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# Cooperative ECONOMIC INSECT REPORT

JAN 21 1971
COMMENT SERIAL RECORDS

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 clearing house and does not assume responsibility for accuracy of the material.

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#### COOPERATIVE ECONOMIC INSECT REPORT

#### **HIGHLIGHTS**

#### Current Conditions

GREENBUG moving into grain fields in California. Heavy on small grains in Rolling Plains of Texas and in parts of Oklahoma. (p. 23).

SPOTTED ALFALFA APHID damaged seedling alfalfa in California. Heavy in portions of Oklahoma. (p. 23).

ENGRAVER BEETLES and a WEEVIL damaged pines in California. (p. 25).

NORTHERN FOWL MITE troublesome on poultry in Virginia. (p. 26).

#### Detection

For new county and island records see page 26.

Reports in this issue are for week ending January 8 unless otherwise indicated.

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#### WEATHER OF THE WEEK ENDING JANUARY 11

HIGHLIGHTS: Extremely cold temperatures prevailed over most of the Nation. Heavy snow fell in some of the Northern border States and over the weekend in northern portions of the Gulf States. Freezing rain south of the snow belts glazed highways and made driving treacherous.

PRECIPITATION: A severe storm centered over Lake Michigan, Monday, dumped heavy snow over Wisconsin and Upper Michigan. La Crosse, Wisconsin, received 16 inches in 4 hours, the greatest amount ever recorded at La Crosse in that length of time. Strong winds behind storms drifted snow badly, especially in Minnesota and Iowa. Meanwhile, shower and thunderstorm activity was widespread over the Southeast and rain fell in the Middle and Southern Atlantic Coastal States. Snow flurries occurred from the Ohio River Valley to the Appalachians and New England. Precipitation was mostly light at midweek. Snow showers dotted the northern portion of the Great Basin and the northern Rocky Mountains. Snow also fell in the lee of the Great Lakes. Rain dampened the Atlantic States. Shortly after midweek a storm developed over the Gulf of Mexico. It dumped several inches of snow in northern portions of Mississippi and Alabama. Two weekend storms affected weather in the continental United States. One storm brought wet and windy conditions to the Pacific Northwest. Rain fell along the coast with snow in the mountains and eastward to the northern Great Plains. Freezing rain slicked highways in parts of Oregon and Idaho. By Saturday evening, Lincoln, Montana, near the Continental Divide had received 15 inches of new snow. The other storm brought freezing rain from northern Louisiana to Virginia and rain southward to the gulf coast. Freezing rains made highway driving treacherous. Ice accumulated on trees, poles, and wires. Limbs and wires broke. Electric service was interrupted up to 12 hours in the Athens, Georgia, vicinity. Weekly precipitation totals exceeded 2.0 inches along the coast of Washington and Oregon and over southern portions of Alabama, Georgia, and South Carolina. Most of the area from central and southern California to the Mississippi River received rain or only light snow flurries or sprinkles.

Weather of the week continued on page 28.

#### SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ASTER LEAFHOPPER (Macrosteles fascifrons) - FLORIDA - Adults 3 in 100 sweeps of 4 to 6-inch alfalfa at Gainesville, Alachua County. (Mead).

GREENBUG (Schizaphis graminum) - TEXAS - Some concern to small grains in Rollings Plains during late December. Heavy and widespread in Motley County. Heavy in fields examined near Matador and Whiteflat. Yellow spots indicated some damage due perhaps to greenbugs and dry weather. Still light in South Plains and panhandle areas. (Pallmeyer et al.). OKLAHOMA - Ranged per foot by county: Roger Mills 10-300 on wheat; Caddo 10-100; Custer, Washita, Beckham, and Kiowa 20-70; Jackson 10-50; and Wagoner 0-10. Heavy in Cotton County. (Okla. Coop. Sur.). CALIFORNIA - Built up on volunteer grain, now moving into grain fields. Some moved from alfalfa with small grains as a nurse crop. Sticky boards indicate some movement of adults in Imperial Valley, Imperial County. (Cal. Coop. Rpt., Jan. 1).

SPOTTED ALFALFA APHID (Therioaphis maculata) - CALIFORNIA - Damaged seedlings of nonresistant alfalfa varieties in Imperial Valley, Imperial County; treatments needed. New bio-type designated as Ent. F infested Moapa alfalfa; 3 bio-types now in the valley. (Cal. Coop. Rpt., Jan. 1). OKLAHOMA - Up to 1,000 per square foot on fall-seeded alfalfa in Kiowa County and up to 400 per square foot in Tillman County. Heavy in fall-seeded fields in Alfalfa County. Moderate in Grady County. (Okla. Coop. Sur.). FLORIDA - Nymphs and adults 1,500 in 100 sweeps of 4 to 6-inch alfalfa at Gainesville, Alachua County. (Mead).

#### CORN, SORGHUM, SUGARCANE

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - OKLAHOMA - Larvae averaged 20 per 100 dry cornstalks in Okmulgee County field. (Okla. Coop. Sur.).

#### SMALL GRAINS

WINTER GRAIN MITE (Penthaleus major) - OKLAHOMA - Heavy on wheat in Cotton County. Light, up to 50 per foot, in most fields checked in Custer, Washita, Beckham, Caddo, Roger Mills, and Kiowa Counties. Ranged 2-5 per foot in Wagoner and Mayes Counties. (Okla. Coop. Sur.).

BROWN WHEAT MITE (Petrobia latens) - OKLAHOMA - Averaged 50 per foot of wheat in area of southeastern Jackson County. (Okla. Coop. Sur.).

AN APHID (Rhopalosiphum padi) - OKLAHOMA - Light, up to 20 per foot of wheat in Washita County. (Okla. Coop. Sur.).

#### TURF, PASTURES, RANGELAND

A MARCH FLY (Dilophus orbatus) - CALIFORNIA - Larvae heavy in lawns at Santa Maria, Santa Barbara County. (Cal. Coop. Rpt.).

#### FORAGE LEGUMES

EGYPTIAN ALFALFA WEEVIL (Hypera brunneipennis) - ARIZONA - Adults averaged 40 per 100 sweeps in alfalfa field on Yuma Mesa, Yuma County. (Ariz. Coop. Sur.).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - FLORIDA - Adults 16 in 100 sweeps of 4 to 6-inch alfalfa at Gainesville, Alachua County. (Mead).

PEA APHID (Acyrthosiphon pisum) - NEW MEXICO - Light on Dona Ana County alfalfa. (N.M. Coop. Rpt., Dec. 29). FLORIDA - Nymphs and adults 50 in 100 sweeps of 4 to 6-inch alfalfa at Gainesville, Alachua County. (Mead).

CLOVER MITE (Bryobia praetiosa) - ARIZONA - Averaged 25 per sweep in alfalfa field on Yuma Mesa, Yuma County. (Ariz. Coop. Sur.).

#### GENERAL VEGETABLES

GREEN PEACH APHID (Myzus persicae) - ARIZONA - One lettuce field treated at Yuma, Yuma County. (Ariz. Coop. Sur.).

#### CITRUS

Insect Situation in Florida - End of December - CITRUS RUST MITE (Phyllocoptruta oleivora) infested 78 (norm 62) percent of groves; economic in 62 (norm 43) percent. Population decreased but still above normal and in high range on leaves and fruit. Further decrease predicted. Highest districts west, south, central, and north. CITRUS RED MITE (Panonychus citri) in 44 (norm 35) percent of groves: economic in 16 (norm 12) percent. Increased and now above normal low level. Although most infestations will be light, a few heavy infestations may be expected in scattered groves. Highest districts central and west. TEXAS CITRUS MITE (Eutetranychus banksi) in 31 (norm 38) percent of groves; economic in 12 (norm 14) percent. In low range and below normal abundance for yearend. Slight decrease expected. Highest districts central and east. GLOVER SCALE (Lepidosaphes gloverii) in 83 (norm 68) percent of groves; economic in 6 (norm 11) percent. Slightly above normal and in moderate range. Infestations generally will be numerous but most will be light. Highest districts north and south. PURPLE SCALE (L. beckii) in 77 (norm 69) percent of groves; economic in 6 (norm 6) percent. At moderate level and near normal abundance. Little change predicted. Highest districts west and north. BLACK SCALE (Saissetia oleae) in 38 (norm 40) percent of groves; economic in 14 (norm 16) percent. Recent periods of freezing weather reduced population to low level normal for yearend. Further decrease expected. Highest districts west and central. YELLOW SCALE (Aonidiella citrina) in 41 (norm 62) percent of groves; economic in 4 (norm 11) percent. Will remain low and below normal despite predicted increase. Highest district is east. CHAFF SCALE (Parlatoria pergandii) in 42 (norm 51) percent of groves; economic in 2 (norm 6) percent. Will remain low and below normal in all districts. An ARMORED SCALE (Unaspis citri) infested 25 percent of groves; moderate or heavy in 14 percent. Decreased slightly in December. Increase expected in January. WHITEFLIES infested 65 (norm 69) percent of groves; economic in 3 (norm 14) percent. Dropped below normal and into low range for first time since September 1969. Will remain low. Highest districts east and west. (W.A. Simanton (Citrus Expt. Sta., Lake Alfred)).

BROWN SOFT SCALE (Coccus hesperidum) - ARIZONA - Generally infested another 5-acre grove at Yuma, Yuma County. (Ariz. Coop. Sur.).

CALIFORNIA RED SCALE (Aonidiella aurantii) - CALIFORNIA - Heavy on grapefruit nursery stock at Hanford, Kings County. (Cal. Coop. Rpt.).

WESTERN FLOWER THRIPS (Frankliniella occidentalis) - CALIFORNIA - Infested orange trees in Bard Valley, Imperial County. (Cal. Coop. Rpt.).

SPIDER MITES - ARIZONA - Panonychus citri (citrus red mite) averaged 73.96 per lemon leaf on Yuma Mesa, Yuma County. Trees very closely spaced and not hit as hard by frost. Eutetranychus banksi (Texas citrus mite) averaged 2.04 per leaf in citrus grove on Yuma Mesa. (Ariz. Coop. Sur.).

#### OTHER TROP. & SUBTROP. FRUITS

PINEAPPLE SCALE (Diaspis bromeliae) - CALIFORNIA - Ten per leaf on Ananas sp., nursery stock in tropical nursery at Stockton, San Joaquin County. (Cal. Coop. Rpt.).

BLACK SCALE (Saissetia oleae) - ARIZONA - On fig trees in residential Yuma, Yuma County. (Ariz. Coop. Sur.).

#### ORNAMENTALS

A SCARAB (Dyscinetus morator) - FLORIDA - First time actual damage confirmed on caladium bulbs. Occurred at bulb farm near Lake Placid, Highlands County. (Barker, Dec. 30).

GREEN PEACH APHID (Myzus persicae) - NEW MEXICO - Heavy on Christmas peppers at Bosque Farms, Valencia County, and Albuquerque, Bernalillo County. (Heninger).

GRASSHOPPERS - NEW MEXICO - Damaged orchids and chilli peppers in large greenhouse at Los Chavez, Valencia County. (Heninger).

#### FOREST AND SHADE TREES

ENGRAVER BEETLES (<u>Ips</u> sp.) - CALIFORNIA - Infested knobcone pine saplings and poles in 2 stands of 1,000-1,500 acres in Coffee Creek area, Shasta National Forest. About 5,000 trees involved. (Cal. Coop. Rpt., Jan. 1). Probably <u>Ips</u> buildup in piled logging slash browned tops of many ponderosa pines in 200-acre stand at Carrville, Shasta-Trinity National Forest; trees fading. (Gustafsen, USFS, Jan. 1).

WESTERN PINE BEETLE (Dendroctonus brevicomis) - CALIFORNIA - Infested 5-50 acres in each location of 12-50 trees in each area in Old Tumble Ranch, New York. Place, and Ramshorn Creek in Shasta-Trinity National Forest. (Stewart, USFS, Jan. 1).

A WEEVIL (Cylindrocopturus eatoni) - CALIFORNIA - Seriously damaged ponderosa and Jeffrey pines in a plantation and 1,000 Jeffrey pines on 14-acre area, and infested one-third of 25-acre ponderosa pine plantation in Shasta County. (Wickwire, USFS, Jan. 1).

BLACK PINE-LEAF SCALE (Nuculaspis californica) - CALIFORNIA - Up to 25 per needle on pines in Capay Valley and Rumsey, Yolo County. (Cal. Coop. Rpt.).

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - MISSISSIPPI - Light on young pine in Perry County seed orchard; still present month after initial attack. (Sartor, Jan. 1).

AN ARMORED SCALE (Hemiberlesia quercicola) - CALIFORNIA - Infested oaks at Murrieta, Riverside County, for a new county record. Collected by R.J. Gill December 8, 1970. Identified by R. Wilkey. (Cal. Coop. Rpt.).

A LEAFHOPPER (Alconeura quadrimaculata) - CALIFORNIA - Nymphs and adults averaged 4 per leaf on pussy willow nursery stock at Fresno, Fresno County. (Cal. Coop. Rpt.).

A CYNIPID WASP (Callirhytis milleri) - CALIFORNIA - Larvae 6 per acorn on oaks at Magalia, Butte County. (Cal. Coop. Rpt.).

AN ERIOPHYID MITE (Aculops magnolivora) - CALIFORNIA - Infested 450 southern magnolia nursery trees at Woodland Hills, Los Angeles County. (Cal. Coop. Rpt.).

#### MAN AND ANIMALS

SCREW-WORM (Cochliomyia hominivorax) - No cases reported in U.S. January 3-9. Total of 71 Taboratory-confirmed cases reported in portion of Barrier Zone in Republic of Mexico as follows: Sonora 62, Chihuahua 3, Nuevo Leon 1, Tamaulipas 5. Total of 15 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 7,518,000; Mexico 113,080,000. (Anim. Health Div.).

COMMON CATTLE GRUB (<u>Hypoderma lineatum</u>) - OKLAHOMA - Averaged 20 per head on yearlings checked in Roger Mills County. Moderate in Mayes and Craig Counties. Light in Choctaw County. (Okla. Coop. Sur.).

HORN FLY (Haematobia irritans) - FLORIDA - Averaged 7.3 per cow on dairy farm at Gainesville, Alachua County. (Butler).

SHORT-NOSED CATTLE LOUSE (Haematopinus eurysternus) - OKLAHOMA - Mostly this louse 1-2 per hair part on cattle in Payne County, heavy in Craig and Cotton Counties, and moderate in Mayes County. (Okla. Coop. Sur.).

CATTLE FEVER TICKS (Boophilus spp.) - TEXAS - Specimens collected by county; 3 Webb and 1 Hidalgo. All recovered within quarantine zone during December 1970. (Anim. Health Div.).

BROWN DOG TICK (Rhipicephalus sanguineus) - MARYLAND - Still active. Infested home at Towson, Baltimore County. (U. Md., Ent. Dept.).

DERMANYSSID MITES (Ornithonyssus spp.) - VIRGINIA - O. sylviarum (northern fowl mite) light to heavy on 25,000 birds at Salem, Roanoke County. Collected by J.E. Roberts. (Allen). MARYLAND - O. bursa (tropical fowl mite) heavily infested apartment at Oxon Hill, Prince Georges County. Pigeons nesting on air conditioners source of infestation. (U. Md., Ent. Dept.).

#### HOUSEHOLDS AND STRUCTURES

GERMAN COCKROACH (Blattella germanica) - VIRGINIA - Very heavy in duplex in Montgomery County. (Allen, Dec. 7).

OLD-HOUSE BORER (Hylotrupes bajulus) - TENNESSEE - Found in cabin in Hardin County for a new county record. (Smith).

#### BENEFICIAL INSECTS

A BRACONID (Lysiphlebus testaceipes) - OKLAHOMA - Adults active in Schizaphis graminum (greenbug)-infested wheat in Jackson County. (Okla. Coop. Sur.).

#### DETECTION

New County and Island Records - An ARMORED SCALE (Hemiberlesia quercicola)

CALIFORNIA - Riverside (p. 25). A NOCTUID MOTH (Melipotis indomita) HAWAII 
Lanai (p. 27). OLD-HOUSE BORER (Hylotrupes bajulus) TENNESSEE - Hardin (p. 26).

#### LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville, 1/1-7, BL - Black cutworm (Agrotis ipsilon) 3, granulate cutworm (Feltia subterranea) 6.

#### HAWAII INSECT REPORT

General Vegetables - LEAF MINER FLIES (Liriomyza spp.) generally trace in egg-plant and green onion at Haleiwa, Hauula, and Kahuku, Oahu; mines moderate on older leaves in acre of snap beans at Waianae, Oahu; adults 1 per 3 leaves.

CARMINE SPIDER MITE (Tetranychus cinnabarinus) moderate to heavy on older leaves in 1.25 acres of eggplant at Hauula; up to 100+ per square inch of leaf.

(Kawamura, Jan. 1). Currently, GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) adults light in 0.25 acre of cucumber, 3,000 square feet of tomato, and 0.1 acre of broccoli at Kahului, Maui. All stages trace in acre each of tomato, white mustard cabbage (Brassica chinensis), and daikon (Raphanus sativus longipinnatus) at Waianae. Moderate in 0.25 acre of zucchini at Kahului and in 1.5 acres of eggplant at Haleiwa. (Miyahira, Kawamura). BEAN FLY (Melanagromyza phaseoli) larval damage light in yard planting of snap beans at Keokea, Maui. On Kauai, infestedpetioles of cowpeas and snap beans 95 percent parasitized by Opius spp. (braconids). (Miyahira, Sugawa). CABBAGE WEBWORM (Hellula rogatalis) trace in 1.5 acres and nil in adjacent acre of white stem cabbage at Waianae; nil in 0.5 acre of daikon. (Kawamura).

Fruits - MEDITERRANEAN FRUIT FLY (Ceratitis capitata) damage heavy to ripe fruits on 12 orange and tangerine trees at upper Omapio, Maui (elevation 2,500 feet). (Miyahira, Jan. 1).

Ornamentals - Nymphs and adults of a LEAFHOPPER (Protalebrella brasiliensis) heavy, as many as 10 per sweep, in ground cover planting of Lippia at Halawa Heights, Oahu. Nymphs and/or adults decreased from 2 per leaf in late October to 1 per 5 leaves in landscape planting at Wedelia at Moanalua, Oahu. (Funasaki, Kawamura).

Forest and Shade Trees - Larval damage by a NOCTUID MOTH (Melipotis indomita) moderate on roadside kiawe trees at Nuu and Maalaea, Maui, week of January 1. Adults 200+ in light trap set in dense kiawe growth at Hickam Air Force Base, Oahu. Larvae no longer found in loose bark of monkeypod trees at Waianae and Honolulu. (Shiroma et al.). Currently, many adults noted in kiawe and koa haole at Lanai City, Lanai, for a new island record. Now reported from every major island in State. (Au).

Man and Animals - CLUSTER FLY (Pollenia rudis) adults very annoying to residents at Paauilo, Waimea, and Kohala, Hawaii. Numbers heavy in buildings and at large at Ahualoa Homestead, Alae, Pahoehoe and Saddle Road, Hawaii. (Yoshioka et al.). Trapped 755 VEXANS MOSQUITO (Aedes vexans nocturnus) and 3,963 SOUTHERN HOUSE MOSQUITO (Culex pipiens quinquefasciatus) in 55 light traps on Oahu during December. Aedes up to 481 per trap at Punaluu. Culex up to 1,366 at Kaneohe. (Mosq. Cont. Br., Dept. of Health).

Beneficial Insects - Over 100 adults of an ENCYRTID WASP (Copidosoma truncatellum) emerged from a larva of Chrysodeixis chalcites (a noctuid moth) collected on Wedelia trilobata at Manoa, Oahu. Probably parasitized 2 other larvae also. (Rose, Jan. 1). SOUTH AFRICAN EMEX WEEVIL (Apion antiquum) adults moderate on emex (Emex spinosa) seedlings at Waiakoa, Maui. (Miyahira, Jan. 1). Currently, the average percent infestation by MELASTOMA BORER (Selca brunella) in fruits and terminals of Indian rhododendron (Melastoma malabathricum) on Hawaii and Kauai were 47 and 18 percent respectively. (Yoshioka, Sugawa).

Miscellaneous Pests - Destroyed 554 snails, mostly juveniles, of GIANT AFRICAN SNAIL (Achatina fulica) at Poipu, Kauai, during December; 8 at Wahiawa. Poison bait applications continue. (Sugawa). Adults of probably this GEOMETRID MOTH (Semiothisa santaremaria) taken in light traps at Hickam Air Force Base (3) and Ewa (8), Oahu, December 26 to January 1. Adults noted at Ewa and Waianae. (Au, Shiroma).

Weather of the week continued from page 22.

TEMPERATURE: Cold air plunged southward behind a storm centered over Lake Michigan on Monday. The temperature at Cotulla, Texas, dropped 60° in about 18 hours from 96° Sunday afternoon to 36° Monday morning. Flagstaff, Arizona, registered 22° below zero Monday morning January 4. By Tuesday, Arctic air covered the West from Canada to Mexico. By Wednesday, subzero temperatures were common from the northern Rocky Mountains to southern New Mexico and northeastward to Lakes Superior and Michigan. The highest temperature at Rock Springs, Wyoming, Tuesdav afternoon was 18° below zero. Hawley Lake, Arizona, registered 39° below zero Wednesday morning. Frazer, Colorado, recorded  $42^\circ$  below zero Thursday. The mercury at Albuquerque, New Mexico, plunged to 17° below zero Thursday morning. That is the coldest temperature ever recorded at Albuquerque. Other cold temperature readings included 47° below zero at Antero Reservoir, Colorado, and some unofficial readings in the Colorado Rockies of minus 50° or colder. The temperature at Moline, Illinois was minus 13° and minus 17° on Wednesday and Thursday respectively. Cold temperatures continued over most the the Nation over the weekend. Subzero weather occurred in northern New York and New England on 1 or 2 mornings. Massens, New York, registered 25° below zero Saturday morning. Some warming occurred in the central Great Plains. Temperatures in Missouri reached the 40's Saturday which is near normal for early January. A new storm dropped minimum temperatures in Montana to near zero Saturday morning and to below zero over most of the State Sunday morning. Temperatures averaged much below zero over almost the entire Nation. Most of the northern and central Great Plains and from southeastern Nevada to central Tennessee averaged more than 10° colder than normal. Above normal temperatures continued in the Florida Peninsula. (Summary supplied by Environmental Data Service, ESSA.)



