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*Cooperative*  
**ECONOMIC INSECT  
REPORT**

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**BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE  
AGRICULTURAL RESEARCH ADMINISTRATION  
UNITED STATES DEPARTMENT OF AGRICULTURE**

# BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

## DIVISION OF INSECT DETECTION AND IDENTIFICATION

### SECTION OF ECONOMIC INSECT DETECTION AND REPORTING

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Bureau serves as a clearing house and does not assume responsibility for accuracy of the material.

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COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

CITRUS BLACKFLY - additional infestations found in Matamoros, Mexico. (page 397)

LEAF MINERS more abundant for the time of season than for several years in Southern Florida. Also damaging vegetables in Lower Rio Grande Valley, Texas, and Whittier California area. (page 398)

LIVESTOCK PEST situation in Kerrville, Texas area. (page 399)

SUMMARY OF INSECT CONDITONS in Kentucky. (page 400)

FRUIT INSECT conditions in New York-New England during 1952. (pages 402-406)

SPITTLEBUG survey methods - as used in Illinois. (page 407)

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Reports in this issue are for the week ending November 22 unless otherwise designated.

WEATHER FOR THE WEEK ENDING NOVEMBER 25, 1952

During the first few days of the week general, mostly moderate to heavy precipitation with some snow in the extreme north, spread eastward from the Mississippi Valley to the Atlantic Coast. The area north of North Carolina and western Tennessee received moderate precipitation again on the 21st and 22d where a low pressure system developed over the Carolinas and moved northwestward across the Lake Region. During this storm heavy snow fell in eastern Tennessee and extreme western North Carolina. At Knoxville, Tennessee, snow was 10 inches deep on the morning of the 22d, but all except 2 inches had melted by the end of the period. In the meantime light to moderate precipitation, mostly snow, that began in the northern Rocky Mountains on the 21st, spread southward and eastward behind a cold front over practically the entire area between the Continental Divide and the Mississippi River and continued at the end of the period. This was the most extensive snowstorm of the season, and most of the higher Rocky Mountain ranges as well as the western portion of the Great Plains as far south as the Texas Panhandle are now snow-covered. Snow depths range up to 10 inches in western Nebraska and northeastern Colorado and up to 7 inches in the Texas Panhandle. Snow was falling in Iowa, Wisconsin, and southern Minnesota at the end of the period, and accumulation generally ranged from 1 to 4 inches. In spite of this general precipitation, more moisture is needed in some sections of the country for growth of fall crops and to replenish water supplies. The hydroelectric power situation in Washington is becoming very serious, due to the lack of rain at higher elevations.

The week was unseasonably warm in the extreme upper portion of the Great Plains, the Lake Region and the Northeast. Average departures from normal temperatures for the week ranged up to 8° at Devils Lake, North Dakota; 10° at Sault St. Marie, Michigan; and 14° at Rochester, N. Y., and Eastport, Maine. In contrast the far West experienced the coldest weather of the season. At many interior stations temperatures averaged 10° or more below normal for the week, and sub-zero temperatures were recorded for the first time this fall at many stations in the northern Rocky Mountains and at some stations in the central Plateau. (Summary Supplied by U. S. Weather Bureau)

## CEREAL AND FORAGE INSECTS

**CORN EARWORM (Heliothis armigera)** -- TEXAS - Injurious numbers on corn in Lower Rio Grande Valley. (Wene and White)

**LESSER CORNSTALK BORER (Elasmopalpus lignosellus)** -- FLORIDA - Infesting lupines in north Florida. (F. E. Guthrie)

**LUPINE MAGGOT (Hylemya lupini)** -- FLORIDA - Egg laying at very low ebb in Quincy area. Pupation has just commenced. (F. E. Guthrie)

Insects on Grasses and Lawns in Homestead Florida Area - Chinch bug control inquiries received have been greatly reduced. Scale insects are less abundant, temporarily at least, than for months. (D. O. Wolfenbarger)

**YELLOW SUGARCANE APHID (Sipha flava)** -- FLORIDA - A heavy infestation observed on pangola grass in Fort Meade area. (W. P. Dean)

**RHODES-GRASS SCALE (Antonina graminis)** -- FLORIDA - Observed on carib-grass pasture in Palm Beach County area. (W. P. Dean)

## FRUIT INSECTS

**CITRUS BLACKFLY INFESTATIONS - MATAMOROS, MEXICO** -- A total of 92 infestations of citrus blackfly (Aleurocanthus woglumi) had been found on 50 city blocks in Matamoros, Tamaulipas, Mexico as of November 14. (First new infestation found October 30.) Three of these infestations were classified as heavy, while the remainder ranged from light to medium. Approximately two-thirds of the area has been inspected and infestations appear to be general over most of the city.

**CORRECTION:** The statement: "Infested blocks and all adjacent blocks will be sprayed at weekly intervals . . ." (as shown in C. E. I. R., Vol. 2, No. 29, page 378) should have been submitted to read "at monthly intervals." (B. C. Stephenson)

CITRUS INSECT CONDITIONS - FLORIDA -

Activity for second week of November: Purple scale (Lepidosaphes beckii) increased as hatch continued. Ninety-two percent of groves inspected found infested. Highest activity in West Coast and Indian River Districts. Florida red scale (Chrysomphalus aonidum) increased in activity but general level low. Fifty-four percent of groves infested. Citrus red mite (Purple mite) Paratetranychus citri increased and further increase expected. Forty-six percent of groves infested. Citrus rust mite (Phyllocoptura oleivora) - reduction in activity, but level of infestation still high. Lower on fruit than on leaves. Seventy-five percent of groves infested. (Pratt and Thompson).

TRUCK CROP INSECTS

LEAF MINERS -- FLORIDA - Serpentine leaf miner (Liriomyza pusilla) more abundant on tomatoes and beans this early in the season than for several years in Homestead area. (D. O. Wolfenbarger) TEXAS - Still sufficiently injurious to require insecticidal treatments in Lower Rio Grande Valley. Serpentine leaf miner very numerous and destructive to black eyed peas. (Wene and White) CALIFORNIA - Pea leaf miner (Liriomyza langei) continues to damage romaine lettuce, spinach and celery near the coast. (R. E. Campbell)

CABBAGE CATERPILLARS -- SOUTH CAROLINA - Imported cabbage-worm (Pieris rapae) moderately abundant on the few scattered cauliflower plantings in Charleston area; light infestations on other cole crops. Also moderately abundant on home garden collards in Dorchester County. (Cuthbert and Deen) TEXAS - Cabbage looper (Trichoplusia ni) continues to cause injury to cabbage in Lower Rio Grande Valley. (Wene and White) CALIFORNIA - Damage to cauliflower by cabbage looper heavier than usual in Los Angeles County. (R. E. Campbell)

SOUTHERN GREEN STINKBUG (Nezara viridula) -- SOUTH CAROLINA - Light to moderate infestations on cole crops in Charleston area. (Cuthbert and Deen) FLORIDA - Abundant on many plants in Homestead area. (D. O. Wolfenbarger)



APHIDS (Aphidae) -- VIRGINIA - Cabbage aphid (Brevicoryne brassicae) increasing slowly on cole crops in Norfolk area. Green peach aphid (Myzus persicae) on many plantings of spinach; insecticides being applied in some fields. (Brubaker, Greenwood, Hofmaster) FLORIDA - Cabbage and collards in Gadsden County area heavily infested with cabbage aphid. Very heavy infestations of turnip aphid (Rhopalosiphum pseudobrassicae) on turnips. Control measures necessary against both insects. (L. M. May) CALIFORNIA - Cabbage aphid infestations continue on cauliflower and cabbage in southern California. Control measures required. (R. E. Campbell)

BEAN LEAF ROLLER (Urbanus proteus) -- FLORIDA - Abundant on beans in Homestead area except where control measures were used. (D. O. Wolfenbarger)

MELONWORM (Diaphania hyalinata) -- TEXAS - Abundant on squash in Lower Rio Grande Valley. (Wene and White)

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) -- MISSISSIPPI - Adults observed feeding heavily on chrysanthemum flowers in Oktibbeha County. Also attacking tops of turnips, flowers of chrysanthemum, dahlia and rose in Washington County. (Hester and Young, November 14)

CUTWORMS -- SOUTH CAROLINA - Sufficiently abundant in one commercial cabbage plant bed in Charleston area to warrant insecticidal treatment. (Cuthbert and Deen)

MUSHROOM FLY (Sciara sp.) -- CALIFORNIA - Numerous in mushroom houses near Whittier. (R. E. Campbell)

#### INSECTS AFFECTING MAN AND ANIMALS

LIVESTOCK PEST SITUATION - Kerrville, Texas area -- Infestations of external parasites: horn fly (Siphona irritans), stable fly (Stomoxys calcitrans), screw-worm (Callitroga americana) and lone star tick (Amblyomma americanum) have been considerably reduced by sporadic periods of cold weather. Infestations of winter tick (Dermacentor albipictus) increasing on both cattle and horses. Cattle grub (Hypoderma spp.) season is practically over; most larvae in third stage with many having completed development and dropped from backs of animals. (C. L. Smith)

## SUMMARY OF INSECT CONDITIONS - 1952

KENTUCKY -- Reported by H. H. Jewett, W. A. Price, J. G. Rodriguez, R. Thurston -- EUROPEAN CORN BORER (Pyrausta nubilalis) increased to relatively large populations during summer and the second generation was particularly heavy. A fall population survey made in 24 counties showed an unusually heavy population (overall average of 180 borers per 100 stalks) going into hibernation. Eight more counties were found infested, making 92 out of 120 counties infested with the borer.

ARMYWORM infestations were heaviest in years in most parts of the State.

PEA APHID (Macrosiphum pisi) very abundant and destructive in early spring on clover and alfalfa.

CORN LEAF APHIS (Aphis maidis) infestations were unusually heavy and general in central and north central areas.

CLOVER LEAF WEEVIL (Hypera punctata) infestations were heavy, particularly in central areas.

CORN EARWORM (Heliothis armigera) population levels were higher than the last two years. Serious problem on corn, tomatoes and tobacco seed heads.

CODLING MOTH (Carpocapsa pomonella) broods were not distinct during the season and moth flight continued throughout most of the summer making control difficult.

EUROPEAN RED MITE (Metatransychus ulmi), TWO-SPOTTED SPIDER MITE (Tetranychus bimaculatus) and Tetranychus multisetis populations were the heaviest in years, probably because of lack of heavy rains.

GREEN JUNE BEETLE (Cotinis nitida) was prevalent over the State. Adults troublesome on ripening fruits and larvae were destructive in lawns and other grassy spots.

CABBAGE WORMS, especially imported cabbageworm (Pieris rapae) and cabbage looper (Trichoplusia ni) were widespread throughout the State.

**JAPANESE BEETLE** (Popillia japonica) has been found in 4 places in the State. A rather extensive area in Louisville, comprising about 500 acres, was given both foliage and soil treatments in 1952; the other infested locations in Covington, West Russell and Bellevue were given foliage treatments only.

**MOLE CRICKETS** caused some damage to potatoes in several localities in extreme western area.

**BLISTER BEETLES** (Epicauta spp.) infestations were serious and general, particularly serious in southwestern area.

**WIREWORMS** attacking tobacco more abundant than usual, especially in Central Kentucky.

**HORNWORMS** (Protoparce spp.) began attacking tobacco earlier than usual this season and continued until harvest. Also destructive on tomatoes.

**GRASSHOPPER** infestations very heavy and prevalent throughout State during entire growing season. Particularly destructive on tobacco and forage crops.

**ELM LEAF BEETLE** (Galerucella xanthomelaena) was more destructive than usual this year.

**ANGOUMOIS GRAIN MOTH** (Sitotroga cerealella) are common and destructive, especially to stored corn.

**SUBTERRANEAN TERMITES** continue to be very important pests over the entire State.

**BUFFALO CARPET BEETLES** have been the subject of many inquiries.

**MILLIPEDES** migrated in numbers into homes during October and November, creating a nuisance in many sections of the State.

FRUIT INSECT CONDITIONS - 1952

NEW YORK-NEW ENGLAND STATES

This summary, presented at the New York-New England Spray Specialists' Conference, West Springfield, Massachusetts, November 5-6, 1952, has been compiled from reports submitted by workers in each State or area. (E. H. Wheeler, Chairman)

Key to Symbols: G - of general concern as contrasted to L - of local importance only.  
 O - negligible; 1, slight (less than 5% losses); 2, moderate (5-20%); 3, serious (20% up).

CROP AND PEST	New York							
	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Hudson Valley	Champlain Valley
<u>APPLE</u>								
Plum curculio	G-1	G-3	G-1	G-2	2-3	2-3	G-2	G-1
Apple maggot	G-1	G-2	1	G-2	G-3	G	G	L-1
Codling moth	L-1	L-1	L-2	G-2	G-1	G-2	G-1	G-1
Red-banded leaf roller	G-1	G-1	G-1	G-1	G-1	L		
Apple sawfly				L-2		O-1	G-1	L-1
Bud moth	L-2	L-O	L-O	G-1	G-1	L	L-1	L-1
Rosy apple aphid		L-O	L-O	G-2	G-2	G	G	
Apple aphid	G-O	G-2	L-O	G-2	G-1	G	G	G-1
White apple leaf-hopper	L-1			G-O	L*			

\* Japanese Leafhopper (Conn.)

CROP AND PEST (Apple cont'd)	New York							
	Me.	N.H.	Vt.	Mass.	R.I.	Conn.	Hudson Valley	Champlain Valley
European red mite	G-1	G-1	G-1	G-1	G-2	G-1	G-1	G-1
2-spotted spider mite		L-1	L-1	L-1		L-1	L-1	L-1
Clover mite				L-1		L-O		
Yellow mite	G-O	L-1		G-O	L-1	L		
Apple red bug & tarnished plant bug	L-O			G-O		O-1		G-1
San Jose scale			L-1	G-O				
Oystershell scale	G-1	L-1				L		L
						O-1		O-1
<u>PEAR</u>								
Pear psylla	G-2	G-2		G-1	G	1-2	G-2	G-1
								L-3
Pear midge							L-1	
Pear leaf blister mite	G-1	L-1		G-O		L-1		
Codling moth				G-2				
				L-3				
<u>PEACH</u>								
Plum curculio		G-2		G-1	G-2	G	G	
						2-3	O-1	
Oriental fruit moth		L-2		G-2	G	G	L	
					1-2	2-3	O-1	
Peach tree borers		L-1		G-1	G-1	G		
						1-2		
2-spotted spider mite		G-2		G-1				
European red mite				L-1		L-O		
Plant bugs		G-1						

CROP AND PEST	New York						
	Me.	N.H.	Vt.	Mass.	R.I.	Conn.	Hudson Valley Champlain Valley
<u>CHERRY</u>							
Fruit flies							L O-1
Plum curculio				G-1			G-1
Black aphid				G-1			G-1 L-1
Leaf miner							L-1
<u>PLUM AND PRUNE</u>							
Plum curculio		L-2		G-2		G 2-3	G 1-2 G-2
Plum aphid		L-1				G 1-2	L-2
European red mite				L-1		L-O	
<u>GRAPE</u>							
Grape berry moth		L-1		G-2		L-1	L O-1
Cane girdler				G-O		L-O	
Grape leafhopper		L-1				L-O	
Tomato & blister galls		L-1		G-1		G-1	L 2-3
<u>BLUEBERRY</u> (Cultivated)							
Fruitworm ( <i>M. vaccinii</i> )				L-2	L-1	G O-1	
Weevil ( <i>A. musculus</i> )					L-1		

CROP AND PEST (Blueberry - cul. cont'd)	New York							
	Me.	N.H.	Vt.	Mass.	R.I.	Conn.	Hudson Valley	Champlain Valley
Stem borer				L-1	L-2	G-O		
Blueberry maggot				L-2	L-1	G O-1		
<b>BLUEBERRY (Wild)</b>								
Blueberry maggot	G-1	G-1		G-1				
<b>STRAWBERRY</b>								
Strawberry weevil	G-1	G-2		L-1	L-O	G O-1		
Rootworm	L-1			L-1	L-O	G-O		
White grubs	G-1	L-2		L-1	L-O	L-O		
Spittle bugs	G-O			L-1	L-O	G-O		
Strawberry leaf roller	L-O	L-1		G-O	L-O	G-1		
2-spotted spider mite	L-O			G-1 L-2	L-O	L-O		
Cyclamen mite		L-2				L-O		
Cutworms		G-2		G-1		L O-1		
<b>RASPBERRY</b>								
Fruitworm ( <u>B.</u> unicolor)				G-1	L-O	L-O		
Raspberry cane borer	G-1	G-1		L-2		L-O		
2-spotted spider mite	L-1			L-1		L-O		

CROP AND PEST	New York							
	Me.	N. H.	Vt.	Mass.	R. I.	Conn.	Hudson Valley	Champlain Valley
<u>GENERAL</u>								
<u>FEEDERS</u>								
Japanese beetle		L-2		G-1	G-3	G		
				L-2		2-3		
Rose chafer		G-1		G-1	G-1	G		
				L-2		1-2		

Unusual Outbreaks: MAINE - Codling moth showed considerable increase in some orchards; gypsy moth more injurious than during past 6 or 8 years. CONNECTICUT - About 5 percent of the drops (Cortlands and McIntosh) at Storrs were attacked by European corn borer. MASSACHUSETTS - Codling moth more injurious than normal; gypsy moth more conspicuous in western Massachusetts; apple aphid very abundant; rosy apple aphid caused more damage in central and western areas; mealy flata (*Ormenis pruinosa*) caused severe injury to raspberries although most oviposition occurred in old canes to be removed by pruning; apple maggot stings found in every orchard examined; serious in many. NEW YORK - Hudson Valley - Codling moth increased. Rosy apple aphid severe in absence of controls; cherry fruit flies reported for first time since 1945. Champlain Valley - Pear psylla present for last 25 years, became serious in only the last 2 seasons.

Abnormal Seasonal Occurrences: MAINE - Blueberry maggot less injurious than during past 6 or 8 years; apple maggot active later in season than usual. MASSACHUSETTS - Apple maggot continued working late; no apparent break between 1st and 2nd brood codling moth; European red mite continued to cause damage well into September; 2nd brood red-banded leaf roller started unusually early although hatching continued later than normal.

Unusual Contributing Factors: MAINE - Dry summer helped to control blueberry and apple fruit flies; increased codling moth activity. MASSACHUSETTS - High temperatures, low humidity and lack of rain in July increased effectiveness of residual miticides; same conditions favored codling moth; heavy rains following applications to control curculio lowered efficiency of these sprays; growers hesitated to apply sprays for codling moth and maggot during periods of high temperatures.



## SURVEY METHODS

### SPITTLEBUG SURVEY IN ILLINOIS

With an increase in spittlebug infestations up to economic levels in Illinois, it was considered desirable to attempt the prediction of the potential populations that might occur on legume crops in the spring. Based on biological data from Ohio and field experience in Illinois, a survey technique for this purpose was developed in Illinois for use in 1951 and 1952. On the basis of data obtained in an adult spittlebug survey in the fall, probable damage ratings were determined for the following spring.

In late August or early September after the adult spittlebug populations became fairly stable, (determined by regular sampling of a few fields) 30 counties were surveyed in Illinois to determine adult populations. Ten fields were selected at random in each county. Ten individual sweeps (standard 15" net-180° sweep) were made in each field and each recorded separately on a special form. (See page 408) The condition of the field and other pertinent data were also recorded. Based on the average number of adult spittlebugs per sweep in each county, predictions were made for the areas most likely to be subjected to economic losses the following spring.

By assuming that for each adult spittlebug per sweep there would likely be one-fourth to one-half spittlebug nymph per stem the following spring (Ohio's results), estimates were made of the acreage of new stands worthy of treatment. Treatment was recommended on first-year hay crop fields in those areas where an average of one-half or more nymphs per stem was anticipated. As a followup in late May, nymphal counts were made on a 100-stem sample in many of the fall-survey fields and observers found that for county averages the predicted and actual numbers of nymphs per 100 stems were substantially the same.

This survey method gives actual figures upon which to base and check predictions. Since by this method it is possible to obtain a quantitative cross section of populations in old and new fields and in fields of various mixtures of grasses and legumes, mixed legumes, and straight stands of legumes, the survey data is of value to research and extension workers alike. (H. B. Petty)

Spittlebug Survey

Fall. Date \_\_\_\_\_ County \_\_\_\_\_

Crop \_\_\_\_\_ Old. \_\_\_\_\_ New. \_\_\_\_\_

Condition: Good. Fair. Poor. Height \_\_\_\_\_ inches. Clipped. Unclipped.

Location: N. S. E. W. side of Rt. \_\_\_\_\_ miles N. S. E. W.

of \_\_\_\_\_ miles N. S. E. W. of \_\_\_\_\_

Adults per sweep: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_  
7. \_\_\_\_\_ 8. \_\_\_\_\_ 9. \_\_\_\_\_ 10. \_\_\_\_\_ Average \_\_\_\_\_

Spittlebug masses observed - Yes. No.

Spring. Date \_\_\_\_\_

Infestation per 10 stems: 1. a. \_\_\_\_\_ b. \_\_\_\_\_ 2. a. \_\_\_\_\_ b. \_\_\_\_\_ 3. a. \_\_\_\_\_  
b. \_\_\_\_\_ 4. a. \_\_\_\_\_ b. \_\_\_\_\_ 5. a. \_\_\_\_\_ b. \_\_\_\_\_ 6. a. \_\_\_\_\_ b. \_\_\_\_\_ 7.  
a. \_\_\_\_\_ b. \_\_\_\_\_ 8. a. \_\_\_\_\_ b. \_\_\_\_\_ 9. a. \_\_\_\_\_ b. \_\_\_\_\_ 10. a. \_\_\_\_\_  
b. \_\_\_\_\_ Total a. \_\_\_\_\_ b. \_\_\_\_\_

a = Infested plants.  
b = Number of nymphs.

Adults observed. Yes. No.

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



