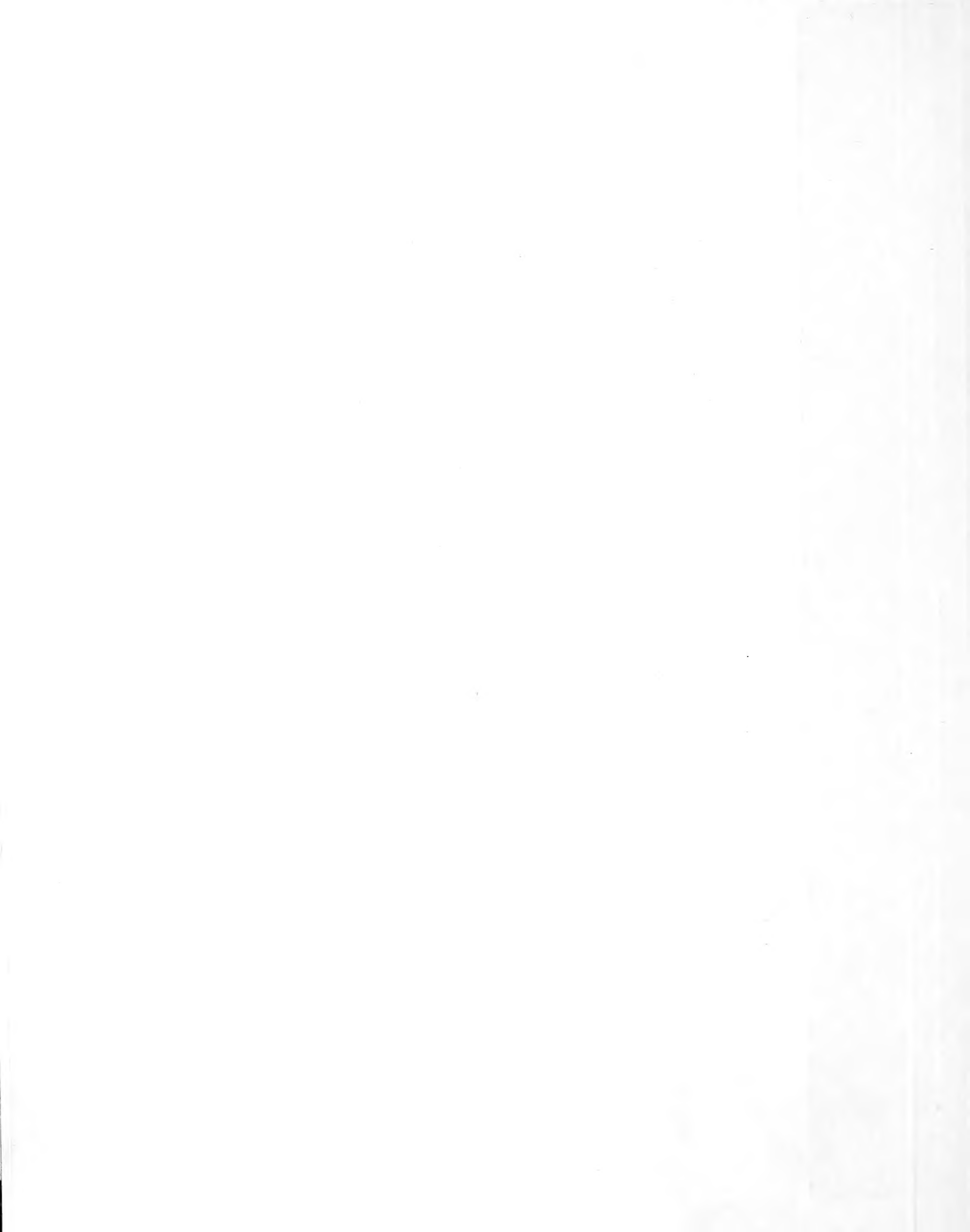


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**THE  
PLANT DISEASE REPORTER**  
ISSUED BY  
THE OFFICE OF MYCOLOGY AND DISEASE SURVEY

Supplement 55

Diseases of Forest and Shade Trees, Ornamental and Miscellaneous

Plants in the United States in 1926

October 30, 1927



**BUREAU OF  
PLANT INDUSTRY**  
UNITED STATES DEPARTMENT OF AGRICULTURE



DISEASES OF FOREST AND SHADE TREES, ORNAMENTAL AND MISCELLANEOUS PLANTSIN THE UNITED STATES IN 1926

Plant Disease Reporter  
Supplement 55

October 30, 1927

Prepared by  
G. Hamilton Martin

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F O R E W O R D

This summary of the diseases of forest and shade trees, ornamental and miscellaneous plants in the United States in 1926 follows the same general plan as those of the preceding years. The sources upon which the information is based are as follows: (1) collaborators, (2) specialists in the Office of Forest Pathology, (3) articles in botanical journals, and (4) special reporters.

Many reports of new occurrences were received for 1926 both for individual states and for the United States. In the accompanying summary these first occurrences have been noted by symbols before each individual report. Many occurrences are given which have been obtained from literature, from the Mycological herbarium of the Bureau of Plant Industry, or from past records of the Plant Disease Survey. Many diseases have been omitted due to their unimportance or to the fact that they have been reported in other years. It is not the object of this summary to enumerate all of the diseases that have been reported during the year, but to give facts concerning only some of the more important ones. "Standardized Plant Names" has been used as the source for the names of the hosts.

Where specimens are not indicated the report is based on the authority of the person cited. The date given is that of its earliest reported appearance in 1926. Reports of diseases from British Columbia are given because of their possible occurrence also in Washington and Idaho.

The following symbols are used: \* indicates a specimen in the Mycological herbarium; + preceding disease indicates the first report of the disease to the Plant Disease Survey; + preceding state indicates the first report from the state to the Plant Disease Survey; P.r. indicates prior reports of the disease to the Plant Disease Survey or from the Mycological herbarium.

References have been given and in some instances brief abstracts made of recent articles which may be of service to those who do not have access to all botanical journals.

DISEASES OF CONIFERS

## ABIES AMABILIS, Cascade fir.

+Dimerosporium abietis Dearn.

Washington - Government Mineral Springs, elevation 1,400 feet,  
 July 1, 1920, Red Mountain, elevation 3,300 feet, August 14,  
 1924, Skamania County. (Boyce). (Dearness, 25: 243)

## ABIES ARIZONICA, cork fir.

+Bifusella abietis Dearn.

New Mexico - Gila National Forest; collected by Hedgcock and Long.  
 (Dearness, 25: 239)

## ABIES BALSAMEA, balsam fir.

+Phacidium abietinellum Dearn.

New York - Newcomb, Essex County, August 22, 1924; collected by  
 Orton and Overholts. (Dearness, 25: 237)

## ABIES CONCOLOR, white fir.

+Phacidium balsameae Davis (Stegopezizella balsamea Syd.)

Oregon - Wasco, Sherman County; collected by Boyce. (Dearness, 25:  
 238)

+Phacidium infestans abietis Dearn.

Oregon - White Pine 1913; collected by Weir. (Dearness, 25: 237)

## ABIES GRANDIS, great silver fir.

+Corticium racemosum Burt.

Idaho, Washington, British Columbia. (Burt, 17: 287)

+Dimerosporium abietis Dearn.

Washington - Government Mineral Springs, altitude 1,400 feet.  
 August 23, 1924. (Boyce). Red Mountain, Skamania County.  
 (Dearness, 25: 243)

+Phacidium infestans abietis Dearn.

Montana - on blighted leaves among green ones; altitude 2,900  
 feet; Lincoln County, July 25, 1924. (Boyce). (Dearness, 25:  
 237)

+Phomopsis sp., twig and branch canker.

Idaho - Clarkia, Shoshone County, elevation 2,800 feet, August 31,  
 December 11. Causing cankers and killing branches up to 1/2  
 inch diameter inside bark on trees of all sizes from saplings  
 to small poles. Not found on the main stem nor killing tops  
 of small trees. This fungus, while not yet definitely identi-  
 fied, is quite close to Phoma abietina Hartig which commonly  
 kills branches of silver fir (Abies pectinata) in continental  
 Europe. (Boyce)

## ABIES LASIOCARPA, Alpine fir.

+Bifusella abietis Dearn.

Colorado - Manti National Forest, Sopris National Forest, Uncompaghre  
 Mountains.

Idaho - parasitic and fruiting on year old and older leaves;  
Challis National Forest, Bonanza, August 7, 1911, collected  
by Hedgcock. (Dearness, 25: 239)

+*Coniophora corrugis* Burt.

Wyoming to Colorado and British Columbia to Arizona. (Burt, 17: 310)

+*Cystothyrium abietis* Dearn.

Colorado - Rico, Dolores County; collected by Payson and Hedgcock.  
(Dearness, 25: 240)

+*Hypodermella abietis-concoloris* (Mayr.) Dearn., needle cast.

Oregon - very sparse; altitude 4,000 feet - Clackamas County,  
May 2. (Boyce)

*Peridermium ornamentale* Arth., rust.

+\*Wyoming, altitude 8,600 feet; Yellowstone National Park County,  
September 6. (Conrad)

+*Phacidium balsameae* Davis, needle blight.

Colorado - Uncompaghe Mountains, July; collected by Hedgcock.  
(Dearness, 25: 238)

+*Phomopsis* sp., twig and branch canker.

Idaho - Clarkia, Shoshone County, elevation 2,800 feet, August 31.  
Cankers similar to those on lowland white fir were found on  
this host, but it has not been determined yet that cankers on  
both hosts were caused by the same organism, although this  
appears probable. (Boyce)

CEDRUS DEODARA, deodar.

+*Armillaria mellea* (Vahl) Quel., root rot.

Mississippi - A. & M. College, Oktibbeha County, September 6,  
(Wedgworth)

CHAMAECYPARIS NOOTKATHENSIS, Alaska cedar.

+*Venturia lanca* Dearn.

Washington - on bark; Upper White River, September, 1924; collected  
by Grant. (Dearness, 25: 246)

CUPRESSUS ARIZONICA, Arizona cypress.

*Phomopsis juniperovora* Hahn; see *Juniperus virginiana*.

C. SEMPERVIRENS, Italian cypress.

*Phomopsis juniperovora* Hahn; see *Juniperus virginiana*.

CRYPTOMERIA JAPONICA, common cryptomeria.

*Phomopsis juniperovora* Hahn; see *Juniperus virginiana*.

JUNIPERUS OCCIDENTALIS, western juniper.

+*Dimerium juniperi* Dearn.

California - on green branchlets; Big Bear Lake, August 2, 1920;  
collected by Bethel. (Dearness 25: 244)

JUNIPERUS VIRGINIANA, red cedar.

*Phomopsis juniperovora* Hahn, nursery blight.

"Cedar blight was reported as being serious in the Middle West  
in seedling nursery stock of red cedar, Juniperus virginiana. At  
Dundee, Illinois, excessive moisture during the growing season

apparently greatly enhanced the prevalence of the disease. At Fremont, Nebraska, the blight occurred abundantly in seedling beds of red cedar which were left unsprayed with Bordeaux mixture. An ornamental planting of five-year old Savin Juniper, J. sabina, at Newark, Ohio, was generally infected with the blight, entire plants being killed within one to two years.

"In the southern states, the amount of blight, which was so very prevalent in 1924, was very much reduced in 1926. At Greensboro, North Carolina, injury not to exceed 10 per cent of one year old seedlings of Cupressus arizonica and C. sempervirens was reported. Seedlings of Cryptomeria japonica of the same age were also attacked in the same degree. Nursery stock of this last named species was reported as badly infected in southern Alabama. Diagnosis of specimens from this source revealed the presence of Phomopsis.

"From the East specimens were received for examination from Rhode Island (Kingston). The cedar blight organism was found present. Several nurserymen of this state reported the blight as commonly occurring and causing considerable loss among young juniper seedlings both in the seedling and transplant beds.

"Cedar blight continues to be a disease of juvenile coniferous stock which must be dealt with by nurserymen. The control of this disease depends upon thorough and repeated sprayings with Bordeaux mixture, applied under high pressure, so that all the tender young parts of the rapidly growing seedlings are kept as completely covered as possible with a coating of copper spray throughout the growing season. The Bordeaux mixture should contain a good spreader and adhesive such as resin fish-oil soap, or one of the casein soap preparations. The frequency of application required varies with the season; wet weather demands very frequent applications. Spraying should begin very early in the spring.

The distribution of Phomopsis juniperovora has been extended since the report of the fungus in 1924 (Pl. Dis. Repr. Suppl. 42: 316-319. Sept. 15, 1925) and in 1925 (Pl. Dis. Repr. Suppl. 50: 416-418. Dec. 1, 1926) to include Rhode Island." (G. G. Hahn)

JUNIPERUS SCOPULIUM, Colorado juniper.

Gymnosporangium betheli Kern, rust.

Colorado - April 28, (Learn). P.r.: \*Colo., \*Mont., \*N. M., N. D., Utah.

JUNIPERUS SPP., juniper.

+Coniophora corrugis Burt.

Wyoming to Colorado and British Columbia to Arizona; on logs, dead limbs and living trees; May to October; common. (Burt. 17: 310)

Gymnosporangium clavariaceforme (Jacq.) DC., rust.

Connecticut - one report, May. (Clinton)

+Louisiana - Shreveport, Caddo County, April 5. (Tims). P.r.: Ala., Colo., Conn., Ill., \*Iowa, \*Mo., \*Mass., \*Mich., Minn., \*N. H., N. Y., Vt., Wis.



*Gymnosporangium germinale* (Schw.) Kern, rust.

Connecticut - seven reports; Litchfield and New Haven (Wallingford) Counties, May. (Clinton & Hunt)

\*Georgia - Thomasville, Thomas County, February 25. (Boyd).

P.r.: \*Ala., Conn., \*Del., \*D. C., Ga., Ill., Ind., Iowa, Ky., \*Me., \*Md., \*Mass., Mich., \*Miss., \*N. J., \*N. Y., \*N. C., Ohio, Pa., \*S. C., Tenn., \*Texas, \*Va., Wis.

*Gymnosporangium nidus-avis* Thax., rust.

Connecticut - two reports on wild host; Salisbury, Litchfield County, June 2. (Clinton & Hunt). P.r.: Ala., Conn., \*Del., D. C., Fla., Ga., \*Ill., \*Iowa, Md., \*Mass., \*Miss., Nebr., N. J., \*N. Y., N. C., S. C., Vt., \*Va.

Winter injury.

Connecticut - serious, caused a browning of the leaves; more prevalent than average year. (Clinton & Filley)

\*New York - on *J. virginiana*; severe in some places; caused the death of some trees, particularly those exposed to the south winds. (Pennington)

#### LARIX LYALLII

+*Lophodermium laricis* Dearn.

Idaho - Bitter Root Mountains, September 13, 1911; collected by Hedgcock. (Dearness, 25: 243)

#### LARIX OCCIDENTALIS, western larch.

+*Corticium racemosum* Burt.

Idaho, Washington, and British Columbia. (Burt, 17: 287)

+*Hypodermella laricis octospora* Dearn.

Idaho - St. Maries, September 18, 1911; collected by Hedgcock. (Dearness, 25: 241)

*Polyporus sulfureus* (Bul.) Fr., heart rot.

\*Oregon - White Pine Siding, near Austin, Grant County, elevation 4,600 feet, July 20. Causing a chocolate-brown carbonaceous decay with very heavy mycelium felts in the butt and roots of a living tree 40 inches in diameter breast-high. (Boyce)

#### LARIX SP., larch.

*Razoumofskya laricis* Piper, mistletoe witches' broom.

Washington - Whitman County. (Dept. Pl. Path.). P.r.: Idaho, Mont., Wash.

#### PICEA ENGELMANNII, Engelmann spruce.

+*Coniophora corrugis* Burt.

Wyoming to Colorado and British Columbia to Arizona. (Burt, 17: 310)

*Peridermium coloradense* (Diet.) Arth. & Kern, rust.

Oregon - upper Camp Creek, near Whitney, Baker Co., elevation 5,000 feet, July 26. Frequent. Causing witches' brooms.

British Columbia - Anarchist Mt., near Oliver, elevation 3,000 feet, August 22. Rare, sporulating; along Kettle Valley Railway, Glen Fir to Lakevale, elevation 2,600 to 4,150 feet, August 23. Occasional. (Boyce). P.r.: \*Colo., \*Idaho, \*Mont., \*Oreg., \*Wash., \*Wyo.

PICEA MARIANA, black spruce.

Melampsoropsis cassandrae (Pk. & Clint.) Arth. (Chrysomyxa cassandrae  
(Pk. & Clint.) Tranz.)

+Wisconsin - (Davis, 23: 188). P.r.: \*Mich., \*Minn.

PICEA RUBRA, red Spruce.

+Corticium vinosuscabens Burt.

Vermont to Wisconsin (Burt, 17: 267)

PICEA SITCHENSIS, Sitka spruce.

+Aleurodiscus subcruentatus (Berk. & Curt.) Burt.

Oregon and California - on bark of living trees; August and  
September. (Burt, 17: 308)

+Corticium ermineum Burt.

Vermont and Idaho. (Burt, 17: 182)

+Corticium rubicundum Burt.

Colorado - Burt, 17: 235)

Scorch

+Missouri - on Koster's blue spruce (Picea pungens hort. var.)  
local; damage severe due to spring drouth. (Archer)

PINUS BANKSIANA, jack pine.

Cronartium cerebrum (Pk.) Hedge. & Long, oak-rust.

+Wisconsin - (Davis, 23: 189). P.r.: Conn., Mich., Minn.

PINUS CARIBAEA, slash pine.

+Hypoderma hedgcockii Dearn., needle cast.

Florida - parasitic on the leaves; Silver Springs, May 15, 1919;  
collected by Hedgcock. (Dearness, 25: 240)

PINUS CLAUSA, sand pine.

+Hypoderma hedgcockii Dearn., needle cast.

Florida - parasitic on leaves, Bolton. (Dearness, 25: 240)

PINUS CONTORTA, shore pine.

Cronartium comptoniae Arth., rust.

+British Columbia - abundant on seedlings and saplings, elevation  
1,200 feet; Daisy Lake, August 17. (Boyce). P.r.: Conn., N. H.

+Hypodermella montivaga concolor Dearn., needle cast.

Montana, Wyoming, Colorado - this form has uncolored apothecia;  
on branchlets. (Dearness, 25: 242)

PINUS ECHINATA, shortleaf pine.

+Hypoderma hedgcockii Dearn., needle cast.

Virginia - Luray, parasitic on leaves; Murphy.

North Carolina - collected by Hedgcock. (Dearness, 25: 240)

+Hypoderma lethale Dearn., needle cast. (Dearness, 25: 241)

+Lophodermium australe Dearn., needle cast.

Southern States. (Dearness, 25: 242)

+Meliola pinicola Dearn.

North Carolina - on living leaves; Pisgah, Pisgah National Forest,  
July 6, 1925. (Dearness, 25: 244)

+*Pezizella minuta* Dearn.

North Carolina - on living leaves, Davidson River; collected by Hedgcock. (Dearness, 25: 236)

PINUS EXCELSA, Himalayan pine.

+*Cenangium abietis* (Pers.) Rehm, twig blight.

Ohio - several trees in the station arboretum were killed. Wooster, Sept. 20. (May)

PINUS FLEXILIS, Limber pine.

+*Razoumofskya americana* Nutt. (*Arceuthobium americanum*), mistletoe.

\*Montana - Bridger Mountain Range, altitude about 6,200 feet; Bozeman, Gallatin County, July 4. (Haskell & Young)

+*Phacidium planum* Davis, needle blight.

Colorado - Palmer Lake, July 19, 1917; collected by Hedgcock and Bethel. (Dearness, 25: 238)

PINUS GLABRA, spruce pine.

+*Capnodium* sp.

Louisiana - Bogalusa, Washington County, Feb. 13. (Edgerton)

+*Lophodermium australe* Dearn., needle cast.

Southern States - on the leaves. (Dearness, 25: 242)

PINUS MONTICOLA, western white pine.

*Cenangium piniphilum* Weir, canker.

Idaho - near Nordmann, Bonner Co., elevation 2,700 feet, Sept. 2, 1926. Causing cankers 2 feet long on trunks of 2 living trees 6 and 8 inches diameter breast-high. New host. (Boyce)

*Dasyscypha fuscocanguinea* Rehm, canker.

Idaho - producing cankers on trees of all ages; most severe on saplings up to 20 to 30 feet, sometimes killing them outright; often attacking the leader and then successive leading branches and producing a deformed or stunted tree. (Dearness 25: 237). Boundary County, July 1924, collected by Boyce. P.r.: Mont., Idaho, Wash.

*Scleroderris bacillifera* (Karst.) Sacc., canker.

Washington - Storm King Mt., Lake Crescent, Clallam County, elevation 1,500 to 2,000 feet, Aug. 11. Very heavy infection. Killing many branches on trees up to 40 feet high and some small trees will die. This species may be *S. treleasei* Sacc., but it has not been possible to study type of *S. bacillifera* or *S. treleasei*. (Boyce)

*Septobasidium pinicola* Snell.

Idaho - (Burt, 17: 331)

*Tuberculina maxima* Rostrup.

British Columbia - Daisy Lake, elevation 1,400 feet, Aug. 18. Occasional; parasitic on the accia of *Cronartium ribicola*. (Boyce)

*Tympanis buchsii* (Henn.) Rehm.

Idaho - causes cankers on living branches; Stocking Meadows; Aug. 1923; collected by Stillinger. (Dearness, 25: 243)

## PINUS NIGRA, Austrian pine.

+Hypoderma brachysporum (Rostr.) Tub., needle cast.

New Jersey - Cologne, Atlantic County, Aug. 11. (Haenseler)

## PINUS PALUSTRIS, longleaf pine.

+Cryptosporium acicolum Thüm.

Florida - Silver Springs, Feb. 27, 1919; collected by Hedgcock.

(Dearness, 25: 251)

+Hypoderma hedgcockii Dearn., needle cast.

Florida - parasitic on leaves, Croom. (Dearness, 25: 240)

+Lophodermium australe Dearn., needle cast.

Florida - on languishing or partly green leaves; Silver Springs,  
Feb. 27, 1919; collected by Hedgcock. (Dearness 25: 242)

+Oligostroma acicola Dearn.

Florida - Silver Springs. (Dearness, 25: 251)

Septoria pini Fckl., leaf rust. (Chapman, 18: 351)

## PINUS PONDEROSA, western yellow pine.

+Armillaria mellea (Vahl) Quel., root and butt-rot.

Oregon - near Bend, Deschutes Co., elevation 4,000 feet, Oct. 26.

Abundant. Killing saplings 2 to 12 feet high on logged off  
land. No sporophores found, only rhizomorphs. (Boyce)

+Coniophora corrugis Burt

Wyoming to Colorado and British Columbia to Arizona; in mountain  
forests; on logs and dead limbs and on living trees; common;  
May to October. (Burt, 17: 310)

Hypoderma deformans Weir, needle cast.

+Oregon - occasional; elevation 4,500 feet; Baker Co., July 23.  
(Boyce)

+Lentinus lepideus Fr.

Oregon - abundant causing decay of railroad ties in service;  
elevation 4,600 feet; Grant Co., July 20. (Boyce)

+Polyponus ellisianus Murr.

Oregon - near Austin, Grant Co., elevation 4,300 feet, July 20;  
near Bend, Deschutes County, elevation 4,000 feet, Oct. 26.

Very abundant in limbs, tops, and cull logs above 6 inches  
in diameter inside bark on cut-over areas. Rotting both  
sapwood and heartwood but mostly the former. (Boyce)

+Veluticeps fusca Humph. and Long.

New Mexico, Arizona, Washington - (Burt. 17: 329)

## PINUS RESINOSA, red pine.

Coleosporium solidaginis (Schw.) Thuem., needle rust.

+Massachusetts - Berkshire County. (Osman)

+Connecticut - new to state; little injury; Fairfield and  
Litchfield Counties. (Hunt & Filley)

New York - (Pennington)

P.r.: Minn., N. H., \*N. Y., Pa., S. C., Vt.

+Lophodermium australe Dearn., needle cast.

Southern States - (Dearness, 25: 242)

+Fertilizer burn.

Connecticut - bone meal not washed off tops of seedlings when  
applied; killed the tender leaves; later leaves and roots  
uninjured. (Clinton)

## PINUS RIGIDA, pitch pine.

+Corticium overholtsii Burt.

(Burt, 17: 246)

Cronartium cerebrum (Pk.) Hedge. & Long, oak rust.

+Connecticut - new host for state; Branford, New Haven Co.,

June 16. (Clinton & Filley). P.r.: Mass., \*N. J., N. Y., Pa.

+Hypoderma hedgcockii Dearn., needle cast.

North Carolina - parasitic on needles; Pisgah National Forest.

(Dearness, 25: 240)

+Hypoderma lethale Dearn., needle cast.

New Hampshire to Virginia - N. Y. (Long Island, collected by

Latham); Md. (Highfield, July 24, 1914) Severely parasitic

on needles. (Dearness, 25: 241)

+Pezizella minuta Dearn.

North Carolina - Avery Creek, Pisgah, July 8, 1925; collected

by Hedgecock. (Dearness, 25: 236)

+Phacidium convexum Dearn.

North Carolina - on living needles; Davidson River, Pisgah

National Forest, June 7, 1925; collected by Hedgecock.

(Dearness, 25: 238)

## PINUS SEROTINA, pond pine.

+Hypoderma lethale Dearn., needle cast.

Localities not given - collected by Hedgecock. (Dearness, 25: 241)

## PINUS STROBUS

+Corticium canadense Burt.

New Hampshire and Canada. (Burt, 17: 290)

+Corticium fuscostratum Burt.

Canada to Maryland and westward to British Columbia. (Burt, 17: 299)

+Scorias spongiosa (Schw.) Fr., snow mold.

Indiana - (Dietz)

+Hail injury.

Connecticut - one report of injury (cankers on stems 1/4 to 1/2 inches) from storm of preceding year. Winchester, Litchfield Co., July 15. (Clinton & Filley)

Needle blight, cause undetermined.

New York - noticed in many places; particularly prevalent upon trees with a southern exposure; it was not severe enough to cause the death of trees. (Pennington)

P.r.: Conn., D. C., Mo., Md., Mass., N. Y., N. J., N. C., Pa., R. I., Vt.

+Salt water injury.

Connecticut - caused by water from ice cream freezers poured on ground at roadside stands; three reports. (Clinton & McCarty)

Winter injury.

Connecticut - a serious trouble. (Clinton & Filley)

## PINUS SYLVESTRIS, Scotch pine.

Peridermium sp., Woodgate gall rust.

New York - a new gall rust on Scotch pine (Pinus sylvestris) caused by a species of Peridermium was discovered by Dr.

Harlan H. York of the New York Conservation Commission

during 1925. This rust was discovered in two regions of

New York State; (1) northern Oneida County and Lewis County,

(2) Southern Franklin County and Clinton County. Dr. York

states that it may have existed in the state for many years. (Barrus).

First discovered by H. H. York (127) during the first week of June 1925, on Scotch pine bordering Round Lake near Woodgate, N. Y. Scotch pine was in plantings with *Pinus strobus* and *Picea excelsa* from seed broadcasted in '74, '79, '80, and '83, with Scotch pine predominating, reproducing itself naturally and quite freely. The trees ranged from one to twenty or more years of age. The seed was imported from Germany by Mr. R. Dallarmi who had made plantings of seedlings which he grew from seed himself of *Pinus sylvestris*, *P. austriaca*, *P. strobus*, and *Picea excelsa* in 1870. So far as is known no trees from outside sources were brought to this farm. The source of the infection of the Scotch pine is unknown. No other species is affected. No alternate host has been found although careful search has been made, and the *Peridermium* is undoubtedly autoecious at Woodgate. Infection is distributed throughout both the planted and the natural seeded areas, and is also known to have spread into plantations of *Pinus sylvestris* 110 miles distant from the Round Lake infection.

In cooperative work conducted by the State Conservation Commission and the U. S. Office of Forest Pathology it has been found that the *Peridermium* must have been present at Woodgate for at least thirty years. The amount of infection has increased rather rapidly since 1920. Infection apparently takes place on the current season's wood through the epidermis of the twigs and stems. Infections may occur on the axis where the staminate cones are borne. In 1926 aecia began to appear about the middle of May. The climax of aecia production occurred the first week in June. Viable spores were found in a canker August 21, 1926. In the majority of cases the cankers bear their first aecia the third season following infection. Some galls fruit only when two years old.

+Winter injury.

Connecticut - more than average injury. (Clinton & Filley)

#### PINUS TAEDA, loblolly pine.

*Cronartium cerebrum* (Pk.) Hedge. & Long., oak rust.

+South Carolina - found associated rust on the leaves of *Quercus* spp. in the lowlands; 200 trees near St. Matthews showed severe infection; 42.5 per cent had rust galls; trees measured 5 to 10 inches in diameter, St. Matthews, Orange Co., May 4. (Fenner). P.r.: Fla., La., \*Miss.

+*Hypoderma lethale* Dearn., needle cast.

Localities not given; collected by Hedgcock. (Dearness, 25: 241)

+*Lophodermium australe* Dearn., needle cast.

Florida - Brooksville; collected by Hedgcock. (Dearness, 25: 242)

+*Pezizella minuta* Dearn.

North Carolina - Elizay; collected by Hedgcock. (Dearness, 25: 256)

## PINUS VIRGINIANA, scrub pine.

*Cronartium cerebrum* (Pk.) Hedge. & Long, oak rust.

Delaware - mature fruiting bodies; Frederica, Kent County, May 12.  
(Adams)

P.r.: Ala., \*Del., \*D. C., \*Md., \*N. J., Ohio, Pa., \*Va.

+*Hypoderma hedgcockii* Dearn., needle cast.

Maryland - parasitic on needles; Garret Park, May 26, 1891; collected by Galloway; Tennessee - Jamestown. (Dearness, 25: 240)

+*Hypoderma lethale* Dearn., needle cast.

Maryland to South Carolina; collected by Hedgcock. (Dearness, 25: 241)

+*Pezizella minuta* Dearn.

North Carolina - Andrews; collected by Hedgcock. (Dearness, 25: 236)

## PINUS SPP., pine.

*Coleosporium elephantopodis* (Schw.) Thuem., rust.

+Louisiana - Baton Rouge, March 22. (Tims)

*Corticium* spp.

+*C. bombycinum* (Sommerf.) Bres.; +*C. macounii* Burt, Canada, perhaps N. H. and N. Y.; +*C. rubicundum* Burt, Wash.; +*C. vescum* Burt, Md. and Ala. (Burt, 17: 190, 256, 235, 204)

*Corticium vagum* Berk. & Curt., and *Fusarium* sp., damping-off.

+Wisconsin - sulfuric acid successful at Trout Lake and unsuccessful at Sturgeon Bay as a control. (Vaughan)

P.r.: for *Fusarium* sp., Ala., Ill., Iowa, Mo., Nebr., N. J., N. Y., Pa., Vt.

*Hypoderma lethale* Dearn., needle cast.

A *Gloeosporium* stage of this species may be the cause of the severe blighting of the needles. "Gray blight" is the name given to it by the Forest Service. (Dearness, 25: 241)

## PSEUDOTSUGA DOUGLASSII, Douglas fir.

+*Aleurodiscus subcruentatus* (Berk. & Curt.) Burt.

+Oregon and California - on bark of living trees; August and September. (Burt, 17: 308)

*Botrytis* spp., gray mold twig blight.

Connecticut - (Clinton)

*Corticium pseudotsugae* Burt

New York and Idaho. (Burt, 17: 246)

+*Corticium racemosum* Burt

Idaho, Washington, and British Columbia. (Burt, 17: 287)

Root rot (undet.)

U. S. Dept. Agr. Official Record, March 24, 1926.

"For the last five years a root rot has been causing considerable damage in Douglas fir seed beds at the monument nursery, Pike National Forest, Colo. As an illustration of the damage, 5,760 square feet were sowed to Douglas fir in the fall of 1923. This area would normally produce about 690,000 two-year seedlings. Root rot started during the first year in the seed beds, with the result that there was only 302,000 seedlings alive last fall, only 226,000 of which are considered fit for planting, or about half of the number of healthy germinated seedlings. The soil treatment recommended, aluminum sulfate will apparently control the disease. It not only prevents root rot, but it kills all

the weeds, prevents damping-off, and stimulates the growth of the seedlings, producing a dark-green, thrifty plant. The exact treatment to use is still being experimented with, but enough has been determined to indicate that this chemical will control the situation."

TAXUS CANADENSIS, Canada yew.

+Phacidium taxicolum Dearn. & House.

New York - Blue Mountain Lake, Hamilton Co., Sept.; collected by H. D. House. (Dearness, 25: 239)

TAXUS SP., yew.

+Frost injury, caused by late frosts.

Connecticut - injury to young seedlings in a nursery; white specking a result. (Clinton)

THUJA ORIENTALIS AUREA, golden oriental arborvitae.

\*+Corticium vagum Berk. & Curt., damping-off.

Virginia - Norfolk, Norfolk County, March 10. (McWhorter)

THUJA PLICATA, giant arborvitae.

+Corticium ermineum Burt

Vermont and Idaho - (Burt, 17: 182)

+Corticium racemosum Burt

Idaho, Washington, and British Columbia. (Burt, 17: 287)

Winter injury.

+Connecticut - more than in average year. (Clinton & Filley)

TSUGA CANADENSIS, Canada hemlock.

+Corticium pseudotsugae Burt

New York and Idaho. (Burt, 17: 246)

+Corticium tsugae Burt

New Hampshire - (Burt, 17: 276)

+Corticium vinososcabens Burt

Vermont to Wisconsin - (Burt, 17: 267)

TSUGA SP., hemlock.

+Corticium pilosum Burt

Missouri - (Burt, 17: 262)

#### D I S E A S E S O F H A R D W O O D S

ACER DASYCARPUM, silver maple.

Rhytisma acerinum (Pers.) Fr., tar spot.

+Missouri - Scott Co., Oct. 27. (Archer)

P.r.: Conn., Del., \*D. C., \*Ga., \*Ill., \*Ind., \*Iowa, \*Kans., \*Me.,  
Md., \*Mass., Mich., \*Minn., \*Miss., \*Nebr., \*N. J., \*N. Y., \*Pa.,  
Vt., \*Va., \*W. Va., \*Wis.

+Sphaeropsis amplispora Dearn. & Barth.

Kansas - Blue Rapids. (Dearness, 25: 254)



## ACER NEGUNDO, boxelder.

*Phyllosticta minima* (Berk. & Curt.) Ell. & Ev., leaf spot.

- +Missouri - during the summer there had been a severe drought;  
Dunklin, Mississippi and Pemiscott Counties, Aug. 2.  
(Archer). P.r.: Conn.

## ACER PAIMATUM, Japanese maple.

+*Alternaria* sp., leaf scorch.

Virginia - Draper, Sept. (Wingard)

+*Cytospora* sp.

Ohio - (Howard, Hutchinson, and Waterman)

+*Phyllosticta* sp., leaf spot.

Pennsylvania - District of Columbia (Howard, Hutchinson, and Waterman)

## ACER SACCHARUM, sugar maple.

*Gloeosporium apocryptum* Ell. & Ev.

+Rhode Island - (Howard, Hutchinson, and Waterman). P.r.: Pa., S. C.

*Gloeosporium hysteroideum* Dearn. & Barth., leaf spot.

Regarding this leaf spot, Van Hook (110) has recently reported in part as follows:

"This species described by Dearness in 1924 has been under our observation since 1920. His type material came from the vicinity of Cincinnati, Ohio, and was collected in September, 1922. While it is of interest as a new species, it is of equal interest as a defoliating fungus, particularly in seasons of great moisture and on younger trees. Those trees up to 50 feet in height are most affected. Our observations have been confined, in the main, to many hard maple trees located in a deep hollow in a practically untouched forest in southern Indiana. By August the spots are quite large and some defoliation sets in, even in dry seasons. In 1920, a wet season, there was almost complete defoliation whereas in 1922, a comparatively dry year, spotting was severe but the injury much less.

"The spots on the leaves in 1922 were entirely different from those on leaves in 1920. In fact, they were quite definite, had broad yellow borders, became quite pale in the center, and did not spread to more than three centimeters in diameter. The unusually dry season at the time of spot development in 1922, doubtless produced a slower and more definite growth of the spots. The difference in this case was so marked that an ordinary examination of the affected leaves of the two seasons, would suggest two entirely different fungi as the cause.....If the spores be examined after August, scarcely a trace of the larger ones (pycnospores) can be found. The smaller, bacterium-like ones are exceedingly numerous after that time."

## ACER SP.

*Corticium bombycinum* (Sommerf.) Bres.

Burt, 17: 190)

*Corticium incanum* Burt

Canada to North Carolina. (Burt, 17: 205)

+*Exosporium sociatum* Ell. & Ev.

New Jersey - on twigs; Princeton, Mercer Co., April 10. (Chupp)

*Gloeosporium saccharini* Ell. & Ev., anthracnose.

Connecticut - Watertown, Litchfield Co., June 22. (Clinton)

P.r.: +Conn., \*Iowa, Wis.

*Verticillium* sp.

Occurs from North Carolina to Canada and westward to Wisconsin.

Attacks several species but most destructive to Norway and sugar maples. The fungus enters through wounds. Control measures suggested are sanitary measures such as cutting out and burning infected parts and the protection of wounds.

(Gravatt, 44)

+New Jersey - Somerset Co., Oct. 11. (Haenseler)

Gas injury - leaky gas mains.

Connecticut - three reports. (Clinton & Stoddard)

Leaf scorch.

Connecticut (Clinton), New York (Barras), New Jersey (Dept. Pl. Path.), and Michigan (Nelson).

## ALNUS RHOMBIFOLIA, White alder.

+*Hypospila californica* Dearn. & Barth.

California - parasitic on leaves; Riverside, August 12, 1924; collected by Bartholomew. (Dearness, 25: 248)

## ALNUS RUBRA, Alder.

+*Hypospila californica* Dearn. & Barth.

California - Santa Cruz; collected by Mary S. Clemens. (Dearness, 25: 248)

## ALNUS SPP., Alder.

+*Corticium bombycinum* (Sommerf.) Bres.

(Burt, 17: 190)

+*Corticium litschaueri* Burt

North Dakota and Oregon (Burt, 17: 259)

+*Corticium pilosum* Burt

Georgia (Burt, 17: 262)

+*Corticium subalbum* Burt

Georgia and Alabama. (Burt, 17: 267)

## BETULA ALBA, White birch.

+*Melanconis decoraensis* Ell.

Massachusetts - near Waverly. (Wehmeyer, 115: 261)

+*Melanconis stilbostoma* (Fr.) Tul.

Massachusetts - Hubbardston. (Wehmeyer, 115: 259)

+*Pseudovalsa lanciformis* (Fr.) Ces. & DeNot.

Illinois - Quincy. (Wehmeyer, 115: 266)

## BETULA PUMILA, Low birch.

+*Dothidella betulina* (Pers.) Sacc.

Wisconsin - Danbury (Davis 23: 185)

## BETULA SPP., Birch.

*Corticium bombycinum* (Sommerf.) Bres.

(Burt, 17: 190)

*Nectria* sp., canker.

Vermont - (*B. lutea*): Massachusetts - (*B. lenta*)

Perley Spaulding (102) in his paper at the Philadelphia Meeting of the American Phytopathological Society reported that: "During the summer of 1926 a *Nectria* was found apparently epidemic on *B. lutea* in Vermont and on *B. lenta* in Massachusetts. While the disease was not generally serious, it should be watched so that its range, virulence and economic importance can be learned. Any notes concerning it will be much appreciated."

CARPINUS CAROLINIANA, American hornbeam.

*Mamiania fimbriata* (Pers.) Ces. & DeNot.

Wisconsin - Danbury and Balsam Lake. (Davis, 23: 171)

CASTANEA DENTATA, Chestnut.

*Endothia parasitica* (Murr.) And. & And., blight.

The following report has been received from the Office of Forest Pathology: "The Chestnut Blight Survey carried on in 1926 by the United States Office of Forest Pathology showed every county within the commercial range of *Castanea dentata* to be infected. Roughly speaking, everywhere west of a line extending from the southwest corner of Pennsylvania to the northwest corner of Georgia the infection is from 1 to 10 per cent. This approximates one-third of the entire range south and west of Pennsylvania. In 1925 the eastern limits of this class lay more or less along the line from the southwest corner of Pennsylvania to a point a few hundred miles east of the northeast corner of Georgia.

"Much less time was devoted to survey work by the office personnel than in the preceding year. Many reports on prevalence of the blight in different sections were received from state and extension pathologists and foresters, members of U. S. Forest Service, county agents, and many private parties. These reports are combined with the estimates made by members of the office and the results prepared on a county basis. Maps showing the results of this survey were sent to all state authorities in the fall of 1926.

"Survey work to locate blight resistant trees of the American and exotic chestnuts is being increased. Some very resistant exotic chestnuts have been found or reported and nuts and scions have been received from many of these trees for further tests of their resistance.

CASUARINA EQUISETIFOLIA, horsetail-tree.

+*Clitocybe tabescens* Scop., root rot.

Florida - scattered; of slight importance; Winter Haven, Nov. 12.  
(West)

CATALPA SP., catalpa.

*Microsphaeraalni vaccinii* (Schw.) Salm., powdery mildew.

+New Jersey - Burlington County, Aug. 10. (Dept. Pl. Path.)

*Phyllosticta catalpae* Ell. & Mart., leaf spot.

Missouri - very important; often severe in nursery rows, causing a blight; found also on shade trees in southeastern part of state.  
(Archer)

## CELTIS SP.

+Macrophoma sp.

Missouri - (Howard, Hutchinson, and Waterman)

## CERCIS CANADENSIS, redbud.

+Sphaeropsis cercidis Deam. &amp; Barth.

Kansas - Stockton (Dearness, 25: 254)

## CINNAMONUM CAMPHORA, camphor.

Gloeosporium sp. probably *G. camphorae* Jacq., leaf spot.

\*Alabama - Andalusia, Covington County, July 29. (Miles)

P.r.: \*Ala., Fla., \*Miss., Texas.

\*+Phyalospora sp.

Mississippi - A. &amp; M. College; Oktibbeha County, Aug. 16. (Wedgworth)

## CORNUS ALTERNIFOLIA, pagoda dogwood.

+Ramularia gracilipes Davis.

Wisconsin - Bruce, Sept. 4, 1924. (Davis, 23: 173)

## CORNUS SPP., dogwood.

+Corticium subcinereum Burt.

Massachusetts - (Burt, 17: 277)

## CRATAEGUS COCCINEA, thicket hawthorn.

Gymnosporangium globosum Farl., rust.

\*+Missouri - of general prevalence; Caldwell, June 24. (Archer)

P.r.: Conn., Ill., Ind., Mass., Miss., N. Y., \*Pa., Vt.

## CRATAEGUS DOUGLASI, black hawthorn.

Gymnosporangium betheli Kern, rust.

Montana - Bozeman, Aug. 9. (Young). P.r.: \*Mont., Ore., Wash.

Phyllactinia corylea (Pers.) Karst., powdery mildew.

+Idaho - Elevation 2,800 feet, Shoshone Co., Aug. 31. (Boyce)

## ELAEAGNUS ANGUSTIFOLIA, Russian olive.

+Puccinia lolii festucae.

Copiously flecked with pycnidial infection when inoculated with teleutospores of crown rust from *Festuca elatior*. (Dietz, 26)

## EUCALYPTUS SP., eucalyptus.

+Bagnisiopsis eucalypti Deam. &amp; Barth.

California - San Francisco. (Dearness, 25: 250)

+Phragmidothidea eucalypti Deam. &amp; Barth.

California - San Francisco. (Dearness, 25: 250)

## FRAXINUS OREGONA, Oregon ash.

+Corticium spretum Burt.

Washington - (Burt, 17: 229)

## FRAXINUS PENNSYLVANICA, red ash.

\*+Phyllosticta fraxinicola (F. Currey) Ell. &amp; Ev., leaf spot.

Missouri - damage very slight; Jackson, Cape Girardeau County, July 29. (Archer)

## FRAXINUS VELUTINA, leatherleaf ash.

\*+Caconema radiculicola (Greef) Cobb, root knot.

Arizona - the trees were growing in nursery rows near the Salt River; the seedlings showed no visible effects of the nematodes which were present on the roots and were first discovered when some of the trees were dug for shipping, Phoenix, Maricopa, March 31. (George)

## FRAXINUS SP., ash.

+Aleurodiscus macrodeus Coker.

New Hampshire to North Carolina. (Burt, 17: 307)

Phyllosticta sp.

+Montana - (Howard, Hutchinson, and Waterman)

\*+Septobasidium pedicellatum (Schw.) Pat., canker.

Virginia - present throughout tree; many of the branches were killed; Tunstall, Charles City County, July 24. (Wingard)

Sunscorch.

Massachusetts - Ponkapog Station, Oxford Co., August. (Scherer)

Kentucky - quite common in dry seasons; Henderson, Henderson Co., July 1. (Valleau). P.r.: Conn.

## GLEDITSIA TRIACANTHOS, honeylocust.

\*+Thyronectria denigrata (Wint.) Seaver, (Pleonectria denigrata Wint.)

South Carolina - Clemson College, Oconee Co., Oct. 12. (Rosenkrans)

## GREVILLEA ROBUSTA, silk-oak.

+Diplodia sp.

Florida - attacks nursery stock, especially the young trees; causes a witches' broom; Oneco, March 25. (West)

## HAMAMELIS VIRGINIANA

Graphium hamamelidis Van Hook

Reported as parasitic in New York, Ohio, and Indiana by Van Hook. (111)

## HICORIA ALBA, mockernut.

Gnomonia caryae Wolf, anthracnose.

+Indiana - more or less severe every year, unusually noticeable in Monroe Co. in 1925. (Van Hook, 110: 235). P.r.: Conn., \*Ill.

## HICORIA CORDIFORMIS, bitternut.

+Fusarium carpineum Davis.

Wisconsin - (Davis, 23: 170)

\*+Microstroma juglandis (Bereng.) Sacc.

Wisconsin - (Davis, 23: 185)

## HICORIA SPP., hickory.

Gnomonia caryae Wolf, anthracnose.

Connecticut - Hamden, New Haven Co., Oct. 1. (Clinton)

New York - fairly abundant. (Pennington)

P.r.: \*Ala., Conn., Fla., \*Ga., \*Ill., Ind., Mass., \*Mo., N. J.,

\*N. Y., Ohio, \*Pa., S. C.

## JUGLANS CINEREA, butternut.

*Gnomonia leptostyla* (Fr.) Ces. & DeNot., anthracnose.

New York - fairly common. (Pennington)

+Delaware - of moderate importance; more prevalent than average year; Felton, Kent Co., Oct. 8. (Adams)

P.r.: \*Ill., Ind., Iowa, \*Mass., Mich., \*Miss., \*N. Y., \*Ohio, \*Pa., \*Wash., W. Va., Wis.

*Melanconis juglandis* (Ell. & Ev.) A. H. Graves, canker.

Connecticut - one report; moderate injury; Woodbridge, New Haven, May 8. (Clinton)

P.r.: Ala., Conn., Iowa, Me., Md., N. J., N. Y. Pa., R. I., W. Va., Wis.

## JUGLANS NIGRA, black walnut.

*Gnomonia leptostyla* (Fr.) Ces. & DeNot., anthracnose.

New Jersey - this has become such a serious disease by defoliating the trees that farmers say all the nuts are shrivelled and of no value for eating; statewide in distribution; Dunnellen, Middlesex Co., Aug. 30. (Dept. Pl. Path.)

Delaware - more prevalent than in previous years; Felton, Kent Co., Oct. 8. (Adams)

\*Ohio - Brooklyn Heights, Cleveland Co., Sept. 20. (Kohl)

P.r.: Ala., \*Ark., Conn., \*Del., \*Ill., Ind., Iowa, \*Kans., \*Md., \*Mich., \*Minn., \*Mo., \*Nebr., N. J., N. Y., N. D., Pa., \*S. C., \*Va., W. Va., Wis.

Yellows - undet.

+Delaware - Felton, Kent Co., Oct. 8. (Adams). P.r.: \*Md.

## LIQUIDAMBAR STYRACIFLUA, sweetgum.

+*Botryosphaeria ribis chromogena* Stevens.

Florida - collected by Stevens, 1924. (106: 279)

## MAGNOLIA GRANDIFLORA, southern magnolia.

*Caconema radiculicola* (Greef) Cobb, rootknot.

Georgia - large infection; roots brought to surface by heavy mulching with no cultivation; Jan. 10. (Boyd)

*Colletotrichum* sp., anthracnose.

Georgia - heavy infection; general about Thomasville, Jan. 10. (Boyd)

+*Exophoma magnoliae* Weedon.

Florida - St. Petersburg, Feb. 15, 1923. (Weedon, 114: 221)

+*Heterosporium magnoliae* Weedon.

Florida - St. Petersburg, Feb. 15, 1923. (Weedon, 114: 222)

Lichen leaf spot - undet.

Georgia - very abundant; Jan. 10. (Boyd). P.r.: S. C., Texas.

## MAGNOLIA SP., magnolia.

+*Botryosphaeria ribis chromogena* Stevens.

Florida - collected by Stevens, 1924. (106: 279)

## MYRICA CAROLINENSIS, northern bayberry.

+*Haplosporella lathamii* Dearn.

New York - Mattituck. (Dearness, 25: 255)

NYSSA SP., tupelo.

+Amphisphaeria pelorospora Dearn.

New York - Greenport. (Dearness, 25: 247)

OSTRYA VIRGINIANA, American hophornbean.

Melanconium bicolor Nees.

\*+New York - Long Island, Aug. 30. (Martin & Scherer). P.r.: \*Iowa.

+Phomopsis sordidula (Sacc. & Speg.) Hoehn.

\*New York - Long Island, Aug. 30. (Martin & Scherer)

PLATANUS OCCIDENTALIS, American planetree.

+Cytospora platani Fckl., leaf spot.

R. I., Pa., Va., Texas. (Howard, Hutchinson, and Waterman)

PLATANUS SP., planetree, sycamore.

Gnomonia veneta (Sacc. & Speg.) Kleb., anthracnose.

Massachusetts - severe defoliation throughout the state. (Osmun)

Rhode Island - (Howard, Hutchinson, Waterman)

Connecticut - fifty-seven reports; first appearance noted on June 11, slightly later than last year in appearing; almost as bad as in 1925 when it was very severe. (Clinton)

New York - started later than last year, due to drought, June 8.

(Dept. Pl. Path.)

Pennsylvania - Howard, Hutchinson, Waterman)

Virginia - in general caused very little destruction; some few trees were hard hit but most of them have had much less of the disease than in an average year; some trees died the past winter from the cumulative effects of this disease. (Gravatt)

+Mississippi - very serious in vicinity of A. & M. College, June 1. (Wedgworth)

Texas - (Howard)

Arkansas - not as severe as in 1924. (Young)

Indiana - less than in 1925 and average year. (Gardner)

Microsphaera alni (Wallr.) Wint., powdery mildew.

\*+Virginia - severe on young trees but old ones do not seem to be affected; Hampton Institute, Elizabeth City Co., July 7.

(Turner)

POPULUS BALSAMIFERA, balsam poplar.

Melampsora albertensis Arth., rust.

\*+Montana - Bozeman, Aug. 21, 1925. (Young). P.r.: +Colo., Wash.

+Phyllosticta brunnea Dearn. & Barth., leaf spot.

Wisconsin - (Davis, 23: 186)

POPULUS GRANDIDENTATA, large tooth aspen.

+Ceuthospora populi Dearn. & Overh.

Pennsylvania - State College. (Dearness, 25: 253)

Melampsora medusae Thuem., rust.

+Missouri - Jefferson Co. (Archer). P.r.: Pa.

+Phyllosticta maculans Ell. & Ev., leaf spot.

New York - Ithaca, Oct. 1; not serious. (Guterman)

## POPULUS TREMULOIDES, quaking aspen.

*Marssonia populi* (Lib.) Magn., leaf spot.

\*+Wyoming - Lincoln Co., Sept. 2. (Zundel)

P.r.: \*Idaho, S. D., \*Wash., \*Wis.

*Melampsora albertensis* Arth., rust.

Montana - Bozeman, Aug. 9, 1925. (Young)

P.r.: Colo., Idaho, Mont. N. Mex., Ore., Wash., Wyo.

+*Sydowia dothideoides* Dearn. & Barth.

Wyoming - Jenny Lake. (Dearness, 25: 248)

## POPULUS TRICHOCARPA, black cottonwood.

+*Corticium granulatum* Burt

Idaho - (Burt, 17: 236)

+*Corticium ochrofarctum* Burt

Idaho - (Burt, 17: 275)

## POPULUS SPP., poplar.

+*Corticium atkinsonii* Burt

New York and Louisiana - (Burt, 17: 208)

+*Corticium bombycinum* (Sommerf.) Bres.

Burt, 17: 190-191.

*Cytospora chrysosperma* (Pers.) Fr., canker.

Nebraska - very severe; caused considerable damage to ornamental plantings; particularly severe on trees forced into rapid growth by watering; attacked both trunk and small branches; reported from all over eastern part of state; May 21. (Goss)

Arizona - general; 2 per cent loss. (Streets)

*Dothichiza populea* Sacc. & H. Briard, canker.

Connecticut - perhaps less severe than in 1925. (Clinton)

New Jersey - Amundale, Hunterdon Co., July 20. (Dept. Pl. Path.)

*Marssonia populi* (Lib.) Magn., leaf spot.

+New Jersey - one tree died and others were affected; Phillipsburg, Warren Co., Sept. 21. (Dept. Pl. Path.)

*Ozonium omnivorum* Shear, root rot.

Texas - prevalent; Eastland and Tarrant Counties. (Tauberhaus)

*Rhytisma nervale* (Alb. & Schw.) Rehm., tar spot.

Michigan - abundant in northern part of state in forests; Cathro, Aug. 5. (Nelson). P.r.: \*N. Y.

+*Sphaeropsis* sp.

New Jersey - Amundale, Hunterdon Co., July 20. (Dept. Pl. Path.)

Canker - undet.

Wisconsin - general in some northern counties. (Chambers & Vaughan)

+Slime flux.

Arizona - found active on a number of cultivated trees in a school yard near Phoenix; in a number of instances the trouble was associated with wounds left after severe pruning and the damage caused by the cottonwood borer. (Arizona News Letter 4 (10): 5. 1926)

## PRUNUS DEMISSA MELANOCARPA, black western chokecherry.

+*Sydowia dothideoides* Dearn. & Barth.

Wyoming - Jenny Lake. (Dearness, 25: 248)



## PRUNUS SPP., cherry.

*Exoascus pruni* Fckl., pockets.

+South Carolina - local; severe; found on early new growth of leaves.  
(Fenner)

## QUERCUS ALBA, white oak.

*Gloeosporium septorioides* Sacc., leaf spot.

+Wisconsin - Blue Mounds. (Davis, 23: 159). P.r.: \*D. C.

*Leptothyrium dryinum* Sacc., leaf spot.

\*Wisconsin - Caryville. (Davis, 23: 156)

## QUERCUS COCCINEA, scarlet oak.

*Cronartium cerebrum* (Pk.) Hedge. & Long, rust.

+Connecticut - Branford, New Haven Co., July 16. (Filley)

P.r.: \*Minn., \*Va.

+*Pseudovalsa longipes* (Tul.) Sacc.

Pennsylvania - on twigs, Scranton. (Wehmeyer, 115: 264)

## QUERCUS GAMBELII, gambel oak.

+*Corticium rubellum* Burt

Florida, Illinois, Colorado, Manitoba. (Burt, 17: 232)

## QUERCUS GEMINATA

*Cronartium strobilinum* (Arth.) Hedge. & Hunt, rust.

Florida - common; May 21. (Rhoads)

## QUERCUS GARRYANA, Oregon oak.

+*Coniophora flavomarginata* Burt

Washington - (Burt, 17: 311)

## QUERCUS PALUSTRIS, pin oak.

\*\**Auerswaldia quercicola* P. Henn.

Ohio - on dead and partially living trees; Kent, Sept. 21. (Martin & Scherer)

## QUERCUS RUBRA, red oak.

*Taphrina coerulescens* (Mont. & Desm.) Tul., leaf blister.

+Connecticut - of slight importance; Litchfield, Litchfield Co.,  
Aug. 2. (Clinton)

+Mississippi - very susceptible. (Wedgworth 113)

P.r.: Ala., \*Ga., Iowa, Mich., N. H., \*N. Y., \*Pa.

## QUERCUS VELUTINA, black oak.

*Cronartium cerebrum* (Pk.) Hedge. & Long, rust.

+Connecticut - found for first time in state; Branford, July 16.  
(Filley)

+Wisconsin - (Davis, 23: 189)

+*Monochaetia desmazierii* Sacc., large leaf spot.

\*Massachusetts - Martha's Vineyard, Dukes Co., Aug. 25. (Crowley)

*Taphrina coerulescens* (Mont. & Desm.) Tul., leaf blister.

+Connecticut - of slight importance; Litchfield, Litchfield Co.,  
Aug. 2. (Clinton)

P.r.: D. C., \*Md., \*Mass., \*N. Y., \*Pa., Va.

## QUERCUS VIRGINIANA, live oak.

*Taphrina coerulescens* (Mont. & Desm.) Tul., leaf blister.

+Texas - quite prevalent. (Taubenhaus). P.r.: \*S. D.

## QUERCUS SPP., oak.

*Annillaria mellea* (Vahl) Quel., root rot.

Wisconsin - Jefferson, Portage, Rock, Walworth, and Waukesha Counties. (Vaughan)

P.r.: Calif., Del., Ind., Mass., Minn., Oreg., \*Wash., Wis.

+*Botryosphaeria ribis chromogena* Stevens.

Florida - collected by Stevens, 1924. (Stevens, 106: 279)

+*Exosporium* sp.

Iowa - Iowa City, Johnson Co., Dec. 10. (Loehwing)

+*Pseudovalsa longipes* (Tul.) Sacc., limb canker.

Virginia - Charlotte Court House, May 19. (Fromme)

+*Sebacina* (?) *cokeri* Burt

North Carolina - Chapel Hill. (Burt, 17: 334)

*Strumella coryneoidea* Sacc. & Wint., canker.

Connecticut - three reports; Hartford and New Haven Counties, May 28. (Clinton)

*Taphrina coerulescens* (Mont. & Desm.) Tul., leaf blister.

Massachusetts - widespread and serious. (Osman)

South Carolina - average amount; Pendleton, Anderson Co., May 13. (Ludwig)

Georgia - usual amount, July 16. (Higgins)

Mississippi - many complaints received from owners of valuable shade trees; practically all species of oaks attacked; some species much more susceptible than others; *Quercus nigra* and *Q. rubra* very susceptible; *Q. phellos* has shown marked resistance. Several individuals of this species have been observed to be free of this disease on the Mississippi A. & M. College campus, while adjacent trees of *Q. nigra* from 50 to 95 per cent of the leaves affected; disease may be checked by spraying with Bordeaux in early spring, dormant spray as for peach leaf curl should be tried. (Wedgworth, 113)

+Louisiana - an extremely heavy infection all over the state; as early as May 22 many trees were shedding their leaves badly. (Edgerton).

P.r.: \*Ala., \*Colo., \*Conn., \*Del., \*Fla., \*Ga., Iowa, La., \*Md., \*Mass., \*Mich., \*Miss., N. H., N. J., N. Y., N. C., Ohio, Okla., \*Pa., \*R. I., \*S. C., \*Texas, \*Va., Wis.

*Xylaria polymorpha* (Pers.) Grev.

Indiana - (Van Hook, 110: 243)

## RHAMNUS ALNIFOLIA, alder buckthorn.

+*Microsphaeraalni* (Wallr.) Wint., powdery mildew.

Wisconsin - Pembine. (Davis, 23: 185)

## ROBINIA PSEUDOACACIA, black locust.

+*Diplodiopsis robiniae* Deam. & Barth.

Kansas - Stockton. (Dearness, 25: 255)

*Fomes robiniae* Murr., spongy heart rot.

\*Missouri - Humansville, Polk Co., Sept. 12. (Archer)

## SALIX ANGUSTIFOLIA

+Melampsora sp., rust.

Utah - found at an altitude of 6,000 feet along the Logan River,  
July 17; very common in the upper valley of this district.  
(Burrill)

## SALIX DISCOLOR, pussy willow.

+Cytospora sp., canker.

New Jersey - plant 3 or 4 years old; new bushes are affected in the  
same way as the old ones; twigs have darkened areas, almost  
resembling fire blight; East Orange, Essex Co., Aug. 6. (Haenseler)

## SALIX HUMILIS, prairie willow.

+Septogloeum salicinum (Pk.) Sacc.

Wisconsin - Iron River and Brule. (Davis, 23: 160)

+Septoria salicicola (Fr.) Sacc., leaf spot.

Wisconsin - not previously found in America; appears to be common in  
Europe; Danbury. (Davis, 23: 171)

## SALIX LUTEA

+Rhytisma salicinum Fr., tar spot.

\*South Dakota - Butte Co., Aug. 19. (Ball)

## SALIX MONTICOLA

Melampsora sp., rust.

\*Colorado - Green Mountain Falls, El Paso, Sept. 1. (Ball)

## SALIX SPP., willow.

+Aleurodiscus macrodeus Coker.

New Hampshire to North Carolina. (Burt, 17: 307)

+Botryosphaeria ribis chromogena Stevens.

Florida - collected by Stevens. (Stevens, 106: 279)

+Corticium argentatum Burt.

Nebraska - Long Pine; collected by C. L. Shear. (Burt, 17: 256)

+Corticium bombycinum (Sommerf.) Bres.

From Canada to Massachusetts westward to Washington and Arizona,  
and in Texas; July to March; uncommon. (Burt, 17: 190)

Cytospora chrysosperma (Pers.) Fr., canker.

+Wisconsin, +South Dakota. (Howard, Hutchinson, Waterman)

Cytospora sp.

\*+South Dakota - Brookings, Brookings Co., April. (Evans)

Montana - Bozeman, Gallatin Co., Aug. 26, 1926. (Young)

Macrophoma sp.

\*+Mississippi - Dunleith, Washington Co., Aug. 16, 1924. (Martin & Neal)

Melampsora humboldtiana Speg.

\*+Montana - Bozeman, Gallatin Co., Sept. 6. (Young)

## SAMBUCUS SP.

Botryosphaeria ribis chromogena Stevens.

Florida - collected by Stevens. (Stevens, 106: 279)

SCHINUS MOLLE, California pepper tree.

Ozonium omnivorum Shear, root rot.

Arizona - 2 per cent loss average amount. (Streets)

SORBUS AMERICANA, American mountain ash.

+Graphium sorbi Pk.

Wisconsin - Armstrong. (Davis, 23: 186)

SORBUS SCOPULINA

+Dothiorella scopulina Dearn. & Barth.

Wyoming - Jackson Lake. (Dearness, 25: 253)

SORBUS SP., mountain ash.

Bacillus amylovorus (Burr.) Trev., blight.

+New York - frequently observed; not as abundant as in 1925.  
(Pennington)

Cytospora chrysosperma (Pers.) Fr., canker.

+Nebraska - May 21. P.r.: Mont.

TILIA SPP., linden, basswood.

+Corticium bombycinum (Sommerf.) Bres.

(Burt, 17: 190)

+Corticium rubellum Burt.

Florida, Illinois, Colorado, Manitoba. (Burt, 17: 232)

ULMUS AMERICANA, American elm.

Taphrina ulmi (Fckl.) Johans., leaf blister.

+Wisconsin - Avoca, Edgerton, Madison, Wyeville. (Davis, 23: 155)  
P.r.: Mass., \*Mo.

ULMUS FULVA, slippery elm.

+Phyllosticta ulmicola Sacc.

Indiana - Monroe Co., July, 1912. (Van Hook, 110: 235)

ULMUS RACEMOSA, rock elm.

+Melasmia ulmicola Berk. & Curt.

Wisconsin - Ingram. (Davis, 23: 185)

ULMUS SP., elm.

Gnomonia ulmea (Sacc.) Thuem., black spot.

Connecticut - less than average. (Clinton)

New York - less abundant than usual. (Pennington)

+New Jersey - probably statewide; severe infection on trees at state  
farm. (Dept. Pl. Path.)

+Georgia - (Howard, Hutchinson, Waterman)

Texas - on U. pumila; Tarrant Co. (Taubenhaus)

Oklahoma - (Howard, Hutchinson, Waterman)

Michigan - widespread; a general defoliation late in season. (Nelson)

Sphaeropsis ulmicola Ell. & Ev., canker.

Wisconsin - found in seventeen nurseries; 254 trees condemned; six  
trees condemned which had been shipped in from +Minnesota.  
(Chambers & Vaughan)

D I S E A S E S O F O R N A M E N T A L S

ACONITUM SP., monkshood.

+\**Sclerotium delphinii* Welch, crownrot.

\*Connecticut - more prevalent; New Haven, New Haven County,  
Aug. 6. (Clinton and McCarty).

ALTHAEA ROSEA, hollyhock.

*Cercospora althaeina* Sacc., leaf-spot.

Delaware - much more than usual; Millsboro, Sussex County,  
Oct. 27. (Adams).

*Cercospora kellermanii* Bub., leaf-spot.

+\*Missouri - local; damage severe; Macon County, Aug. 29.  
(Archer)

*Ozonium omnivorum* Shear, root-rot.

Texas - quite prevalent; 6 per cent loss; Bell County.  
(Taubenhaus).

*Puccinia hibisciata* (Schw.) Kell., rust.

Kansas - specimens received from Kingman County of an aecidial stage of a rust on hollyhock; determined by J. C. Arthur as above, with the statement that so far as he knows this is the second recorded collection of this rust in the U. S., the other being in North Dakota in 1902. (White).

*Puccinia malvacearum* Bert., rust.

Reported from Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Illinois, Michigan, Washington, and Oregon. According to Maneval this rust has never been found in Missouri although an extensive search has been made for it.

AMARYLLIS sp.

+*Sclerotium rolfsii* Sacc., stem-rot.

Florida - importance moderate; Sanford, Seminole County,  
June 16. (West).

AMPELOPSIS spp.

*Guignardia bidwellii* (Ell.) Viala and Rav., black-rot.

Connecticut - on *A. tricuspidata*; less prevalent;

Westville, New Haven County, July 1. (Clinton and McCarty).

New York - on *A. tricuspidata*; local; leaves heavily spotted regardless of Bordeaux applied the latter part of May;

Yonkers, Westchester County, June 3. (Guterman).

Delaware - less prevalent than last year. (Adams).

+*Corticium vagum* Berk. and Curt.

Connecticut - on *A. tricuspidata*; one report; considerable injury; attacked seedlings in nursery; Woodmont, July 6.  
(Clinton).

ANEMONE CORONARIA, poppy anemone.

+*Tranzschelia punctata* (Pers.) Arth., rust.

Oregon - local; Salem, Marion Co. (Barss).

## ANTIRRHINUM MAJUS, snapdragon.

*Caconema radicum* (Greef) Cobb root-knot.

+Texas - trace, (Taubenhaus) P. r., D. C., Miss., Nebr.

*Colletotrichum antirrhini* F. C. Stewart, anthracnose.

Connecticut - one report; moderate injury to certain varieties; Fairfield, Fairfield County, July 23. (Clinton).

New York - Yonkers, Westchester County, Sept. 21. (Guterman).

\*Pennsylvania - Loretta, Aug. (Weiss).

Ohio - severe in some plantings. (Tilford).

*Phyllosticta antirrhini* Syd., leafspot.

New York - Yonkers, Westchester County, July 22. (Guterman).

Indiana - some loss in four greenhouses, 25 per cent in one instance. (Dietz).

*Puccinia antirrhini* Diet. and Holw., rust.

Reported from Connecticut, New York, Delaware, South Carolina, Texas, \*Ohio, Indiana (out of 50 greenhouses visited where host was grown only three houses showed abundant rust. Dietz). Michigan, Kansas, Missouri, Washington and Oregon.

See Bibl. (4,63).

+*Sclerotinia sclerotiorum* (Lib.) Mass., blossom wilt and stem rot.

Indiana - reported by J. C. Rasmussen of New Albany, as seriously menacing snapdragons. (Kaplan 56).

*Sclerotinia* sp.

+Texas - a 10 per cent loss under greenhouse conditions; Bell County, (Taubenhaus).

+*Sclerotium rolfsii* Sacc., stem rot.

Mississippi - Meridian, Lauderdale County, Aug. 10. (Wedgworth).

Blight, undetermined.

New York - floral spikes were blighted a distance of 4-5 inches down from the tip; a species of *Alternaria* was isolated but its being the cause of injury is doubted; August, Westchester County, Aug. 15. (Guterman).

North Carolina - stem blighted 2-3 inches above soil line; lower part of stem and roots were normal, grower says, "plants become infected overnight." Wilmington, Jan. 27. (Brierly).

## AQUILEGIA sp., columbine.

+*Fusarium* sp., root-rot.

New Jersey - Summit, Union County, Sept. 13. (Dept. Plant. Path.)

+*Sclerotium rolfsii* Sacc., root-rot.

Virginia - Danville, July 28. (Brierly).

## ASPIDISTRA LURIDA, common aspidistra.

*Colletotrichum omnivorum* Hals., anthracnose.

+New Jersey - Metuchen, Middlesex County, Aug. 5. (Dept. Plant Path.). P. r.: Mo., \*Pa.

## Begonia sp., begonia.

*Botrytis* sp., blight.

+New York - found in a greenhouse; Yonkers, Westchester (Guterman) P. r.: Ill., Ind.

+Phyllosticta sp., leaf-spot.

New Jersey - Cumberland County; Sept. 30., collected by  
Haenseler. (Dept. Pl. Path.)

Bacterial wilt., undet.

South Carolina - in a greenhouse; humidity, soil moisture  
and high temperature favored; Camden, Kershaw County,  
July 14. (Fenner).

+Oedema - moisture conditions.

Connecticut - one report of greenhouse injury; Norwalk,  
Fairfield County, Dec. 8. (Clinton).

BERBERIS THUNBERGI, Japanese barberry.

+Bacterial leaf-spot, undet.

Wisconsin - produces noticeable spots; Madison, Dane County,  
July 1, collected by Walker. (Vaughan). P. r.: N. Y.  
and Minn.

Damping off, undet.

Connecticut - seedlings in nursery; little injury; Woodmont,  
July 6. (Clinton).

Leaf drop, undet.

New York - hedge affected; leaves small, reddish, finally  
dropping off; stems shriveled; Corning; Steuben County,  
June 13. (Barrus).

BERBERIS VULGARIS, barberry.

+Phyllosticta berberdis Rabenh.

Kentucky - (Howard, Hutchinson, Waterman).

BERBERIS sp., barberry.

+Botryosphaeria ribis chromogena Stevens.

Florida - collected by Stevens. (Stevens 106: 279).

BUMELIA LANUGINOSA, chittinwood.

Phyllosticta bumeliae Underw. and Earle, leaf-spot.

+\*Missouri - Maries River, Osage Co., May 29. (Burrill).

BUXUS SEMPERVIRENS, box.

Macrophoma candollei (Berk. and Br.) Berl. and Vogl, leaf-blight.

New Jersey - more prevalent than in 1925; Annandale,  
Hunterdon County, July 20. (Dept. Pl. Path.)

Virginia - Farmville, Prince Edward County, July 30. (Fromme).

\*North Carolina - Warrenton, Warren County, Dec. 11 (Kerr).

Nectria rousselliana Tul.

\*+New York - Glen Cove, Nassau County, Aug. (Martin and  
Scherer).

\*+North Carolina - Warrenton, Warren County, Dec. 11 (Kerr).

Phyllosticta sp.

New York - Purchase, Westchester County, Aug. 12. (Guterman).

New Jersey - (Howard, Hutchinson, Waterman).

Verticillium buxi (Lk.) Auersw. and Fleisch.

\*+North Carolina - Warrenton, Warren County, Dec. 11. (Kerr).

P. r.: \*D. C., Ky.

Sun scorch

Connecticut - Lyme. (Clinton).

## CAESALPINIA PULCHERRIMA, flowerfence.

- +Botryosphaeria ribis chromogena Stevens.  
Florida - (Stevens, 106: 279).

## CALENDULA OFFICINALIS, calendula.

Yellows - undet.

Virginia - Danville, Aug. 11. (Weiss).

Bud-blast and leaf blight, undet.

New York - Waterville, Oneida County, October 4. (Barrus).

Mosaic, undet.

Minnesota - University Farm, Ramsey County, Aug. 17. (Sect. Pl. Path.)

## CALLISTEPHUS CHINENSIS, China-aster.

+Botrytis cinerea Auct., blight.

New York - local; June 21. (Guterman).

Corticium vagum Berk. and Curt., stem-rot.

+Georgia- Newman, Sept. 15. (Drechsler).

+Missouri - moderate damage; in a greenhouse;  
Audrain County. (Archer).

Erysiphe cichoracearum DC., powdery mildew.

+Nebraska - Freemont, Dodge Co., (Layton). p. r.:  
Minn., Wash.

Fusarium conglutinans callistephi Beach, wilt.

\*+Connecticut; New Haven, New Haven Co., July 12.  
(Clinton and McCarty). (Brierly).

\*New York - serious locally; Yonkers, Westchester Co.,  
July 20. (Guterman). (Brierly).

\*+New Jersey - Basbrouck Heights, Aug. 7. (Brierley).  
Out of three dozen plants, one dozen were killed; soil  
was of sand and ashes; fertilizer used was sheep and  
other manure; East Orange, Essex Co., Aug. 6. (Dept.  
Pl. Path.)

\*+Virginia - Norfolk, Norfolk Co., July 29. (McWhorter).

Indiana - general throughout state; a limiting factor in the  
growing of plants for cut flowers. (Dietz).

\*+Georgia- Newman, Sept. 15. (Drechsler).

Michigan - less prevalent than in past or average year.

5 per cent yield reduction; Fenton, June 20. (Nelson).

Minnesota - average amount; general; very important; Mankato;  
Blue Earth Co., July 14. (Sect. Pl. Path.)

+Missouri - general; moderate amount of damage; Columbia,  
Boone Co., Aug. 9. (Archer).

General - Aster wilt caused by Fusarium conglutinans callistephi was general and severe, appearing abundantly in many outdoor plantings about mid-July. The wet weather of late summer undoubtedly favored its spread and progress. In a garden of the Thompson Institute, Yonkers, New York, where this disease has been rare or absent for the past two years, it destroyed more than half the plants. Wilting was observed even following heavy rains when the soil was soaked with water and the atmosphere was very humid. (Weiss and Brierly).



+Phytophthora sp., black-leg.

District of Columbia - Sept. 3. (Drechsler).

+Curly top (?) undet.

Oregon - 10 per cent loss, maximum local loss 15 per cent  
Throughout season. Hot dry season appears to have  
favored insect carrier. Symptoms and circumstantial  
evidence suggest that this is due to the curly top  
virus, but this remains to be proved. McMinnville,  
Yamhill County, June. (McKay and Dykstra).

Damping off, undet.

\*New York - one of the most commonly noted greenhouse  
diseases; Nassau Co., May 17. (A. M. Boyce). P.r.:Wash.

Drought injury.

Connecticut - July 1 to Aug. 13. (Clinton).

Yellows, undet.

Connecticut - average amount; Branford, New Haven Co.,  
Aug. 12. (Clinton).

New York - rather common in many plantings. (Barrus).

Indiana - more prevalent than in 1925; very important  
disease (Gardner). General in distribution and a limit-  
ing factor in cut flower growing. (Dietz).

Michigan - less important than for last two years; nevertheless  
the most important aster disease in the state; widespread;  
50 per cent reduction in yield. (Nelson).

Missouri - severe to moderate damage locally; in open plant-  
ings; Macon, Marion and St. Louis Counties (Archer).

\*South Dakota - Wagner, Charles Mix County, Sept. (Evans).

Kunkel (58) has shown that aster yellows is a virus dis-  
ease, transmitted by the leafhopper Cicadula sexnotata Fall.,  
but apparently not by several other aster insects. It can be  
transmitted by budding but not by other mechanical means. By  
means of the leafhopper it was transmitted to more than 50  
different species in 23 different families of plants and also  
back to aster from many of these. The insect does not become  
inoculative until at least 10 days after feeding on yellowed  
plants. The disease is not transmitted through the egg of the  
insect carrier nor through seeds of the aster. It is identical  
with the white-heart disease of lettuce and with several yellows  
diseases of garden plants. It overwinters in biennial and  
perennial hosts, some of the more common of which belong in  
the genera Chrysanthemum, Sonchus, Asclepias, Erigeron, and  
Plantago. For control the same author (57) recommends  
eradication of weed hosts in vicinity of aster beds, destruc-  
tion of aster plants as soon as they begin to show yellows,  
and spraying or dusting the beds for insect control.

See Bibl. (34).

CAMELLIA JAPONICA, common camellia.

+Botrytis sp., bud rot

Florida - more prevalent; very important; Gainesville,  
Alachua County, Feb. 2. (West).

+Phyllosticta camelliae, West. leaf-spot.

South Carolina - Conway, Horry Co., Mar. 15. (determined  
by N. O. Howard).

## CAMPANULA GLOMERATA, danesblood.

Phyllosticta sp., leaf-spot.

New York - not serious, Yonkers, July 31. (Guterman).

## CAMPANULA SCOULERI

Puccinia campanulae Carm., rust.

Washington - Spanaway, Pierce Co., July 11. (Zundel).

Also collected by C.V. Piper in 1894 at Seattle. (Martin).

## CANNA INDICA, canna.

Bacterium cannae M. K. Bryan, bacterial bud-rot.

District of Columbia - 15 plants in bed all affected in varying degrees in leaves, shoots, and blossoms, July 25. (Brierly).

P. r.: Conn., D. C., Ill.

## CASSIA SP.

+Botryosphaeria ribis chromogena Stevens.

Georgia - Collected by Stevens. (Stevens, 106:279).

## CENTAUREA CYANUS, cornflower, bachelor button.

+Fusarium congenitans callestephi Beach, wilt.

Michigan - heavy infection in some cases. (Nelson).

Puccinia cyani (Schl.) Pass., rust.

Connecticut - three reports; New Haven, July 4. (Clinton and Hunt).

## CHRYSANTHEMUM SPP., chrysanthemum.

Botrytis sp., blossom blight.

+South Carolina - Clemson College, Nov. 9. (Ludwig).

P. r.: \*Ky., Mass., Minn., Mo., N. Y.

Cercospora sp., leafspot.

Texas - trace; unimportant; Bell Co. (Taubenhaus).

P. r.: La.

+Cladosporium sp., sooty mold.

New Jersey - associated with other fungi following aphids;

Clinton, Hunterdon Co., Sept. 29. (Dept. Pl. Path.).

+Cuscuta arvensis Bey., dodder.

\*Texas - Whitsett, Live Oak County, May. (Brierly).

+\*Michigan - Rockwood, Sept. (Brierly).

P. r.: Cuscuta spp., N. J., \*Texas, W. Va.

Erysiphe cichoracearum DC., powdery mildew.

New Jersey - of slight importance; Woodbury, Gloucester Co., Dec. 17. (Dept. Pl. Path.).

Delaware - very prevalent on fall plantings and in greenhouse propagation. (Adams).

P. r.: Conn., Del., Md., \*Mass., Minn., Nebr., N. J., N. Y., N. C., Ohio, Pa., S. C., Utah, Wash., W. Va.

Control method given in an article by Raff (88) is as follows - dust in early morning with naphtha-sulfur mixture, equal parts; or spray in evening with 1 per cent Solbar solution.

Ozonium omnivorum Shear, root-rot.

Texas - 5 per cent loss; Bell Co. (Taubenhaus). P. r.: \*Texas.

*Puccinia* spp., rust

Raff (88) states that proper spraying with Bordeaux controls  
*P. chrysanthemi* Roze.

See Bibl. (89, 105).

+*Sclerotium rolfsii* Sacc., root-rot.

Virginia - Danville, July 28. (Brierly).

*Septoria chrysanthemella* Cav., leaf-spot.

Connecticut - one report; moderate injury in a greenhouse;  
Portland, Nov. 8. (Clinton).

+New York - on *C. leucanthemum*; Yonkers. June 26. (Guterman).  
on *C. segetum*; not serious; Aug. 26. (Guterman).

New Jersey - considerable amount of infection in one planting;  
Highland Park, Middlesex Co., Nov. 4 (Dept. Pl. Path).

Texas - trace; unimportant; Navarro Co. (Taubenhaus).

Raff (88) says that it appears only on a few varieties such  
as Wm. Turner; and that the use of Bordeaux, either  
solution or powder, is a good control.

## +Influence of length of day.

Indiana - a practical application of Garner and Allard's  
work on the effect of the length of day on the blooming  
period of plants was observed from January until March  
in the greenhouses of distributors of chrysanthemum  
plants. Many of the late blooming varieties of chrysan-  
themums came into bloom in the cutting bench or shortly  
after they were potted. Pinching out the flower buds  
merely resulted in the formation of other flower buds in  
the axils of the leaves or on other short new shoots that  
were formed so that many of the plants had to be discarded.  
It was not until bright weather came in April that the  
trouble stopped. The varieties most seriously affected  
were Golden Feather, Golden Glory, and Frank Wilcox.  
(Dietz).

Nematodes, (Raff, 88).

Yellows, undet., Raff (88).

General. See Bibl. Fraigneux (39), Laubert (60), Naumann (79),  
Raff (88), Schenk (91).

## CLEMATIS SP., clematis.

*Puccinia clematidis* (DC.) Lagh., rust.

+South Carolina - general, severe; Clemson College, Oconee Co.,  
Mar. 30. (Rosenkrans, Fenner and Ludwig).

+Utah - on +*C. douglasi*; uncommon; Logan, Cache Co., July 11.  
(Burrill).

+Montana - Bozeman, July 4. (Haskell).

## COCOS ALPHONSEI, palm.

+*Didymella cocos* Weedon.

Florida - St. Petersburg. Aug. 15, 1923. (Weedon 114: 219).

+*Hysteroglyphium cocos* Weedon.

Florida - St. Petersburg. Aug. 15, 1923. Associated with  
*Didymella cocos*. (Weedon 114: 219).

## COCOS PLUMOSUS, palm.

+Phyllosticta sp., leaf-spot.

Florida - St. Petersburg, Apr. 24. (Seal).

Bacterial leafspot;

Florida - Odessa, Sept. 29. (Seal).

## COREOPSIS SP., coreopsis.

+\*Cladosporium herbarum (Pers.) Link.

Kansas - Lawrence, Nov. (Layton).

## COSMOS BIPINNATUS, common cosmos.

+\*Pythium sp.

District of Columbia - July 8. (Brierly).

+\*Rhizoctonia sp.

District of Columbia - July 8. (Brierly).

## CURCUBITA SP., gourd.

Colletotrichum lagenarium (Pass.) Ell. and Hals., anthracnose.

+Missouri - on leaves and fruit. (Archer).

## CYCLAMEN SP., cyclamen.

+Colletotrichum cyclamenae Hals.

Indiana - 10 to 15 per cent of plants in one greenhouse rendered unsalable because of this disease; 4-4-50

Bordeaux recommended, also withhold water from foliage altogether, watering the pots only; Columbia, Indianapolis and Richmond. (Dietz).

See Bibl. (3, 83, 94).

## CYDONIA JAPONICA, Japanese quince.

Nectria sp., coral fungus.

Washington - Walla Walla Co., (Div. Pl. Path.)

+Phyllosticta sp., leafspot.

\*Missouri - St. Joseph, Oct. (Layton).

\*Nebraska - Freemont, Oct. (Johnston).

## DAHLIA sp., dahlia.

Aphelenchus sp., nematode.

Wisconsin - found on plants grown on tuber received from California; Janesville, Rock Co., Oct. 1. (Chambers and Vaughan).

Corticium vagum Berk. and Curt., stem rot.

+District of Columbia - (Weiss and Brierly). P. r.: Md.

Entyloma dahliae Syd., rust

See Bibl. (8, 84).

Erysiphe spp., powdery mildew.

+New Jersey, E. polygoni; probably state wide; Bound Brook, Somerset Co., Aug. 21. (Dept. Pl. Path.)

Missouri - Boonville, Cooper Co., Sept. 6. (Archer).

Fusarium sp., wilt.

+District of Columbia (Weiss and Brierly).

+\*Missouri - Boonville, Cooper Co., Sept. 6. (Archer)

P. r.: N. J., Pa.

*Phoma dahliae* Berk., blight

+New Jersey - Bound Brook, Somerset Co., Aug. 21. (Dept. Pl. Path.)

P. r.: Ohio.

*Pythium* spp., wilt.

District of Columbia - +\**P. dactylum* and +\**P. ultimum*. July 10 and 21. (Weiss and Brierly).

+*Rhabditis* sp., nematode.

Wisconsin - found on plants grown on tuber received from California. Janesville, Park Co., Oct. 1. (Chambers and Vaughan).

*Sclerotium rolfsii*, Sacc., stem-rot.

+Mississippi - Meridan, Aug. 10. (Wedgworth).

P. r.: Fla.

Fasciation.

See Bibl. Smith (97).

Mosaic, undet.

+Ohio - exceptionally severe; considerable in evidence during a hot period in August; seemingly masked by cool weather. (Tilford).

+Wisconsin - Janesville, Rock Co. (Vaughan and Chambers).

P. r.: Conn., Del., N. J.

See Bibl., Eckerson (34) Goldstein (42).

Runting and Stunt, undet.

Delaware - generally found in all plantings. (Adams).

+\*District of Columbia - nearly 175 plants of 60 varieties affected. July 12, (Brierly).

See Bibl. Conners. (21).

DELPHINIUM sp., larkspur.

*Bacterium delphinii* (EFS.) Bryan, black-spot.

Connecticut - Hartford, Hartford Co., July 1. (Clinton).

New York - very serious around Yonkers; plants cut back for second flowering were also affected; July 20.

(Guterman) Long Island. (Weiss and Brierly).

+Delaware - Wilmington, New Castle Co., Oct. 20. (Adams).

+Michigan - generally more prevalent. (Nelson).

*Corticium vagum* Berk and Curt., stem-rot.

+New Jersey - base of plants affected, finally causing girdling, local; New Brunswick; Middlesex Co., May 31. (Dept. Pl. Path.)

+\*Arizona - local; Phoenix, Maricopa Co., Mar. 19;

collected by George. (Weiss and Brierly).

*Erysiphe polygoni* DC., powdery mildew.

New York - local; not serious; Purchase, Westchester Co., July 29. (Guterman).

+New Jersey - probably state wide; one report Old Bridge, Middlesex Co., Aug. 17. (Dept. Pl. Path.)

+Delaware - Wilmington, New Castle Co., Oct. 25. (Adams).

+\*Nebraska - Fremont Co., (Layton).

P. r.: \*Maine, Connecticut, \*New York, \*Pennsylvania, Minnesota.

*Sclerotium* spp., root and crown-rot.

+Connecticut - *S. delphinii* D. S. Welch; several reports; New Haven, Aug. 6. (Clinton and Mc. C.)

New York -(Long Island and Lower Hudson Valley). (Weiss and Brierly).

Pennsylvania, Maryland, \*Virginia. (Weiss and Brierly).

+\*Ohio - Gates Mills, Cuyahoga Co., Nov. 12. (Tilford).

DEUTZIA sp., deutzia.

Phyllosticta deutziae Ell. and Ev., leaf-spot.

+\*Alabama - Chase, Nov. (Johnston).

+\*Iowa - Shenandoah, Nov. (Archer and Muncie).

DIANTHUS BARBATUS, sweet william.

+Fusarium sp., wilt.

Virginia - all plants in a garden at Lynchburg (Aug. 10), were killed; apparently by a Fusarium sp. (Fromme).

DIANTHUS CARYOPHYLLUS, carnation.

Corticium vagum Berk. and Curt., stem-rot.

+\*Georgia - Newman, Sept. 15. (Drechsler).

+Texas - trace; Bell County. (Taubenhaus).

Indiana - This disease is more troublesome this year than I have ever seen it before. Some growers have lost as high as 50 per cent of their plants and a loss of 10 per cent is not uncommon. I have seen no greenhouse where this disease does not occur this fall. The exceedingly rainy season that began about August 1 this year was probably responsible for the virulence of carnation branch rot. The effect of cloudy weather on carnations was very pronounced from October, 1925 to March, 1926. The plants refused to bloom with any regularity and the buds would remain in an unopened condition on the plant as long as five weeks, then if a clear bright day occurred the buds would burst open, splitting the calyx, thus rendering the flowers useless for funeral design work. The same condition has prevailed since the first of August this year. (Dietz).

Missouri - scattered in northern half of state in the greenhouses; moderate damage. (Archer).

Fusarium sp., wilt

+Missouri - in a greenhouse; St. Louis Co., June 24. (Archer).

Septoria dianthi Desm., leaf-spot.

+South Carolina - 10 per cent loss; 90 per cent infection in one field; on imported greenhouse plants; high temperature and humidity in sprinkled greenhouse; spread rapidly when diseased plant was placed adjacent to non-infected plants; Camden, Kershaw Co., July 14. (Fenner).

See Bibl. Allwood (7).

Uromyces caryophyllinus (Schrank) Wint., rust.

Reported from Maine, Connecticut, New York, New Jersey, Delaware, Texas, \*Missouri - Moderate on Nebraska and Enchantress Supreme, slight on White Enchantress. (Archer).

Allwood, (7) says that the red varieties appear to be most susceptible and that as a rule varieties with rich blue glaucous foliage resist rust better while those with light green leaves appear to be more open to attack by this and other fungous diseases.

Cook, (22) states that rust is more prevalent in autumn and usually breaks out after a sudden check or change of cultivation. For control he suggests equal portions of slaked lime and flowers of sulfur dusted on the foliage. Mains (63) says: "The variety White Matchless has shown a very high resistance to carnation rust."

*EUONYMUS JAPONICUS*, evergreen burningbush.

*Stereum purpureum* Pers.

See Bibl. (80).

*EUONYMUS* sp., burningbush, wahoo.

*Bacterium tumefaciens*. EFS. and Town. crown gall.

+Mississippi - Ocean Springs, Jackson Co., Aug. 10. (Wedgworth).

P. r.: Conn.

*Gloeosporium* sp., leafspot.

+Louisiana (Howard, Hutchinson, Waterman).

*Oidium eucnyimi-japonici* (Arcangeli) Sacc., powdery mildew.

+Mississippi - Greenwood, Leflore Co., June 10. (Wedgworth).

P. r.: \*Towa, \*La.

*EUPATORIUM* sp., eupatorium.

*Sclerotium* sp., root-rot.

+\*Maryland - Chevy Chase, Aug. 11 (Brierly).

*GAILLARDIA ARISTATA*, common perennial gaillardia

+\**Septoria gaillardiae* Ell. and Ev., leaf spot.

Iowa - Shenandoah, Page Co., Sept. (Archer).

*GLADIOLUS* sp., gladiolus.

*Bacterium tummisdans* McC. bacterial blight.

+Indiana - well scattered throughout a large garden at Goshen, especially on certain seedling varieties: this planting was on new soil that had never been in gladioli before and the source of the infection was in doubt. Judging from the way it was distributed throughout the planting it was thought to be insect borne and carried in from some other host. July 28. Also found at Indianapolis Aug. 5, and at Plainfield, Aug. 10. (Dietz).

Minnesota - St. Paul, Ramsey Co., July 26. (Sec. Pl. Path.)

*Bacterium marginatum* McC., stem-rot, scab.

Delaware - (Adams).

South Carolina - found in serious proportions in two widely separated localities; North Augusta July 5, and Clemson College Aug. 8. (Ludwig).

Indiana - 85 per cent infection, Goshen; 50 per cent infection, Indianapolis, Jan. 15; 50 per cent infection, Brazil, Jan. 28; 90 per cent infection, Stroh, Dec. 10. Varieties infected were Marshal Foch, Chris, Concolor and Marie Kunderd. Two of the inspections were shipped in from outside states. (Dietz).

+Wisconsin - local; varieties very susceptible were Marshal Foch, Wilbrinck, Schwaben, 1910 Rose, Halley; Milwaukee Oct. 2. (Chambers and Vaughan).

- Michigan - general; 3-5 per cent reduction in yield; most serious disease of gladioli in state; was controlled by standard liquid treatments. (Nelson).
- Minnesota - occasionally found; first half of season was too dry; not severe on leaves; light to moderate infection on corms; St. Paul, July 26. (Sect. Pl. Path.)
- Washington - Spokane Co., (Div. Pl. Path.)
- Bacterium sp., bacterial blight.
- +New Jersey - attacked both leaves and flower stalks, quite prevalent in a local planting; Caldwell, Essex Co., Oct. 12. (Dept. Pl. Path.)
- +Botrytus sp., rot.
- Wisconsin - Janesville, Rock Co., Oct. 1. (Chambers and Vaughan).
- Fusarium oxysporum gladioli Massey, rot.
- New Jersey, District of Columbia, Indiana, Iowa. (Weiss and Brierly).
- Wisconsin - local; Madison, Dane Co., Oct. 1. (Chambers and Vaughan).
- Massey (64), lists the disease from California, District of Columbia, Indiana, Maryland, Michigan, Minnesota, New Jersey, Ohio, Wisconsin, and Ontario, Canada.
- Fusarium sp., rot.
- +South Carolina - North Augusta, Aiken, July 9. (Fenner).
- Hexatylus viviparus Goodey, see Bibl. (43).
- Macrosporium sp.,
- +\*Virginia - Herndon, Sept. 23. (Brierly).
- Penicillium sp., rot. See Bibl. Smith (96).
- P. r.: Colorado, Florida, Mississippi, West Virginia.
- Septoria gladioli Pass., hardrot, leafspot.
- New Jersey - 100 per cent infection in a planting of Prince of Wales. Bridgeton, Cumberland Co., Aug. 5. (Dept. Pl. Path.)
- Indiana - 1, 5, and 50 per cent infection found; moderately severe on Indian Maid and very severe on Souvenir; Andrews, July 27. Goshen, Angola, Dec. 9, Kendallville, Dec. 11. (Dietz)
- +Wisconsin - general; 2 per cent loss in storage; more prevalent. Varieties very susceptible: Marshal Foch, Halley, 1910 Rose, Schwaben, and Wilbrinck. Milwaukee, Oct. 2. (Chambers and Vaughan).
- Minnesota - average prevalence; St. Paul, Sept. (Sect. Pl. Path.)
- +Washington - Whatcom Co. (Div. Pl. Path.)
- +Oregon - 4-5 per cent local infection. (Zeller).
- Dry rot, undet. See Bibl. Drayton (32).
- Bulb treatment. See Bibl. Massey (65).

#### HEDERA HELIX, English Ivy.

+Cuscuta sp., dodder.

Arizona - local; one planting seriously damaged, (Streets).

Vermicularia trichella Fr., leaf-spot.

+New York - local; very common; Yonkers, June 4. (Guterman).

New Jersey - New Brunswick, Oct. 15. (Dept. Pl. Path.)

#### HELICHRYSUM BRACTEATUM, strawflower.

Curly top (?) undet.



Oregon - Believed from symptoms, distribution etc.; to be due to curly top. (McKay and Dykstra).

HIBISCUS SYRIACUS, shrub-althea, rose of Sharon.

+Phomopsis hibisci Dearn.

New York - Orient. (Dearness, 25: 252).

HYDRANGEA sp., hydrangea.

Cercospora hydrangeae Ell. and Ev., leaf-spot.

+\*Mississippi - Picayune, Pearl River, July 9. (Wedgworth).

P. r.: Ala., \*Texas.

ILEX VERTICILLATA, common winterberry.

+Gloeosporium niveum Davis.

Wisconsin - Bruce, Sept. 4, 1924. (Davis, 23: 171).

ILEX sp., holly.

Physalospora rhodina (Berk. and Curt.) Cke. See Bibl. Stevens (107).

IPOMOEA spp., morning-glory.

Albugo ipomoeae-panduranae (Schw.) Sw., white rust.

+New Jersey - very common; both on wild and cultivated varieties;  
New Brunswick, Sept. 21. (Dept. Pl. Path.)

IRIS sp., iris.

Bacillus carotovorus L. R. Jones, soft-rot.

New Jersey - small rootlets decayed, leaves yellow, soft and jelly-like at base; Bordentown, Burlington Co., July 2.  
(Dept. Pl. Path.).

+\*District of Columbia - April 22. (Brierly).

Minnesota - Ramsey County, May 21. (Sect. Pl. Path.)

+Caconema radiculicola (Greef) Cobb, nematode.

Wisconsin - Madison. (Vaughan. See Bibl. Anon. (2).)

Didymellina iridis (Desm.) Hoehn., leaf-spot.

Connecticut - four reports; little injury; Fairfield,  
Fairfield Co., July 23. (Clinton and Stoddard).

New York - very common and serious: Yonkers, July 21.  
(Guterman).

Maryland - first outbreak on lot brought from Providence,  
Rhode Island; Chevy Chase. May 21. (Brierly).

+Virginia - not as prevalent as in 1925. (McWhorter).

+Mississippi - 2 reports but probably very common; Dixon,  
June 12. (Wedgworth).

Indiana - more prevalent. (Gardner).

Michigan - general; more prevalent; of moderate importance.  
(Nelson).

Kansas - Newton, May 26. (White).

\*California - Redlands, Jan 20, 1927. (Morrison).

+Macrophomopsis dracaenae Stevens and Baechler.

Florida - St. Petersburg, Mar. 30. (Weedon, 114: 222).

Pseudomonas iridis Van Hall, rhizome rot.

+Virginia - seemingly less prevalent in affected areas than in  
1925. (McWhorter).

*Puccinia iridis* (DC.) Rabh., rust.

Michigan - local; more prevalent; Royal Oak, Oakland County,  
Aug. 1. (Nelson).

P. r.: \*California, \*Colorado, \*Connecticut, \*Michigan,  
\*Oregon, \*Washington.

*Rhizoctonia tuliparum* (Kleb.) Whet. and Arth.

(*Sclerotium tuliparum* Kleb.) See Bibl., Brooks (13).

*Sclerotinia sclerotiorum* (Lib.) Mass., stem-rot.

See bibl. Pape (82).

P. r.: Wash.

*Sclerotium* sp., crown rot.

Indiana - The *Sclerotium* disease of iris has been very abundant throughout the state. It has been observed in ornamental plantings and in the plantings of iris enthusiasts at Indianapolis, Lafayette, Bluffton, Marion, and Remington. No cases where the plants were killed by the disease have been found but it is often followed by soft rot which does kill the plants. It is probable that the *Sclerotium* disease of iris is referable to the species of *S. rolfsii* Sacc., which it closely resembles. What is apparently the same disease as on iris has been found on delphinium, columbine, and golden glow, all of these last observations being at Indianapolis. (Dietz).

Diseases. See Bibl. Morrison (75).

*KALMIA LATIFOLIA*, mountain laurel.

*Phyllosticta kalmicola* (Schw.) Ell. and Ev., leaf-spot.

Reported from New York, New Jersey, \*Pennsylvania, and Virginia.

*KENTIA* sp., kentia.

+*Exosporium palmivorum* Sacc., leaf-spot.

Florida - of little importance; Jupiter, Palm Beach County,  
Dec. 3. (Seal).

*Microdipoldia* sp., leaf-spot.

Florida - unimportant; Jupiter, Dec. (Seal).

*KERRIA JAPONICA*, kerria.

*Coccomyces kerriae* V. B. Stewart, (*Cylindrosporium* sp.,) canker.

+\*Iowa - Shenandoah, Nov. (Martin and Muncie).

+*Myxosporium* sp.,

Maryland - (Howard, Hutchinson, and Waterman).

*LABURNUM VULGARE*, goldenchain.

+*Irpex tulipiferae* Schw.

Connecticut - this fungus probably developed on winter injured branches as a result of and not a cause of the injury;  
Farmington, Hartford Co., July 4. (Clinton).

*LAGERSTROEMIA INDICA*, common crapemyrtle.

*Uncinula australiana* Mc. Alp. ? oidial stage, powdery mildew.

Reported from +Tennessee, South Carolina, Georgia, Florida, Texas.

*LATHYRUS ODORATUS*, sweetpea.

*Ascochyta pisi* Lib. - blight.

- \*Missouri - damage very slight; Boonville, Sept. 6. (Archer).  
P. r.: Minn.
- Caconema radicola* (Greef) Cobb, root-knot.  
New Jersey - Iona, May. (Haenseler).  
Texas - Bell County. (Taubenhaus).
- Corticium vagum* Berk. and Curt., stem rot.  
\*New Jersey - present to a slight extent in most greenhouse plantings; important in one greenhouse in Sussex Co., (Dept. Pl. Path.)
- Erysiphe polygoni* DC., powdery mildew.  
\*Missouri - reported as severe early in season in St. Louis Co., Aug. 24. (Archer).  
\*Arizona - vines were attacked late in season, damage slight. (Streets).
- Fusarium* sp., root-rot, wilt.  
\*New Jersey - small amount of root rot; Iona, May. (Dept. Pl. Path.)  
Virginia - a florist at Roanoke (Feb. 27) sent in specimens twice which showed severe wilt. (Fromme).
- Microsphaera alni* (Wallr.) Wint., powdery mildew.  
New York - serious in greenhouses; Nassau County, May 17. (Boyce)  
New Jersey - in a greenhouse; New Brunswick, May. (Dept. Pl. Path.)
- Pythium* sp., root-rot.  
\*New Jersey - a small amount; Iona, May. (Dept. Pl. Path.)
- Thielavia basicola* (Berk. and Br.) Zopf., black root-rot.  
\*New Jersey - Clinton, Hunterdon, Feb. 7. (Haenseler).

#### LIGUSTRUM JAPONICA.

- \*Phyllosticta sp.  
Virginia (Howard, Hutchinson, Waterman).

#### LIGUSTRUM sp., privet.

- Armillaria mellea* (Vahl) Quel., root-rot.  
\*Arkansas - (62: 44-51).
- \**Clitocybe monadelpha* (Morgan) Sacc., root-rot.  
Arkansas (5)
- Glomerella cingulata* (Ston). Spauld. and Schrenk, anthracnose.  
\*Missouri - local; severe; 75 per cent infection, Carthage, Jasper Co., July 27. (Scott and Archer).

#### LILIUM spp., lily.

- \**Phytophthora cactorum* (Leb. and Cohn) Schroet., foot-rot, stem-rot.  
\*North Carolina - 30 bulbs in one bed killed; bulbs showed discoloration at plate and stem rotted above ground level. (Weiss and Brierly).  
See Bibl. (33) Drechsler.

#### LONICERA HISPIDULA, honeysuckle.

- \**Guignardia lonicerae* Dearn. and Barth., leaf-spot.  
California - on living leaves; Palo Alto. (Dearness 25: 245).

#### LYCIUM HALIMIFOLIUM, common matrimony vine.

- \**Sphaeropsis lycii* Dearn. and Barth.  
Missouri - St. Genevieve (Dearness, 25: 254).

## MALUS IOENSIS PLENA, Bechtel crab.

- +Iowa - (Muncie).
- +Missouri (Archer).

## MESEMBRYANTHEMUM CRYSTALLINUM, ice plant.

- +Caconema raditicola (Greef) Cobb, root-knot.
- Texas - Bell Co. (Taubenhaus).

## MYSOTIS sp., forget-me-not.

- +Sclerotinia sclerotiorum (Lib.) Mass., stem-rot.
  - \*Illinois - collected in a greenhouse at Urbana, March 15. (Kaplan)
- Kaplan (56) makes the first report of this fungus on forget-me-not. She states that it causes a wilting of the infected portions, which later turn brown and appear as if scalded. The host is attacked at the soil line and stem tissues invaded. The following control method is suggested: diseased plants should be removed and burned as soon as found; all decaying organic matter should be removed, as it serves as initial point of attack, and the soil should be sterilized before using for another crop where the disease has been severe.

## NARCISSUS sp., narcissus, jonquil.

- +Aphelenchus subtenuis Cobb., bulb and stem nematode.
  - North and South Carolina, Georgia, Florida, and Washington. (Cobb)
- Botrytis sp.,
- +New York - not serious; Yonkers, June 14 (Guterman).
  - +\*Virginia - causes rot of neck, base and scales and seems to be the "fire disease" of narcissus. Portsmouth, Apr. 26. (Brierly).
  - +Iowa - Osage. (Weiss and Brierly). P. r.: \*Michigan and Washington. See Bibl. Beaumont (8)° Dowson (2).

## Fusarium sp., basal rot.

- +New York, New Jersey, \*Virginia, Florida, +\*Alabama, +Iowa, (Weiss and Brierly). This has been frequently encountered in specimens submitted from these and a number of other localities, including Holland, and the Middle West and Far West of the United States. In the field it has been observed in certain varieties, notably Golden Spur, rendering up to 30 per cent and more of the crop worthless. It has been found to be a serious disease also on the varieties Emperor, Empress, Victoria, King Alfred, and Sir.Watkin. A comparison of cultures from many sources shows that one species of Fusarium belonging to the section Elegans is chiefly concerned. Inoculations and reisolations show this species to be truly parasitic, being able to invade the uninjured plate and also wounded scales of healthy bulbs. It is much less frequent on polyanthus narcissi, but is able to attack bulbs of Paper Whites when artificially inoculated.

See Bibl. Beaumont (10).

- +Sclerotium rolfsii Sacc., stem blight.

Florida - on *N. tazatta*; has caused considerable loss in some fields, especially to Soleil d' Or; Sanford, Seminole County, June 17. (West).

*Tylenchus dipsaci* (Kuehn) Bast., bulb nematode.

Virginia, \*South Carolina, and \*Florida. (Cobb, 19).

Oregon - it is unquestionably true that this trouble has been spreading on narcissus in a number of places, however, we do not have specific figures available on any particular plantings. Most growers are now aware of the necessity of controlling this disease, and are going about the matter in a way to effectively rid themselves of it. (McKay)

California - (Milbrath, 74). See Teasel.

P. r.: Calif., D. C., Ill., Mich., N. J., N. Y., Ore., Va., Wash.  
See Bibl. Beaumont (10), Gibson (41), Hodson (50), Southwell (100)

Bulb treatment.

See Bibl. Doucette (28), Weigel (116).

*NYMPHAEA* sp., waterlily.

\*Bacterium sp., bacterial spot.

New York - spots watery, circular, gray-black in center surrounded by a yellow halo; bacteria short rods, single or in chains; local; in late season; Yonkers, Sept. 21. (Guterman)

\*Gloeosporium nymphaearum Allesch., leaf-spot.

New York - spots large and light brown; not serious; local; Yonkers, Sept. 21. (Guterman).

*ORNITHOGALUM* sp., Star of Bethlehem.

\*Septoria ornithogali Pass., leaf-spot.

Connecticut - Shelton, May 20. (Clinton and Stoddard.)

*PACHISTIMA MYRSINITES*, myrtle pachistima.

Mycosphaerella pachystimae Dearn., leaf-spot.

Idaho - Coolin. (Dearness, 25: 246).

*PAEONIA* sp., peony.

Botrytis paeoniae, Oud., blight.

New York - girdles stem near soil, in some instances blasts young buds; very prevalent and serious; Yonkers, June 10. (Guterman).

New Jersey - state wide; Ocean Grove, Monmouth Co., July 14. (Dept. Pl. Path.)

Michigan - local; average prevalence. (Nelson).

Botrytis sp., blight.

\*Connecticut - one report. (Clinton).

Virginia - severe; Norfolk, June 5. (Fromme).

Wisconsin - local; more prevalent; Racine, July 7. (Chambers and Vaughan).

Washington - Granite Falls, Apr. 3. (Div. Pl. Path.)

*Caconema raditicola* (Greef) Cobb., root-knot.

\*Wisconsin - associated with Lemoine disease; scattered throughout state; more prevalent; Felix Crousse very susceptible; Kenosha, Kenosha Co., Sept. 20. (Chambers and Vaughan.)

\*Iowa - Des Moines; Oct. 18. (Brierly).

*Cladosporium paeoniae* Pass., leaf-mold.

Missouri - damage slight, both in field and greenhouse; Independence, Jackson Co., July 13. (Archer).

*Corticium vagum* Berk. and Curt., stem-rot.

+District of Columbia, \*Maryland - causal relation doubtful.  
(Brierly).

*Fusarium* sp., root-rot.

Missouri - prevalent in beds where plants remain year after year; change of location eliminates disease. Jasper Co., July 27. (Archer and Davis).

*Phyllosticta commonsii* Ell. and Ev., leaf-spot.

+New Jersey - possibly state wide; New Brunswick, Sept. (Dept. Pl. Path.)

+*Sclerotopsis testudinea* Dearn.

New York - Orient. (Dearness, 25: 253).

Lemoine disease, undet.

Wisconsin - scattered; more prevalent; Kenosha, September 20. (Chambers and Vaughan).

Diseases - see bibl. (1).

PAPAVER NUDICAULE, Iceland poppy.

+*Rhizoctonia* sp., root-rot.

+New York - local; Yonkers, Aug. 4. (Guterman).

PELARGONIUM sp., geranium.

*Bacterium erodii* Lewis, bacterial leaf-spot.

Connecticut - Winsted, Litchfield Co., May. (Clinton).

Indiana - Rather common throughout the state during February and March, 1926. The varieties most susceptible to attack were Agathea and Beute Poitevine and S. A. Nutt. This disease was recorded from the following localities in Indiana: Bluffron, Marion, North Manchester, Kokomo, Indianapolis, and Columbus. The most serious infections were at Columbus and in several greenhouses at Marion, Kokomo, and Richmond. The losses at Marion and Columbus ranged from 25 per cent to 75 per cent of the plants. (Dietz).

*Bacterium pelargoni*, Brown, bacterial leaf-spot.

+New York - Yonkers, Sept. 21. (Guterman).

*Botrytis* sp., gray-mold. See bibl. Melchers (72).

Chlorosis, excess of lime.

Texas - Bell County. (Taubenhaus).

Dropsy - physiological.

Indiana - scattered. (Dietz). P. r.: \*La., Ohio.

PETUNIA HYBRIDA, petunia.

*Corticium vagum* Berk. and Curt., stem-rot.

+Florida - more prevalent; Gainesville, Alachua Co., May 25. (West).

Mosaic, Undet., see bibl., Johnson (54).

PHLOX spp., phlox.

*Erysiphe cichoracearum* DC., powdery mildew.

Reported from Connecticut, New York, Indiana.

*Septoria divaricata* Ell. and Ev., leaf-spot.

+\*Pennsylvania - on *P. drummondii*; severe in several localities; at State College a collection of annual phlox was severely injured for the first time; August. (Weiss and Brierly).

*Tylenchus dipsaci* (Kuehn) Bast., stem nematode.

See bibl. Hodson (50) Schenk (92).

PHOENIX spp., date palm.

+*Armillaria mellea* (Vahl) Quel., root-rot.

California - on *P. canariensis*; one palm killed by this fungus at Watsonville. (Thomas).

+*Colletotrichum* sp., anthracnose.

Texas - Bexar Co., (Taubenhaus).

*Exosporium palmivorum* Sacc., leaf-spot.

Florida - does most damage to young plants; found on *P. canariensis*, +*P. reclinata*, +*P. sylvestris*, +*P. tenuis*. (West and Seal.)

Texas - prevalent; unimportant; Galveston and Harris counties. (Taubenhaus).

See bibl. Laubert (60).

PHOTINIA ARBUTIFOLIA, Christmasberry.

+*Bacillus amylovorus* (Burr). Trev., blight.

California - occurrence reported in city of Alameda, collected by B. Vickers; blight is very rare in immediate coast districts. (Horne).

POINSETTIA sp., poinsetta.

+*Phoma* sp., leaf blight.

District of Columbia - Aug. 25. (Drechsler).

PRIMULA ACAULIS, English primrose.

+*Erysiphe polygoni* DC., powdery mildew.

Connecticut - Branford, New Haven County, Aug. 12. (Clinton).

PRUNUS GLANDULOSA, flowering almond.

+*Sphaeropsis* sp.,

Ohio - (Howard, Hutchinson, and Waterman).

RHODODENDRON PONTICUM, pontic rhododendron.

+*Rhizoctonia* sp., damping off.

New Jersey - 1/4 per cent Uspulun solution applied in a sufficient amount to wet the soil gives excellent control; New Rochelle, July 4. (Guterman).

SCHIZANTHUS sp., butterflyflower.

*Sclerotinia sclerotiorum* (Lib.) Mass., blossom wilt., stem rot.

See bibl. Dowson (30).

SEMPERVIVUM sp., houseleek.

*Endophyllum sempervivi* (Alb. and Schw.) <sup>U</sup> By., rust.

\*New York - local; Long Island, May 7. (Barrus).

SENECIO sp., cineraria.

*Rhizoctonia* sp., damping off.

New Jersey - Clinton, Aug. 6. (Dept. Pl. Path.)

SINNINGIA sp., gloxinia.

See bibl. Peperkorn (87).

SMILAX BONA-NOX, greenbrier.

*Puccinia smilacis* Schw.

+\*Illinois - Poke Co., July 1922. (Young).

SOPHORA JAPONICA, Chinese scholartree.

+*Corticium vagum* Berk. and Curt., damping off.

Connecticut - in a nursery; one report; Woodmont; July 6.  
(Clinton).

+Frost injury - late frosts.

Connecticut - injury of young seedlings in a nursery caused a white specking of young plants; Woodmont. (Clinton).

SYMPHORICARPOS RACEMOSUS, common snowberry.

+*Alternaria* sp., fruit rot.

New York - very common, causes a brown rot of the fruit.

Yonkers, Sept. 15. (Guterman).

*Microsphaeria diffusa* Cke. and Pk., powdery mildew.

+\*Montana - Bozeman, Aug. 2, 1925. (Young).

SYRINGA VULGARIS, lilac.

+*Armillaria mellea* (Vahl). Quel., root-rot.

California - San Francisco Bay Region. (Thomas).

+*Bacterium* sp.,

Illinois - a rather serious outbreak in northern part of state near Lisle; second year that it has been observed.  
(Anderson).

+*Corticium subcinereum* Burt.

Kansas (Burt, 17:277).

TAGETES sp., marigold.

*Sclerotium rolfsii* Sacc., root-rot.

Virginia - Danville, July 28 (Brierly).

TRADESCANTIA FLUMINENSIS, wandering jew.

*Caecoma raditicola* (Greef) Cobb, root-knot.

Texas - Bell Co., (Taubenhaus).

TULIPA sp., tulip.

*Botrytis tulipae* (Lib.) Hopkins, botrytis blight.

New York - local; many plants killed; Yonkers, June 12. (Guterman)

+New Jersey - more prevalent than in 1925; Cumberland County.

Mar. 30. (Dept. Pl. Path.)

+Indiana - serious locally; Indianapolis, May. (Dietz).

+Missouri - locally severe; plants in same soil for several years; severe as early as April. Polk County. Sept. 11.  
(Archer).

Washington - Kitsap County, April 2. (Div. Pl. Path.)

See bibl. Brooks (13), Codman (20), Laubert (60),  
Ludwigs (62).

*Rhizoctonia* sp., bulb rot.

Reported from New York and +District of Columbia.

VIBURNUM sp., viburnum

*Phyllosticta* sp., leaf-spot.

+Rhode Island - (Howard, Hutchinson, Waterman).



## VINCA sp., periwinkle.

*Sphaeropsis vincae* S. and W.

- +New York - considerable trouble with wilting and dying on this particular planting; Monroe Co., Jan. 27. (Chupp).

## VIOLA sp., violet.

*Cecospora violae* Sacc., leaf-spot.

- +\*Missouri - damage severe, local on wild host, Scott County. Scott County, Oct. 29. (Archer).

*Phyllosticta violae* Desm., leaf-spot.

- +New York on *Viola odoratus*; Yonkers, July 9. (Guterman). P. r.: Conr., Mass.

*Sclerotium rolfsii* Sacc., stem-rot.

- +Mississippi - Durant, Holmes Co., June 19. (Wedgworth) P. r.: Ala., S. C.

## VIOLA TRICOLOR, pansy.

*Colletotrichum violae tricoloris* R. E. Sm.

- Connecticut - one report; Westville, New Haven Co., July 12. (Clinton). P. r.: Mass., N. J., N. Y.

*Corticium vagum* Berk. and Curt. root-rot.

- +New York - common on plants in wet soil; Yonkers, June 14. (Guterman).

*Fusarium* sp., wilt.

- +New York - Yonkers, June 12. (Guterman). P. r.: Del., Minn.

*Puccinia violae* (Schum) DC., rust.

- +Kansas - local; not serious; Riley County, June 7. (White).

## WASHINGTONIA sp., palm.

+*Colletotrichum* sp., leaf-spot.

Florida - Palm Beach County. (Seal).

+*Sphaerodopsis neowashingtoniae* Shear.

California - (Laubert 60).

Bacterial leaf spot - undet.

Florida - Odessa. (Seal).

## ZANTEDESCHIA AETHIOPICA, common calla lily.

+*Armillaria mellea* (Vahl) Quel., root-rot.

California - Monterey Bay region. (Thomas).

## ZINNIA ELEGANS, common zinnia.

+*Aphelenchus* sp., nematode.

\*Delaware - Dover, Kent Co., Oct. 7. (Adams).

+*Botrytis* sp., blight.

New Jersey - severe on stems, buds and leaves in one garden; New Brunswick, Sept. 17. (Dept. Pl. Path.)

*Erysiphe cichoroacearum* DC., powdery mildew.

+Iowa and +Missouri. (Archer).

D I S E A S E S O F M I S C E L L A N E O U S H O S T S

## ABUTILON THEOPHRASTI

Macrosporium abutilonis Speg., leaf spot. +New Jersey.

## ACTAEA RUBRA NEGLECTA

+Ramularia actaeae Ell. & Holw., leaf spot. Wisconsin. (Davis 23: 160)

## AGASTACHE URTICIFOLIA

+Ramularia lophanthi Ell. & Ev., leaf spot. \*Montana.

## AGRIMONIA GRYPOSEPALA

Peronospora potentillae D By., downy mildew. +Wisconsin. (Davis 23: 158)

## AMARANTHUS SP., pigweed.

+Peronospora effusa (Grev.) Ces., downy mildew. New Jersey.

+Curly top, undet. Oregon.

## AMBROSIA ARTEMISIAEFOLIA, ragweed.

Erysiphe ambrosiae Schw., powdery mildew. +New Jersey.

## A. TRIFIDA

Puccinia xanthii Schw., rust. +New Jersey.

## AMHERSTIA SP.

+Corticium salmonicolor Berk. & Broome. (Burt, 17: 228)

## ANAPHALIS MARGARITACEA

+Septoria margaritaceae Pk., leaf spot. Wisconsin. (Davis 23: 161)

## ANTICLEA ELEGANS

+Urocystis flowersii Garrett, smut. Utah.

## ARABIS LAEVIGATA

Peronospora parasitica (Pers.) D By., downy mildew. +Wisconsin.  
(Davis, 23: 158)

## ARCTIUM MINUS

Phyllosticta lappa Sacc., leaf spot. +Wisconsin. P.r.: \*Ohio.

## ARISTIDA TUBERCULOSA

+Uromyces seditiosus Kern, rust. Wisconsin. (Davis, 23: 162)

## ARTEMISIA BIENNIS

+Synchytrium aureum Schroet. Wisconsin. (Davis, 23: 158)

## A. CANA

Puccinia absinthii DC., rust. \*\*Wyoming. P.r.: \*S. Dak.

## A. CAUDATA

+Ramularia artemisiae Davis, leaf spot. Wisconsin. (Davis, 23: 173)

## ARTEMISIA DRACUNCULUS TYPICA

*Puccinia absinthii* (Hedw. f.) DC., rust. \*\*Wyoming.

## A. LUDOVICIANA and A. SERRATA

*Peronospora leptosperma* D By., downy mildew. +Wisconsin. (Davis, 23: 155)

## A. TRIDENTATA

+*Zignoella ostiolata* Dearn. & Barth., Wyoming. (Dearness, 25: 248)

## ASCLEPIAS TUBEROSA

+*Cercospora clavata* (Ger.) Pk., leaf spot. Wisconsin. (Davis, 23: 170)

## ASTER AZUREUS, A. PANICULATUS, A. SAGITTIFOLIUS, A. TRADESCANTI.

+*Ramularia asteris* (Phil. & Plowr.) Bubak., leaf spot. Wisconsin.  
(Davis, 23: 160)

## A. SALICIFOLIUS ?

+*Septoria atropurpurea* Pk., leaf spot. Wisconsin. (Davis, 23: 182)

## ASTRAGALUS SP.

*Septoria astragalicola* Pk., leaf spot. \*\*Montana. P.r.: \*Ariz.

## BARBAREA STRICTA

+*Ramularia barbareae* Pk., leaf spot. Wisconsin. (Davis, 23: 160)

## BAPTISIA LEUCANTHA

+*Ascochyta baptisiae* Davis, leaf spot. Wisconsin. (Davis, 23: 186)

## BIDENS SP.

*Uromyces bidentis* Lagh., rust. +Florida. (Weedon, 114: 221)

## BOLTONIA DIFFUSA

+*Guignardia boltoniae* Dearn. & Barth., anthracnose. Oklahoma.  
(Dearness, 25: 242)

+*Macrophoma boltoniae* Dearn., Oklahoma. (Dearness, 25: 245)

## CAMPANULA APARINOIDES

+*Cercoseptoria minuta* Davis, Wisconsin. (Davis, 23: 174)

## CAREX PENNSYLVANICA

+*Cintractina caricetorum* Speg., smut. Pennsylvania. (Spegazzini 104: 145)

## CASSIA MARYLANDICA

*Cercospora simulata* Ell. & Ev., leaf spot. +Wisconsin. (Davis, 23: 162)

## CATHARTOLINUM SULCATUM

*Melampsora lini* (Pers.) Desm., rust. +Wisconsin. (Davis, 23: 187)

## CHENOPODIUM HYBRIDUM

*Cercospora dubia* (Riess) Wint., leaf spot. +Wisconsin. (Davis, 23: 185)  
P.r.: \*Kans.

## CICHORIUM INTYBUS, chicory.

+*Oidium* sp., powdery mildew. New Jersey.

## CICUTA MACULATA

- +Ascochyta thaspiae Ell. & Ev., leaf spot. Wisconsin. (Davis, 23: 159)  
 +Plasmopara nivea (Ung.) Schroet., Wisconsin. (Davis, 23: 161)

## CINNA LATIFOLIA

- +Phyllachora sp., Wisconsin. (Davis, 23: 159)

## CIRSIIUM ARVENSE

- Erysiphe sp., powdery mildew. +New Jersey.  
 Puccinia suaveolens (Pers.) Rostr., rust. +Oregon.

## CLAYTONIA LINEARIS

- +Ustilago claytoniae Shear, smut. \*Washington.

## CYNOGLOSSUM OFFICINALE

- +Ramularia lappulae Davis, Wisconsin. (Davis, 23: 173)

## DATURA STRAMONIUM

- Alternaria crassa (Sacc.) Rands, leaf spot. \*+Missouri.

## ERECHTITES HIERACIFOLIA

- Septoria erectitidis Ell. & Ev., leaf spot. +Wisconsin. (Davis, 23: 161)

## ERYTHRONIUM ALBIDUM, white troutlily.

- +Botrytis sp., stem and root rot. Illinois.  
 +Sclerotinia gracilis Clements. Nebraska. (Whetzel, 118: 224)

## E. AMERICANUM

- +Sclerotinia erythroniae Whetzel, New York. (Whetzel, 118: 232)

## EUPATORIUM PURPUREUM

- +Ascochyta compositarum Davis, Wisconsin. (Davis, 23: 159)  
 Cercospora perfoliata Ell. & Ev., leaf spot. +Wisconsin. (Davis, 23: 160)

## E. URTICAEFOLIUM

- Entyloma compositarum Farl., smut. +Wisconsin. (Davis, 23: 177)

## GALIIUM APARINE

- Puccinia ambigua (Alb. & Schw.) Lagh., rust. +Wisconsin. (Davis, 23: 186)

## G. BOREALE

- +Septoria psilostega Ell. & Mart., leaf spot. Wisconsin. (Davis, 23: 170)

## GENTIANA AFFINIS, G. PUBERULA

- Puccinia gentiana (Strauss) Lk., rust. Wisconsin. (Davis, 23: 185).  
 \*+Wyoming.

## GERANIUM BICKNELLI

- +Plasmopara geranii (Pk.) DeT., Wisconsin. (Davis, 23: 169)

## G. MACULATUM

- +Sclerotinia geranii Seaver & Horne, Wisconsin. (Davis, 23: 171)

## G. MOLLE

- +Graphium geranii Vogl., Indiana. (Van Hook, 111: 231)

- GEUM CANADENSE, G. STRICTUM, G. VIRGINIANUM  
 Septoria gei Rob. & Desm., leaf spot. +Wisconsin. (Davis, 23: 159)
- HELIANTHUS STRUMOSUS  
 Coleosporium helianthi (Schw.) Arth., rust. +Wisconsin. (Davis, 23: 187)
- HERACLEUM LANATUM  
 Ramularia heraclei (Oud.) Sacc., leaf spot. \*\*Montana.
- HIERACIUM CANADENSE  
 Puccinia patruelis Arth., rust. +Wisconsin. (Davis, 23: 185)
- LACTUCA CANADENSIS  
 +Asteroma lactucae nom. herb., Wisconsin. (Davis, 23: 161)
- L. VILLOSA  
 +Puccinia patruelis Arth., rust. +Wisconsin. (Davis, 23: 185)
- LAGUNCULARIA RACEMOSA  
 +Botryosphaeria ribis chromogena Stevens, Florida. (Stevens, 106: 279)
- LATHYRUS OCHROLEUCUS  
 +Cercospora viciae Ell. & Holw., leaf spot. Wisconsin. (Davis, 23: 170)
- L. PALUSTRIS  
 +Ascochyta pisi Lib., leaf spot. Wisconsin. (Davis, 23: 169)
- LEPACHYS PINNATA  
 Septoria infuscata Wint., leaf spot. +Wisconsin. (Davis, 23: 161)
- LONICERA HISPIDULA  
 +Guignardia lonicerae Dearn. & Barth., California. (Dearness, 25: 245)
- LUDWIGIA POLYCARPA  
 Puccinia jussiaeae Speg., rust. +Wisconsin. (Davis, 23: 162)
- LYCOPUS AMERICANUS, L. UNIFLORUS  
 +Septoria lycopi Pass., leaf spot. Wisconsin. (Davis, 23: 159)
- MALVA ROTUNDIFOLIA  
 Septoria malvicola Ell. & Mart., leaf spot. +Wisconsin. (Davis, 23: 182)
- MELAMPYRUM LINEARE  
 +Ramularia melampyri Ell. & Dearn., leaf spot. Wisconsin. (Davis, 23: 162)
- MYOSOTIS VIRGINICA  
 Aecidium myosotidis Burr., rust. +Wisconsin. (Davis, 23: 162)  
 Peronospora myosotidis D By., downy mildew. +Wisconsin. (Davis, 23: 158)
- OENOTHERA PUMILA  
 +Puccinia peckii (Det.) Kell., rust. Wisconsin. (Davis, 23: 160)
- ONOCLEA STRUTHIOPTERIS  
 +Taphrina struthiopteridis Nishida, Wisconsin. (Davis, 23: 185)

## OSMORRHIZA LONGISTYLIS

+Ramularia reticulata Ell. & Ev., leaf spot. Wisconsin. (Davis, 23: 170)

## PERSICARIA PERSICARIA

Septoria polygonorum Desm., leaf spot. +Indiana. (Van Hook, 110: 235)

## PETASITES PALMATUS

+Stagonospora petasitidis Ell. & Ev. Wisconsin. (Davis, 23: 186)

## PHYTOLACCA AMERICANA, pokeweed.

Mosaic - undet. +Virginia.

## PHYTOLACCA SP.

Mosaic - undet. +New Jersey.

## PHORADENDRON MACROPHYLLUM

+Chaconia (?) texensis Arth., Texas. (Arthur, 9: 784)

## PHYSALIS PUBESCENS

+Tylenchus dipsaci (Kuehn) Bast., nematode. \*California.

## PLANTAGO MAJOR

Erysiphe cichoracearum DC., powdery mildew. +New Jersey.

## PODOPHYLLUM PELTATUM

+Botrytis sp., blight, New Jersey.

## POLYGONUM SP.

Melanopsichium austro-americanum (Speg.) G. Beck, smut. +New Jersey.

Septoria polygonorum Desm., leaf spot. +Wisconsin. (Davis, 23: 155)

\*+Missouri.

## POLYSTICHUM ADIANTIFORME, leather leaf fern.

+Cylindrocladium pteridis Wolf, leaf spot. Florida. (Wolf, 124)

## POTENTILLA CANADENSIS

+Marssonina potentillae tormentillae Trail. Wisconsin. (Davis, 23: 159)

+Ramularia arvensis Sacc., leaf spot. Wisconsin. (Davis, 23: 160)

## P. FRUTICOSA

Phragmidium andersoni Shear, rust. \*\*Montana.

## PRUNELLA VULGARIS

Septoria brunellae Ell. & Hark., leaf spot. \*\*Montana.

## RANUNCULUS ACRIS

Ovularia decipiens Sacc., leaf spot. +Wisconsin. (Davis, 23: 162)

## RIBES NIGRUM

Cronartium ribicola Fisch., blister rust. +Pennsylvania.

## RICINUS COMMUNIS

+Botryosphaeria ribis chromogena Stevens, Florida. (Stevens, 106: 279)

## RUBUS TRIFLORUS

- +Pucciniastrum arcticum (Lagh.) Tranz., rust. Wisconsin. (Davis, 23: 189)  
 +Septoria rubi West., leaf spot. Wisconsin. (Davis, 23: 170)

## RUDBECKIA HIRTA

- +Entyloma polysporum (Pk.) Farl., smut. Wisconsin. (Davis, 23: 178)

## R. LACINIATA

- Entyloma compositarum Farl., smut. +Wisconsin. (Davis, 23: 160)

## RUMEX PERSICARIOIDES

- Ramularia pratense Sacc., leaf spot. +Wisconsin. (Davis, 23: 162)

## RUMEX SP.

- Ovularia obliqua (Cke.) Oud., leaf spot. +New Jersey.

## SANICULA GREGARIA

- +Ascochyta thaspis saniculae Davis, leaf spot. Wisconsin. (Davis, 23: 185)  
 +Entyloma saniculae Pk., smut. Wisconsin. (Davis, 23: 177)

## SCROPHULARIA LEPORELLA

- +Peronospora sordida Berk. & Br., downy mildew. Wisconsin. (Davis, 23: 169)

## SILENE NOCTIFLORA

- Phyllosticta pallida Seym. & Earle, leaf spot. \*\*Montana.

## SISYMBRIUM ALTISSIMUM

- Albugo candida (Pers.) O. Kuntze, white rust. +Wisconsin. (Davis, 23: 158)

## SMILACINA AMPLEXICAULIS

- +Phyllosticta vagans Pk., leaf spot. \*Montana.  
 +Ramularia smilacinae Davis, leaf spot. \*Montana.

## S. STELLATA

- +Ramularia smilacinae Davis, leaf spot. \*Montana.  
 +Vermicularia liliacearum West. \*Maryland.

## SOLANUM VILLOSUM

- +Tylenchus dipsaci (Kuehn) Bast., nematode. \*California.

## SOLIDAGO JUNCEA SCABERRIMA, S. ULIGINOSA

- +Cercospora nivea Ell. & Barth. Wisconsin. (Davis, 23: 170)

## SOPHIA FILIPES

- Albugo candida (Pers.) O. Kuntze, white rust. \*\*Montana.  
 +Peronospora parasitica (Pers.) D By., downy mildew. \*Montana.

## STREPTOPUS ROSEUS

- Tubercinia clintoniae Kom. +Wisconsin. (Davis, 23: 176)

## SYMPLOCARPUS FOETIDUS, skunk cabbage.

- Botrytis sp., gray mold rot. +New Jersey.

## THALICTRUM DASYCARPUM

Entyloma sp., smut. +Wisconsin. (Davis, 23: 183)

## TRIOSTEUM AURANTIACUM, T. PERFOLIATUM

+Cylindrosporium triostei Kell. & Sw. Wisconsin. (Davis, 23: 185)

## VACCINIUM CANADENSE, V. PENNSYLVANICUM

+Ramularia vaccinii Pk., leaf spot. Wisconsin. (Davis, 23: 185)

## V. MEMBRANACEUM; +V. SCOPARIUM

Pucciniastrum myrtillii (Schum.) Arth., rust. \*+Wyoming.

## V. SP., huckleberry.

Calyptospora columnaris (Alb. & Schw.) Kuehn., rust. +Oregon.

## VERNONIA SP.

Cercospora vernoniae Ell. & Kell., leaf spot. +Wisconsin. (Davis, 23: 157)

## VERONICA VIRGINICA

Cercospora leptandrae Davis, leaf spot. +Wisconsin. (Davis, 23: 162)

## VIOLA LANCEOLATA

Septoria violae West., leaf spot. +Wisconsin. (Davis, 23: 159)

## VITIS SP.

+Corticium pilosum Burt, Alabama. (Burt, 17: 262)

+Corticium rubellum Burt, Florida, Illinois, Colorado. (Burt, 17: 232)

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