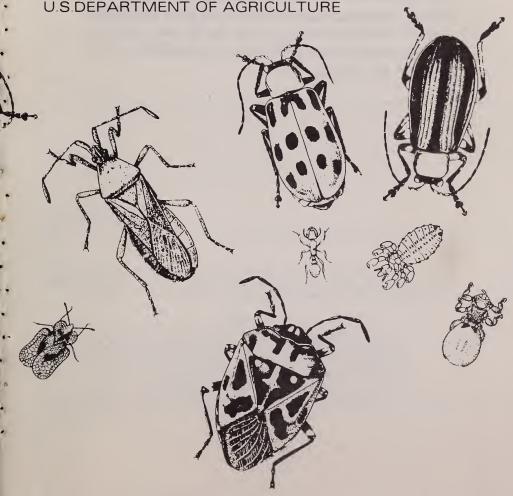
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Cooperative ARICULTURE ARICULTURE

PLANT PROTECTION AND QUARANTINE PROGRAMS
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
U.S.DEPARTMENT OF AGRICULTURE



ANIMAL AND PLANT HEALTH INSPECTION SERVICE PLANT PROTECTION AND QUARANTINE PROGRAMS PEST SURVEY AND TECHNICAL SUPPORT STAFF

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 Service serves as a clearing house and does not assume responsibility for accuracy of the material.

All reports and inquiries pertaining to this release, including the mailing list, should be sent to:

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Hyattsville, Maryland 20782

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

FALL ARMYWORM damaged early planted small grains in most areas of Oklahoma, and lawns and pastures in several areas of State. Also heavy on coastal and native grasses in south-central and Coastal Bend areas of Texas. (p. 694).

MEADOW SPITTLEBUG survey in Illinois showed populations to be noneconomic again in 1972 as for past several years. (p. 694).

Fall survey for EUROPEAN PINE SHOOT MOTH in eastern Multnomah County, Oregon, where this pest found in spring of 1972, revealed no larvae or suspect damage. (p. 696).

Infestation of a TORTRICID MOTH on over 150,000 acres of mixed oak in Sproul State Forest in Pennsylvania collapsed but left many dead or dying trees. (p. 697).

Prediction

GRASSHOPPERS not expected to be problem on legumes in Illinois in 1973. (p. 694).

Detection

For new county and island records see page 701.

Special Reports

Mediterranean Fruit Fly. Selected References 1967-1969. (pp. 702-706).

Whitefringed Beetle Quarantines. Map. (Centerfold).

Reports in this issue are for week ending October 6 unless otherwise indicated.

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of Regional Significance

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WEATHER OF THE WEEK ENDING OCTOBER 9

Reprinted from Weekly Weather and Crop Bulletin supplied by Environmental Data Service, NOAA.

PRECIPITATION: A High over the Pacific Northwest and another High over the East early in the week brought widespread typical fine weather to most of the Nation. A weak Low over the upper Mississippi River Valley produced scattered showers from the Great Lakes to Tennessee and the quasi-stationary front across the Florida Peninsula set off moderate to heavy local showers. After midweek, Hurricane Joanne, about 500 miles south of San Diego, California, became tropical storm Joanne and moved across northern Mexico. It became an extra tropical Low and produced heavy rains over portions of the Desert Southwest. About 3 inches of rain fell in the Prescott and Flagstaff, Arizona, area in 24 hours. A 4-day total for Phoenix was 1.93 inches which is more than 4 times the normal rainfall for Phoenix for the entire month of October, Sunflower, Arizona, about 50 miles northeast of Phoenix, received 5.38 inches in 4 days. Heavy rains damaged cotton but filled reservoirs. Upslope winds caused mixtures of rain, sleet, and snow on the eastern slopes of the northern Rocky Mountains. Meanwhile, the storm intensified off the coast of North Carolina. Onshore winds brought moisture to the hill country along the Middle Atlantic States. Almost 11 inches fell at Amelia, Virginia, about 45 miles southwest of Richmond. Three-day totals over interior Virginia ranged from 6 to 12 inches with slightly lesser amounts from western Maryland to North Carolina. The 3-day intense rains caused serious flooding at Richmond, Virginia, on the Hames River and the worst flooding in the 20th century at Petersburg on the Appomattox River. Light to moderate showers also fell over Nevada, Utah, and the northern and central Great Plains. No important rain fell in Washington, Oregon, or Idaho. The large area from western Kansas to the Rio Grande and eastward to southern Georgia received no rains or only widely scattered light sprinkles. Weather of the week continued on page 701.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

CORN EARWORM (Heliothis zea) - OREGON - Infested late-planted corn at Willamette Valley. Damage appears spotty, some infestations up to 80 percent. (Penrose). MISSOURI - Light, 1 per 10 row feet, in very late-planted soybeans in southwest area. Most larvae full grown. (Munson). OKLAHOMA - Averaged 1 per head in some fields of late grain sorghum in Payne County. Some fields treated. Ranged 1-5 per 10 sweeps in alfalfa in Grady and Canadian Counties. (Okla. Coop. Sur.). MISSISSIPPI - Averaged 0.2 per head in grain sorghum in Washington County. (Robinson). DELAWARE - Adults ranged 2-3 per night in blacklight trap collections in Sussex County. (Burbutis, Kelsey).

CORN LEAF APHID (Rhopalosiphum maidis) - MICHIGAN - Noted in late-planted wheat seedlings. Alates ranged 1-2 per seedling in Genesee County field. Although no threat present, number unusually heavy for time of year. (Johnson, Ruppel). NEW MEXICO - Light on barley at Roswell, Chaves County. (N.M. Coop. Rpt.).

GREENBUG (Schizaphis graminum) - SOUTH DAKOTA - Increased in winter wheat in central and western areas. Infestations less than 10 per linear row foot in some winter wheat fields north and west of Wall, Pennington County. Ranged up to 200 per linear row foot in other fields. Colonies fed on leaf surfaces and at ground level. Infestations light, 10 or less per linear row foot, in fields north of Wasta, Pennington County. S. graminum in untreated winter wheat near Kennebec, Lyman County, averaged 995 per 3 linear row feet. Damage in untreated winter wheat expected to continue. (Jones). OKLAHOMA - Very light in few wheat fields in Kingfisher, Grady, and Blaine Counties. (Okla. Coop. Sur.). NEW MEXICO - Ranged 2-7 per linear foot in Curry and Roosevelt County wheat fields. (N.M. Coop. Rpt.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - Average counts per 10 sweeps of alfalfa in Yuma County: Dome Valley 140, Yuma Mesa 140, Gila Valley 240. (Ariz. Coop. Sur.). OKLAHOMA - Light, up to 30 per 10 sweeps, in alfalfa in Canadian, Grady, and Caddo Counties. (Okla. Coop. Sur.).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - DELAWARE - Adults averaged less than 1 per night in blacklight traps at 5 locations in Sussex County. (Burbutis, Kelsey). KENTUCKY - Percent plants infested (fall survey) and number of borers per 100 plants, respectively, by county: Webster 9.6 and 0.8; Union 53.6 and 19.6; Graves 24.8 and 4.8; Henderson 17.7 and 14.6. (Barnett). NEBRASKA - In all districts surveyed, populations lighter than in 1971; stalk damage and ear drop light. (Peters et al.). MINNESOTA - Fall survey underway. Populations in south-central district decreased, averaged 18.7 per 100 plants. Populations expected to be light in all other survey districts in State. Second generation about as light and unsuccessful as first generation. (Minn. Pest Rpt.).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - OKLAHOMA - Infested 10-40 percent of cornstalks in Texas County. (Okla. Coop. Sur.). ARIZONA - Heavy in sorghum stalks northwest of Phoenix, Maricopa County. (Ariz. Coop. Sur.).

SORGHUM WEBWORM (Celama sorghiella) - MISSISSIPPI - Larvae ranged 4-8 per head in grain sorghum in Washington County. (Robinson).

SMALL GRAINS

FALL ARMYWORM (Spodoptera frugiperda) - OKLAHOMA - Damage moderate to heavy in early planted small grains in most areas of State. Later planted fields generally show little damage. (Okla. Coop. Sur.). MISSISSIPPI - Averaged 3 per square foot in 60 acres of wheat and ryegrass in Pontotoc County. (Robinson).

TURF, PASTURES, RANGELAND

FALL ARMYWORM (Spodoptera frugiperda) - TEXAS - Heavy on coastal and native grasses throughout south-central and Coastal Bend areas. Medium to heavy infestations noted in Burleson County. Controls needed. (Cole, Green). OKLAHOMA - Heavy, damaged lawns and pastures in some areas of Latimer, Marshall, Bryan, Garvin, and Kingfisher Counties. (Okla. Coop. Sur.).

A NOCTUID MOTH (Heliothis paradoxa) - ARIZONA - Larvae moderate in many Bermuda grass seed fields at Yuma, Yuma County. (Ariz. Coop. Sur.).

A WHITEFLY (Aleurocybotus occiduus) - ARIZONA - Expected to be problem when Bermuda grass seed cleaned as honeydew heavy in many fields in Yuma County. (Ariz. Coop. Sur.).

RHODESGRASS SCALE (Antonina graminis) - ARIZONA - Heavy in some Bermuda grass lawns in Salt River Valley, Maricopa County. (Ariz. Coop. Sur.).

FORAGE LEGUMES

ALFALFA CATERPILLAR (Colias eurytheme) - OKLAHOMA - Ranged 2-25 per 10 sweeps in alfalfa in Grady and Canadian Counties. (Okla. Coop. Sur.). TEXAS - Larvae heavy in some alfalfa in Wilbarger County. Much foliage destroyed and controls applied in some cases. Adults heavy in alfalfa in Wilbarger County past 14 days. (Boring). NEW MEXICO - Very light on alfalfa at Roswell, Chaves County. (N.M. Coop. Rpt.).

ALFALFA LOOPER (Autographa californica) - OREGON - Adult activity increased in Keizer and St. Paul areas of Marion County. Black-light trap counts at Keizer increased from 4 during period ending September 26 to 16 for period ending October 4. At St. Paul, counts increased from 2 to 10 for same periods. (Penrose).

ALFALFA WEEVIL (Hypera postica) - MISSOURI - Adults ranged 2-11 per sweep of alfalfa in southwest and west-central areas. Fresh egg punctures seen in all fields checked. (Munson).

MEADOW SPITTLEBUG (Philaenus spumarius) - ILLINOIS - Populations in alfalfa and clover light again in 1972. Averaged less than one adult per sweep. Heaviest in northeast district; averaged 0.7 per sweep. Populations considered noneconomic. (Ill. Ins. Rpt.).

GRASSHOPPERS - ILLINOIS - Ranged 2.2-3.6 per square yard in alfalfa and clover in northernmost 5 districts surveyed. Averaged 2.7 per square yard statewide. Not expected to be problem in 1973. (Ill. Ins. Rpt.).

SOYBEANS

BEET ARMYWORM (Spodoptera exigua) - TEXAS - Infestations of this species, Trichoplusia ni (cabbage looper), and Acrosternum hilare (green stink bug) heavily damaged soybeans in Matagorda County past 7 days. (Cole).

SOYBEAN LOOPER (Pseudoplusia includens) - ALABAMA - Young larvae of this species and Trichoplusia ni (cabbage looper) ranged 100-200 per 1-2 row feet of soybeans in plot in Prattville field, Autauga County, September 29. Controls planned. (Henderson et al.).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MISSISSIPPI - Averaged 1.4 per row foot in soybeans in Washington County. (Robinson). ALABAMA - Light populations fed on leaves during August and September in most all soybean fields in west area; infestations much lighter than past 2 years. (Lashley et al.).

GREEN STINK BUG (Acrosternum hilare) - OKLAHOMA - Adults and nymphs ranged 10-15 per soybean plant in some areas of Garvin and Payne Counties. (Okla. Coop. Sur.).

TOBACCO

TOBACCO BUDWORM (Heliothis virescens) - NORTH CAROLINA - Larvae heavy on regrowth tobacco in Coastal Plain, especially on sucker growth of cut stalks not plowed out. Spot checks revealed 1 larva per bud (often 5+ per cut stalk) in fields from Wilson County southward. Parasitism low. (Ganyard).

MISCELLANEOUS FIELD CROPS

PYRALID MOTHS (<u>Pyrausta</u> spp.) - OREGON - <u>P. ochosalis</u> and <u>P. fumalis</u> are new pests of peppermint in State. Larvae feed within underground stems (rhyzomes) causing infested plants to wilt. Death of plant may follow, resulting in stand reduction. Present distribution data fragmentary. One or both species found in Umatilla, Benton, Linn, and Polk Counties. Known infestations involve about 500 acres in eastern part of State and 200-500 acres in Willamette Valley. (Berry, Sept. 29).

CORN ROOTWORMS (Diabrotica spp.) - COLORADO - Adults of D. undecimpunctata howardi (southern corn rootworm) and D. virgifera (western corn rootworm) heavy in pumpkin field in Fort Collins area, Larimer County. (Colo. Ins. Sur.).

POTATOES, TOMATOES, PEPPERS

BANDEDWING WHITEFLY (Trialeurodes abutilonea) - TENNESSEE - Adults, immatures, and eggs heavy on tomatoes in Davidson County. (Stamey, Greene).

DECIDUOUS FRUITS AND NUTS

LESSER APPLEWORM (Grapholitha prunivora) - IDAHO - Heavy in some orchards and backyard trees in Canyon County where last cover sprays omitted or short residual sprays used. (Homan).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Decreased on pecans throughout south-central area past 7 days. Some damage reported on pecans and persimmons in counties adjoining Guadalupe County. (Cole).

ORNAMENTALS

AZALEA LACE BUG (Stephanitis pyrioides) - FLORIDA - Adults very heavy on 90 percent of 300 azalea plants at Winter Garden, Orange County. (Fla. Coop. Sur.).

BANDEDWING WHITEFLY (Trialeurodes abutilonea) - TENNESSEE - Adults, immatures, and eggs heavy on shrubbery in Davidson County. (Greene, Stamey).

TEA SCALE (Fiorinia theae) - ALABAMA - Infested 90+ percent of all Camellia japonica shrubs throughout State. Most important scale on camellia and Burford holly in State. (McQueen).

AN ARMORED SCALE (Pseudaonidia clavigera) - FLORIDA - Adults light on 5 camellia plants at nursery at Sarasota, Sarasota County. This is a new county record. (Fla. Coop. Sur.).

A SOFT SCALE (Pulvinaria mesembryanthemi) - CALIFORNIA - Infested ice plant at Vallejo, Napa County. Previously reported in same area in 1971. Second infestation in same yard after 25-year absence from State. Immediate treatment planned. (Cal. Coop. Rpt.).

FOREST AND SHADE TREES

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - OREGON - Larvae found infesting 9 Pinus contorta (lodgepole pine) April 19 at large field nursery in eastern Multnomah County. Infested trees found at several locations within nursery destroyed; all others treated. Total of 1,862,420 pines checked on 101 properties by April 28, mostly in eastern Multnomah County. Specimens determined by R.L. Westcott. Confirmed by D.R. Davis. (Westcott et al.). Fall survey of several large nurseries in eastern Multnomah County within one mile of nursery where this pest occurred in spring of 1972 completed. No larvae or suspect damage found in these nurseries. (Larson et al.).

ZIMMERMAN PINE MOTH (Dioryctria zimmermani) - OREGON - Damage widespread in residential area of southwest Portland, Multnomah County; few larvae found, indicating high mortality. (Larson).

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - MARYLAND - Adults killed 70 large Virginia pine trees in large planting near Chestertown, Kent County. (U. Md., Ent. Dept.).

VARIABLE OAKLEAF CATERPILLAR (Heterocampa manteo) - OKLAHOMA - Infestations moderate and scattered on oaks in Stillwater area, Payne County. (Okla. Coop. Sur.). WEST VIRGINIA - Larvae caused light to moderate damage to oaks in following locations: Tucker County, collected by J.E. Salmon; Upshur County, collected by J. Mitchell; Doddridge County, collected by J. Mills; Greenbrier County, collected by G. Harmon. All determined by J.D. Hacker. These are new county records. (Hacker).

ORANGESTRIPED OAKWORM (Anisota senatoria) - WEST VIRGINIA - Larvae caused 80 percent defoliation of chestnut and oak trees in Cabell and Mason Counties. Also taken on chestnut in Braxton County by R.D. Whipkey September 22. Determined by J.D. Hacker. This is a new county record. (Hacker).

A TORTRICID MOTH (Archips semiferanus) - PENNSYLVANIA - Infestation in Sproul State Forest in Clinton and Centre Counties heavy on 94,640 acres, moderate on 40,460 and light on 24,480 acres. This infestation began in 1970, collasped in 1972, but left many trees in this mixed-oak forest dead or dying. (Keeran, Sept. 22).

FALL WEBWORM (Hyphantria cunea) - TENNESSEE - Caused heavy defoliation of hardwood trees in Davidson and surrounding counties. (Stamey, Greene). NEW MEXICO - Heavily damaged many shade trees in Dona Ana County. Larvae moved into houses and became nuisance. (N.M. Coop. Rpt.).

TWIG GIRDLER (Oncideres cingulata) - OREGON - Appears much heavier in northwest area than in past years. (Boyer).

ASIATIC OAK WEEVIL (Cyrtepistomus castaneus) - PENNSYLVANIA - About 4,000 adults taken in light trap operated 3 nights near Darlington, Beaver County. (Carter, Sept. 27).

MAN AND ANIMALS

SCREWWORM (Cochliomyia hominivorax) - Total of 4,018 confirmed cases reported in continental U.S. during period September 24-30 as follows: Texas 3,652; New Mexico 111; Arizona 141; California 2; Oklahoma 109; Florida 1; Alabama 1; Georgia 1 (field diagnosis). Case at Demopolis, Alabama, traced directly to animals shipped from Snyder, Texas. Case near Sebring, Florida, found in native cow not known to be associated with any animal movements. Case in Georgia also in local animal; larvae removed from eye wound. These are first cases reported from the Southeastern States. Total of 2,550 cases reported from Mexico. Number of sterile flies released in U.S. this period totaled 159,300,000 as follows: Texas 137,360,000; New Mexico 5,790,000; Arizona 12,250,000; California 900,000; Louisiana 1,400,000; Florida 1,600,000. Total of 30,660,000 sterile flies released in Mexico. (Anim. Health).

FACE FLY (Musca autumnalis) - MONTANA - Occasionally seen on livestock during warm periods. Adults nuisance by entering buildings. (Pratt, Sept. 29). KENTUCKY - Adults averaged 17.6 per animal in Simpson County and 8 per animal in Monroe County. (Barnett). MISSISSIPPI - Adults ranged 2-3 per face, up to 10 per face, on mixed breeds of cattle in Monroe County. (Robinson).

HORN FLY (Haematobia irritans) - OKLAHOMA - Heavy on cattle in Craig, Garvin, and Comanche Counties; moderate in Pawnee, Garfield, and Cleveland Counties. (Okla. Coop. Sur.). MARYLAND - This species, Musca autumnalis (face fly), and Stomoxys calcitrans (stable fly) declined rapidly. Counts throughout State less than 2 per head on beef and dairy cattle. (U. Md., Ent. Dept.).

MOSQUITOES - WISCONSIN - Numerous and biting in southern counties. Most noticeable in Racine, Kenosha, Walworth, Dane, and Lafayette Counties. Aedes trivittatus most troublesome in southwestern area cornfields. (Wis. Ins. Sur.).

HOG LOUSE (Haematopinus suis) - OKLAHOMA - Heavy on hogs in Comanche County. (Okla. $\overline{\text{Coop}}$. Sur.).

BENEFICIAL INSECTS

A CHALCID WASP (Brachymeria intermedia) - SOUTH CAROLINA - This pupal parasite of Porthetria dispar (gypsy moth) released at 3 sites (250 per location) in Horry County where male \underline{P} . dispar moths previously trapped. (McKee).

AN ENCYRTID WASP (Opencyrtus kuwanai) - WEST VIRGINIA - Total of 42,000 specimens of this egg parasite of Porthetria dispar (gypsy moth) released at 4 sites in Berkeley County; 68,000 released at 4 sites in Jefferson County; 12,000 released at one site each in Hampshire, Hardy, and Pendleton Counties. Releases made September 28 by State Department of Agriculture. (Hacker).

A SCOLIID WASP (Scolia dubia) - WEST VIRGINIA - Adult flight heavy over lawn of Ohio Valley Experiment Farm at Point Pleasant, Mason County. Collected and determined by J.D. Hacker. This is a new county record. (Hacker).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

EUROPEAN CRANE FLY (<u>Tipula paludosa</u>) - WASHINGTON - Pasture grass core samplings at one <u>location near</u> Custer, Whatcom Countyindicated population of 1,000+ per square foot, mostly first instar. (Campbell, Davison).

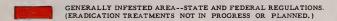
GRASSHOPPERS - UTAH - Adults infested 16,572 rangeland acres in Box Elder, Iron, Juab, Millard, Rich, Sanpete, Tooele, Uintah, and Utah Counties. Light populations moved into fall emerging wheat in Blue Creek area of Box Elder County. (Watson, Knowlton). KANSAS - Fall survey showed economic infestation (8+ per square yard) primarily limited to areas in southern Meade County and along Cimarron River in Seward County; involves estimated 200,000 acres of rangeland and 100,000 acres of cropland. Melanoplus differentialis, M. bivittatus, and M. sanguinipes major species. Localized economic infestations on estimated 150,000 rangeland acres and 50,000 cropland acres found in Comanche, Barber, Kiowa, and Edwards Counties. Major species include Ageneotettix deorum, Phlibostroma quadrimaculatum, Drepanopterna femoratum, M. differentialis, M. femurrubrum, and M. bivittatus. Substantial but noneconomic infestations (3-7 per square yard) common in parts of several counties in south-central, southwest, and west-central districts. Major species in all areas of State M. differentialis, M. bivittatus, and M. femurrubrum. (Bell). OKLAHOMA - Damage, mostly by M. differentialis, usually confined to first 10-15 rows of scattered wheat fields in few central and west-central counties. (Okla. Coop. Sur.).

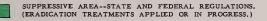
GYPSY MOTH (Porthetria dispar) - See "A CHALCID WASP" and "AN ENCYRTID WASP" under $\overline{\rm BENEFICIAL}$ INSECTS, page 698.

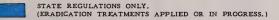
PINK BOLLWORM (Pectinophora gossypiella) - NEW MEXICO - Spotty medium to heavy infestations in Mesilla Valley cotton fields. Few fields in Dona Ana County hatch area show late buildup of young larvae. Infestation more extensive than previously believed. (N.M. Coop. Rpt.).

WEST INDIAN SUGARCANE ROOT BORER (Diaprepes abbreviatus) - FLORIDA - Taken on sumac (Rhus sp.), hickory (Carya sp.), wax myrtle (Myrica cerifera), blackberry (Rubus betulifolius), and live oak (Quercus virginiana) at Apopka, Orange County for new host plants. (Fla. Coop. Sur.).

COUNTIES ENTIRELY COLORED ARE COMPLETELY REGULATED; COUNTIES WITH COLORED DOT ARE PARTIALLY REGULATED.







ERADICATED--REGULATIONS REMOVED.

RESTRICTIONS ARE IMPOSED ON THE MOVEMENT OF REGULATED ARTICLES FROM A REGULATED AREA AS FOLLOWS:

- 1. RED INTO OR THROUGH GREEN, BLUE, OR WHITE.
- 2. GREEN INTO OR THROUGH BLUE OR WHITE.
- 3. GREEN INTO GREEN.
- 4. GREEN WITHIN GREENO.
- 5. BLUE INTO ANY OTHER AREAOO.
 - WHEN IT IS DETERMINED BY THE INSPECTOR THAT A HAZARD OF SPREAD EXISTS.

OONLY WHEN REQUIRED BY STATE QUARANTINE REGULATIONS OR BY AN AUTHORIZED INSPECTOR.



NEW JERSEY

CONSULT YOUR STATE OR FEDERAL PLANT PROTECTION INSPECTOR OR YOUR COUNTY AGENT FOR ASSISTANCE REGARDING EXACT AREAS UNDER REGULATION AND REQUIREMENTS FOR MOVING REGULATED ARTICLES.

Revised July 10, 1972



WHITE FRINGED BEETLE QUARANTINES

COUNTIES ENTIRELY COLORED ARE COMPLETELY REGULATED,

COUNTIES WITH COLORED DOT ARE PARTIALLY REGULATED

GENERALLY INFESTED AREA--STATE AND FEDERAL REGULATIONS. (ERADICATION TREATMENTS NOT IN PROGRESS OR PLAINED.)

TERADICATION TREATMENTS NOT IN PROGRESS OR PLANNED.)

SUPPRESSIVE AREA--STATE AND FEDERAL REGULATIONS. (ERADICATION TREATMENTS APPLIED OR IN PROGRESS.)

STATE REGULATIONS ONLY, (ERADICATION TREATMENTS APPLIED OR IN PROGRESS,)

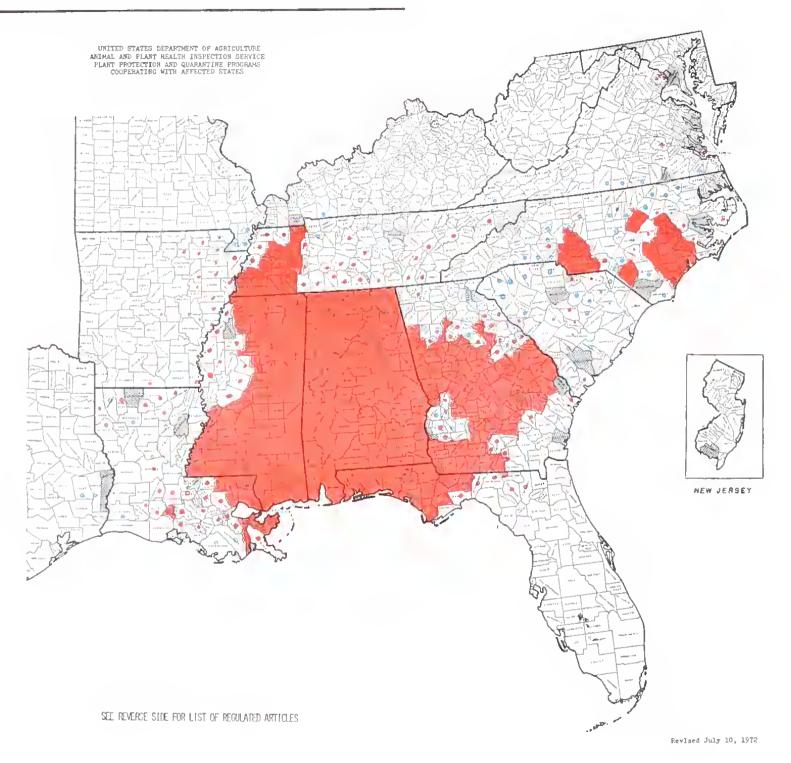
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CONSULT YOUR STATE OR FEDERAL PLANT PROTECTION INSPECTOR OR YOUR COUNTY AGENT FOR ASSISTANCE RECARDING EXACT AREAS UNDER RECULATION AND REQUIREMENTS FOR MOVING REGULATED ARTICLES,



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HAWAII INSECT REPORT

eneral Vegetables - BEAN FLY (Melanagromyza phaseoli) heavy on ong beans in small community garden at Lanai City, Lanai; nfested 80 percent of petioles. Heavy in home garden snap beans t Kaunakakai, Molokai. (Olson et al.). All stages of ONION HRIPS (Thrips tabaci) heavy in 15 acres of bulb onion at Hoolehua, olokai. Adults light in 100-foot row of green onions at Lanai ity. (Fujimoto et al.). On Oahu, LEAFMINER FLIES (Liriomyza spp.), REENHOUSE WHITEFLY (Trialeurodes vaporariorum), and CARMINE PIDER MITE (Tetranychus cinnabarinus) light in 0.25 acre of egglant at Kahaluu; Liriomyza spp. mines light in about 50 percent f leaves. Liriomyza spp. and T. vaporariorum light in djacent 2,000 square feet of long beans. T. vaporariorum light n 0.75 acre of eggplant at Waimanalo; restricted mostly to older eaves. Adults and larval mines of Liriomyza spp. heavy in 0.1 cre of green onion at Makawao, Maui; about 75 percent of leaves ffected. Adults heavy and larval mines light in 300-foot row of ggplant at Lanai City, Lanai. (Miyahira, Kawamura).

ruits and Nuts - Small to moderate colonies of COCONUT SCALE
Aspidiotus destructor) on about 20 percent of plants in 0.5 acre
f banana at Kahaluu, Oahu. Parasites and predators nil. (Kawamura).

orest and Shade Trees - CLIDEMIA THRIPS (Liothirps urichi) urposely introduced from Fiji for control of the weed Clidemia irta. In forest reserves throughout Oahu, nymphs and adults noderate on young flushing terminals with up to 50 thrips on underside of single leaf. Damage, characterized by terminal hlorosis, evident on about 50 percent of examined shrubs. Although letrimental to plants, this thrips seldom causes death under Mawaiian conditions. At 4,000 feet elevation on Mt. Kaala, Oahu, .00 percent of several native manono trees (Gouldia sp.) exhibited arge gall-like structures caused by boring larvae of a GELECHIID NOTH (Aristotelia sp.). As many as 4 galls per foot-long branching terminal; some trees with 100 percent of terminals infested. coadside Maui pamakani shrubs (Eupatorium glandulosum) on Mt. aala showed 100 percent terminal-gall infestation caused by larvae of EUPATORIUM GALL FLY (Procecidochares utilis). P. utilis ntroduced from Mexico in 1945. Now established on all infested slands and exerting year-round stress on weed pest. GREENHOUSE THRIPS (Heliothrips haemorrhoidalis) severe on Acacia koa saplings t 3,000 feet elevation in Lapahoehoe Forest Reserve, Hawaii. 'oliage of damaged plants heavily spotted with excrement and onspicuously discolored. Chlorotic condition caused by feeding unctures of this sap sucking pest. Megaphragma mymaripenne (a richogrammatid wasp), a parasite of H. haemorrhoidalis eggs, ot observed in field. (Yoshioka).

eneral Pests - CHINESE ROSE BEETLE (Adoretus sinicus) caused heavy oliar damage in 0.1 acre of edible ginger (Zingiber officinale) at ahaluu, Oahu; 80 percent of leaves with 10-70 percent of leaf urface eaten. Chemical control application minimal. Foliar damage oderate on 500 false kamani (Terminalia catappa) saplings at aunalei, Lanai. (Miyahira, Kawamura). A LYGAEID BUG (Neacoryphus icrucis) heavy on terminals of 250 potted African tulip pathodea campanulata) seedlings at Waikoloa, Hawaii; up to 10 average 4) adults per plant. This is a new island record. N. icrucis now occurs on every island except Kauai. (Matayoshī).

THE FOLLOWING REGULATED ARTICLES MOVED FROM GENERALLY INFESTED AREAS (RED) REQUIRE A CERTIFICATE OR PERMIT YEAR-ROUND EXCEPT AS INDICATED: *

1. Soil, compost, decomposed manure, humus, muck, and peat, separately or with other things.

Soil samples shipped to approved laboratories do not require attachment of certificate or permit.**
Compost, decomposed manure, humus, and peat are exempt***
if dehydrated, ground, pulverized, or compressed.

2. Plants with roots.

3. Grass sod.

4. Plant crowns and roots for propagation.

5. True bulbs, corms, rhizomes, and tubers of ornamental plants when freshly harvested or uncured.

6. Potatoes (Irish) when freshly harvested.

7. Peanuts in shells and peanut shells, except boiled or roasted peanuts.

8. Uncleaned grass, grain, and legume seed.

- 9. Hay and straw.
- 10. Seed cotton.

Seed cotton is exempt if moving to a designated gin.***

11. Scrap metal and junk.

- 12. Brick, stone, concrete slabs, drainage pipes, and building blocks.
 Brick, stone, concrete slabs, drainage pipes, and building
 blocks are exempt **** if not exposed to infestation in
 storage or if the storage site has been treated with an
 approved pesticide.
- 13. Forest products, such as pulpwood, stumpwood, logs, lumber, and crossties.
 - Forest products, such as pulpwood, stumpwood, logs, lumber, and crossties are exempt will not exposed to infestation in storage or if the storage site has been treated with an approved pesticide.
- 14. Used mechanized cultivating equipment and used harvesting machinery.

15. Used mechanized soil-moving equipment.

16. Any other products, articles, or means of conveyance of any character whatsoever, not covered by the above, when it is determined by an inspector that they present a hazard of spread of whitefringed beetles and the person in possession thereof has been so notified.

THE FOLLOWING REGULATED ARTICLES LOVED FROM SUPPRESSIVE (GREEN) AND STATE REGULATED (BLUE) AREAS REQUIRE A CERTIFICATE OR PERMIT YEAR-ROUND EXCEPT AS INDICATED: *

1. Bulk soil.

2. Used mechanized soil-moving equipment.

- 3. Any other products, articles, or means of conveyance of any character whatsoever, not covered by the above, when it is determined by an inspector that they present a hazard of spread of whitefringed beetles and the person in possession thereof has been so notified.
- * See "Restrictions Imposed on Movement of Regulated Articles" on the reverse side.
- The Trom an inspector.
- Exempt if not exposed to infestation after cleaning or other prescribed handling.



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DETECTION

New County and Island Records - AN ARMORED SCALE (Pseudaonidia clavigera) FLORIDA - Sarasota (p. 696). A LYGAEID BUG (Neacoryphus bicrucis) HAWAII - Hawaii (p. 699). ORANGESTRIPED OAKWORM (Anisota senatoria) WEST VIRGINIA - Braxton (p. 696). A SCOLIID WASP (Scolia dubia) WEST VIRGINIA - Mason (p. 698). VARIABLE OAKLEAF CATERPILLAR (Heterocampa manteo) WEST VIRGINIA - Tucker, Upshur, Doddridge, Greenbrier (p. 696).

LESSER GRAIN BORER (Rhyzopertha dominica) WEST VIRGINIA - Adults numerous in animal stuffed with sorghum and barley seeds imported from Mexico. Collected by B.C. Stinnett August 29. Determined by T.J. Spilman. (Hacker).

Weather of the week continued from page 692.

TEMPERATURE: Sunny skies prevailed over most of the Nation early in the week. Maximums Monday, October 2, ranged from the 50's and 60's in the Northeast to the 80's and 90's in the Southwest. Phoenix, Arizona, registered 101 degrees October 2. The Deep South was warm and muggy. Subfreezing weather occurred one or two mornings over the northern and central Rocky Mountains and eastward to the Great Lakes. Cooler autumn weather replaced mild weather as the weekend approached. Weekly mean temperatures were 3 to 5 degrees above normal over Nevada and 3 to 5 degrees below normal over the southern Appalachians. Elsewhere, temperatures averaged very close to normal.

MEDITERRANEAN FRUIT FLY Ceratitis capitata (Wiedemann)

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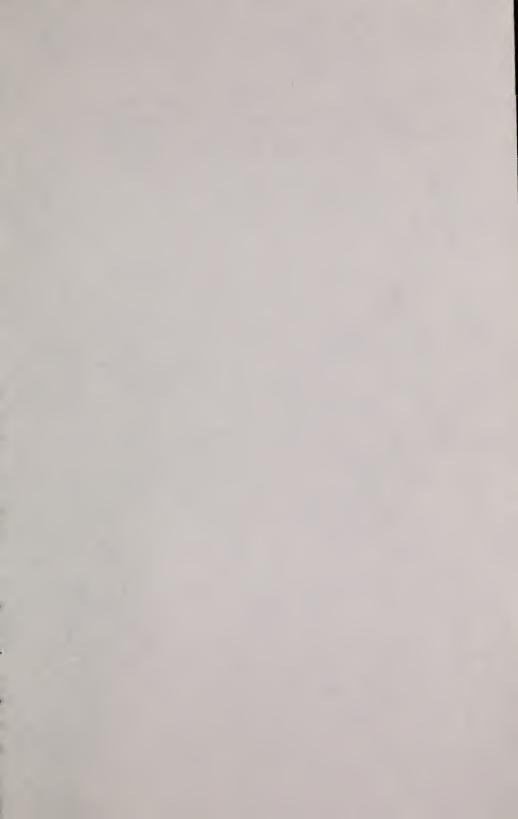
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Prepared by Pest Survey and Technical Support Staff U.S. Dept. Agr. Coop. Econ. Ins. Rpt. 22(41):702-706, 1972



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