug 1989. v. 79 (8). p. 856-860. ill. Includes references. (NAL Call No.: DNAL 464.8 P56).

0698

Major blights of melons and cucumbers in Indiana.

Stevenson, Walter R. Document available from: Purdue University, Publication Mailing Room, 301 South Second Street, Lafayette, Indiana 47905 1979. Outlines the fungicides for control of the various blights. 4 p. : ill. (NAL Call No.: Document available from source.). (NAL Call No.: BP-8-2).

0699

Medium for the isolation of Pseudomonas cepacia biotype from soil and the isolated biotype.

Lunnsden, R.D. Sasser, M. Washington, D.C.? : The Department. Abstract: A new biotype, SDL-PDP-S-1, of the soilborne beneficial bacterium Pseudomonas cepacia NRRL B-14149 has been discovered. The biotype is very effective in controlling Pythium diseases of cucumbers and peas. A new medium that is exclusively selective for the bacterium Pseudomonas cepacia has also been developed. United States Department of Agriculture patents. Copies of

USDA patents are available for a fee from the Commissioner of Patents and Trademarks, U.S. Patents and Trademarks Office, Washington, D.C. 20231. May 13, 1986. (4,588,584). 1 p. Includes references. (NAL Call No.: DNAL AT223.V4A4).

0700

Phytotoxic effects of trichothecene metabolites from pathogenic strains of *Myrothecium roridum* on *Cucumis melo* L.

Kuti, J.O. Ng, T.J.; Bean, G.A. New York : Plenum Press, c1987. Biodeterioration research 1 / edited by Gerald C. Llewellyn and Charles E. C'Rear. p. 213-222. Includes references. (NAL Call No.: DNAL TA418.74.P36 1986).

0701

Pictorial assessment key to determine fungicide concentrations that control anthracnose development on cucumber cultivars with varying resistance levels.

PLDRA. Thompson, D.C. Jenkins, S.F. St. Paul, Minn. : American Phytopathological Society. Plant disease. Oct 1985. v. 69 (10). p. 833-836. ill. Includes 10 references. (NAL Call No.: DNAL 1.9 P69P).

0702

Plant pathology fact sheet: cantaloupe diseases.

Gay, J.D. Athens, Ga. : The Service. Leaflet - Cooperative Extension Service, University of Georgia. June 1985. (67,rev.). 4 p. ill. (NAL Call No.: DNAL 275.29 G29L).

0703

Plant pathology fact sheet: Squash diseases.

Gay, J.D. Athens, Ga. : The Service. Leaflet - Cooperative Extension Service, University of Georgia. Jan 1986. (75,rev.). 6 p. ill. (NAL Call No.: DNAL 275.29 G29L).

0704

The possible role of competition between *Trichoderma harzianum* and *Fusarium oxysporum* on rhizosphere colonization.

PHYTAJ. Sivan, A. Chet, I. St. Paul, Minn. : American Phytopathological Society. Soil was enriched with chlamydo-spores of *Fusarium oxysporum* f. sp. *vasinfectum* and *F. oxysporum* f. sp. *melonis* and amended with increasing concentrations of glucose and asparagine. Maximal germination of chlamydo-spores was obtained in soil amended with 0.4 mg of glucose and 0.08 mg of asparagine per gram of soil. Addition of conidia of the biocontrol agent *Trichoderma harzianum* (T-35) significantly ($P = 0.05$) reduced the chlamydo-spore germination rate of both *Fusaria*. However, in soils amended

with concentrations higher than 0.3 and 0.06 mg/g of soil of glucose and asparagine, respectively, the inhibition was nullified. Chlamydo-spore germination of *F.o. melonis* and *F.o. vasinfectum* in melon and cotton rhizosphere soil were significantly inhibited after soil or seed application with T-35. As in the case of the glucose and asparagine, addition of an excess of seedling exudates increased the germination rate and eliminated the inhibition. Moreover, a continuous application of germinating cotton seed exudates to a soil infested with *F.O. vasinfectum* planted with cotton and treated with T-35 significantly reduced the disease control capability of the antagonist. A seed treatment with T-35 in a constantly humid soil resulted in high population densities of the antagonist on the developing rhizosphere. Plants grown from seeds treated with T-35 had roots with lower levels of *Fusarium* spp. in their rhizosphere than roots from plants from untreated seeds. The greatest density and the largest reduction in levels of *Fusarium* were detected on the lower 4 cm of the roots. Numbers of *Fusarium* in the rhizosphere were inversely proportional to the number of conidia of T-35 applied to soil. On the other hand, as the concentration of the pathogen in soil increased, T-35 counts on root segments decreased. *Trichoderma* had little effect on the survival of *Fusarium* spp. in nonrhizosphere soil. Inhibition of germination may therefore have resulted from competition. *Phytopathology*. Feb 1989. v. 79 (2). p. 198-203. Includes references. (NAL Call No.: DNAL 464.8 P56).

0705

Possible role of competition for nutrients in biocontrol of *Pythium damping-off* by bacteria. PHYTAJ. Elad, Y. Chet, I. St. Paul, Minn. : American Phytopathological Society. *Phytopathology*. Feb 1987. v. 77 (2). 190-195. Includes references. (NAL Call No.: DNAL 464.8 P56).

0706

Powdery mildew on squash (*Erysiphe circhoracearum*, control, Virginia). Baldwin, R.E. Virginia Beach, Va., Virginia Polytechnic Inst. and State University Cooperative Extension Service. *The Vegetable growers news*. June 1982. v. 36 (12). p. 3. (NAL Call No.: 275.28 V52).

0707

***Pythium* spp. associated with crown rot of cucumbers in British Columbia greenhouses.** PLDIDE. Favrin, R.J. Rahe, J.E.; Mauza, B. St. Paul, Minn. : American Phytopathological Society. *Plant disease*. Aug 1988. v. 72 (8). p. 683-687. Includes references. (NAL Call No.: DNAL 1.9 P69P).

(PLANT DISEASES - FUNGAL)

0708

A rapid method of evaluating and determining length of activity of surface applied fungicides for the control of cucumber fruit rot (*Rhizoctonia solani*).
Sciumbato, G.L. Hegwood, C.P. Jr. Alexandria, Va., American Society for Horticultural Science. HortScience. June 1980. v. 15 (3). p. 254-255. 9 ref. (NAL Call No.: SB1.H6).

0709

Recommendations for cucumber, muskmelon, and watermelon disease control.
Latin, R.X. West Lafayette : The Service. BP - Purdue University, Cooperative Extension Service. In subseries: Plant Disease Control. Apr 1987. (18,rev.). 2 p. (NAL Call No.: DNAL SB950.2.I6B6).

0710

Reevaluation of heated water dip as a postharvest treatment for controlling surface and decay fungi (*Fusarium roseum*) of muskmelon fruits.
Carter, W.W. Alexandria, Va., American Society for Horticultural Science. HortScience. June 1981. v. 16 (3). p. 334-335. 6 ref. (NAL Call No.: SB1.H6).

0711

Reinvasion of fumigated soil by *Fusarium oxysporum* f. sp. *melonis* (Causal agent of wilt of muskmelon, *Cucumis melo* var. *reticulatus*).
Marois, J.J. PHYTA. Dunn, M.T.; Papavizas, G.C. St. Paul : American Phytopathological Society. Phytopathology. May 1983. v. 73 (5). p. 680-684. Includes references. (NAL Call No.: 464.8 P56).

0712

Resistance to metalaxyl in isolates of *Pseudoperonospora cubensis*, the downy mildew pathogen of cucurbits.
Katan, T. Bashi, E. St. Paul, Minn., American Phytopathological Society. Plant disease. Oct 1981. v. 65 (10). p. 798-800. ill. 9 ref. (NAL Call No.: 1.9 P69P).

0713

Rhizosphere competence of *Trichoderma harzianum*.
PHYTAJ. Ahmad, J.S. Baker, R. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Feb 1987. v. 77 (2). p. 182-189. ill. Includes references. (NAL Call No.: DNAL 464.8 P56).

0714

Sclerotium rolfsii control in cantaloupe, 1979 (Cantaloupe (*Cucumis melo* 'Hales Best Jumbo'), southern blight; *Sclerotium rolfsii*).
Jenkins, S.F. Averre, C.W. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 65. (NAL Call No.: 464.9 AM31R).

0715

Scytalone as a natural intermediate of melanin biosynthesis in appressoria of *Colletotrichum lagenarium* (Phytopathogenic fungi, pathogenicity tests with cucumbers, *Cucumis sativus*).
Kubo, Y. EXMYD. Suzuki, K.; Furusawa, I.; Yamamoto, M. New York : Academic Press. Experimental mycology. Sept 1983. v. 7 (3). p. 208-215. ill. Includes references. (NAL Call No.: QK600.E9).

0716

Seed and soil treatments to improve emergence of muskmelon from cold or crusted soils.
CRPSAY. Bradford, K.J. May, D.M.; Hoyle, B.J.; Skibinski, Z.S.; Scott, S.J.; Tyler, K.B. Madison, Wis. : Crop Science Society of America. Cold soil temperatures, seedling diseases, and soil crusting may limit stand establishment of early-season muskmelons (*Cucumis melo* L.). We tested the ability of seed and soil treatments to overcome these factors and improve seedling emergence. The seed treatments were priming (6 d at 25 degrees C in aerated 0.3 M KNO3 solution followed by drying) to improve the rate of germination at low temperatures, and metalaxyl N-(2,6-dimethylphenyl)-N-(methoxyacetyl) alanine methyl ester fungicide (Apron 25W) to prevent damping-off diseases. The soil treatments were spot applications of soil drenches containing metalaxyl fungicide (100 microgram L-1 Ridomil 2E), an anticrustant 2% Nalco 2190, (Nalco Chemical Corp, Carson, CA) or both fungicide and anticrustant. In laboratory tests at 18 degrees C, both germination rate and final germination were markedly improved by seed priming in 'PMR 45', 'Magnum 45', 'Topmark', and 'Topscore' plants. Seedling emergence from sterilized soil in flats under ambient outdoor temperatures (7-23 degrees C) was also improved by seed priming. Seed priming resulted in more rapid emergence or increased final emergence in five of seven field trials in two locations. Anticrustant applications to the soil covering the seed consistently improved stand establishment, particularly in badly crusted soils. Metalaxyl application to the seed or soil generally improved emergence, but the effect varied with cultivar, location, and planting method. None of the treatments significantly influenced final fruit yield. The combination of seed priming, fungicides, and anticrustants could allow lower seeding rates of expensive hybrid seed while achieving earlier emergence and adequate plant densities in early-season

(PLANT DISEASES - FUNGAL)

muskmelon crops. Crop science. Nov/Dec 1988. v. 28 (6). p. 1001-1005. Includes references. (NAL Call No.: DNAL 64.8 C883).

0717

Seedling diseases of vegetables in conservation tillage with soil fungicides and fluid drilling.
PLDIDE. Sumner, D.R. Ghate, S.R.; Phatak, S.C. St. Paul, Minn. : American Phytopathological Society. Plant disease. Apr 1988. v. 72 (4). p. 317-320. Includes references. (NAL Call No.: DNAL 1.9 P69P).

0718

Single gene control of anthracnose resistance in citrullus?

Love, S.L. Rhodes, B.B. College Park, Md. : Department of Horticulture, University of Maryland. Report: Cucurbit genetics cooperative. July 1988. (11). p. 64-67. Includes references. (NAL Call No.: DNAL SB337.C94).

0719

Soil fumigation controls sudden wilt of melon (Pythium fungus infections, California).
Munnecke, D.E. Laemmlen, F.F.; Bricker, J. Berkeley : The Station. California agriculture - California Agricultural Experiment Station. May/June 1984. v. 38 (5/6). p. 8-9. ill. (NAL Call No.: 100 C12CAG).

0720

Soil solarization for the control of Fusarium wilt of watermelon.
Martyn, R.D. Hartz, T.K. College Station, Tex. : The Station. PR - Texas Agricultural Experiment Station. June 1985. (4302). 13 p. Includes 19 references. (NAL Call No.: DNAL 100 T31P).

0721

Spraying for cucumber and melon diseases by W.A. Orton. --.
Orton, W. A. 1877-1930. Washington, D.C. : U.S. Dept. of Agriculture, 1905. 24 p. : ill. --. (NAL Call No.: DNAL Fiche S-70 no.231).

0722

Synergy between metalaxyl and mancozeb in controlling downy mildew in cucumbers.
PHYTAJ. Samoucha, Y. Cohen, Y. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Dec 1984. v. 74 (12). p. 1434-1437. Includes 8 references. (NAL Call No.: DNAL 464.8 P56).

0723

Texas gourd (Cucurbita texana) control with Fusarium solani f.sp. cucurbitae (Mycoherbicide, Arkansas, biological control).
Boyette, C.D. Templeton, G.E.; Oliver, L.R. Champaign, Ill. : Weed Science Society of America. Weed science. Sept 1984. v. 32 (5). p. 649-655. ill. Includes 22 references. (NAL Call No.: 79.8 W41).

0724

Use of fungicides to control cucumber belly rot, 1981 (Cucumber (Cucumis sativus 'Calypso'), belly rot; Rhizoctonia solani).
Sciumbato, G.L. Halterlein, A.J. (s.l.), The Society. Fungicide and nematicide tests; results - American Phytopathological Society. 1982. v. 37. p. 70. (NAL Call No.: 464.9 AM31R).

0725

Use of plant desiccants to control cucumber fruit rot (Rhizoctonia solani).
Halterlein, A.J. Sciumbato, G.L.; Barrentine, W.L. Alexandria, Va., American Society for Horticultural Science. HortScience. Apr 1981. v. 16 (2). p. 189-190. 7 ref. (NAL Call No.: SB1.H6).

0726

Use of soil solarization to control fusarium wilt of watermelon.
PLDRA. Martyn, R.D. Hartz, T.K. St. Paul, Minn. : American Phytopathological Society. Plant disease. Aug 1986. v. 70 (8). p. 762-766. Includes 21 references. (NAL Call No.: DNAL 1.9 P69P).

0727

Vine crops disorder: scab.
Heimann, M.F. Stevenson, W.R. Madison, Wis. : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. Sept 1984. (A3282). 2 p. (NAL Call No.: DNAL S544.3.W6W53).

0728

Viruses infecting wild and cultivated species of the Commelinaceae.
PLDIDE. Baker, C.A. Zettler, F.W. St. Paul, Minn. : American Phytopathological Society. Plant disease. June 1988. v. 72 (6). p. 513-518. ill. Includes references. (NAL Call No.: DNAL 1.9 P69P).

(PLANT DISEASES - FUNGAL)

0729

Weakening effect on propagules of Fusarium by sublethal heating.

PHYTAJ. Freeman, S. Katan, J. St. Paul, Minn. : American Phytopathological Society. Sublethal heating of conidia and chlamydozoospores of *Fusarium oxysporum* f. sp. *niveum* at 38-42 C caused 0-33% reduction in propagule viability and resulted in a weakening effect in the surviving propagules. This weakening effect was expressed as a delay in germination, in reduction in growth of conidial and chlamydozoospore germ tubes, and in enhanced decline of the population density of viable conidia in soil. Viability of conidia that were heat-treated or exposed to solarized soil declined faster than unheated conidia in a soil suspension culture. Vital fluorescent staining with fluorescein diacetate showed that heated conidia were less brightly stained than unheated conidia even when apparent viability, as measured by dilution plating, remained 100%. Disease incidence in watermelon seedlings inoculated with heat-treated conidia of *F. o. niveum* was reduced by 35-82%. A similar trend was observed with *F. oxysporum* f. sp. *melonis* in muskmelon seedlings. This study showed that heating at sublethal temperatures may adversely affect spore viability of *Fusarium*, resulting in pathogen control beyond the initial mortality rate caused by heating. *Phytopathology*. Dec 1988. v. 78 (12,pt.2). p. 1656-1661. ill. Includes references. (NAL Call No.: DNAL 464.8 P56).

PLANT DISEASES - BACTERIAL

0730

Angular leafspot of cucumber.

Kohls, Clint L. Venette, J. R.; Lamey, H. A. 1981. This publication discusses identification and control of angular leafspot in cucumbers, zucchini, squash, honeydew melon, muskmelon, watermelon, and other cucurbits. It also has a table showing the reaction of cucumber varieties to angular leafspot and other diseases. Document available from: Dept. of Agriculture Communications, North Dakota State University, Fargo, ND 58105. 1 sheet : ill. (NAL Call No.: PP-738).

0731

A bacterial disease causing severe damage to susceptible plant introductions of muskmelon (Cucumis melo).

Sowell, G. Jr. St. Paul, Minn., American Phytopathological Society. Plant disease. July 1981. v. 65 (7). p. 609-610. ill. Includes 3 ref. (NAL Call No.: 1.9 P69P).

0732

Bacterial wilt of cucurbits.

Walker, E. Venette, J. R.; Lamey, H. A. & Plant science section. 1981. This publication discusses the symptoms and control of bacterial wilt in cucurbits. Document available from: Dept. of Ag. Communications, North Dakota State University, Fargo, North Dakota 58105. 1 sheet : ill. (NAL Call No.: Not available at NAL.). (NAL Call No.: PP-747).

0733

Changes in cucumber cotyledon membrane lipid fatty acids during paraquat treatment and a bacteria-induced hypersensitive reaction.

PHYTA, Keppler, L.D. Novacky, A. St. Paul, Minn. : American Phytopathological Society. There is evidence that lipid peroxidation initiated by O₂- radicals may be involved in altered plant cell membrane permeability in a bacteria-induced hypersensitive reaction. Such alterations have also been reported for paraquat-treated plants. Likely membrane targets for lipid peroxidation are unsaturated fatty acyl groups. We monitored levels of different fatty acyl groups in cucumber cotyledons during paraquat treatment and during a hypersensitive reaction induced by *Pseudomonas syringae* P_{v.} pisi. Fatty acyl groups from galactolipids (a lipid found specifically in plastids) and polar lipids (found in all cell membranes) were analyzed in a total lipid extract. We also analyzed fatty acyl groups from polar lipids of an enriched plasma membrane fraction. The results verified that paraquat treatment reduces fatty acid unsaturation in plastid lipids. Fatty acid unsaturation decreased in the enriched plasma membrane fraction during both paraquat treatment and the hypersensitive reaction. These changes were concurrent with the onset of

tissue collapse. We suggest that O₂- initiated lipid peroxidation produced the altered plant cell membrane permeability observed in both paraquat treatment and bacteria-induced hypersensitive reaction. *Phytopathology*. June 1989 v. 79 (6). p. 705-708. Includes references. (NAL Call No.: DNAL 464.8 P56).

0734

Control of cucumber mosaic in the greenhouse /S.P. Doolittle.

Doolittle, S. P. 1890-. Washington, D.C. : U.S. Dept. of Agriculture, 1924. "Contribution from Bureau of Plant Industry". 6 p., 2 p. of plates : ill. ; 23 cm. (NAL Call No.: DNAL 1 Ag84D no.321).

0735

Cucumber and other cucurbit species disorder: bacterial wilt.

Heimann, M.F. Pellitteri, P.J. Madison, Wis. : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. Aug 1984. (3272). 2 p. ill. (NAL Call No.: DNAL S544.3.W6W53).

0736

Cucumber rot /by O.F. Burger.

Burger, O. F. Gainesville, Fla. : University of Florida Agricultural Experiment Station, 1914. Cover title. p. 95 -109 : ill. ; 23 cm. (NAL Call No.: DNAL 100 F665 (1) no.121).

0737

Cucurbit diseases in '86 have implications for '87.

Zitter, T. Batavia, N.Y. : Agricultural Div. of Coop Extension, Four Western Plain Counties, N.Y. State. Ag impact. May 1987. v. 14 (5). p. 8, 10-11. ill. (NAL Call No.: DNAL S544.3.N7A45).

0738

Cytokinin gene fused with a strong promoter enhances shoot organogenesis and zeatin levels in transformed plant cells.

PNASA, Smigocki, A.C. Owens, L.D. Washington, D.C. : The Academy. Proceedings of the National Academy of Sciences of the United States of America. July 1988. v. 85 (14). p. 5131-5135. ill. Includes references. (NAL Call No.: DNAL 500 N21P).

(PLANT DISEASES - BACTERIAL)

0739

Development and application of a plasmid DNA probe for detection of bacteria causing common bacterial blight of bean.

PHYTA. Gilbertson, R.L. Maxwell, D.P.; Hagedorn, D.J.; Leong, S.A. St. Paul, Minn. : American Phytopathological Society. Total plasmid DNA and cloned plasmid DNA fragments from *Xanthomonas campestris* pv. *phaseoli* were used as probes to detect *X. c. phaseoli* and *X. c. phaseoli* var. *fuscans*, causal agents of common bacterial blight of bean. Plasmid DNA hybridized extensively to total genomic DNA from 50 strains of *X. c. phaseoli* and *X. c. phaseoli* var. *fuscans*, less extensively to that from *X. c. pvs. alfalfae*, *carotae*, *vesicatoria* (races 1 and 2), and *oryzae*, and not at all to that from *X. c. pvs. campestris*, *holcicola*, or *pelargonii*, nonpathogenic xanthomonads from bean debris or other bacterial species. A 3.4-kb EcoRI fragment of plasmid DNA, which contains repetitive DNA, was a more specific probe for *X. c. phaseoli* and *X. c. phaseoli* var. *fuscans* than total plasmid DNA. The limit of detection of these probes was 10(3) *X. c. phaseoli* colony-forming units (approximately 10 pg of DNA). A colony hybridization procedure was used to detect colonies of *X. c. phaseoli* recovered from bean leaves and debris, and squash and dot blot hybridization procedures were used to detect *X. c. phaseoli* in bean leaves. Our results indicate that DNA probes are a useful tool for detecting plant pathogenic xanthomonads and may be used in ecological and epidemiological studies. *Phytopathology*. May 1989. v. 79 (5). p. 518-525. Includes references. (NAL Call No.: DNAL 464.8 P56).

0740

Effect of plant species and environmental conditions on epiphytic population sizes of *Pseudomonas syringae* and other bacteria.

PHYTA. O'Brien, R.D. Lindow, S.E. St. Paul, Minn. : American Phytopathological Society. Selected biological and environmental effects influenced epiphytic colonization of plants by *Pseudomonas syringae*, *Escherichia coli*, *Salmonella typhimurium*, *Aeromonas hydrophila*, and *Rhizobium meliloti* when tested in a growth chamber at 24 C. Epiphytic population size varied with plant host, environmental conditions, and among strains of *P. syringae* tested. Strains of *P. syringae* achieved only slightly larger population sizes than strains from other genera when incubated on inoculated plants for 48 hr, and near 100% relative humidity (RH). However, the strains of *P. syringae* maintained populations at least 25 times higher after a subsequent 72 hr at 40% RH. Epiphytic population sizes of 15 different strains of *P. syringae* varied up to 10-fold or a given plant species, indicating epiphytic diversity within this bacterial species. Relative population sizes of three strains of *P. syringae* on plants under field conditions were predicted by growth chamber populations. Neither epiphytic strains, pathogenic strains, or toxin producing groups were associated with greater epiphytic population sizes. Different

plant species varied up to 17-fold in the size of bacterial populations supported. Maceration of inoculated plant tissue increased bacterial population size estimates relative to cells removed by sonication, but only after low RH incubations. *Phytopathology*. May 1989. v. 79 (5). p. 619-627. Includes references. (NAL Call No.: DNAL 464.8 P56).

0741

Free radical involvement in the development of bacterially induced hypersensitive reaction.

Keppler, L.D. Novacky, A. Columbia, Mo. : The Interdisciplinary Plant Biochemistry and Physiology Program. Current topics in plant biochemistry and physiology : Proceedings of the ... Plant Biochemistry and Physiology Symposium held at the University of Missouri, Columbia. 1985. v. 4. p. 236. Includes 7 references. (NAL Call No.: DNAL QK861.P55).

0742

Recommendations for cucumber, muskmelon, and watermelon disease control.

Latin, R.X. West Lafayette : The Service. BP - Purdue University, Cooperative Extension Service. In subseries: Plant Disease Control. Apr 1987. (18,rev.). 2 p. (NAL Call No.: DNAL SB950.2.I6B6).

0743

Response of various cucurbits to infection by plasmid-harboring strains of *Agrobacterium*.

PLPHA. Smarrelli, J. Jr. Watters, M.T.; Diba, L.H. Rockville, Md. : American Society of Plant Physiologists. *Plant physiology*. Oct 1986. v. 82 (2). p. 622-624. ill. Includes references. (NAL Call No.: DNAL 450 P692).

PLANT DISEASES - VIRAL

0744

Bitter battles with cucumber beetles.
Pleasant, B. Emmaus, Pa. : Rodale Press.
Rodale's organic gardening. June 1986. v. 33
(6). p. 42-44, 46, 48. ill. (NAL Call No.: DNAL
S605.5.R64).

0745

**The cDNA of cucumber mosaic virus-associated
satellite RNA has in vivo biological
properties.**
BBRC. Jacquemond, M. Lauquin, G.J.M. Duluth,
Minn. : Academic Press. Biochemical and
biophysical research communications. Feb 29,
1988. v. 151 (1). p. 388-395. ill. Includes
references. (NAL Call No.: DNAL 442.8 B5236).

0746

**Characterization of multimeric forms of
cucumber mosaic virus satellite RNA.**
Young, N.D. Palukaitis, P.; Zaitlin, M. New
York, N.Y. : Alan R. Liss. UCLA symposia on
molecular and cellular biology. In the series
analytic: Molecular Strategies for Crop
Protection / edited by Charles J. Arntzen and
Clarence Ryan. Proceedings of a Symposium held
Mar 30-Apr 6, 1986, Steamboat Springs,
Colorado. 1987. v. 48. p. 243-252. ill.
Includes references. (NAL Call No.: DNAL
QH506.U34).

0747

**Complete nucleotide sequence of two new
satellite RNAs associated with cucumber mosaic
virus.**
VIRLA. Hidaka, S. Hanada, K.; Ishikawa, K.;
Miura, K. Duluth, Minn. : Academic Press.
Virology. June 1988. v. 164 (2). p. 326-333.
Includes references. (NAL Call No.: DNAL 448.8
V81).

0748

**Control of cucumber mosaic by eradication of
wild host plants /by S.P. Doolittle and M.N.
Walker.**
Doolittle, S. P. 1890-. Walker, M. N. 1900-.
Washington, D.C. : U.S. Dept. of Agriculture,
1926. Caption title.~ "November, 1926.". 14 p.
3 p. of plates ; 23 cm. Bibliography: p. 14.
(NAL Call No.: DNAL 1 Ag84B no.1461).

0749

**Control of viral infection in transgenic plants
by expression of satellite RNA of cucumber
mosaic virus.**
Baulcombe, D. Devic, M.; Jaegle, M.; Harrison,
B. New York, N.Y. : Alan R. Liss. UCLA symposia
on molecular and cellular biology. In the

series analytic: Molecular Biology of
Plant-Pathogen Interactions. Meeting held Mar
26-Apr 1, 1988, Steamboat Springs, Colorado.
1989. v. 101. p. 257-267. ill. Includes
references. (NAL Call No.: DNAL QH506.U34).

0750

**Cross-protection and interference between
electrophoretically distinct strains of
cucumber mosaic virus in tomato (*Lycopersicon
esculentum*).**
Dodds, J.A. New York, Academic Press. Virology.
Apr 15, 1982. v. 118 (1). p. 235-240. ill.
Includes 1 p. ref. (NAL Call No.: 448.8 V81).

0751

**Cross protection between strains of cucumber
mosaic virus: effect of host and type of
inoculum on accumulation of virions and
double-stranded RNA of the challenge strain.**
VIRLA. Dodds, J.A. Lee, S.Q.; Tiffany, M. New
York, N.Y. : Academic Press. Virology. July 30,
1985. v. 144 (2). p. 301-309. ill. Includes
references. (NAL Call No.: DNAL 448.8 V81).

0752

**Cucurbit diseases in '86 have implications for
'87.**
Zitter, T. Batavia, N.Y. : Agricultural Div. of
Coop Extension, Four Western Plain Counties,
N.Y. State. Ag impact. May 1987. v. 14 (5). p.
8, 10-11. ill. (NAL Call No.: DNAL
S544.3.N7A45).

0753

**Cucurbit viruses of California: an
ever-changing problem.**
PLDRA. Nameth, S.T. Dodds, J.A.; Paulus, A.O.;
Laemmlen, F.F. St. Paul, Minn. : American
Phytopathological Society. Plant disease. Jan
1986. v. 70 (1). p. 8-11. ill. Includes 18
references. (NAL Call No.: DNAL 1.9 P69P).

0754

**Effect of beetle regurgitant on plant virus
transmission using the gross wounding
technique.**
PHYTAJ. Monis, J. Scott, H.A.; Gergerich, R.C.
St. Paul, Minn. : American Phytopathological
Society. Phytopathology. Aug 1986. v. 76 (8).
p. 808-811. Includes references. (NAL Call No.:
DNAL 464.8 P56).

(PLANT DISEASES - VIRAL)

0755

Effect of the sudden wilt disease on the physiology of the muskmelon (*Cucumis melo* L. var. *Reticulatus*) / by William Leonard Bauerle Jr. -.

Bauerle, William Leonard, 1943-. 1971. Thesis (Ph.D.)--Cornell University, 1971. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. xiii, 116 leaves ; 21 cm. Bibliography: leaves 104-113. (NAL Call No.: DISS 71-17,089).

0756

Effects of local infection of cucumber by *Colletotrichum lagenarium*, *Pseudomonas lachymans*, or tobacco necrosis virus on systemic resistance to cucumber mosaic virus (Angular leaf spot, anthracnose, gummy stem blight).

Bergstrom, G.C. Johnson, M.C.; Kuc, J. St. Paul, American Phytopathological Society. *Phytopathology*. July 1982. v. 72 (7). p. 922-926. 30 ref. (NAL Call No.: 464.8 P56).

0757

Evaluations of mulches and row covers to delay virus diseases and their effects on yield of yellow squash.

AAREEZ, Conway, K.E. McCraw, B.D.; Motes, J.E.; Sherwood, J.L. New York, N.Y. : Springer. Various mulches (white polyethylene, reflective aluminum, and aluminum-painted black polyethylene) used either singly or in combination with row covers (Vispore or Reemay) were evaluated for their effects on yield and delay of virus disease development in several cultivars of yellow squash (*Cucurbita pepo*, cv "Lemondrop L", "Multiplik," or "Dixie"). Evaluations were made at three Oklahoma locations during three growing seasons. Compared to bareground controls, all mulch treatments provided yield increases (either numbers or weight of fruits) and delays in virus symptom onset when a mechanically inoculated virus source was present. Reflective aluminum mulch provided significant increase in yield and delay of symptom onset and fewer virus infected plants compared to white polyethylene when disease was severe. When an inoculated virus source was present, covers in combination with mulches were more effective than mulches alone in the delaying disease onset and increasing yield. *Applied agricultural research*. Summer 1989. v. p. 201-207. Includes references. (NAL Call No.: DNAL S539.5.A77).

0758

Expression of coat protein genes in transgenic plants confers protection against alfalfa mosaic virus, cucumber mosaic virus and potato virus X.

NASSD. Tumer, N. Hemerway, C.; O'Connell, K.; Cuozzo, M.; Fang, R.X.; Kaniewski, W.; Chua, N.H. New York, N.Y. : Plenum Press. NATO

advanced science institutes series : Series A : Life sciences. In the series analytic: Plant molecular biology / edited by D. Von Wettstein and N.H. Chua. Proceedings of a NATO Advanced Study Institute, June 10-19, 1987, Copenhagen, Denmark. 1987. v. 140. p. 351-356. Includes references. (NAL Call No.: DNAL QH301.N32).

0759

Floating row covers for the exclusion of virus vectors and the effect on disease incidence and yield of cantaloupe.

JEENAI. Perring, T.M. Royalty, R.N.; Farrar, C.A. Lanham, Md. : Entomological Society of America. The effects of floating row covers on aphid and whitefly densities in cantaloupe, *Cucumis melo* L. and the associated virus disease incidence and cantaloupe yield were evaluated. Reemay, Kimberly Farms Row Cover, and Agryl covers prevented aphids from feeding and delayed symptom expression of the spring viruses, zucchini yellow mosaic virus and watermelon mosaic virus 2. When weeds were controlled under the covers in spring plantings, there were significantly higher yields from plants in the covered plots. In fall plantings, Reemay prevented sweetpotato whiteflies, *Bemisia tabaci* (Gennadius), from feeding on the plants and this delayed symptom expression of disease caused by lettuce infectious yellows virus. Despite this delay, yields were not different probably because reduced light under the covers was compounded by low light conditions in late September and early October, offsetting any advantage from the delay in disease incidence. Further studies suggested that covers should be removed during the mid-vegetative period in the fall and during perfect flowering in the spring to maximize yields. *Journal of economic entomology*. Dec 1989. v. 82 (6). p. 1709-1715. Includes references. (NAL Call No.: DNAL 421 J822).

0760

Inhibitory effect of watermelon mosaic virus on *Meloidogyne javanica* (Treub) Chitwood infecting *Cucurbita pepo* L.

JONEB. Huang, S.P. Chu, E.Y. Raleigh, N.C. : Society of Nematologists. *Journal of nematology*. Jan 1984. v. 16 (1). p. 109-121. ill. Includes 4 references. (NAL Call No.: DNAL QL391.N4J62).

0761

Isolation of a complementary DNA encoding a chitinase with structural homology to a bifunctional lysozyme/chitinase.

PNASA. Metraux, J.P. Burkhart, W.; Moyer, M.; Dincher, S.; Middlesteadt, W.; Williams, S.; Payne, G.; Carnes, M.; Ryals, J. Washington, D.C. : The Academy. Proceedings of the National Academy of Sciences of the United States of America. Feb 1989. v. 86 (3). p. 896-900. ill. Includes references. (NAL Call No.: DNAL 500

N21P).

0768

Selected row cover materials: insect exclusion, virus disease suppression and yield enhancement.

Natwick, E.T. Laemmlen, F.F. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress, 1989. (21st). p. 288-296. Includes references. (NAL Call No.: DNAL 309.9 N216).

0762

It's code named CARNA 5.

ACREIA. McBride, J. Washington, D.C. : The Administration. Agricultural research - U.S. Department of Agriculture, Agricultural Research Service. Mar 1988. v. 36 (3). p. 10-11. (NAL Call No.: DNAL 1.98 AG84).

0769

Studies on the effect of virus infection on the development of Fusarium hypocotyl rot of squash and bean / by Carlos Arturo Diaz-Polanco. - Diaz-Polanco, Carlos Arturo, 1936-. 1969. Thesis (Ph.D.)--University of California, Berkeley, 1969. Photocopy. Ann Arbor, Mich. : University Microfilms, 1971. iii, 72 leaves : ill. ; 21 cm. Bibliography: leaves 67-72. (NAL Call No.: DISS 70-13,036).

0763

Linkage between an isozyme locus and one of the genes controlling resistance to watermelon mosaic virus 2 in Cucurbita ecuadorensis. Weeden, N.F. Robinson, R.W.; Ignart, F. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 86-87. Includes 3 references. (NAL Call No.: DNAL SB337.C94).

0770

Use of resistant Cucumis metuliferus for selection of nitrous-acid induced attenuated strains of papaya ringspot virus. PHYTA. Yeh, S.D. Chen, Y.H. St. Paul, Minn. : American Phytopathological Society. Papaya ringspot virus (PRV) HA 5-1 and HA 6-1 are two nitrous-acid induced mild strains that cause infection without conspicuous symptoms in papaya and Cucumis metuliferus line Acc. 2459. These strains were able to overcome the resistance governed by a single dominant gene Wmv in Cucumis metuliferus line PI 292190, in which resistance was defined by immunity to the parent severe strain PRV HA and susceptibility to the mild strains as manifested by systemic mosaic and necrosis symptoms. Moreover, the systemic and necrosis symptoms caused by HA 6-1 were found in all F1 test plants of Acc. 2459 X PI 292190, and perfectly followed the segregation of the Wmv gene in the F2 population, indicating that the symptoms are direct interactions between the mild virus strain and the Wmv gene. The possibility of using the resistant line of C metuliferus to screen useful attenuated strains of PRV for cross protection was investigated. Virus in crude sap from susceptible C. metuliferus Acc. 2459 infected with PRV TM, a local strain prevalent in Taiwan, was treated with nitrous acid; enrich-propagated in plants of line Acc. 2459; and then transferred to plants of the resistant line PI 292190. Virus isolates that induced systemic symptoms on line PI 292190 were selected and followed by repeated serial dilutions on the same line. The isolates were then transferred to papaya to determine their pathogenicity. Among 20 isolates selected, six induced mild symptoms on papaya, and one, designated as PRV TM-1, caused infection without conspicuous symptoms. Under greenhouse conditions, papaya inoculated with PRV TM-1 were completely protected against PRV TM when challenge inoculations were at 23, 45, or 90 days after preimmunization. The results

0764

Plant pathology fact sheet: Squash diseases. Gay, J.D. Athens, Ga. : The Service. Leaflet Cooperative Extension Service, University of Georgia. Jan 1986. (75,rev). 6 p. ill. (NAL Call No.: DNAL 275.29 G29L).

0765

Rapid synthesis of double-stranded cucumber mosaic virus-associated RNA 5: mechanism controlling viral pathogenesis.

Kaper, J.M. New York, Academic Press. Biochemical and biophysical research communications. Apr 14, 1982. v. 105 (3). p. 1014-1022. Includes 25 ref. (NAL Call No.: 442.8 B5236).

0766

Recommendations for cucumber, muskmelon, and watermelon disease control.

Latin, R.X. West Lafayette : The Service. BP Purdue University, Cooperative Extension Service. In subseries: Plant Disease Control. Apr 1987. (18,rev.). 2 p. (NAL Call No.: DNAL SB950.2.I6B6).

0767

Reflective mulch delays virus spread in summer squash.

LOAGA. Lancaster, D.M. Whitam, H.K.; Black, L.L. Baton Rouge, La. : The Station. Louisiana agriculture - Louisiana Agricultural Experiment Station. Spring 1987. v. 30 (3). p. 16-17. ill. (NAL Call No.: DNAL 100 L939).

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indicated that the resistant *C. metuliferus* can be used as a selective host for screening attenuated virus strains of PRV from artificial induction. *Phytopathology*. Nov 1989. v. 79 (11). p. 1257-1261. ill. Includes references. (NAL Call No.: DNAL 464.8 P56).

0771

Virus diseases of squash in Washington.
WUEXA. Johnson, D.A. Mink, G.; Gary, W.J. Pullman, Wash. : The Service. Extension bulletin - Washington State University, Cooperative Extension Service. In subseries: *Plant Diseases*. Oct 1988. (1508). 2 p. ill. (NAL Call No.: DNAL 275.29 W27P).

0772

Virus-suppression and aphid resistance effects on spatial and temporal spread of watermelon mosaic virus 2.
PHYTAU. Gray, S.M. Moyer, J.W.; Kennedy, G.G.; Campbell, C.L. St. Paul, Minn. : American Phytopathological Society. *Phytopathology*. Nov 1986. v. 76 (11). p. 1254-1259. Includes 27 references. (NAL Call No.: DNAL 464.8 P56).

0773

Viruses cause heavy melon losses in desert valleys.
CAGRA. Nameth, S.T. Laemmlen, F.F.; Dodds, J.A. Berkeley : The Station. *California agriculture - California Agricultural Experiment Station*. July/Aug 1985. v. 39 (7/8). p. 28-29. ill. (NAL Call No.: DNAL 100 C12CAG).

0774

Viruses of cucurbits in Arkansas.
Scott, A. Fayetteville, Ark. : Arkansas State Horticultural Society. *Proceedings of the ... annual meeting - Arkansas State Horticultural Society*. Paper presented at the "106th Annual Meeting of the Arkansas State Horticultural Society," November 13 and 14, 1985, Fort Smith, Arkansas. 1985. (106). p. 38-41. Includes 19 references. (NAL Call No.: DNAL SB21.A7A7).

PLANT DISEASES - PHYSIOLOGICAL

0775

Allelopathic substances in asparagus roots: extraction, characterization, and biological activity.

JOSHB. Hazebroek, J.P. Garrison, S.A.; Gianfagna, T. Alexandria, Va. : The Society. Aqueous extracts of asparagus (*Asparagus officinalis* L.) roots inhibited seed germination in tomato and lettuce, but not in cucumber. The extracts reduced hypocotyl growth in lettuce, shoot growth in asparagus, and inhibited radicle elongation in barley, lettuce, and asparagus. Seedling growth in tomato and two cultivars of wheat were not affected. Inhibition was concentration-dependent. Radicle growth in 'Grand Rapids' lettuce was sensitive to an extract concentration as low as 0.05 g dry root tissue/100 ml H₂O. Asparagus radicles were more sensitive than asparagus shoots. In one experiment, phytotoxicity of crude extract was not altered by autoclaving. Aqueous root extracts of *A. racemosus* Willd. also inhibited germination and radicle growth in 'Grand Rapids' lettuce. A crude extract was purified by solvent partitioning, and charcoal adsorption, cation exchange, and thin-layer chromatography (TLC). A band from the TLC was found to fluoresce under ultraviolet light, react with phenolic-sensitive localization reagents, and inhibit the growth of lettuce and asparagus radicles. *Journal of the American Society for Horticultural Science*. Jan 1989. v. 114 (1). p. 152-158. Includes references. (NAL Call No.: DNAL 81 S012).

0776

Biochemical indicators and iron index for the appraisal of the mineral status in leaves of cucumber and tomato.

JPNUDS. Valenzuela, J.L. Romero, L. New York, N.Y. : Marcel Dekker. *Journal of plant nutrition*. Paper presented at the "Fourth International Symposium on Iron Nutrition and Interactions in Plants," July 6-9, 1987, University of New Mexico, Albuquerque. June/Nov 1988. v. 11 (6/11). p. 1177-1184. Includes references. (NAL Call No.: DNAL QK867.J67).

0777

Calcium deficiency reduces cucumber fruit and seed quality.

JOSHB. Frost, D.J. Kretchman, D.W. Alexandria, Va. : The Society. 'Sumter' cucumber plants (*Cucumis sativus* L.) were grown in an acid-washed sand with a modified Hoagland's solution containing calcium (Ca) at 160 (control), 80, or 40 mg/liter-1. Fruits grown under low Ca levels developed water-soaked and necrotic lesions on the epidermis and pericarp of the distal end of the fruits. Some Ca-stressed fruits also developed a placental disruption near the stem-end forming a cylindrical air pocket. Fruit fresh and dry weights from 40 mg Ca/liter were lower than those of the control between weeks 4 to 7 of development. The Ca content of the fruit

pericarp sections decreased with increased Ca stress. Regardless of treatment, the proximal peduncle portion contained the highest levels of Ca, while the distal section contained the lowest. Seed quality was also reduced from Ca stress. Almost all dry seeds from the control but only 70% of those from 40 mg Ca/liter germinated with the standard germination test. Drying seed at 25C for 5 days reduced the viability of Ca-stressed seeds, when compared to undried seed (72% vs. 99% germination). The vigor of the control seeds was significantly higher when dried. Seeds from the 40 mg Ca/liter treatment produced a significantly higher proportion of abnormal seedlings than the control seeds (58% vs. 4%). *Journal of the American Society for Horticultural Science*. July 1989. v. 114 (4). p. 552-556. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0778

Increased arginine biosynthesis during phosphorus deficiency: a response to the increased ammonia content of leaves.

PLPHA. Rabe, E. Lovatt, C.J. Rockville, Md. : American Society of Plant Physiologists. *Plant physiology*. July 1986. v. 81 (3). p. 774-779. Includes 29 references. (NAL Call No.: DNAL 450 P692).

0779

Manganese and rates of growth and mineral accumulation in cucumber.

JOSHB. Crawford, T.W. Jr. Stroehlein, J.L.; Kuehl, R.O. Alexandria, Va. : The Society. 'Sumter' cucumber (*Cucumis sativus* L.) plants were grown in the vegetative state with nutritionally sufficient solution followed by a 2-week period with Mn deficiency (no Mn), sufficiency (0.1 mg Mn/liter), or toxicity (10 mg Mn/liter). Beginning 34 days after germination, or about 2 weeks before imposition of Mn deficiency and toxicity treatments, plants were harvested every 3 days. With Mn deficiency and toxicity, rates of accumulation of dry weight (DW), fresh weight (FW), N, P, and K were lower than with Mn sufficiency. In contrast, rates of accumulation for Cu, Fe, and Zn were generally higher with Mn deficiency, compared to these fluxes in Mn-sufficient plants. Anomalously high accumulation rates for DW, FW, Cu, and Mn were estimated for the 3-day period following the beginning of the toxic Mn treatment. *Journal of the American Society for Horticultural Science*. Mar 1989. v. 114 (2). p. 300-306. Includes references. (NAL Call No.: DNAL 81 S012).

(PLANT DISEASES - PHYSIOLOGICAL)

0780

Nitrogen and phosphorus stress repair in muskmelon (*Cucumis melo*) seedlings.

JPNUDS. Nerson, H. Paris, H.S.; Edelstein, M. New York, N.Y. : Marcel Dekker. Journal of plant nutrition. Paper presented at the "Tenth International Plant Nutrition Colloquium", August 4-9, 1986, Beltsville, Maryland. 1987. v. 10 (9/16). p. 1835-1841. Includes references. (NAL Call No.: DNAL QK867.J67).

MISCELLANEOUS PLANT DISORDERS

0781

Accumulation of photodynamic tetrapyrroles induced by acifluorfen-methyl.

PLPHA. Witkowski, D.A. Halling, B.P. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. July 1988. v. 87 (3). p. 632-637. Includes references. (NAL Call No.: DNAL 450 P692).

0782

Activities of the N-phenyl imide S-23142 in carotenoid-deficient seedlings of rice and cucumber.

PCBPB. Sato, R. Nagano, E.; Oshio, H.; Kamoshita, K. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. July 1988. v. 31 (3). p. 213-220. Includes references. (NAL Call No.: DNAL SB951.P49).

0783

Anaerobiosis and carbohydrate status of the embryonic axis of germinating cucumber seeds.

HJHSA. Pharr, D.M. Motomura, Y. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1989. v. 24 (1). p. 120-122. Includes references. (NAL Call No.: DNAL SB1.H6).

0784

Application of the thermal hysteresis of NMR relaxation times of water protons in leaf tissues for the estimation of chilling injury.

Iwaya-Inoue, M. Konagamitsu, Y.; Kaku, S. New York : Alan R. Liss. Plant biology. In the series analytic: Plant Cold Hardiness / edited by P.H. Li. Proceedings of an International Seminar, September 4-7, 1986, Shanghai, China. 1987. v. 5. p. 275-289. Includes references. (NAL Call No.: DNAL QH301.P535).

0785

Buthidazole phytotoxicity (to cucumber and soybeans) as affected by placement and water.

Weber, J.B. Lowder, S.W.; Swain, L.R.; Peter, C.J. Auburn, Ala., The Society. Proceedings - Southern Weed Science Society. 1980. 1980. (33d). p. 276-279. ill. 3 ref. (NAL Call No.: 79.9 S08).

0786

Changes in cucumber cotyledon membrane lipid fatty acids during paraquat treatment and a bacteria-induced hypersensitive reaction.

PHYTA. Keppler, L.D. Novacky, A. St. Paul, Minn. : American Phytopathological Society. There is evidence that lipid peroxidation initiated by O₂⁻ radicals may be involved in altered plant cell membrane permeability in a

bacteria-induced hypersensitive reaction. Such alterations have also been reported for paraquat-treated plants. Likely membrane targets for lipid peroxidation are unsaturated fatty acyl groups. We monitored levels of different fatty acyl groups in cucumber cotyledons during paraquat treatment and during a hypersensitive reaction induced by *Pseudomonas syringae* P.v. pisi. Fatty acyl groups from galactolipids (a lipid found specifically in plastids) and polar lipids (found in all cell membranes) were analyzed in a total lipid extract. We also analyzed fatty acyl groups from polar lipids of an enriched plasma membrane fraction. The results verified that paraquat treatment reduces fatty acid unsaturation in plastid lipids. Fatty acid unsaturation decreased in the enriched plasma membrane fraction during both paraquat treatment and the hypersensitive reaction. These changes were concurrent with the onset of tissue collapse. We suggest that O₂⁻ initiated lipid peroxidation produced the altered plant cell membrane permeability observed in both paraquat treatment and bacteria-induced hypersensitive reaction. Phytopathology. June 1989 v. 79 (6). p. 705-708. Includes references. (NAL Call No.: DNAL 464.8 P56).

0787

Characterization of herbicidal injury by acifluorfen-methyl in excised cucumber (*Cucumis sativus* L.) cotyledons.

Orr, G.L. Hess, F.D. New York, Academic Press. Pesticide biochemistry and physiology. Dec 1981. v. 16 (3). p. 171-178. ill. 25 ref. (NAL Call No.: SB951.P49).

0788

Characterization of the mode of action of the experimental herbicide LS 82-556 (S)3-N-(Methylbenzyl)carbamoyl-5-propionyl-2,6-lutidine .

PCBPB. Matringe, M. Dufour, J.L.; Lherminier, J.; Scalla, R. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Oct 1986. v. 26 (2). p. 150-159. ill. Includes references. (NAL Call No.: DNAL SB951.P49).

0789

Chemical weed control programs for selected vegetables on clear plastic mulches.

Gorske, S.F. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1981. (16th). p. 142-148. Includes references. (NAL Call No.: DNAL 309.9 N216).

(MISCELLANEOUS PLANT DISORDERS)

0790

Chilling-induced lipid degradation in cucumber (*Cucumis sativa* L. cv hybrid C) fruit.
PLPHA. Parkin, K.L. Kuo, S.J. Rockville, Md. : American Society of Plant Physiologists. Chilling at 4 degrees C in the dark induced lipid degradation in cucumber (*Cucumis sativa* L.) fruit upon rewarming at 14 degrees C. Rates of ethane evolution by fruits rewarmed after 3 days of chilling were up to four-fold higher than those evolved by unchilled (14 degrees C) fruits (0.02-0.05 picomoles gram fresh weight⁻¹ hour⁻¹). This potentiation of lipid peroxidation occurred prior to irreversible injury (requiring 3 to 7 days of chilling) as indicated by increases in ethylene evolution and visual observations. Decreases in unsaturation of peel tissue glycolipids were observed in fruits rewarmed after 3 days of chilling, indicating the plastids to be the site of the early phases of chilling-induced peroxidation. Losses in unsaturation of tissue phospholipids were first observed only after chilling for 7 days. Phospholipase D activity appeared to be potentiated in fruits rewarmed after 7 days of chilling as indicated by a decrease in phosphatidylcholine (and secondarily phosphatidylethanolamine) with a corresponding increase in phosphatidic acid. These results indicate that lipid peroxidation may have a role in conferring chilling injury. Plant physiology. July 1989. v. 90 (3). p. 1049-1056. Includes references. (NAL Call No.: DNAL 450 P692).

0791

Comparative toxicology of phenolic compounds using root elongation method.
ETDCDK. Wang, W.C. Elmsford : Pergamon Press. Environmental toxicology and chemistry. 1986. v. 5 (10). p. 891-896. Includes 13 references. (NAL Call No.: DNAL QH545.A1E58).

0792

A comparison of the effects of ABA and an antitranspirant on chilling injury of coleus, cucumbers, and Dieffenbachia.
JDSHB. Semeniuk, P. Moline, H.E.; Abbott, J.A. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Nov 1986. v. 111 (6). p. 866-868. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0793

Differential atrazine tolerance within cucumber (*Cucumis sativus*) (Injuries, chlorosis).
Werner, G.M. Putnam, A.R. Champaign, Ill., Weed Science Society of America. Weed science. Mar 1980. v. 28 (2). p. 142-148. ill. 30 ref. (NAL Call No.: 79.8 W41).

0794

Differential Cucurbita spp. tolerance to the herbicide trifluralin.
JDSHB. Poe, R.R. Coyne, D.P.; Swisher, B.A.; Clegg, M.D. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Jan 1988. v. 113 (1). p. 35-40. Includes references. (NAL Call No.: DNAL 81 S012).

0795

Differential sensitivity of muskmelon and watermelon cultivars to ozone-induced foliar injury.
PIACA. Simini, M. Snyder, R.G.; Simon, J.E. Indianapolis, Ind. : The Academy. Proceedings of the Indiana Academy of Science. Meeting held November 13-15, 1986, University of Indianapolis, Indianapolis, Indiana. 1987. v. 96. p. 121-127. Includes references. (NAL Call No.: DNAL 500 IN2).

0796

Effect of adjuvants on cucumber (*Cucumis sativus*) sensitivity to Quizalofop.
WEESA6. Ruizzo, M.A. Gorski, S.F. Champaign, Ill. : Weed Science Society of America. Weed science. July 1987. v. 35 (4). p. 559-563. Includes references. (NAL Call No.: DNAL 79.8 W41).

0797

The effect of dusting sulfur on muskmelons (to protect plants against various diseases, especially effective in controlling powdery mildews, *Sphaerotheca fuliginea*, resistant to injury, cultivars).
Johnson, H. Jr. Mayberry, K.S. Alexandria, Va., American Society for Horticultural Science. HortScience. Oct 1980. v. 15 (5). p. 652-654. ill. 7 ref. (NAL Call No.: SB1.H6).

0798

Effect of magnesium and manganese nutrition on muskmelon growth and manganese toxicity.
JDSHB. Elamin, D.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1986. v. 111 (4). p. 582-587. Includes references. (NAL Call No.: DNAL 81 S012).

0799

Effect of magnesium and manganese nutrition on watermelon growth and manganese toxicity.
JDSHB. Elamin, D.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1986. v. 111 (4). p. 588-593. ill. Includes

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references. (NAL Call No.: DNAL 81 S012).

0800

Effect of pre- and post-planting ethalfluralin applications in transplanted summer squash (Herbicide, phytotoxicity).

Precheur, R.J.PNWSB. Beltsville : The Society. Proceedings - annual meeting of the Northeastern Weed Science Society. 1983. 1983. (37th). p. 219-222. (NAL Call No.: 79.9 N814).

0801

Effect of seeding depth and irrigation on ethalfluralin injury to cucumber.

PNWSB. Escobar, M. Ashley, R.A. Beltsville, Md. : The Society. Proceedings of the ... annual meeting - Northeastern Weed Science Society. 1985. v. 39. p. 136-139. Includes 9 references. (NAL Call No.: DNAL 79.9 N814).

0802

Effects of acifluorfen-methyl on cucumber cotyledons: porphyrin accumulation.

PCBPB. Matringe, M. Scalla, R. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Oct 1988. v. 32 (2). p. 164-172. Includes references. (NAL Call No.: DNAL SB951.P49).

0803

Effects of wounding on cytokinin activity in cucumber cotyledons.

PLPHA. Crane, K.E. Ross, C.W. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Dec 1986. v. 82 (4). p. 1151-1152. Includes references. (NAL Call No.: DNAL 450 P692).

0804

Enhancement of wound-induced ethylene synthesis by ethylene in preclimacteric cantaloupe (Cucumis melo).

Hoffman, N.E. Yang, S.F. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Feb 1982. v. 69 (2). p. 317-322. Includes 28 ref. (NAL Call No.: 450 P692).

0805

Factors affecting bentazon toxicity to cucumber (Cucumis sativus) (Postemergence herbicide).

Teasdale, J.R.WEESA6. Champaign : Weed Science Society of America. Weed science. Jan 1984. v. 32 (1). p. 33-36. ill. Includes references. (NAL Call No.: 79.8 W41).

0806

Fluxes of atmospheric hydrogen sulphide to plant shoots.

NEPHA. Kok, L.U. de. Stahl, K.; Rennenberg, H. New York, N.Y. : Cambridge University Press. The New phytologist. Aug 1989. v. 112 (4). p. 533-542. Includes references. (NAL Call No.: DNAL 450 N42).

0807

Frost and chilling temperature exposure of small cucumber plants and their effect on yields and malformed fruits.

Gonzalez, A.R. Gavin, J.C.; Marx, D.B. Fayetteville, Ark. : Arkansas State Horticultural Society. Proceedings of the ... annual meeting - Arkansas State Horticultural Society. 1984. (105th). p. 42-46. ill. (NAL Call No.: DNAL SB21.A7A7).

0808

Herbicide evaluation on watermelon crops in Oregon's Columbia Basin (Citrullus lanatus, weed control, phytotoxicity).

Hall, L.F.OASPA. William, R. Corvallis : The Station. Special report - Agricultural Experiment Station, Oregon State University. July 1983. July 1983. (684). p. 49-55. (NAL Call No.: 100 OR3M).

0809

Herbicide safening effects of plastic row covers in vegetables.

PNWSB. Vrabel, T.E. Schales, F.D. Beltsville, Md. : The Society. Proceedings of the ... annual meeting - Northeastern Weed Science Society. 1987. v. 41. p. 103-108. Includes references. (NAL Call No.: DNAL 79.9 N814).

0810

Herbicides and fungicides inhibit Ca²⁺ (Calcium ion) uptake by plant mitochondria: a possible mechanism of action (Maize, zucchini).

Hertel, C.PCBPB. Marme, D. New York : Academic Press. Pesticide biochemistry and physiology. June 1983. v. 19 (3). p. 282-290. ill. Includes references. (NAL Call No.: SB951.P49).

0811

High temperature stress affects pollen viability in bottle gourd.

JDSHB. Iapichino, G.F. Loy, J.B. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Mar 1987. v. 112 (3). p. 372-374. Includes references. (NAL Call No.: DNAL 81 S012).

(MISCELLANEOUS PLANT DISORDERS)

0812

Hormonal control and herbicidal influence on dipeptidase synthesis in squash cotyledons (*Cucurbita maxima*, inhibition).
Ashton, F.M. Tsay, R. Honolulu, The Station. Technical Bulletin - Hawaii Agricultural Experiment Station, University of Hawaii. June 1981. June 1981. (100). p. 5-30. ill. 4 p. ref. (NAL Call No.: 100 H313T).

0813

Identification of manganese toxicity and magnesium deficiency on melons grown in low-pH soils.
HJHSA. Simon, J.E. Wilcox, G.E.; Simini, M.; Elamin, D.M.; Decoteau, D.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1986. v. 21 (6). p. 1383-1386. ill. Includes references. (NAL Call No.: DNAL SB1.H6).

0814

Identification of ozone-induced injury on field-grown muskmelons.
HJHSA. Simini, M. Simon, J.E.; Reinert, R.A.; Eason, G. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1989. v. 24 (6). p. 909-912. ill. Includes references. (NAL Call No.: DNAL SB1.H6).

0815

Induction of perfect flowers on gynoeceous muskmelon by silver nitrate and aminoethoxyvinylglycine (for producing hybrid seed, phytotoxicity).
Owens, K.W. AR-NC. Peterson, C.E.; Tolla, G.E. Alexandria, Va., American Society for Horticultural Science. HortScience. Oct 1980. v. 15 (5). p. 654-655. 19 ref. (NAL Call No.: SB1.H6).

0816

Influence of chloroplast development on the activation of the diphenyl ether herbicide acifluorfen-methyl.
PLPHA. Halling, B.P. Peters, G.R. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Aug 1987. v. 84 (4). p. 1114-1120. Includes references. (NAL Call No.: DNAL 450 P692).

0817

The influence of herbicides on the growth and yield of muskmelons (*Cucumis melo*).
WEESA6. Motsenbocker, C.E. Bonanno, A.R. Champaign, Ill. : Weed Science Society of America. Weed science. Mar 1988. v. 36 (2). p. 234-238. Includes references. (NAL Call No.:

DNAL 79.8 W41).

0818

Influence of light and temperature on bentazon phytotoxicity to cucumber (*Cucumis sativus*).
Teasdale, J.R. WEESA. Thimijan, R.W. Champaign : Weed Science Society of America. Weed science. Mar 1983. v. 31 (2). p. 232-235. Includes references. (NAL Call No.: 79.8 W41).

0819

Inheritance of resistance to trifluralin toxicity in *Cucurbita moschata* Poir.
Adeniji, A.A. Coyne, D.P. Alexandria, Va., American Society for Horticultural Science. HortScience. Dec 1981. v. 16 (6,sect.1). p. 774-775. Includes 7 ref. (NAL Call No.: SB1.H6).

0820

Inhibition of chloroplast-mediated reactions by quizalofop herbicide.
WEESA6. Ruizzo, M.A. Gorski, S.F. Champaign, Ill. : Weed Science Society of America. A mechanism of action of the ethyl ester of quizalofop was determined in monocotyledonous and dicotyledonous plants. Quizalofop inhibited electron transport in both cucumber and corn chloroplasts. In corn, inhibition of electron transport was more pronounced under phosphorylating conditions. Half-maximal inhibition (I50) of ATP synthesis was achieved with a 75-microM concentration of quizalofop in coupled corn chloroplasts. Cucumber chloroplast ATP synthesis was not inhibited at herbicide concentrations up to 100 microM. Corn chloroplast fractions contained greater quantities of bound U-14C quizalofop ester following incubation in light and dark assays. Thin-layer radiochromatograms of 14C-labeled quizalofop showed no metabolism or degradation of parent ester incubated in light and dark chloroplast-mediated reactions. In our studies, it is apparent that the inhibitory action of quizalofop was due to the parent ester. The ester formulation of quizalofop appears to exhibit multiple activity in susceptible plant chloroplasts. Weed science. Nov 1988. v. 36 (6). p. 713-718. Includes references. (NAL Call No.: DNAL 79.8 W41).

0821

Leaf cell membrane thermostabilities of *Cucumis melo*.
JOSHB. Lester, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1985. v. 110 (4). p. 506-509. Includes 13 references. (NAL Call No.: DNAL 81 S012).

(MISCELLANEOUS PLANT DISORDERS)

0822

Manganese toxicity development in muskmelons as influenced by nitrogen form.

JOSHB. Elamin, D.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1986. v. 111 (3). p. 323-327. ill. Includes references. (NAL Call No.: DNAL 81 S012).

0823

Manganese toxicity in watermelon plants as influenced by nitrogen form.

JOSHB. Elamin, D.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1986. v. 111 (5). p. 765-768. Includes references. (NAL Call No.: DNAL 81 S012).

0824

Melon response to wiper applications of glyphosate.

PNWSB. Teasdale, J.R. Magruder, F.W. Beltsville, Md. : The Society. Proceedings of the ... annual meeting - Northeastern Weed Science Society. 1986. v. 40. p. 173-175. Includes references. (NAL Call No.: DNAL 79.9 N814).

0825

Metabolic changes in Citrullus subjected to zinc stress.

Sharma, C.P. Gupta, J.P.; Agarwala, S.C. New York, Marcel Dekker. Journal of plant nutrition. 1981. v. 3 (1/4). p. 337-344. Bibliography p. 342-344. (NAL Call No.: QK867.J67).

0826

Metolachlor and alachlor effects on membrane permeability and lipid synthesis (Herbicides, phytotoxicity, using roots of corn, soybean, cotton, cucumber, onion).

Mellis, J.M. Pillai, P.; Davis, D.E.; Truelove, B. Champaign, Ill., Weed Science Society of America. Weed science. July 1982. v. 30 (4). p. 399-404. ill. 27 ref. (NAL Call No.: 79.8 W41).

0827

Muskmelon problems on acid sandy soils: manganese toxicity and magnesium deficiency diagnosis and correction.

Elamin, D. Wilcox, G.E. West Lafayette, Ind. : The Service. HD - Purdue University, Cooperative Extension Service. Apr 1985. (191). 2 p. ill. (NAL Call No.: DNAL SB21.16P8).

0828

Nitrogen form ratio influence on muskmelon growth, composition, and manganese toxicity.

JOSHB. Elamin, D.M. Wilcox, G.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. May 1986. v. 111 (3). p. 320-322. Includes references. (NAL Call No.: DNAL 81 S012).

0829

Ozone-induced injury on field-grown watermelons.

HJHSA. Decoteau, D.R. Simon, J.E.; Eason, G.; Reinert, R.A. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1986. v. 21 (6). p. 1369-1371. ill. Includes references. (NAL Call No.: DNAL SB1.H6).

0830

Peroxide levels and the activities of catalase, peroxidase, and indoleacetic acid oxidase during and after chilling cucumber seedlings (Mechanisms of cold injury).

Omrán, R.G. Bethesda, Md., American Society of Plant Physiologists. Plant physiology. Feb 1980. v. 65 (2). p. 407-408. ill. 24 ref. (NAL Call No.: 450 P692).

0831

Pesticides a study of their effects on the growth and transpiration of cucumber, tomato, and potato plants /by J.D. Wilson and J.P. Slesman.

Wilson, J. D. 1895-. Slesman, J. P. 1904-. Wooster, Ohio : Ohio Agricultural Experiment Station, 1948. Cover title. 23 p. : ill. ; 23 cm. (NAL Call No.: DNAL 100 DH3S (2) no.676).

0832

The photodependent effect of LS 82556 and acifluorfen in cucumber cotyledon pieces: the possible indirect involvement of photosynthesis.

PCBPB. Nurit, F. Ravanel, P.; Tissut, M. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. May 1988. v. 31 (1). p. 67-73. ill. Includes references. (NAL Call No.: DNAL SB951.P49).

0833

Photosynthesis is not involved in the mechanism of action of acifluorfen in cucumber (Cucumis sativus L.).

PLPHA. Duke, S.O. Kenyon, W.H. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. July 1986. v. 81 (3). p. 882-888. ill. Includes 32 references. (NAL Call No.:

(MISCELLANEOUS PLANT DISORDERS)

DNAL 450 P692).

0834

Phytotoxic interaction studies--Techniques for evaluation and presentation of results (Interactions of two or more pesticides in plants, tested on oats and cucumbers).
Nash, R.G. Champaign, Ill., Weed Science Society of America. Weed science. Mar 1981. v. 29 (2). p. 147-155. ill. 22 ref. (NAL Call No.: 79.8 W41).

0835

Porphyrin synthesis involvement in diphenyl ether-like mode of action of TNPP-ethyl, a novel phenylpyrazole-herbicide.
PCBPB. Yanase, D. Andoh, A. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Sept 1989. v. 35 (1). p. 70-80. ill. Includes references. (NAL Call No.: DNAL SB951.P49).

0836

Protocol for measuring the relative toxicity of substances on plant foliage (Kidney beans, cucumber, air pollution).
Thompson, C.R. Kats, G.; Dawson, P.W.; Doyle, D.A. New York, Springer. Bulletin of environmental contamination and toxicology. Feb 1981. v. 26 (2). p. 281-287. ill. 5 ref. (NAL Call No.: RA1270.P35A1).

0837

Protoporphyrin IX content correlates with activity of photobleaching herbicides.
PLPHA. Bercerril, J.M. Duke, S.O. Rockville, Md. : American Society of Plant Physiologists. Several laboratories have demonstrated recently that photobleaching herbicides such as acifluorfen and oxadiazon cause accumulation of protoporphyrin IX (PPIX), a photodynamic pigment capable of herbicidal activity. We investigated, in acifluorfen-treated tissues, the in vivo stability of PPIX, the kinetics of accumulation, and the correlation between concentration of PPIX and herbicidal damage. During a 20 hour dark period, PPIX levels rose from barley detectable concentrations to 1 to 2 nanomoles per 50 cucumber (*Cucumis sativus* L.) cotyledon discs treated with 10 micromolar acifluorfen. When placed in 500 micromoles per square meter per second PAR, PPIX levels decayed logarithmically, with an initial half-life of about 2.5 hours. PPIX levels at each time after exposure to light correlated positively with the cellular damage that occurred during the following 1 hour in both green and yellow (tentoxin-treated) cucumber cotyledon tissues. PPIX levels in discs incubated for 20 hours in darkness correlated positively with the acifluorfen concentration in which they were incubated. In cucumber, the

level of herbicidal damage caused by several p-nitrodiphenyl ether herbicides, a p-chlorodiphenylether herbicide, and oxadiazon correlated positively with the amount of PPIX induced to accumulate by each of the herbicide treatments. Similar results were obtained with acifluorfen-treated pigweed and velvetleaf primary leaf tissues. In cucumber, PPIX levels increased within 15 and 30 minutes after exposure of discs to 10 micromolar acifluorfen in the dark and light, respectively. These data strengthen the view that PPIX is responsible for all or a major part of the photobleaching activity of acifluorfen and related herbicides. Plant physiology. July 1989. v. 90 (3). p. 1175-1181. Includes references. (NAL Call No.: DNAL 450 P692).

0838

Relation of chilling stress to ethylene production.
Wang, C.Y. Boca Raton, FL : CRC Press, c1989. Low temperature stress physiology in crops editor, Paul H. Li. Literature review. p. 177-189. Includes references. (NAL Call No.: DNAL SB781.L68).

0839

Release rate of three herbicides from controlled-release tablets.
WETEE9. Gorski, S.F. Reiners, S.; Ruizzo, M.A. Champaign, Ill. : The Society. Weed technology : a journal of the Weed Science Society of America. Apr/June 1989. v. 3 (2). p. 349-352. Includes references. (NAL Call No.: DNAL SB610.W39).

0840

Resistance to injury by sulfur dioxide. Correlation with its reduction to, and emission of, hydrogen sulfide in Cucurbitaceae.
Sekiya, J. Wilson, L.G.; Filner, P. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Aug 1982. v. 70 (2). p. 437-441. 29 ref. (NAL Call No.: 450 P692).

0841

Response of cotton, alfalfa, and cantaloupe to foliar-deposited salt in an arid environment.
JEVQAA. Hofmann, W.C. Karpiscak, M.M.; Bartels, P.G. Madison, Wis. : American Society of Agronomy. Journal of environmental quality. July/Sept 1987. v. 16 (3). p. 267-272. Includes references. (NAL Call No.: DNAL QH540.J6).

(MISCELLANEOUS PLANT DISORDERS)

0842
Reversal of fluridone-reduced chlorophyll accumulation in cucumber (*Cucumis sativus*) cotyledons by stimulatory compounds.
WEESA6. Fletcher, R.A. Meru, S.V.; Bhardwaj, S.N. Champaign, Ill. : Weed Science Society of America. Weed science. Nov 1984. v. 32 (6). p. 722-726. Includes 17 references. (NAL Call No.: DNAL 79.8 W41).

0843
Root elongation method for toxicity testing of organic and inorganic pollutants.
ETODCK. Wang, W. Elmsford : Pergamon Press. Environmental toxicology and chemistry. 1987. v. 6 (5). p. 409-414. Includes references. (NAL Call No.: DNAL QH545.A1E58).

0844
Selectivity mechanisms for foliar applications of diclofop-methyl. II. Metabolism (Studies with weeds, proso millet, soybeans and cucumber, uptake, tolerance).
Boltdt, P.F. Putnam, A.R. Champaign, Ill., Weed Science Society of America. Weed science. Mar 1981. v. 29 (2). p. 237-241. ill. 15 ref. (NAL Call No.: 79.8 W41).

0845
Sequence of effects of acifluorfen on physiological and ultrastructural parameters in cucumber cotyledon discs.
PCBPB. Kenyon, W.H. Duke, S.O.; Vaughn, K.C. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Oct 1985. v. 24 (2). p. 240-250. ill. Includes references. (NAL Call No.: DNAL SB951.P49).

0846
Soil residual of ethalfluralin with cucumbers (and sweet corn, injury).
Williamson, S.W. Beste, C.E. Beltsville, Md., The Society. Proceedings - annual meeting of the Northeastern Weed Science Society. Northeastern Weed Science Society. 1980. v. 34. p. 189-194. ill. 3 ref. (NAL Call No.: 79.9 N814).

0847
Solution volume and seed number: often overlooked factors in allelopathic bioassays.
JCECD. Weidenhamer, J.D. Morton, T.C.; Romeo, J.T. New York, N.Y. : Plenum Press. Journal of chemical ecology. June 1987. v. 13 (6). p. 1481-1491. Includes references. (NAL Call No.: DNAL QD415.A1J6).

0848
Sulfite oxidation and SO₂ (sulfur dioxide) injury in cucumber (*Cucumis sativus*).
Ream, J. Wilson, L.G. East Lansing, Mich., The Laboratory. Annual report - Michigan State University, MSU/DDE Plant Research Laboratory. 1981. 1981 (16th). p. 62. (NAL Call No.: QK1.M5).

0849
Terbacil evaluation for seeded watermelon.
PNWSB. Beste, C.E. Beltsville, Md. : The Society. Proceedings of the ... annual meeting - Northeastern Weed Science Society. 1987. v. 41. p. 128-133. Includes references. (NAL Call No.: DNAL 79.9 N814).

0850
Tolerance of transplanted muskmelon (*Cucumis melo*) to oxyfluorfen applied preemergent.
WETEE9. Masiunas, J.B. Weller, S.C. Champaign, Ill. : The Society. Weed technology : a journal of the Weed Science Society of America. Jan/Mar 1989. v. 3 (1). p. 30-32. Includes references. (NAL Call No.: DNAL SB610.W39).

0851
Use of activated charcoal to reduce injury to summer squash by ethalfluralin or pendimethalin (Herbicides).
Kennedy, J.M. Jeffery, L.S. Knoxville, Tenn. : The Station. Tennessee farm and home science - Tennessee Agricultural Experiment Station. Jan/Mar 1983. Jan/Mar 1983. (125). p. 26-29. Includes references. (NAL Call No.: 100 T25F).

0852
Using plants to monitor air pollution.
Simon, J.E. Simini, M.; Decoteau, D.R. West Lafayette, Ind. : The Service. HO - Purdue University, Cooperative Extension Service. Jan 1986. (195). 3 p. ill. Includes references. (NAL Call No.: DNAL SB21.I6P8).

0853
Variability of cucumber plants under the action of gamma-rays, heteroauxin, and their combined action on seeds (*Cucumis sativus*, damaging effects of radiation).
Sanaev, N.F. CYGED. Zorina, M.A. New York : Allerton Press. Cytology and genetics. 1982. Translated from: TSitologija i genetika, p. 44-47. (QH573.T75). v. 16 (4). p. 49-52. Includes references. (NAL Call No.: QH573.C92).

(MISCELLANEOUS PLANT DISORDERS)

0854

Wavelength effect on the action of a
N-phenylimide S-23142 and a diphenylether
acifluorfen-ethyl in cotyledons of cucumber
(*Cucumis sativus* L.) seedlings.

PLPHA. Sato, R. Naghano, E.; Oshio, H.;
Kamoshita, K.; Furuya, M. Rockville, Md. :
American Society of Plant Physiologists. Plant
physiology. Dec 1987. v. 85 (4). p. 1146-1150.
Includes references. (NAL Call No.: DNAL 450
P692).

PROTECTION OF PLANT PRODUCTS - GENERAL AND MISC.

0855

Alternaria rot following chilling injury of acorn squashes / by Lacy P. McColloch .
McColloch, Lacy Porter, 1907-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Marketing Service, Market Quality Research Division, 1962 . Cover title. 19 p. : ill. ; 23 cm. Bibliography: p. 19. (NAL Call No.: DNAL 1 Ag84Mr no.518).

0856

Association of pectolytic strains of Xanthomonas campestris with soft rots of fruits and vegetables at retail markets.
PHYTAJ. Liao, C.H. Wells, J.M. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Mar 1987. v. 77 (3). p. 418-422. Includes references. (NAL Call No.: DNAL 464.8 P56).

0857

Bacterial brown spot of 'Honey Dew' melons.
HJHSA. Ceponis, M.J. Wells, J.M.; Cappellini, R.A. Alexandria, Va. : American Society for Horticultural Science. HortScience. Apr 1985. v. 20 (2). p. 302-303. ill. Includes 2 references. (NAL Call No.: DNAL SB1.H6).

0858

Building and operating a vegetable packingshed on the farm.
Hurst, W.C. Athens, Ga. : The Service. Bulletin - Cooperative Extension Service, University of Georgia, College of Agriculture. Sept 1984. (899). 34 p. ill. Includes 6 references. (NAL Call No.: DNAL 275.29 G29B).

0859

Chilling exposures and ethylene treatment change the level of ACC in 'Honey Dew' melons.
JOSH. Lipton, W.J. Wang, C.Y. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Jan 1987. v. 112 (1). p. 109-112. Includes 10 references. (NAL Call No.: DNAL 81 S012).

0860

Effect of chilling on ethylene production in cucumbers (Storage physiology).
Wang, C.Y. Adams, D.O. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Apr 1981. Abstract only. v. 67 (4). p. 63. (NAL Call No.: 450 P692).

0861

Efficacy of fungicides for postharvest treatment of muskmelon fruits.
Wade, N.L.HJHSA. Morris, S.C. Alexandria : American Society for Horticultural Science. HortScience. June 1983. v. 18 (3). p. 344-345. ill. Includes references. (NAL Call No.: SB1.H6).

0862

Gamma irradiation, hot water and imazalil treatments on decay organisms and physical quality of stored netted muskmelon fruit.
JFSAD. Lester, G. Trumbull, Conn. : Food & Nutrition Press. Journal of food safety. 1989. v. 10 (1). p. 21-30. Includes references. (NAL Call No.: DNAL TP373.5 J62).

0863

Influence of seed harvesting and handling procedures on germination of cucumber seeds.
JOSH. Edwards, M.D. Lower, R.L.; Staub, J.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1986. v. 111 (4). p. 507-512. Includes references. (NAL Call No.: DNAL 81 S012).

0864

Investigations of the market diseases of cantaloups and honey dew and honey ball melons by James S. Wiant. -.
Wiant, James S. Washington, D.C. U.S. Dept. of Agriculture 1937. 48 p., 21 leaves of plates : ill. --. Bibliography: p. 44-47. (NAL Call No.: Fiche S-69 no.573).

0865

Isolation and characterization of strains of Erwinia ananas from honeydew melons.
PHYTAJ. Wells, J.M. Sheng, W.S.; Ceponis, M.J.; Chen, T.A. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Mar 1987. v. 77 (3). p. 511-514. Includes references. (NAL Call No.: DNAL 464.8 P56).

0866

Market diseases of cabbage, cauliflower, turnips, cucumbers, melons, and related crops
Glen B. Ramsey and M.A. Smith. --. Ramsey, Glen B., 1889-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Marketing Service, Market Quality Research Division, 1961. ii, 49, 24 p. : ill. --. Bibliography: p. 45-49. (NAL Call No.: DNAL Fiche S-85 no.184).

(PROTECTION OF PLANT PRODUCTS - GENERAL AND MISC.)

0867

Mechanical stress, storage time, and temperature influence cell wall-degrading enzymes, firmness, and ethylene production by cucumbers.

JOSHB. Miller, A.R. Dalmasso, J.P.; Kretchman, D.W. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1987. v. 112 (4). p. 666-671. ill.

Includes references. (NAL Call No.: DNAL 81 S012).

0868

Protecting perishable foods during transportation by truck meats, fruits, melons, vegetables, poultry, dairy products / by Harold D. Johnson and P.L. Breakiron .

Johnson, Harold D. 1897-. Breakiron, Philip L. 1918-. Washington, D.C. : U.S. Dept. of Agriculture, Agricultural Marketing Service. 1956. ii, 70 p. : ill. ; 24 cm. Includes

bibliographical references. (NAL Call No.: DNAL 1 Ag84Ah no.105).

PROTECTION OF PLANT PRODUCTS - INSECTS

0869

A comparison of longevity and fecundity of adult *Trichogramma platneri* (Hymenoptera: Trichogrammatidae) reared from eggs of the cabbage looper and the angumous grain moth, with and without access to honey.
JEENAI. Hohmann, C.L. Luck, R.F.; Datman, E.R. College Park, Md. : Entomological Society of America. The effects of *Sitotroga cerealella* (Olivier) and *Trichoplusia ni* (Hubner) eggs on the size, fecundity, and longevity, and of honey on the fecundity and longevity of *Trichogramma platneri* Nagarkatti were investigated. Variation in the average length of the hind tibiae (HTL), a measure of a wasp's body size, accounted for 72% of the variance in the number of mature eggs present in the ovaries of a 24-h-old *T. platneri*. Females with longer HTLs produced significantly more eggs and lived longer than did those with shorter HTLs. Large females (HTL = 0.21 +/- 0.009 mm, -/x +/- SD) produced 2.3 times more offspring than medium-sized females (HTL = 0.17 +/- 0.009 mm) and 5.5 times more than small females (HTL = 0.15 +/- 0.004 mm). Females reared from *S. cerealella* eggs were significantly smaller (HTL = 0.14 +/- 0.006 mm) than those reared from *T. ni* eggs (HTL = 0.17 +/- 0.020 mm) and produced fewer offspring (18.2 +/- 13 eggs versus 42.6 +/- 25 eggs, respectively); hence, *S. cerealella* eggs apparently produce low-quality *T. platneri* females. Furthermore, *T. platneri* lived longer with than without honey whether or not host eggs were present. Thus, the absence of a carbohydrate source (e.g., honey or honeydew) at the time of field release may limit the effectiveness of *T. platneri*. *Journal of economic entomology*. Oct 1988. v. 81 (5). p. 1307-1312. Includes references. (NAL Call No.: DNAL 421 J822).

0872

Refrigeration as a quarantine treatment for fruits and vegetables infested with eggs and larvae of *Dacus dorsalis* and *Dacus cucurbitae* (Diptera: Tephritidae).
JEENAI. Burditt, A.K. Jr. Balock, J.W. College Park, Md. : Entomological Society of America. *Journal of economic entomology*. Aug 1985. v. 78 (4). p. 885-887. Includes references. (NAL Call No.: DNAL 421 J822).

0870

Heat inactivation of the ethylene-forming enzyme system in cucumbers.
JFDAZ. Chan, H.T. Jr. Chicago, Ill. : Institute of Food Technologists. *Journal of food science*. Nov/Dec 1986. v. 51 (6). p. 1491-1493. Includes references. (NAL Call No.: DNAL 389.8 F7322).

0871

Radiation sterilization facility for melon fly.
Danno, A. Honolulu : Hawaii Institute of Tropical Agric. & Human Resources, Univ. of Hawaii, Manoa, 1985. Radiation disinfection of food and agricultural products : proceedings of an international conference, Honolulu, Hawaii, November 14-18, 1983 / edited by James H. Moy. p. 314-326. ill. Includes 5 references. (NAL Call No.: DNAL TP371.8.R284).

WEEDS

0873

Acifluorfen effects on intermediates of chlorophyll synthesis in green cucumber cotyledon tissues.

PCBPB. Becerril, J.M. Duke, S.D. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Oct 1989. v. 35 (2). p. 119-126. Includes references. (NAL Call No.: DNAL SB951.P49).

0874

Action mechanism of diphenyl ether herbicides; stimulation of 5-aminolevulinic acid-synthesizing system activities.

PCBPB. Kouji, H. Masuda, T.; Matsunaka, S. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Mar 1989. v. 33 (3). p. 230-238. Includes references. (NAL Call No.: DNAL SB951.P49).

0875

Allelopathic effects of seven weed species on pumpkin (*Cucurbita moschata*) under greenhouse conditions.

JAUPA. Almodovar-Vega, L. Guzman-Perez, C.D.; Semidey-Laracuenta, N. Mayaguez : University of Puerto Rico, Agricultural Experiment Station. The Journal of agriculture of the University of Puerto Rico. July 1988. v. 72 (3). p. 491-493. ill. Includes references. (NAL Call No.: DNAL 8 P832U).

0876

Biodegradable mulches, weed control programs for mulched cantaloupes, and mulch design needs in Delaware.

Kee, E. Wheeldean, T. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 7-10. Includes references. (NAL Call No.: DNAL 309.9 N216).

0877

Biological control of Texas gourd with an endemic fungal disease.

AKFRAC. Weidemann, G.J. Templeton, G.E.; Boyette, C.D. Fayetteville, Ark. : The Station. Arkansas farm research - Arkansas Agricultural Experiment Station. Nov/Dec 1988. v. 37 (6). p. 14. (NAL Call No.: DNAL 100 AR42F).

0878

Buthidazole phytotoxicity (to cucumber and soybeans) as affected by placement and water.

Weber, J.B. Lowder, S.W.; Swain, L.R.; Peter, C.J. Auburn, Ala., The Society. Proceedings - Southern Weed Science Society. 1980. 1980. (33d). p. 276-279. ill. 3 ref. (NAL Call No.:

79.9 S08).

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Chemical weed control programs for selected vegetables on clear plastic mulches.

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WEESA6. Duke, S.O. Lydon, J.; Paul, R.N. Champaign, Ill. : Weed Science Society of America. Oxadiazon (10 micromole) caused rapid, light-dependent membrane damage to cucumber cotyledon discs. Electrolyte leakage was detected within 1 h of exposure to light, as were cytoplasmic vesiculation and breakage of the tonoplast and plasmalemma. The ultrastructure of chloroplasts was not affected until the cytoplasm was dispersed. Photosynthetic inhibitors had no effect on activity and, after a period of dark incubation with oxadiazon, there was little effect of temperature on the light-caused membrane destruction. Porphyrin synthesis inhibitors (gabaculine and 4,6-dioxoheptanoic acid) almost completely prevented the herbicidal activity of oxadiazon. Oxadiazon treatment caused accumulation of protoporphyrin IX, a photodynamic pigment. Oxadiazon caused physiological effects on cucumber cotyledons that were virtually identical to those of p-nitro-diphenyl ether herbicides like acifluorfen and its methyl ester, which have recently been shown to also cause protoporphyrin IX accumulation. Weed science. Mar 1989. v. 37 (2). p. 152-160. ill. Includes references. (NAL Call No.: DNAL 79.8 W41).

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Waters, Luther Jr. Boldt, Paul F.; Lofgren, John A.; Noetzel, David M.; Pflieger, F. L.; Bissonnette, Howard L. Document available from: University of Minnesota, Bulletin Room, 1420 Eckles Avenue, St. Paul, Minnesota 55108 1981. Outlines herbicide, insecticide and fungicide suggestions for asparagus, cucumbers, melons,

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WEESA6. Willis, M.D. Putnam, A.R. Champaign, Ill. : Weed Science Society of America. Weed science. Jan 1986. v. 34 (1). p. 13-16. Includes 16 references. (NAL Call No.: DNAL 79.8 W41).

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BECTA6. Wilson, B.W. Seiber, J.N.; Stelljes, M.E.; Henderson, J.D.; Archer, T.E.; Pollock, G.A.; Knaak, J.B. New York, N.Y. : Springer-Verlag. Bulletin of environmental contamination and toxicology. Feb 1989. v. 42 (2). p. 159-166. Includes references. (NAL Call No.: DNAL RA1270.P35A1).

0938

Changes in cucumber cotyledon membrane lipid fatty acids during paraquat treatment and a bacteria-induced hypersensitive reaction.

PHYTA. Keppler, L.D. Novacky, A. St. Paul, Minn. : American Phytopathological Society. There is evidence that lipid peroxidation initiated by O₂- radicals may be involved in altered plant cell membrane permeability in a bacteria-induced hypersensitive reaction. Such alterations have also been reported for paraquat-treated plants. Likely membrane targets for lipid peroxidation are unsaturated fatty acyl groups. We monitored levels of different fatty acyl groups in cucumber cotyledons during paraquat treatment and during a hypersensitive reaction induced by *Pseudomonas syringae* Pv. pisi. Fatty acyl groups from galactolipids (a lipid found specifically in plastids) and polar lipids (found in all cell membranes) were analyzed in a total lipid extract. We also analyzed fatty acyl groups from polar lipids of an enriched plasma membrane fraction. The results verified that paraquat treatment reduces fatty acid unsaturation in plastid lipids. Fatty acid unsaturation decreased in the enriched plasma membrane fraction during both paraquat treatment and the hypersensitive reaction. These changes were concurrent with the onset of tissue collapse. We suggest that O₂- initiated lipid peroxidation produced the altered plant cell membrane permeability observed in both paraquat treatment and bacteria-induced hypersensitive reaction. *Phytopathology*. June 1989 v. 79 (6). p. 705-708. Includes references. (NAL Call No.: DNAL 464.8 P56).

0939

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Orr, G.L. Hess, F.D. New York, Academic Press. Pesticide biochemistry and physiology. Dec 1981. v. 16 (3). p. 171-178. ill. 25 ref. (NAL Call No.: SB951.P49).

0940

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(S)-3-N-(Methylbenzyl)carbamoyl-5-propionyl-2,6-lutidine .

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0942

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Aaronson, M.J. Tessari, J.D.; Savage, E.P.; Goes, E.A. Westport, Conn., Food & Nutrition Press. Journal of food safety. 1980. v. 2 (3). p. 171-181. ill. 10 ref. (NAL Call No.: TP373.5.J62).

0944

Development of tolerance to the diphenyl ether herbicide acifluorfen-methyl in excised cucumber (*Cucumis sativus* L.) cotyledons.
Orr, G.L. Bowman, R.N.; Kugrens, P. New York, N.Y. : Academic Press. Pesticide biochemistry and physiology. Apr 1984. v. 21 (2). p. 213-222. ill. Includes references. (NAL Call No.: SB951.P49).

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0946

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0947

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0948

Effects of acifluorfen-methyl on cucumber cotyledons: porphyrin accumulation.
PCBPB. Matringe, M. Scalla, R. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Oct 1988. v. 32 (2). p. 164-172. Includes references. (NAL Call No.: DNAL SB951.P49).

0949

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0950

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0953

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0954

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Teasdale, J.R.WEESA6. Champaign : Weed Science Society of America. Weed science. Jan 1984. v. 32 (1). p. 33-36. ill. Includes references. (NAL Call No.: 79.8 W41).

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0956

Gas-liquid chromatographic method for determining oxamyl in peppers, tomatoes, and cucumbers.

Greenberg, R.S. Arlington, Va., The Association. Journal of the Association of Official Analytical Chemists. Sept 1981. v. 64 (5). p. 1216-1220. ill. 8 ref. (NAL Call No.: 381 AS7).

0957

Herbicide evaluation on watermelon crops in Oregon's Columbia Basin (*Citrullus lanatus*, weed control, phytotoxicity).

Hall, L.F.OASPA. William, R. Corvallis : The Station. Special report - Agricultural Experiment Station, Oregon State University. July 1983. July 1983. (684). p. 49-55. (NAL Call No.: 100 OR3M).

0958

Herbicide safening effects of plastic row covers in vegetables.

PNWSB. Vrabel, T.E. Schales, F.D. Beltsville, Md. : The Society. Proceedings of the ... annual meeting - Northeastern Weed Science Society. 1987. v. 41. p. 103-108. Includes references. (NAL Call No.: DNAL 79.9 N814).

0959

Herbicides and fungicides inhibit Ca²⁺ (Calcium ion) uptake by plant mitochondria: a possible mechanism of action (Maize, zucchini).

Hertel, C.PCBPB. Marme, D. New York : Academic Press. Pesticide biochemistry and physiology. June 1983. v. 19 (3). p. 282-290. ill. Includes references. (NAL Call No.: SB951.P49).

0960

High performance liquid chromatographic method for the determination of aldicarb sulfoxide in watermelon.

BECTA. Ting, K.C. Kho, P.K. New York, N.Y. : Springer-Verlag. Bulletin of environmental contamination and toxicology. Aug 1986. v. 37 (2). p. 192-198. Includes references. (NAL Call No.: DNAL RA1270.P35A1).

0961

Hormonal control and herbicidal influence on dipeptidase synthesis in squash cotyledons (*Cucurbita maxima*, inhibition).

Ashton, F.M. Tsay, R. Honolulu, The Station. Technical Bulletin - Hawaii Agricultural Experiment Station, University of Hawaii. June 1981. June 1981. (100). p. 5-30. ill. 4 p. ref. (NAL Call No.: 100 H313T).

0962

Influence of chloroplast development on the activation of the diphenyl ether herbicide acifluorfen-methyl.

PLPHA. Halling, B.P. Peters, G.R. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Aug 1987. v. 84 (4). p. 1114-1120. Includes references. (NAL Call No.: DNAL 450 P692).

0963

The influence of herbicides on the growth and yield of muskmelons (*Cucumis melo*).

WEESA6. Motsenbocker, C.E. Bonanno, A.R. Champaign, Ill. : Weed Science Society of America. Weed science. Mar 1988. v. 36 (2). p. 234-238. Includes references. (NAL Call No.: DNAL 79.8 W41).

(PESTICIDES - GENERAL)

0964

Influence of light and temperature on bentazon phytotoxicity to cucumber (*Cucumis sativus*).
Teasdale, J.R. WEESA. Thimijan, R.W. Champaign Weed Science Society of America. Weed science. Mar 1983. v. 31 (2). p. 232-235. Includes references. (NAL Call No.: 79.8 W41).

0965

Inhibition of chloroplast-mediated reactions by quizalofop herbicide.

WEESA6. Ruizzo, M.A. Gorski, S.F. Champaign, Ill. : Weed Science Society of America. A mechanism of action of the ethyl ester of quizalofop was determined in monocotyledonous and dicotyledonous plants. Quizalofop inhibited electron transport in both cucumber and corn chloroplasts. In corn, inhibition of electron transport was more pronounced under phosphorylating conditions. Half-maximal inhibition (I50) of ATP synthesis was achieved with a 75-microM concentration of quizalofop in coupled corn chloroplasts. Cucumber chloroplast ATP synthesis was not inhibited at herbicide concentrations up to 100 microM. Corn chloroplast fractions contained greater quantities of bound U-14C quizalofop ester following incubation in light and dark assays. Thin-layer radiochromatograms of 14C-labeled quizalofop showed no metabolism or degradation of parent ester incubated in light and dark chloroplast-mediated reactions. In our studies, it is apparent that the inhibitory action of quizalofop was due to the parent ester. The ester formulation of quizalofop appears to exhibit multiple activity in susceptible plant chloroplasts. Weed science. Nov 1988. v. 36 (6). p. 713-718. Includes references. (NAL Call No.: DNAL 79.8 W41).

0966

Involvement of ethylene in herbicide-induced resistance to *Fusarium oxysporum* f. sp. melonis.

PHYTAJ. Cohen, R. Riov, J.; Lisker, N.; Katan, J. St. Paul, Minn. : American Phytopathological Society. Phytopathology. Dec 1986. v. 76 (12). p. 1281-1285. Includes 14 references. (NAL Call No.: DNAL 464.8 P56).

0967

Laboratory assessment of 73 insecticides against the oriental fruit fly, melon fly, and Mediterranean fruit fly.

JEENAI. Keiser, I. Kobayashi, R.M.; Schneider, E.L.; Tomikawa, I. College Park, Md. : Entomological Society of America. Journal of economic entomology. Aug 1973. v. 66 (4). p. 837-839. Includes references. (NAL Call No.: DNAL 421 J822).

0968

Mechanism of action of the diphenyl ether herbicide acifluorfen-methyl in excised cucumber (*Cucumis sativus* L.) cotyledons. Light activation and the subsequent formation of lipophilic free radicals.

Orr, G.L. Hess, F.D. Rockville, Md., American Society of Plant Physiologists. Plant physiology. Feb 1982. v. 69 (2). p. 502-507. ill. Includes 29 ref. (NAL Call No.: 450 P692).

0969

Melon response to wiper applications of glyphosate.

PNWSB. Teasdale, J.R. Magruder, F.W. Beltsville, Md. : The Society. Proceedings of the ... annual meeting - Northeastern Weed Science Society. 1986. v. 40. p. 173-175. Includes references. (NAL Call No.: DNAL 79.9 N814).

0970

Metolachlor and alachlor effects on membrane permeability and lipid synthesis (Herbicides, phytotoxicity, using roots of corn, soybean, cotton, cucumber, onion).

Mellis, J.M. Pillai, P.; Davis, D.E.; Truelove, B. Champaign, Ill., Weed Science Society of America. Weed science. July 1982. v. 30 (4). p. 399-404. ill. 27 ref. (NAL Call No.: 79.8 W41).

0971

Pesticides a study of their effects on the growth and transpiration of cucumber, tomato, and potato plants /by J.D. Wilson and J.P. Slesman.

Wilson, J. D. 1895-. Slesman, J. P. 1904-. Wooster, Ohio : Ohio Agricultural Experiment Station, 1948. Cover title. 23 p. : ill. ; 23 cm. (NAL Call No.: DNAL 100 OH3S (2) no.676).

0972

The photodependent effect of LS 82556 and acifluorfen in cucumber cotyledon pieces: the possible indirect involvement of photosynthesis.

PCBPB. Nurit, F. Ravanel, P.; Tissut, M. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. May 1988. v. 31 (1). p. 67-73. ill. Includes references. (NAL Call No.: DNAL SB951.P49).

(PESTICIDES - GENERAL)

0973

Photosynthesis is not involved in the mechanism of action of acifluorfen in cucumber (*Cucumis sativus* L.).

PLPHA. Duke, S.O. Kenyon, W.H. Rockville, Md. American Society of Plant Physiologists. Plant physiology. July 1986. v. 81 (3). p. 882-888. ill. Includes 32 references. (NAL Call No.: DNAL 450 P692).

0974

Phytotoxic interaction studies--Techniques for evaluation and presentation of results (Interactions of two or more pesticides in plants, tested on oats and cucumbers).

Nash, R.G. Champaign, Ill., Weed Science Society of America. Weed science. Mar 1981. v. 29 (2). p. 147-155. ill. 22 ref. (NAL Call No.: 79.8 W41).

0975

Porphyrin synthesis involvement in diphenyl ether-like mode of action of TNPP-ethyl, a novel phenylpyrazole-herbicide.

PCBPB. Yanase, D. Andoh, A. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Sept 1989. v. 35 (1). p. 70-80. ill. Includes references. (NAL Call No.: DNAL SB951.P49).

0976

Protoporphyrin IX content correlates with activity of photobleaching herbicides.

PLPHA. Bercerril, J.M. Duke, S.O. Rockville, Md. : American Society of Plant Physiologists. Several laboratories have demonstrated recently that photobleaching herbicides such as acifluorfen and oxadiazon cause accumulation of protoporphyrin IX (PPIX), a photodynamic pigment capable of herbicidal activity. We investigated, in acifluorfen-treated tissues, the in vivo stability of PPIX, the kinetics of accumulation, and the correlation between concentration of PPIX and herbicidal damage. During a 20 hour dark period, PPIX levels rose from barley detectable concentrations to 1 to 2 nanomoles per 50 cucumber (*Cucumis sativus* L.) cotyledon discs treated with 10 micromolar acifluorfen. When placed in 500 micromoles per square meter per second PAR, PPIX levels decayed logarithmically, with an initial half-life of about 2.5 hours. PPIX levels at each time after exposure to light correlated positively with the cellular damage that occurred during the following 1 hour in both green and yellow (tentoxin-treated) cucumber cotyledon tissues. PPIX levels in discs incubated for 20 hours in darkness correlated positively with the acifluorfen concentration in which they were incubated. In cucumber, the level of herbicidal damage caused by several p-nitrodiphenyl ether herbicides, a p-chlorodiphenylether herbicide, and oxadiazon correlated positively with the amount of PPIX

induced to accumulate by each of the herbicide treatments. Similar results were obtained with acifluorfen-treated pigweed and velvetleaf primary leaf tissues. In cucumber, PPIX levels increased within 15 and 30 minutes after exposure of discs to 10 micromolar acifluorfen in the dark and light, respectively. These data strengthen the view that PPIX is responsible for all or a major part of the photobleaching activity of acifluorfen and related herbicides. Plant physiology. July 1989. v. 90 (3). p. 1175-1181. Includes references. (NAL Call No.: DNAL 450 P692).

0977

Resistance to metalaxyl in isolates of *Pseudoperonospora cubensis*, the downy mildew pathogen of cucurbits.

Katan, T. Bashi, E. St. Paul, Minn., American Phytopathological Society. Plant disease. Oct 1981. v. 65 (10). p. 798-800. ill. 9 ref. (NAL Call No.: 1.9 P69P).

0978

Reversal of fluridone-reduced chlorophyll accumulation in cucumber (*Cucumis sativus*) cotyledons by stimulatory compounds.

WEESA6. Fletcher, R.A. Meru, S.V.; Bhardwaj, S.N. Champaign, Ill. : Weed Science Society of America. Weed science. Nov 1984. v. 32 (6). p. 722-726. Includes 17 references. (NAL Call No.: DNAL 79.8 W41).

0979

Selectivity mechanisms for foliar applications of diclofop-methyl. II. Metabolism (Studies with weeds, proso millet, soybeans and cucumber, uptake, tolerance).

Boldt, P.F. Putnam, A.R. Champaign, Ill., Weed Science Society of America. Weed science. Mar 1981. v. 29 (2). p. 237-241. ill. 15 ref. (NAL Call No.: 79.8 W41).

0980

Sequence of effects of acifluorfen on physiological and ultrastructural parameters in cucumber cotyledon discs.

PCBPB. Kenyon, W.H. Duke, S.O.; Vaughn, K.C. Duluth, Minn. : Academic Press. Pesticide biochemistry and physiology. Oct 1985. v. 24 (2). p. 240-250. ill. Includes references. (NAL Call No.: DNAL SB951.P49).

(PESTICIDES - GENERAL)

0981

Soil residual of ethalfluralin with cucumbers (and sweet corn, injury).
Williamson, S.W. Beste, C.E. Beltsville, Md., The Society. Proceedings - annual meeting of the Northeastern Weed Science Society. Northeastern Weed Science Society. 1980. v. 34. p. 189-194. ill. 3 ref. (NAL Call No.: 79.9 N814).

0982

Sonalan: a new herbicide for use in cucurbits (Watermelons, muskmelons, cucumbers).
Porter, W.C. Johnson, C.E. Baton Rouge, La. : The Station. Louisiana agriculture - Louisiana Agricultural Experiment Station. Spring 1984. v. 27 (3). p. 12-13. ill. (NAL Call No.: 100 L939).

0983

Spraying for cucumber and melon diseases by W.A. Orton. --.
Orton, W. A. 1877-1930. Washington, D.C. : U.S. Dept. of Agriculture, 1905. 24 p. : ill. --. (NAL Call No.: DNAL Fiche S-70 no.231).

0984

Terbacil evaluation for seeded watermelon.
PNWSB. Beste, C.E. Beltsville, Md. : The Society. Proceedings of the ... annual meeting - Northeastern Weed Science Society. 1987. v. 41. p. 128-133. Includes references. (NAL Call No.: DNAL 79.9 N814).

0985

Tolerance of four vegetable crops to selected herbicides.
DARCB. Fakhra, Z.M. Gorski, S.F. Wooster, Ohio : The Center. Research circular - Ohio Agricultural Research and Development Center. Sept 1985. (288). p. 19-21. Includes references. (NAL Call No.: DNAL 100 OH3R).

0986

Tolerance of transplanted muskmelon (*Cucumis melo*) to oxyfluorfen applied preemergent.
WETEE9. Masiunas, J.B. Weller, S.C. Champaign, Ill. : The Society. Weed technology : a journal of the Weed Science Society of America. Jan/Mar 1989. v. 3 (1). p. 30-32. Includes references. (NAL Call No.: DNAL SB610.W39).

0987

Use of activated charcoal to reduce injury to summer squash by ethalfluralin or pendimethalin (Herbicides).
Kennedy, J.M. Jeffery, L.S. Knoxville, Tenn. : The Station. Tennessee farm and home science - Tennessee Agricultural Experiment Station. Jan/Mar 1983. Jan/Mar 1983. (125). p. 26-29. Includes references. (NAL Call No.: 100 T25F).

0988

Vegetables varieties of sweet potatoes, onions, melons, celery, beans, cabbage, cauliflower, and tomatoes; Insecticides / R.H. Price.
Price, R. H. 1864-. College Station, Tex. : Texas Agricultural Experiment Station, 1895. Cover title. p. 607-651 : ill. ; 23 cm. (NAL Call No.: DNAL 100 T31S (1) no.36).

0989

Wavelength effect on the action of a N-phenylimide S-23142 and a diphenylether acifluorfen-ethyl in cotyledons of cucumber (*Cucumis sativus* L.) seedlings.
PLPHA. Sato, R. Naghano, E.; Oshio, H.; Kamoshita, K.; Furuya, M. Rockville, Md. : American Society of Plant Physiologists. Plant physiology. Dec 1987. v. 85 (4). p. 1146-1150. Includes references. (NAL Call No.: DNAL 450 P692).

0990

Weed control with fluazifop and residues in cucurbit crops (*Cucumis* sp.) and sweet potatoes (*Ipomoea batatas*).
WEESA6. Parker, N.Y. Monaco, T.J.; Leidy, R.B.; Sheets, T.J. Champaign, Ill. : Weed Science Society of America. Weed science. May 1985. v. 33 (3). p. 405-410. Includes 14 references. (NAL Call No.: DNAL 79.8 W41).

0991

1979 pesticide use on Florida vegetables, a preliminary report.
Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Extract: According to the 1979 Vegetable Pesticide Survey, nearly 4.6 million pounds of pesticides were used to control weeds, insects, diseases, and nematodes on six vegetable crops in Florida. The six vegetable crops included cabbage, celery, lettuce, sweet corn, tomatoes, and watermelon. About 4.6 million acre-treatments were made ranging from 2.2 million for tomatoes to 148,800 for cabbage. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. July 1981. Available from NTIS. July 1981. (AGESS810708). 23 p. 6 ref. (NAL Call No.: 916762(AGE)).

(PESTICIDES - GENERAL)

0992

1979 pesticide use on vegetables in the Northeast, a preliminary report.

Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Extract: According to the U.S. Department of Agriculture's 1979 Vegetable Pesticide Survey, approximately 1.3 million pounds of pesticides were used to control weeds, insects, diseases and nematodes on 10 vegetable crops in New York and New Jersey. The 10 vegetable crops include cabbage, carrots, celery, cucumbers, green peas, lettuce, onions, snap beans, sweet corn, and tomatoes. Approximately 825,000 acre-treatments were made ranging from 262,000 for sweet corn to 700 for carrots. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. Dec 1981. Available from NTIS. Dec 1981. (AGES811218). 37 ref. 7 ref. (NAL Call No.: 916762(AGE)).

0993

1979 pesticide use on vegetables in the Southeast, a preliminary report.

Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Extract: In this report, patterns of pesticide use in the Southeast (North Carolina, South Carolina, and Georgia) in 1979 are discussed for cabbage, cantaloups, cucumbers, snap beans, sweet corn, tomatoes, and watermelons. Survey data were collected on quantities of pesticides used, acres treated, acre-treatments, number of applications, annual rates, and rate per acre-treatment. This report provides information useful to policymakers, researchers, extension specialists, and industry personnel. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. Oct 1981. Available from NTIS. Oct 1981. (AGES811029). 32 p. 11 ref. (NAL Call No.: 916762(AGE)).

0994

1979 pesticide use on vegetables in the Southwest, a preliminary report.

Ferguson, W.L. McCalla, I.E. Washington, D.C., The Service. Abstract: According to U.S. Department of Agriculture's 1979 Vegetable Pesticide Survey, about 1.7 million pounds of pesticides were used to control weeds, insects, diseases, and nematodes on 10 vegetable crops in Arizona, Colorado, and Texas. The 10 vegetable crops included cabbage, cantaloups, carrots, cucumbers, lettuce, onions, snap beans, sweet corn, tomatoes, and watermelons. Nearly 1.1 million acre-treatments were made ranging from about 284,000 for onions to 4,000 for cucumbers and snap beans. ERS staff report - U.S. Dept. of Agriculture, Economic Research Service. Dec 1981. Available from NTIS - order no. PB82-166-885. Dec 1981. (AGES811221). 45 p. 7 ref. (NAL Call No.: 916762(AGE)).

SOIL CHEMISTRY AND PHYSICS

0995

Effect of high soil moisture on quality of muskmelon (cultivars).

Wells, J.A. AR-SO. Nugent, P.E. Alexandria, Va., American Society for Horticultural Science. HortScience. June 1980. v. 15 (3). p. 258-259. 11 ref. (NAL Call No.: SB1.H6).

University of Puerto Rico. Apr 1987. v. 71 (2). p. 203-208. Includes references. (NAL Call No.: DNAL 8 P832J).

0996

Effect of temperature on infection and survival of *Rotylenchulus reniformis*.

JONEB. Heald, C.M. Inserra, R.N. Raleigh, N.C. : Society of Nematologists. Journal of nematology. July 1988. v. 20 (3). p. 356-361. Includes references. (NAL Call No.: DNAL QL391.N4J62).

0997

Spent mushroom compost in soilless media and its effects on the yield and quality of transplants (Lettuce, tomatoes, cucumbers, *Tagetes patula*).

Lohr, V.I. O'Brien, R.G.; Coffey, D.L. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1984. v. 109 (5). p. 693-697. Includes 23 references. (NAL Call No.: 81 S012)..

0998

Utilization of minesoils for production of vegetable crops.

Morse, R. O'Dell, C. Lexington, Ky. : OES Publications, College of Engineering, University of Kentucky, c1983. Proceedings, 1983 Symposium on Surface Mining, Hydrology, Sedimentology and Reclamation, November 28-December 2, 1983 / editor, Donald H. Graves. p. 163-168. Includes 23 references. (NAL Call No.: DNAL TS195.S75S95 1983).

0999

Yield and plant nutrient content of vegetables trickle-irrigated with municipal wastewater.

HJHSA. Neilsen, G.H. Stevenson, D.S.; Fitzpatrick, J.J.; Brownlee, C.H. Alexandria, Va. : American Society for Horticultural Science. HortScience. Apr 1989. v. 24 (2). p. 249-252. Includes references. (NAL Call No.: DNAL SB1.H6).

1000

Yield response of watermelon, tomato and pigeon pea to land preparation techniques in southern Puerto Rico.

JAUPA. Lugo-Mercado, H.M. Badillo-Feliciano, J.; Ortiz-Alvarado, F.H. Mayaguez : University of Puerto Rico, Agricultural Experiment Station. The Journal of agriculture of the

SOIL FERTILITY - FERTILIZERS

1001

Assessing critical nitrogen supply by means of nitrate reductase activity in tomato and cucumber plants.

JPNUDS. Valenzuela, J.L. Sanchez, A.; Romero, L. New York, N.Y. : Marcel Dekker. Journal of plant nutrition. Paper presented at the "Tenth International Plant Nutrition Colloquium", August 4-9, 1986, Beltsville, Maryland. 1987. v. 10 (9/16). p. 1733-1741. Includes references. (NAL Call No.: DNAL QK867.J67).

1002

The effects of different levels of fertilizer and previous crop on the yield of cucumber.

Tiwari, S.C. Windham, S.L.; Collins, J.B.; Igbokwe, P.E.; Russell, L. Mississippi State, Miss. : The Station. MAFES research highlights - Mississippi Agricultural & Forestry Experiment Station. Oct 1984. v. 47 (10). p. 1-2. (NAL Call No.: DNAL 100 M69MI).

1003

The effects of different levels of fertilizer and previous crop on the yield of cucumber (Cucumis sativus L.).

Tiwari, S.C. Windham, S.L.; Collins, J.B.; Igbokwe, P.E.; Russell, L. Mississippi State, Miss. : The Station. Research report - Mississippi Agricultural and Forestry Experiment Station. Apr 1984. v. 8 (20). 3 p. Includes references. (NAL Call No.: S79.E37).

1004

The effects of secondary and micronutrient applications on the yield and quality of watermelons.

Thompson, P.G. Mississippi State, Miss. : The Station. MAFES research highlights - Mississippi Agricultural & Forestry Experiment Station. Dec 1983. v. 46 (12). p. 6-7. (NAL Call No.: 100 M69MI).

1005

Influence of pH on cadmium and zinc concentrations of cucumber grown in sewage sludge.

HJHSA. Falahi-Ardakani, A. Corey, K.A.; Gouin, F.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1988. v. 23 (6). p. 1015-1017. Includes references. (NAL Call No.: DNAL SB1.H6).

1006

Lime and nitrogen influence soil acidity, nutritional status, vegetative growth, and yield of muskmelon.

JOSHB. Bhella, H.S. Wilcox, G.E. Alexandria, Va. : The Society. A field study was conducted on an acidic loamy sand to evaluate Muskmelon (Cucumis melo L. cv. Classic) response to calcitic limestone and 0, 67, and 100 kg N/ha. Lime application increased soil pH and Ca concentration and lowered soil NH₄-N and Mn concentrations. Higher levels of N increased soil NH₄-N, NO₃-N, and K concentrations and decreased soil pH. Plants developed Mn toxicity symptoms in unlimed plots and the severity of foliar injury increased with increasing N levels. Lime application increased P, Ca, and Mg and reduced Mn and Zn concentrations in leaf tissue. Tissue concentrations of N, Mn, and Zn were higher and Ca, Mg, and B were lower as N level increased from 0 to 100 kg N/ha. Muskmelon fruit yields and soluble solids content were increased and culls reduced both by lime and N. Maximum vegetative growth and total fruit yield were obtained at 67 kg N/ha with lime application. Journal of the American Society for Horticultural Science. July 1989. v. 114 (4). p. 606-610. Includes references. (NAL Call No.: DNAL 81 S012).

1007

Row arrangement, plant spacing, and nitrogen rate effects on zucchini squash yield.

HJHSA. Dweikat, I.M. Kostewicz, S.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1989. v. 24 (1). p. 86-88. Includes references. (NAL Call No.: DNAL SB1.H6).

1008

Salinity effects on germination, growth, and yield of two squash cultivars.

HJHSA. Francois, L.E. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1985. v. 20 (6). p. 1102-1104. Includes references. (NAL Call No.: DNAL SB1.H6).

1009

Transplant quality, yield, and heavy-metal accumulation of tomato, muskmelon, and cabbage grown in media containing sewage sludge compost (Toxicity, vegetable, Brassica oleracea, Lycopersicon esculentum).

Sterrett, S.B. JOSHB. Reynolds, C.W.; Schales, F.D.; Chaney, R.L.; Douglass, L.W. Alexandria : The Society. Journal of the American Society for Horticultural Science. Jan 1983. v. 108 (1). p. 36-41. Includes references. (NAL Call No.: 81 S012).

1010

Watermelon genotype differences for total and active iron index, iron and other micronutrients.

JPNUDS. Vargas, L. Guzman, M.; Romero, L. New York, N.Y. : Marcel Dekker. Journal of plant nutrition. Paper presented at the "Fourth International Symposium on Iron Nutrition and Interactions in Plants," July 6-9, 1987, University of New Mexico, Albuquerque. June/Nov 1988. v. 11 (6/11). p. 763-776. Includes references. (NAL Call No.: DNAL QK867.J67).

1011

Yield losses and increases in certain vitamins in cucumbers treated with the herbicide 3-amino-2,5-dichlorobenzoate and urea fertilizer.

Hankin, L. Hill, D.E. Baltimore, Williams & Wilkins. Soil science. Sept 1982. v. 134 (3). p. 193-197. ill. 9 ref. (NAL Call No.: 56.8 S03).

SOIL CULTIVATION

1012

Characteristics and effectiveness of photodegradable mulch for use in watermelon production.

AAREEZ, Decoteau, D.R. Rhodes, B.B. New York, N.Y. : Springer. Two formulations of a black polyethylene photodegradable mulch (Plastigone brand) were evaluated in the field for sunlight-induced breakdown characteristics and effectiveness in producing watermelons (*Citrullus lanatus* (Thumb.) Matsum and Nakai). A relatively early degrading formulation (221B) and late degrading formulation (2B) of photodegradable mulch were as effective as nondegradable black polyethylene in enhancing early yields, but only the late degrading mulch was as effective as nondegradable polyethylene mulch in enhancing total season-long fruit production. The late degrading formulation of photodegradable mulch was successfully used at a commercial melon growing site. Applied agricultural research. Winter 1990. v. 5 (1) p. 9-12. ill. Includes references. (NAL Call No.: DNAL S539.5.A77).

1013

Effect and costs of mulching.

Struzina, A. Kromer, K.H. St. Joseph, Mich. : The Society. American Society of Agricultural Engineers (Microfiche collection). Paper presented at the 1988 Summer Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. 1988. (fiche no. 88-1031). 14 p. Includes references. (NAL Call No.: DNAL FICHE S-72).

1014

Effect of black plastic mulch on melon yields.

Stiles, H.D. McDaniel, A.R. Norfolk, Va., The Service. The Vegetable growers news - Virginia Polytechnic Institute and State University, Cooperative Extension Service. Nov 1980. v. 35 (5). p. 1, 3. (NAL Call No.: 275.28 V52).

1015

Effect of plastic mulches on California desert area cantaloupes.

Johnson, H. Jr. Mayberry, K.S. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1981. (16th). p. 111-123. Includes references. (NAL Call No.: DNAL 309.9 N216).

1016

Effect of plastic soil and plant covers on Iowa tomato and muskmelon production.

Taber, H.G. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1983. (17th). p. 37-45. Includes references. (NAL Call No.: DNAL 309.9 N216).

1017

Effect of polyethylene mulches, irrigation method, and row covers on soil and air temperature and yield of muskmelon.

JOSHB. Bonanno, A.R. Lamont, W.J. Jr. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1987. v. 112 (5). p. 735-738. Includes references. (NAL Call No.: DNAL 81 S012).

1018

Effect of trickle irrigation and black mulch on growth, yield, and mineral composition of watermelon.

HJHSA. Bhella, H.S. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1988. v. 23 (1). p. 123-125. Includes references. (NAL Call No.: DNAL SB1.H6).

1019

Effects of planting densities, irrigation, and hornworm larvae on yields in experimental intercrops of tomatoes and cucumbers.

JOSHB. Schultz, B. McGuinness, H.; Horwith, B.; Vandermeer, J.; Phillips, C.; Perfecto, I.; Rosset, P.; Ambrose, R.; Hansen, M. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Sept 1987. v. 112 (5). p. 747-755. Includes references. (NAL Call No.: DNAL 81 S012).

1020

Genotype and plastic mulch effects on earliness, fruit characteristics, and yield in muskmelon.

HJHSA. Maiero, M. Schales, F.D.; Ng, T.J. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1987. v. 22 (5). p. 945-946. Includes references. (NAL Call No.: DNAL SB1.H6).

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Greenhouse CO2 enrichment alternatives: effects of increasing concentration or duration of enrichment on cucumber yields.

JOSHB. Peet, M.M. Willits, D.H. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Mar 1987. v. 112 (3). p. 236-241. Includes references. (NAL Call

No. : DNAL 81 S012).

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Growth response and weed control in slicing cucumbers under row covers.

JOSHB. Hemphill, D.D. Jr. Crabtree, G.D. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Jan 1988. v. 113 (1). p. 41-45. Includes references. (NAL Call No.: DNAL 81 S012).

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Modeling row cover effects on microclimate and yield. I. Growth response of tomato and cucumber.

JOSHB. Wolfe, D.W. Albright, L.D.; Wyland, J. Alexandria, Va. : The Society. Several polyethylene and fabric row cover materials, and clear and black polyethylene mulch, were evaluated in a 2-year field study. For cucumbers *Cucumis sativus* (L.), visible wilting and slowed growth rates of young transplants exposed to cold nights were minimized when grown under row covers that maintained high humidities and higher air and soil temperatures than in the exposed controls. Early cucumber yields were increased 2- to 6-fold by the use of covers. In contrast, tomatoes *Lycopersicon esculentum* (Mill.) showed no significant early yield increases but a 63% reduction in early yield in 1985 under a perforated clear polyethylene cover. The frequency and duration of daytime air temperatures exceeding 35C had a negative impact on tomato fruit size, quality, and percentage marketable. For cucumber, the relationship between cumulative degree days (during the covered interval) and biomass, early, and total yields was linear (r^2 between 0.70 and 0.82) with positive slope. Tomato yields could not be accurately predicted using this approach, but correlations were improved (for the 1985 data set) by using modified degree-day formulas incorporating a negative high-temperature factor. Journal of the American Society for Horticultural Science. July 1989. v. 114 (4). p. 562-568. Includes references. (NAL Call No.: DNAL 81 S012).

1024

Seedling diseases of vegetables in conservation tillage with soil fungicides and fluid drilling.

PLDIDE. Sumner, D.R. Ghate, S.R.; Phatak, S.C. St. Paul, Minn. : American Phytopathological Society. Plant disease. Apr 1988. v. 72 (4). p. 317-320. Includes references. (NAL Call No.: DNAL 1.9 P69P).

SOIL EROSION AND RECLAMATION

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Utilization of minesoils for production of vegetable crops.

Morse, R. O'Dell, C. Lexington, Ky. : OES Publications, College of Engineering, University of Kentucky, c1983. Proceedings, 1983 Symposium on Surface Mining, Hydrology, Sedimentology and Reclamation, November 28-December 2, 1983 / editor, Donald H. Graves. p. 163-168. Includes 23 references. (NAL Call No.: DNAL TS195.S75S95 1983).

1026

Yield response of watermelon, tomato and pigeon pea to land preparation techniques in southern Puerto Rico.

JAUPA. Lugo-Mercado, H.M. Badillo-Feliciano, J.; Ortiz-Alvarado, F.H. Mayaguez : University of Puerto Rico, Agricultural Experiment Station. The Journal of agriculture of the University of Puerto Rico. Apr 1987. v. 71 (2). p. 203-208. Includes references. (NAL Call No.: DNAL 8 P832J).

ENTOMOLOGY RELATED

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Control of the melon aphid F.H. Chittenden. --. Chittenden, F. H. Washington, D.C. : U.S. Dept. of Agriculture, 1918. 16 p. : ill. --. Includes bibliographical references. (NAL Call No.: DNAL Fiche S-70 no.914).

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Effect of three plant species on population densities of *Xiphinema americanum* and *Xiphinema rivesi*.

JONEB. Georgi, L.L. Raleigh, N.C. : Society of Nematologists. *Journal of nematology*. July 1988. v. 20 (3). p. 474-477. Includes references. (NAL Call No.: DNAL QL391.N4J62).

1029

Floral resource variation, pollinator response, and potential pollen flow in *Psiguria warscewiczii*.

ECOLA. Murawski, D.A. Tempe, Ariz : Ecological Society of America. *Ecology : a publication of the Ecological Society of America*. Oct 1987. v. 68 (5). p. 1273-1282. Includes references. (NAL Call No.: DNAL 410 EC7).

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Identification of triterpenoid feeding deterrent of red pumpkin beetles (*Aulacophora foveicollis*) from *Momordica charantia*.

JCECD. Chandravadana, M.V. New York, N.Y. Plenum Press. *Journal of chemical ecology*. July 1987. v. 13 (7). p. 1689-1694. Includes references. (NAL Call No.: DNAL QD415.A1J6).

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The melon aphid and its control by F.H. Chittenden and W. H. White . --.

Chittenden, F. H. Washington, D.C. : U.S. Dept. of Agriculture, 1926. ii, 17 p. : ill. --. (NAL Call No.: DNAL Fiche S-70 no.1499).

1032

Photoperiodic responses of the squash bug (Heteroptera: Coreidae): diapause induction and maintenance.

EVETEX. Nechols, J.R. College Park, Md. Entomological Society of America. Abstract: The squash bug, *Anasa tristis* DeGeer, undergoes a reproductive diapause from late summer to spring in northeastern Kansas. In the laboratory, diapause was induced in 100% of adult females reared under photoperiods shorter than 14:10 (L:D) and in a variably lower percentage of the population under all longer photoperiods. The critical photoperiod for diapause induction falls between 14:10 and 14.5:9.5; this range compares closely with

prevailing natural daylengths when 50% of the adult population enters diapause in the field. Between October and March, short daylengths maintained, and long daylengths terminated, diapause in field-sampled adults. Under natural daylength at 26 degrees C, the duration of diapause became progressively shorter with advancing sample data. In nature, the photoperiodic maintenance of diapause is completed in most of the population by late May. A prolonged diapause probably serves to prevent premature postdiapause development during the thermally variable spring conditions encountered in Kansas. Some implications of these findings for biological control and pest management programs are discussed. *Environmental entomology*. June 1988. v. 17 (3). p. 427-431. Includes references. (NAL Call No.: DNAL QL461.E532).

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The striped cucumber beetle and its control F.H. Chittenden . --.

Chittenden, F. H. Washington, D.C. : U.S. Dept. of Agriculture, 1919. 19 p. : ill., map -- (NAL Call No.: DNAL Fiche S-70 no.1038).

APICULTURE RELATED

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Effects of honeybee (*Apis mellifera*) on cantaloupe yield in the Lower Rio Grande Valley of Texas.

Chandler, L.D. Cocke, J. Jr. College Station, Tex., Southwestern Entomological Society. The Southwestern entomologist. Sept 1981. v. 6 (3) p. 233-236. 6 ref. (NAL Call No.: QL461 S65)

ANIMAL ECOLOGY

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Biology and control of the southern corn rootworm /by F.S. Arant.

Arant, Frank Salman, 1904-. Auburn, Ala. .
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Polytechnic Institute, 1929. Cover title. 46 p.
: ill. ; 23 cm. Bibliography: p. 44-46. (NAL
Call No.: DNAL 100 AL1s (1) no.230).

ANIMAL NUTRITION

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This 'feed' kills weeds.

Mattingly, J.C. Emmaus, Pa. : Regenerative
Agriculture Association. The New farm. Sept/Oct
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DNAL S1.N32).

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**Photoperiodic responses of the squash bug
(Heteroptera: Coreidae): diapause induction and
maintenance.**

EVETEX. Nechols, J.R. College Park, Md.
Entomological Society of America. Abstract: The
squash bug, *Anasa tristis* DeGeer, undergoes a
reproductive diapause from late summer to
spring in northeastern Kansas. In the
laboratory, diapause was induced in 100% of
adult females reared under photoperiods shorter
than 14:10 (L:D) and in a variably lower
percentage of the population under all longer
photoperiods. The critical photoperiod for
diapause induction falls between 14:10 and
14.5:9.5; this range compares closely with
prevailing natural daylengths when 50% of the
adult population enters diapause in the field.
Between October and March, short daylengths
maintained, and long daylengths terminated,
diapause in field-sampled adults. Under natural
daylength at 26 degrees C, the duration of
diapause became progressively shorter with
advancing sample data. In nature, the
photoperiodic maintenance of diapause is
completed in most of the population by late
May. A prolonged diapause probably serves to
prevent premature postdiapause development
during the thermally variable spring conditions
encountered in Kansas. Some implications of
these findings for biological control and pest
management programs are discussed.
Environmental entomology, June 1988, v. 17 (3).
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ANIMAL TAXONOMY AND GEOGRAPHY

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Effect of three plant species on population densities of *Xiphinema americanum* and *Xiphinema rivesi*.

JONEB. Georgi, L.L. Raleigh, N.C. : Society of Nematologists. Journal of nematology. July 1988. v. 20 (3). p. 474-477. Includes references. (NAL Call No.: DNAL QL391.N4J62).

AGRICULTURAL ENGINEERING

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Biodegradable mulches, weed control programs for mulched cantaloupes, and mulch design needs in Delaware.

Kee, E. Wheedleton, T. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 7-10. Includes references. (NAL Call No.: DNAL 309.9 N216).

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Container size/style effects on transplanted muskmelons using black plastic mulch/slitted row covers or bare soil.

Marr, C. Schaplowsky, T. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 133-139. Includes references. (NAL Call No.: DNAL 309.9 N216).

1042

The effect of slit, perforated and net row covers and mulch on soil and crop temperatures and periodicity of muskmelon yield.

Reed, G.L. Clough, G.H.; Hemphill, D.E. Jr. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 116-122. Includes references. (NAL Call No.: DNAL 309.9 N216).

1043

Effect of VisPore (R) row cover and polyethylene mulch on early production of watermelon in Alabama.

Khan, V.A. Stevens, C.; Tang, A.Y. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 252-256. Includes references. (NAL Call No.: DNAL 309.9 N216).

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Removal forces for pickling cucumbers (Removal from plants, harvesting).

Casada, J.H. Walton, L.R.; Swetnam, L.D.; Wood, R.K.; Roberts, C.R. St. Joseph, Mich. : The Society. Paper - American Society of Agricultural Engineers (Microfiche collection). 1982. Paper presented at the 1982 Summer Meeting of the American Society of Agricultural Engineers. Available for purchase from: The American Society of Agricultural Engineers, Order Dept., 2950 Niles Road, St. Joseph, Michigan 49085. Telephone the Order Dept. at (616) 429-0300 for information and prices. 1982. (fiche no. 82-3058). 1 microfiche : ill. Includes references. (NAL Call No.: FICHE S-72).

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Row cover effects on harvest date of watermelons.

Miller, G. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 123-126. (NAL Call No.: DNAL 309.9 N216).

1046

Selected row cover materials: insect exclusion, virus disease suppression and yield enhancement.

Natwick, E.T. Laemmlen, F.F. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1989. (21st). p. 288-296. Includes references. (NAL Call No.: DNAL 309.9 N216).

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1047

The effect of black plastic film mulch and furadan upon yield of muskmelon infested with larvae of the striped cucumber beetle.
Reed, G.L. Reed, D.K.; York, A.C. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1987. v. 20. p. 206-208. Includes references. (NAL Call No.: DNAL 309.9 N216).

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The effect of planting date and various mulch/tunnel combinations on early season productivity of cucumbers in southern Quebec.
Argall, J.F. Stewart, K.A. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1987. v. 20. p. 20-25. Includes references. (NAL Call No.: DNAL 309.9 N216).

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Effect of row covers on microclimate and yield of tomato and cucumber.
Wolfe, D.W. Wyland, J.; Albright, L.D.; Novak, S. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1986. (19th). p. 35-50. Includes references. (NAL Call No.: DNAL 309.9 N216).

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Evaluation of herbicides for use between plastic mulch in cucurbit and solanaceous crop production.
Bonanno, A.R. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1986. (19th). p. 339-347. Includes references. (NAL Call No.: DNAL 309.9 N216).

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The influence of row covers and herbicides on the growth and yield of muskmelons in North Carolina.
Motsenbocker, C.E. Bonanno, A.R. Peoria, Ill. : National Agricultural Plastics Association. Proceedings of the ... National Agricultural Plastics Congress. 1986. (19th). p. 366-377. Includes references. (NAL Call No.: DNAL 309.9 N216).

NATURAL RESOURCES

1052

Taxonomic rank and rarity of *Cucurbita okeechobeensis*.

Andres, T.C. Nabhan, G.P. College Park, Md. : Department of Horticulture, University of Maryland. Report: Cucurbit genetics cooperative. July 1988. (11). p. 83-85. Includes references. (NAL Call No.: DNAL SB337.C94).

CONSEQUENCES OF ENERGY PRODUCTION AND USE

1053

Response of cotton, alfalfa, and cantaloupe to foliar-deposited salt in an arid environment. JEVQAA. Hofmann, W.C. Karpiscak, M.M.; Bartels, P.G. Madison, Wis. : American Society of Agronomy. Journal of environmental quality. July/Sept 1987. v. 16 (3). p. 267-272. Includes references. (NAL Call No.: DNAL QH540.J6).

DRAINAGE AND IRRIGATION

1054

Effect of trickle irrigation and black mulch on growth, yield, and mineral composition of watermelon.

HJHSA. Bhella, H.S. Alexandria, Va. : American Society for Horticultural Science. HortScience. Feb 1988. v. 23 (1). p. 123-125. Includes references. (NAL Call No.: DNAL SB1.H6).

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Effect of trickle irrigation on yield and quality of summer squash.

Haynes, R. AR. Herring, S. Fayetteville, Ark., The Station. Arkansas farm research - Arkansas Agricultural Experiment Station. Sept/Oct 1980. v. 29 (5). p. 6. ill. (NAL Call No.: 100 AR42F).

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Effects of irrigation regimes on yield and water use of summer squash.

JOSH. Stansell, J.R. Smittle, D.A. Alexandria, Va. : The Society. Summer squash (*Cucurbita pepo* L. cv. Dixie hybrid) were grown in drainage lysimeters under closely controlled and monitored soil water regimes. Variables included three irrigation treatments, three growing seasons, and two soil types. Marketable fruit yield was greatest and production cost per kilogram of marketable fruit was least when squash was irrigated at 25 kPa of soil water tension. Yields were greatest for the spring season of production and least for the fall season. Regression equations are provided to describe the relationships of water use to plant age and to compute daily evapotranspiration : pan evaporation ratios (crop factors) for squash irrigated at 25, 50, and 75 kPa of soil water tension during the spring, summer, or fall production season. Journal of the American Society for Horticultural Science. Mar 1989. v. 114 (2). p. 196-199. Includes references. (NAL Call No.: DNAL 81 S012).

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Introduction of entomogenous nematodes into trickle irrigation systems to control striped cucumber beetle (Coleoptera: Chrysomelidae).

JEENAI. Reed, D.K. Reed, G.L.; Creighton, C.S. College Park, Md. : Entomological Society of America. Journal of economic entomology. Oct 1986. v. 79 (5). p. 1330-1333. Includes references. (NAL Call No.: DNAL 421 J822).

1058

Irrigation and plant spacing effects on seed production of buffalo and coyote gourds.

AGJDAT. Nelson, J.M. Scheerens, J.C.; McGriff, T.L.; Gathman, A.C. Madison, Wis. : American Society of Agronomy. Buffalo gourd (*Cucurbita foetidissima* HBK) and coyote gourd (*Cucurbita digitata* Gray) are xerophytic perennial cucurbits with potential as oilseed or starch crops for arid and semiarid lands. This study investigated irrigation and plant spacing effects on growth, water requirements, and oilseed production of these species. Irrigation of first-season buffalo gourds planted in 1981 at a 610-m elevation site on Pima clay loam fine-silty, mixed (calcareous) thermic typic Torrifluent, and irrigation and plant spacing were evaluated on first-season buffalo and coyote gourds at a 360-m site in 1983 on Casa Grande sandy loam (fine-loamy, mixed, hyperthermic Typic Natrargid) and Trix clay-clay loam fine-loamy, mixed (calcareous), hyperthermic Typic Torrifluent, respectively. Irrigation and plant spacing were evaluated on second-season buffalo gourds planted in 1983. Irrigation did not affect first-season buffalo gourd yields. Second-season yields were reduced by irrigating when the available soil water was 75% depleted (I2) compared to irrigating when soil water was 50% depleted (I1). Coyote gourd yields were reduced by the I2 treatment in 1983 but not in 1984. Consumptive water use for first season buffalo gourds in the I1 treatment at the 610- and 360-m sites was 870 and 645 mm, respectively. Consumptive water use was similar for coyote and buffalo gourds at the 360-m site. In the first season, these species derived up to 50% of water used from the top 0.4 m of soil, and extracted water to a depth of at least 2.6 m. Irrigation did not affect water-use efficiency (WUE) of either species. Buffalo gourds had higher WUE in the second season (0.09 kg seed m.3 water) than the first season (0.04 kg m.3). Plant spacings of 0.25 to 2 m in 1-m spaced rows had no effect on first-season yield in 1983 but in 1984 a quadratic relationship indicated that the closest and widest spacings reduced yields. Coyote gourd consistently out-yielded buffalo gourd at the 360-m site. Although. Agronomy journal. Jan/Feb 1988. v. 80 (1). p. 60-65. Includes references. (NAL Call No.: DNAL 4 AM34P).

1059

Irrigation effects on root and starch production and water use of the potential domesticate, coyote gourd.

JAZAA. Nelson, J.M. McGriff, T.L.; Scheerens, J.C. Tempe, Ariz. : The Academy. Journal of the Arizona-Nevada Academy of Science. 1989. v. 23 (1). p. 39-43. Includes references. (NAL Call No.: DNAL 500 AR44).

(DRAINAGE AND IRRIGATION)

1060

Irrigation effects on water use, and production of tap roots and starch of buffalo gourd.

AGJOAT. Nelson, J.M. Scheerens, J.C.; Bucks, D.A.; Berry, J.W. Madison, Wis. : American Society of Agronomy. The buffalo gourd (*Cucurbita foetidissima* HBK) is a possible new root starch crop for semiarid regions. Information on water use relationships of this species is needed to determine its suitability for arid lands agriculture. The objective of this study was to assess the influence of water management on buffalo gourd tap root production and water use. Five irrigation levels were evaluated for an annual buffalo gourd crop in 1985 and 1986 at a 360-m elevation field site on Casa Grande sandy loam (fine-loamy, mixed, hyperthermic Typic Natrargid) using plant populations of 400 000 to 450 000 plants ha⁻¹. Irrigating at 50% available soil water (ASW) content (I1) gave higher fresh tap root yields than irrigating at 75% ASW (I2) (27.8 vs. 24.1 Mg ha⁻¹) in 1985 with identical starch yields. In 1986 the I2 treatment was higher than the I1 treatment in starch yield (3.1 vs. 2.1 Mg ha⁻¹) and tap root starch concentration (47.5 vs. 38.1%). Vines of water stressed plants (I2) grew rapidly when irrigated. Consumptive water use was 649 and 487 mm in I1 and I2, respectively. Peak consumptive use rates were less than 6.5 mm d⁻¹. As much as 48% of seasonal water use was from the 0 to 0.4 m soil depth. Water was extracted to a depth of 2.6m. The I2 treatment had the highest water-use efficiency (WUE), 4.9 kg m⁻³, for fresh root production. The WUE for starch production was higher for the I2 treatment (0.62KG m⁻³) than the I1 treatment (0.42 kg m⁻³). Irrigation scheduling to provide moderate stress reduces buffalo gourd water use without reducing starch yield, increasing its potential as a semiarid starch crop. *Agronomy journal*. May/June 1989. v. 81 (3). p. 439-442. Includes references. (NAL Call No.: DNAL 4 AM34P).

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Management of root-knot nematodes by phenamiphos applied through an irrigation simulator with various amounts of water.

JONEB. Johnson, A.W. Young, J.R.; Wright, W.C. Raleigh, N.C. : Society of Nematologists. *Journal of nematology*. July 1986. v. 18 (3). p. 364-369. Includes 13 references. (NAL Call No.: DNAL QL391.N4J62).

1062

Root growth and water status of trickle-irrigated cucumber and tomato.

JDSHB. Randall, H.C. Locascio, S.J. Alexandria, Va. : The Society. Two trickle irrigation experiments were conducted during two successive years with cucumber (*Cucumis sativus* L.) and tomato (*Lycopersicon esculentum* Mill.) grown on a coarse-textured soil in ground beds in a greenhouse. Several trickle irrigation design characteristics (emitter spacings of 15, 30, and 45 cm and one or two laterals per crop

row) and water management variables (2 or 8 liters/hr per emitter water application rates and water quantities equivalent to 0.25- and 0.50-times pan evaporation) were examined for their effect on soil water content, root distribution, and plant water status. Water application rates did not influence root density distributions or plant water status; however, the 8 liters.hr⁻¹ water application rate resulted in higher water content in the top 20 cm of soil than the lower application rate. The higher water quantity resulted in higher soil water content, higher root density, and improved plant water status than with the lower quantity. Mature plants had root systems that were well-adapted to the different soil water distributions. Only the amount of water applied influenced the water status of mature cucumber plants and cucumber fruit yields. *Journal of the American Society for Horticultural Science*. Nov 1988. v. 113 (6). p. 830-835. Includes references. (NAL Call No.: DNAL 81 S012).

1063

Yield and plant nutrient content of vegetables trickle-irrigated with municipal wastewater.

HJHSA. Neilsen, G.H. Stevenson, D.S.; Fitzpatrick, J.U.; Brownlee, C.H. Alexandria, Va. : American Society for Horticultural Science. *HortScience*. Apr 1989. v. 24 (2). p. 249-252. Includes references. (NAL Call No.: DNAL SB1.H6).

FOOD PROCESSING, HORTICULTURAL CROP

1064

Building and operating a vegetable packingshed on the farm.

Hurst, W.C. Athens, Ga. : The Service. Bulletin - Cooperative Extension Service, University of Georgia, College of Agriculture. Sept 1984. (899). 34 p. ill. Includes 6 references. (NAL Call No.: DNAL 275.29 G29B).

1065

Effect of harvest date, irrigation, maturity and calcium addition during processing on quality of canned summer squash.

Hurst, W.C. Schuler, G.A.; Reagan, J.D.; Rao, V.N.M. Chicago, Institute of Food Technologists. Journal of food science. Jan/Feb 1982. v. 47 (1). p. 306-310. ill. Includes 16 ref. (NAL Call No.: 389.8 F7322).

1066

Gamma irradiation, hot water and imazalil treatments on decay organisms and physical quality of stored netted muskmelon fruit.

JFSAD. Lester, G. Trumbull, Conn. : Food & Nutrition Press. Journal of food safety. 1989. v. 10 (1). p. 21-30. Includes references. (NAL Call No.: DNAL TP373.5.J62).

FOOD STORAGE, HORTICULTURAL CROP

1067

Building and operating a vegetable packingshed on the farm.

Hurst, W.C. Athens, Ga. : The Service. Bulletin - Cooperative Extension Service, University of Georgia, College of Agriculture. Sept 1984. (899). 34 p. ill. Includes 6 references. (NAL Call No.: DNAL 275.29 G29B).

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Chilling exposures and ethylene treatment change the level of ACC in 'Honey Dew' melons.

JOSHB. Lipton, W.J. Wang, C.Y. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Jan 1987. v. 112 (1). p. 109-112. Includes 10 references. (NAL Call No.: DNAL 81 S012).

1069

Climacteric and nonclimacteric ripening in Cucumis melo.

Kendall, S. Ng, T. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 41-42. Includes 2 references. (NAL Call No.: DNAL SB337.C94).

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Cucurbits disorder: anthracnose.

Heimann, M.F. Stevenson, W.R. Madison, Wis. : The Programs. Publication - Cooperative Extension Programs. University of Wisconsin - Extension. 1984. (A3279). 3 p. ill. (NAL Call No.: DNAL S544.3.W6W53).

1071

Effect of stage of development on postharvest behavior of cucumber fruit.

HJHSA. Kanellis, A.K. Morris, L.L.; Saltveit, M.E. Jr. Alexandria, Va. : American Society for Horticultural Science. HortScience. Oct 1986. v. 21 (5). p. 1165-1167. Includes references. (NAL Call No.: DNAL SB1.H6).

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Gamma irradiation, hot water and imazalil treatments on decay organisms and physical quality of stored netted muskmelon fruit.

JFSAD. Lester, G. Trumbull, Conn. : Food & Nutrition Press. Journal of food safety. 1989. v. 10 (1). p. 21-30. Includes references. (NAL Call No.: DNAL TP373.5.J62).

1073

Harvesting, packaging, storage and shipping of greenhouse vegetables.

Schales, F.D. Honolulu, Hawaii, USA : International Center for Special Studies, c1985. Hydroponics worldwide : state of the art in soilless crop production / Adam J. Savage, editor. p. 70-76. ill. Includes references. (NAL Call No.: DNAL SB126.5.H94).

1074

Mechanical stress, storage time, and temperature influence cell wall-degrading enzymes, firmness, and ethylene production by cucumbers.

JOSHB. Miller, A.R. Dalmasso, J.P.; Kretchman, D.W. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1987. v. 112 (4). p. 666-671. ill. Includes references. (NAL Call No.: DNAL 81 S012).

1075

Responses of parthenocarpic cucumbers to low-oxygen storage.

JOSHB. Kanellis, A.K. Morris, L.L.; Saltveit, M.E. Jr. Alexandria, Va. : The Society. Parthenocarpic cucumber fruit (*Cucumis sativus* L. cv. Deliva) of marketable maturity (10 to 14 days after anthesis) were held at 12.5 degrees or 20 degrees C in reduced O₂ levels for 5 or 18 days before transfer to air. Carbon dioxide production at reduced O₂ levels was generally less than in air; however, at O₂ levels less than 0.5%, anaerobic respiration resulted in increased rates of CO₂ production. Upon transfer to air after 18 days, all samples from reduced O₂ showed increased CO₂ production rates that equalled or exceeded that of the air controls. Except at 0.0% and 0.25% O₂ levels, ethylene production was increased in reduced O₂. After transfer to air, ethylene production increased and the increase was inversely related to the previous O₂ level. Ethanol and acetaldehyde production were measurable for fruit held in 1% O₂ after 18 days at 12.5 degrees and showed dramatic increases at lower O₂ levels. Low-O₂ injury (pitting) developed on most fruit held at 0.0% O₂ and on many fruit held at 0.25% O₂. Only minimal commercial benefits are likely to be realized from storage of 1 to 3 weeks in 0.5% to 2.0% O₂ at 12.5 degrees. Journal of the American Society for Horticultural Science. Sept 1988. v. 113 (5). p. 734-737. Includes references. (NAL Call No.: DNAL 81 S012).

1076

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1987. v. 112 (3). p. 503-505. Includes references. (NAL Call No.: DNAL 81 S012).

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Storability of summer squash as affected by gene B and genetic background.

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FOOD CONTAMINATION AND TOXICOLOGY

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Determination of aldicarb sulfone in hydroponically grown cucumbers (Insecticide residues).

Aaronson, M.J. Tessari, J.D.; Savage, E.P.; Goes, E.A. Westport, Conn., Food & Nutrition Press. Journal of food safety. 1980. v. 2 (3). p. 171-181. ill. 10 ref. (NAL Call No.: TP373.5.J62).

FOOD CONTAMINATION, HORTICULTURAL CROP

1079

Bioassays for detection of aldicarb in watermelon.

BECTA6. Wilson, B.W. Seiber, J.N.; Stelljes, M.E.; Henderson, J.D.; Archer, T.E.; Pollock, G.A.; Knaak, J.B. New York, N.Y. : Springer-Verlag. Bulletin of environmental contamination and toxicology. Feb 1989. v. 42 (2). p. 159-166. Includes references. (NAL Call No.: DNAL RA1270.P35A1).

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Effects of sludge, bed, and genotype on cucumber growth and elemental concentrations in fruit and peel.

JQSHB. Harrison, H.C. Staub, J.E. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Mar 1986. v. 111 (2). p. 205-211. Includes 30 references. (NAL Call No.: DNAL 81 S012).

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Gas-liquid chromatographic method for determining oxamyl in peppers, tomatoes, and cucumbers.

Greenberg, R.S. Arlington, Va., The Association. Journal of the Association of Official Analytical Chemists. Sept 1981. v. 64 (5). p. 1216-1220. ill. 8 ref. (NAL Call No.: 381 AS7).

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BECTA. Ting, K.C. Kho, P.K. New York, N.Y. : Springer-Verlag. Bulletin of environmental contamination and toxicology. Aug 1986. v. 37 (2). p. 192-198. Includes references. (NAL Call No.: DNAL RA1270.P35A1).

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HJHSA. Falahi-Ardakani, A. Corey, K.A.; Gouin, F.R. Alexandria, Va. : American Society for Horticultural Science. HortScience. Dec 1988. v. 23 (6). p. 1015-1017. Includes references. (NAL Call No.: DNAL SB1.H6).

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JEENAI. Armstrong, J.W. Garcia, D.L. College Park, Md. : Entomological Society of America. Journal of economic entomology. Dec 1985. v. 78

(6). p. 1308-1310. Includes references. (NAL Call No.: DNAL 421 J822).

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Squash containing toxic cucurbitacin compounds occurring in California and Alabama (Genetic aspects of the substances in the plants).

Rymal, K.S. Chambliss, O.L.; Bond, M.D.; Smith, D.A. Ames, Iowa : International Association of Milk, Food, and Environmental Sanitarians. Journal of food protection. Apr 1984. v. 47 (4). p. 270-271. Includes references. (NAL Call No.: 44.8 J824).

FOOD PACKAGING, HORTICULTURAL

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Harvesting, packaging, storage and shipping of greenhouse vegetables.

Schales, F.D. Honolulu, Hawaii, USA :
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Slipsheet handling of California nectarines and cantaloupes (Transportation, packaging).

Rij, R.E. Hinsch, R.T. Berkeley, Calif., The
Administration. Abstract: California nectarines
and cantaloupes packed in corrugated fiberboard
boxes were unitized and shipped on slipsheets
in refrigerated trailers to determine if
slipsheets could replace the currently used
disposable wooden pallets as a base for
unitizing shipping containers. In general, the
slipsheets loads performed as well as the
wooden pallet loads in regard to maintenance of
transit temperatures, container damage, and
product condition. The most important factor
influencing transit temperature was the
performance of the trailers' refrigeration
unit. Conversion to slipsheet handling can be
accomplished with some modification of current
handling practices at shipping points and at
receiving warehouses. The major equipment
investment for conversion to slipsheet handling
is a push-pull unit for forklift trucks.
Additional training also would be required for
forklift operators. Slipsheets made of solid
fiberboard or of plastic performed equally
well; however, under high moisture conditions,
the plastic or another water resistant-type
sheet should be used. Advances in agricultural
technology AAT-W - United States, Dept. of
Agriculture, Science and Education
Administration, Western Region. Sept 1980. Sept
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FOOD ADDITIVES

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Some effects of the white spine, uniform color and gynocious alleles on quality and certain other characters in the cucumber variety Wisconsin SMR 18 / by Benjamin F. George. -. George, Benjamin F., 1939-. 1971. Thesis (Ph.D.)--Cornell University, 1971. Photocopy of typescript. Ann Arbor: University Microfilms, 1972. v, 113 leaves ; 21 cm. Bibliography: leaves 96-106. (NAL Call No.: DISS 72-13,156).

FOOD COMPOSITION, HORTICULTURAL CROP

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Association of fruit quality with seed characters and oil and protein content of muskmelon seeds.

More, T.A. Seshadri, V.S. Madison, Wis. : Department of Horticulture, University of Wisconsin. Report: Cucurbit genetics cooperative. June 1984. (7). p. 46-48. Includes 3 references. (NAL Call No.: DNAL SB337.C94).

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Chilling exposures and ethylene treatment change the level of ACC in 'Honey Dew' melons.

JOSHB. Lipton, W.J. Wang, C.Y. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. Jan 1987. v. 112 (1). p. 109-112. Includes 10 references. (NAL Call No.: DNAL 81 S012).

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The effects of secondary and micronutrient applications on the yield and quality of watermelons (Calcium, Boron, magnesium, Mississippi).

Thompson, P.G. RRMSD. Mississippi State : The Station. Research report - Mississippi Agricultural and Forestry Experiment Station. Aug 1983. v. 8 (9). 3 p. Includes references. (NAL Call No.: S79.E37).

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Mechanical stress, storage time, and temperature influence cell wall-degrading enzymes, firmness, and ethylene production by cucumbers.

JOSHB. Miller, A.R. Dalmasso, J.P.; Kretchman, D.W. Alexandria, Va. : The Society. Journal of the American Society for Horticultural Science. July 1987. v. 112 (4). p. 666-671. ill. Includes references. (NAL Call No.: DNAL 81 S012).

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The nutritive qualities of plant foods: chemical and nutritional composition of breadfruit (Artocarpus utililis) and climbing melon seed (Colocynthis vulgaris).

Achinewhu, S.C. Los Altos, Calif., Geron-X. Nutrition reports international. Apr 1982. v. 25 (4). p. 643-647. Includes 7 ref. (NAL Call No.: RC620.A1N8).

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Martin, F.W. New Orleans, La. : USDA Southern Region. Vegetables for the hot, humid Tropics - United States Dept. of Agriculture, Agriculture Research Service. Jan 1979. Jan 1979. (pt.4). 19 p. ill. Includes references. (NAL Call No.: aSB320.8.T7U5).

1096

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Fluxes of atmospheric hydrogen sulphide to plant shoots.

NEPHA. Kok, L.J. de. Stahl, K.; Rennenberg, H. New York, N.Y. : Cambridge University Press. The New phytologist. Aug 1989. v. 112 (4). p. 533-542. Includes references. (NAL Call No.: DNAL 450 N42).

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Protocol for measuring the relative toxicity of substances on plant foliage (Kidney beans, cucumber, air pollution).

Thompson, C.R. Kats, G.; Dawson, P.W.; Doyle, D.A. New York, Springer. Bulletin of environmental contamination and toxicology. Feb 1981. v. 26 (2). p. 281-287. ill. 5 ref. (NAL Call No.: RA1270.P35A1).

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Response of cotton, alfalfa, and cantaloupe to foliar-deposited salt in an arid environment.

JEVQAA. Hofmann, W.C. Karpiscak, M.M.; Bartels, P.G. Madison, Wis. : American Society of Agronomy. Journal of environmental quality. July/Sept 1987. v. 16 (3). p. 267-272. Includes references. (NAL Call No.: DNAL QH540.J6).

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ETQCDK. Wang, W. Elmsford : Pergamon Press. Environmental toxicology and chemistry. 1987. v. 6 (5). p. 409-414. Includes references. (NAL Call No.: DNAL QH545.A1E58).

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Sulfite oxidation and SO₂ (sulfur dioxide) injury in cucumber (Cucumis sativus).

Ream, J. Wilson, L.G. East Lansing, Mich., The Laboratory. Annual report - Michigan State University, MSU/DOE Plant Research Laboratory. 1981. 1981 (16th). p. 62. (NAL Call No.: QK1.M5).

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1103

Modeling row cover effects on microclimate and yield. I. Growth response of tomato and cucumber.

JOSHB. Wolfe, D.W. Albright, L.D.; Wyland, J. Alexandria, Va. : The Society. Several polyethylene and fabric row cover materials, and clear and black polyethylene mulch, were evaluated in a 2-year field study. For cucumbers *Cucumis sativus* (L.), visible wilting and slowed growth rates of young transplants exposed to cold nights were minimized when grown under row covers that maintained high humidities and higher air and soil temperatures than in the exposed controls. Early cucumber yields were increased 2- to 6-fold by the use of covers. In contrast, tomatoes *Lycopersicon esculentum* (Mill.) showed no significant early yield increases, but a 63% reduction in early yield in 1985 under a perforated clear polyethylene cover. The frequency and duration of daytime air temperatures exceeding 35C had a negative impact on tomato fruit size, quality, and percentage marketable. For cucumber, the relationship between cumulative degree days (during the covered interval) and biomass, early, and total yields was linear (r^2 between 0.70 and 0.82) with positive slope. Tomato yields could not be accurately predicted using this approach, but correlations were improved (for the 1985 data set) by using modified degree-day formulas incorporating a negative high-temperature factor. *Journal of the American Society for Horticultural Science*. July 1989. v. 114 (4). p. 562-568. Includes references. (NAL Call No.: DNAL 81 S012).

HUMAN MEDICINE, HEALTH AND SAFETY

1104

Bioassays for detection of aldicarb in watermelon.

BECTAG. Wilson, B.W. Seiber, J.N.; Stelljes, M.E.; Henderson, J.D.; Archer, T.E.; Pollock, G.A.; Knaak, J.B. New York, N.Y. : Springer-Verlag. Bulletin of environmental contamination and toxicology. Feb 1989. v. 42 (2). p. 159-166. Includes references. (NAL Call No.: DNAL RA1270.P35A1).

TECHNOLOGY

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481,1030

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