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Cooperative
**ECONOMIC INSECT
REPORT**

Issued by

PLANT PROTECTION DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PROTECTION DIVISION

ECONOMIC INSECT SURVEY AND DETECTION

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 Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

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COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

GREENBUG light to heavy with some damage to small grains in Texas. (p. 61).

HONEY BEE colonies damaged by low temperatures in Tennessee. (p. 62).

Prediction

SPRUCE BUDWORM populations expected to double in areas of Maine most seriously infested in 1969. Heavy damage to balsam fir and spruce expected. (p. 62).

Detection

A WIREWORM reported for the first time in Washington. (p. 61).

For new county records see page 63.

Special Reports

Distribution of Meadow Spittlebug. Map. (p. 64).

Insects Not Known to Occur in the United States

Black-Streaked Green Rice Leafhopper (Nephotettix apicalis Motschulsky).
(pp. 65-66).

Reports in this issue are for week ending January 30 unless otherwise indicated.

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WEATHER BUREAU'S 30-DAY OUTLOOK

FEBRUARY 1970

The Weather Bureau's 30-day outlook for February is for temperatures to average above seasonal normals west of the Divide and over the Great Plains. Near normal temperatures are indicated elsewhere except for below normal in the Great Lakes region. Precipitation is expected to exceed normal in the Pacific Northwest and also from the northern Plains through the Great Lakes. Subnormal totals are indicated for the Southwest as well as much of the middle and south Atlantic Coast States. Elsewhere near normal precipitation is in prospect.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the Weather Bureau. You can subscribe through the Superintendent of Documents, Washington, D.C. 20250. Price \$5.00 a year.

WEATHER OF THE WEEK ENDING FEBRUARY 2

HIGHLIGHTS: Most areas enjoyed the mildest weather in several weeks. Most of the Nation received only light precipitation.

PRECIPITATION: A Pacific storm lashed the coast from Washington to northern California early in the week. Winds at Cape Blanco, Oregon, gusted to 72 m.p.h. Monday forenoon. Heavy rains fell along the coast, in the inland valleys, and in the intermountain region with snow in the higher mountains. The rains the past week have helped produce record-breaking January totals at numerous locations. At some stations, January 1970 was the rainiest month in more than half a century. About midweek, a storm developed over the central Rocky Mountains. Snow and high winds made travel difficult through the mountain passes. Scattered snow fell over the upper Mississippi River Valley and from the eastern Great Lakes to the northern and central Appalachians. In Wisconsin, a mixture of snow and freezing rain made highway travel difficult. The warm southerly winds melted some of the snow cover. Some light blowing dust occurred in western Great Plains on Wednesday. The "January thaw" in southeastern Wisconsin resulted in some runoff in the extreme southeastern part of the State. Weekly totals ranged from 4 to 7 inches along the Oregon coast, an inch or 2 in the western inland valleys, from 1 to 1.5 inches over much of the Deep South, and less than an inch over the rest of the Nation. Much of the area from the Far Southwest to southern Minnesota and Iowa received no precipitation or only light sprinkles or snow flurries. Weather of the week continued on page 63.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ASTER LEAFHOPPER (Macrostoteles fascifrons) - FLORIDA - Collected 2 adults in 100 sweeps of alfalfa at Gainesville, Alachua County. (Mead).

GREENBUG (Schizaphis graminum) - ARIZONA - Light; no buildup on grain on west side of Salt River Valley in Maricopa County. (Ariz. Coop. Sur.). NEW MEXICO - Mostly 2-10 per linear foot, ranged 20-30 per linear foot, in occasional wheat-field in Curry and Roosevelt Counties week ending January 23. Current counts 1-15 per linear foot on barley in Chaves County. (Mathews). TEXAS - Light to heavy on small grains in Rolling Plains. In many fields in Motley County during early January; controls required for spotted infestations. Light to heavy in Childress County. Some damage in Hall, Hardeman, Jones, and Young Counties. Light in Archer, Foard, and Haskell Counties. (Boring, Jan. 23). OKLAHOMA - Slight increase in wheat, averaged 22 per linear foot in one field in Stillwater area, Payne County. (Okla. Coop. Sur.). KANSAS - Ranged 1-5 per linear foot of wheat in Allén, Lyon, and Osage Counties. Negative in Cherokee, Crawford, Bourbon, Linn, Coffey, and Jefferson Counties. (Redding). ARKANSAS - Survey negative in small grain in northwest areas. (Boyer).

SPOTTED ALFALFA APHID (Therioaphis maculata) - FLORIDA - Nymphs and adults ranged 250-300 in 100 sweeps of alfalfa at Gainesville, Alachua County. (Mead).

SMALL GRAINS

A WIREWORM (Aeolus livens) - WASHINGTON - Adult trapped at Toppenish, Yakima County, by B.J. Landis September 11, 1969. Determined by T.J. Spilman. This is a new State record. (Landis).

WINTER GRAIN MITE (Penthaleus major) - TEXAS - Damage light on wheat in Jones County. (Boring, Jan. 23). OKLAHOMA - Very light, averaged about 1 per linear foot, in wheat in Payne County. (Okla. Coop. Sur.).

FORAGE LEGUMES

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - FLORIDA - Collected 7 adults in 100 sweeps of alfalfa at Gainesville, Alachua County. (Mead).

TARNISHED PLANT BUG (Lygus lineolaris) - FLORIDA - Recovered 10 adults in 100 sweeps of alfalfa at Gainesville, Alachua County. (Mead).

COWPEA APHID (Aphis craccivora) - FLORIDA - Collected 57 nymphs in 100 sweeps of alfalfa at Gainesville, Alachua County. (Mead).

PEA APHID (Acyrtosiphon pisum) - NEW MEXICO - Generally light, up to 10 per square foot on alfalfa in Eddy and Chaves Counties. (Mathews). FLORIDA - Collected 50 nymphs and adults in 100 sweeps of alfalfa at Gainesville, Alachua County. (Mead).

ORNAMENTALS

BEET ARMYWORM (Spodoptera exigua) - CALIFORNIA - Larvae medium and damaged chrysanthemums at Redwood City, San Mateo County. (Cal. Coop. Rpt.).

TWO-SPOTTED SPIDER MITE (Tetranychus urticae) - FLORIDA - Adults severe on 98 percent of 2,000 rose plants at Miami, Dade County. (McHenry).

A LACE BUG (Stephanitis takeyai) - MARYLAND - Specimens collected on andromeda at Towson, Baltimore County, by C.W. McComb October 27, 1969. Determined by R.C. Froeschner. This is a new county record. (U. Md., Ent. Dept.).

FOREST AND SHADE TREES

SPRUCE BUDWORM (Choristoneura fumiferana) - MAINE - Egg mass survey begun in August 1969 indicates additional heavy damage to balsam fir and red spruce in 1970. Populations within areas most seriously infested in 1969 expected to double this year. (Maine For. Pest Notes, Nov.).

A SPIDER MITE (Oligonychus subnudus) - CALIFORNIA - Increasing on Monterey pine in 2-acre nursery planting at Oxnard, Ventura County. (Cal. Coop. Rpt.).

JUNIPER WEBWORM (Dichomeris marginella) - CALIFORNIA - Damage heavy on juniper in nursery at Hayward, Alameda County. Collected by P. Sweigart January 23. Determined by D.M. Weisman. Pest eradicated in 1944 and 1945. (Cal. Coop. Rpt.).

MAN AND ANIMALS

SCREW-WORM (Cochliomyia hominivorax) - No cases reported in U.S. January 25-31. Total of 58 laboratory-confirmed cases reported in portion of Barrier Zone in Republic of Mexico January 18-24 as follows: Sonora 48, Chihuahua 9, Tamaulipas 1. Total of 10 cases reported in Mexico south of Barrier Zone. Barrier Zone is area where eradication operation underway to prevent establishment of self-sustaining population in U.S. Sterile screw-worm flies released: Texas 168,000; Mexico 89,880,000. (Anim. Health Div.).

CATTLE LICE - OKLAHOMA - Mainly Haematopinus eurysternus (short-nosed cattle louse) increased to moderate on cattle in Noble County. Light in Mayes County. (Okla. Coop. Sur.). MISSOURI - H. eurysternus light on untreated and treated calves in St. Charles County. (Ronald). FLORIDA - Adults of H. quadripertusus (cattle tail louse) light on beef cattle at Ona, Hardee County. (Butler).

COMMON CATTLE GRUB (Hypoderma lineatum) - MISSOURI - Ranged up to 18 (averaged 2) per animal in untreated herd of 49 calves in St. Charles County. None observed in treated herd of 71 calves. (Ronald).

HORN FLY (Haematobia irritans) - FLORIDA - Adults ranged up to 100 (averaged 25) per animal at Ona, Hardee County. (Butler).

BROWN RECLUSE SPIDER (Loxosceles reclusa) - TENNESSEE - One specimen collected in metal telephone connector on outside of house on January 26, 1970, in Franklin County. This is a new county record. (Keener). OKLAHOMA - Heavy in garage at Stillwater, Payne County. (Okla. Coop. Sur.).

BENEFICIAL INSECTS

HONEY BEE (Apis mellifera) - ALABAMA - Honey production up 19 percent in 1969. Average colony produced 28 pounds, compared to 23 in 1968. Colonies declining, estimated at 89,000 in 1969. (Strong, Davis). TENNESSEE - Unusually low temperatures in January caused 3-5 percent loss of total colonies in State. (Little).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

CITRUS BLACKFLY (Aleurocanthus woglumi) - MEXICO - Chemical Control Zone - Inspections made of 31,627 citrus trees in 5 municipios of Nuevo Leon, 812 in 2 municipios of Tamaulipas. Found 1,087 trees infested in 3 municipios of Nuevo Leon and 2 trees at Reynosa in Tamaulipas. Inspections made of 234 citrus trees in 3 municipios of Baja California and 405 trees in 3 municipios of Sonora; all negative. Biological Control Zone - Inspected 12,285 citrus trees in municipios of Hidalgo, Guemez, and Padilla in Tamaulipas. Total of 24 trees in Guemez infested. (PPD Mex. Reg., Dec.)

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - GEORGIA - Adults collected on rural roadside near Soperton, Treutlen County, December 16, 1969, by M.M. Glover. Determined by V.H. Owens, confirmed by D.R. Smith. This is a new county record. (PPD).

PINK BOLLWORM (Pectinophora gossypiella) - NEW MEXICO - Larval mortality shows 9 out of 10 dead in cotton fields in southern Eddy County. Two fields 100 percent infested. (Mathews).

TULIPTREE SCALE (Toumeyella liriodendri) - CALIFORNIA - Survey in San Jose, Santa Clara County, completed. Last scheduled year for eradication. (Cal. Coop. Rpt.).

WOOLLY WHITEFLY (Aleurothrixus floccosus) - CALIFORNIA - First treatment applied to about 78 percent of inner control zone at San Diego, San Diego County; no second treatment made. No treatment made in outer or delimiting zones; no new finds in these zones. (Cal. Coop. Rpt.).

DETECTION

New State Record - A WIREWORM (Aeolus livens) WASHINGTON - Yakima County (p. 61).

New County Records - BROWN RECLUSE SPIDER (Loxosceles reclusa) TENNESSEE - Franklin (p. 62). IMPORTED FIRE ANT (Solenopsis saevissima richteri) GEORGIA - Treutlen (p. 62). A LACE BUG (Stephanitis takeyai) MARYLAND - Baltimore (p. 61).

LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville, 1/23-29, BL - Armyworm (Pseudaletia unipuncta) 2, black cutworm (Agrotis ipsilon) 2, granulate cutworm (Feltia subterranea) 9.

CORRECTIONS

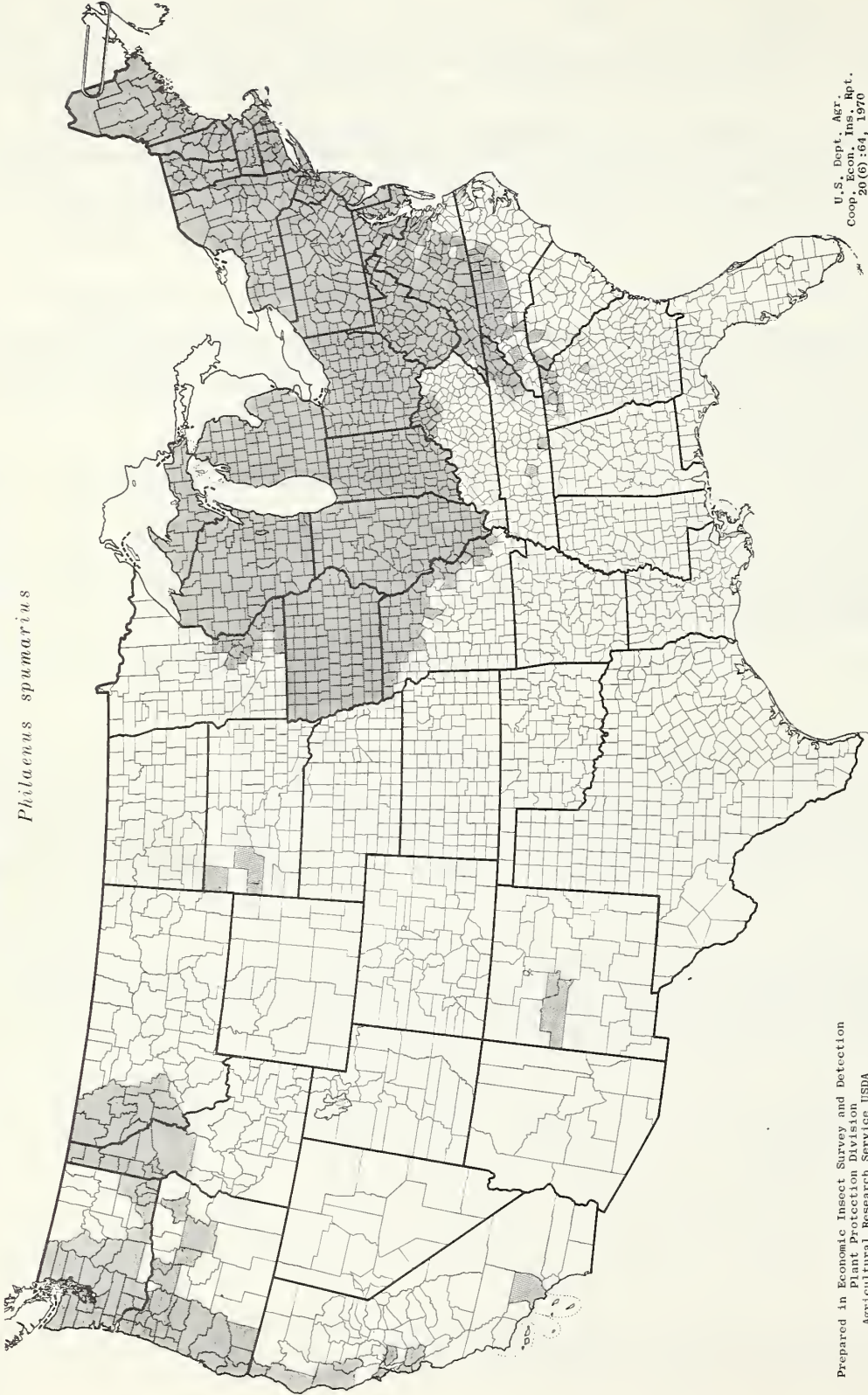
CEIR 19(39):755 - WALNUT HUSK FLY (Rhagoletis completa) for IDAHO should read AN OTITID FLY (Euxesta anna). (Gittins).

Weather of the week continued from page 60.

TEMPERATURE: Temperatures averaged above normal over most of the Nation. The exceptions were the northern and central portions of the California coast and the western portion of the Florida Peninsula. The West continued warm with temperatures much above normal until cooling late in the week dropped the temperatures to near normal. The East enjoyed the warmest weather since December. A storm system developed about midweek in the central Rocky Mountains. It moved northeastward through the Great Lakes region. Strong southerly winds ahead of the storm brought a quick warmup from the southern Great Plains to the middle Mississippi River Valley on Wednesday and the Eastern States on Thursday. A cold front dropped temperatures quickly as it moved eastward. St. Louis, Missouri, registered 76° on Wednesday but, on Thursday, the mercury climbed no higher than 37°. Richmond, Virginia, registered 75° on Wednesday but only 47° on Friday. By the weekend subfreezing weather had advanced almost to the gulf coast. Mobile, Alabama, registered 29° Saturday morning. In spite of the sharp cooling at the end of the period, much of the Missouri River Valley and upper Mississippi River Valley averaged 9° to 13° warmer than normal. (Summary supplied by Environmental Data Service, ESSA.)

Distribution of Meadow Spittlebug

Philaenus spumarius



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BLACK-STREAKED GREEN RICE LEAFHOPPER (Nephotettix apicalis Motschulsky)

Economic Importance: The cicadellid Nephotettix apicalis transmits rice stunt in Japan; transitory yellowing in Taiwan; yellow dwarf in Ceylon, Japan, Philippines, and Taiwan; and yellow orange leaf in Thailand. The other two Asian species in this genus, N. cincticeps (Uhler) and N. impicticeps Ishihara, also are vectors of several rice diseases. N. apicalis is the most important of these species partly because it has a wider Oriental and Australian distribution. Generally, rice plants infected by these viruses produce fewer grains or none at all. Adult and nymphal feeding, and oviposition cause death to plant tissue around the punctures. Heavy feeding will give the plant a salted appearance and may later cause leaf death, or loss of plant vigor. N. apicalis was intercepted 83 times since 1937; N. cincticeps 14 times since 1963; and N. impicticeps 51 times since 1964.

Distribution: Australia, Ceylon, China, India, Japan, Malaya, Micronesia, Philippines, Ryukyu Islands, Taiwan, and Thailand.

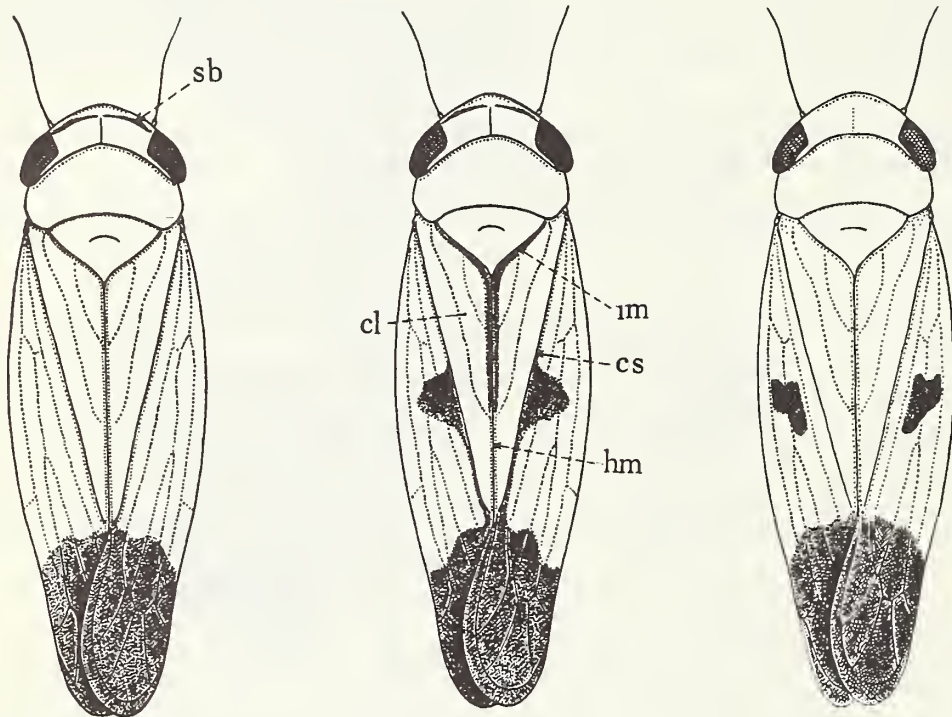
Hosts: Rice is the principle host, but also attacks wheat, sugarcane, foxtail millet, and wild grasses.



General Distribution of Nephotettix apicalis (Motschulsky)

Life History and Habits: In the Philippines N. apicalis feeds mainly on rice but also on wild grasses. Egg and nymphal stages vary from 5 to 7 days and from 14 to 19 days respectively. Females begin oviposition 2-3 days after emergence. In Japan there are about 4-5 generations per year. Eggs are deposited in groups of 1-10 in the leaf tissue along the midrib. The female deposits over 100 eggs.

Description: Adult male color pattern is as follows: N. apicalis tegminal black central spots visible, often meeting along claval suture to the apical black markings. Clavus also often smoky gray-brown, with a blackish tinge along inner and hind margins. N. cincticeps tegminal black central spots rarely present. N. impicticeps vertex without submarginal black band. Tegminal central black spots present or absent. Females of these species are difficult to identify from only one specimen.



Nephotettix cincticeps Nephotettix apicalis Nephotettix impicticeps

Illustrations of typical male forms

cl, clavus; cs, claval suture;
hm, hind margin of tegmen; im, inner
margin of tegmen; sb, submarginal
band.

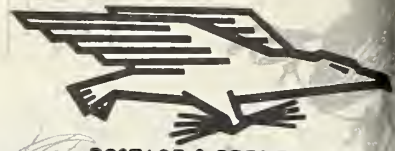
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