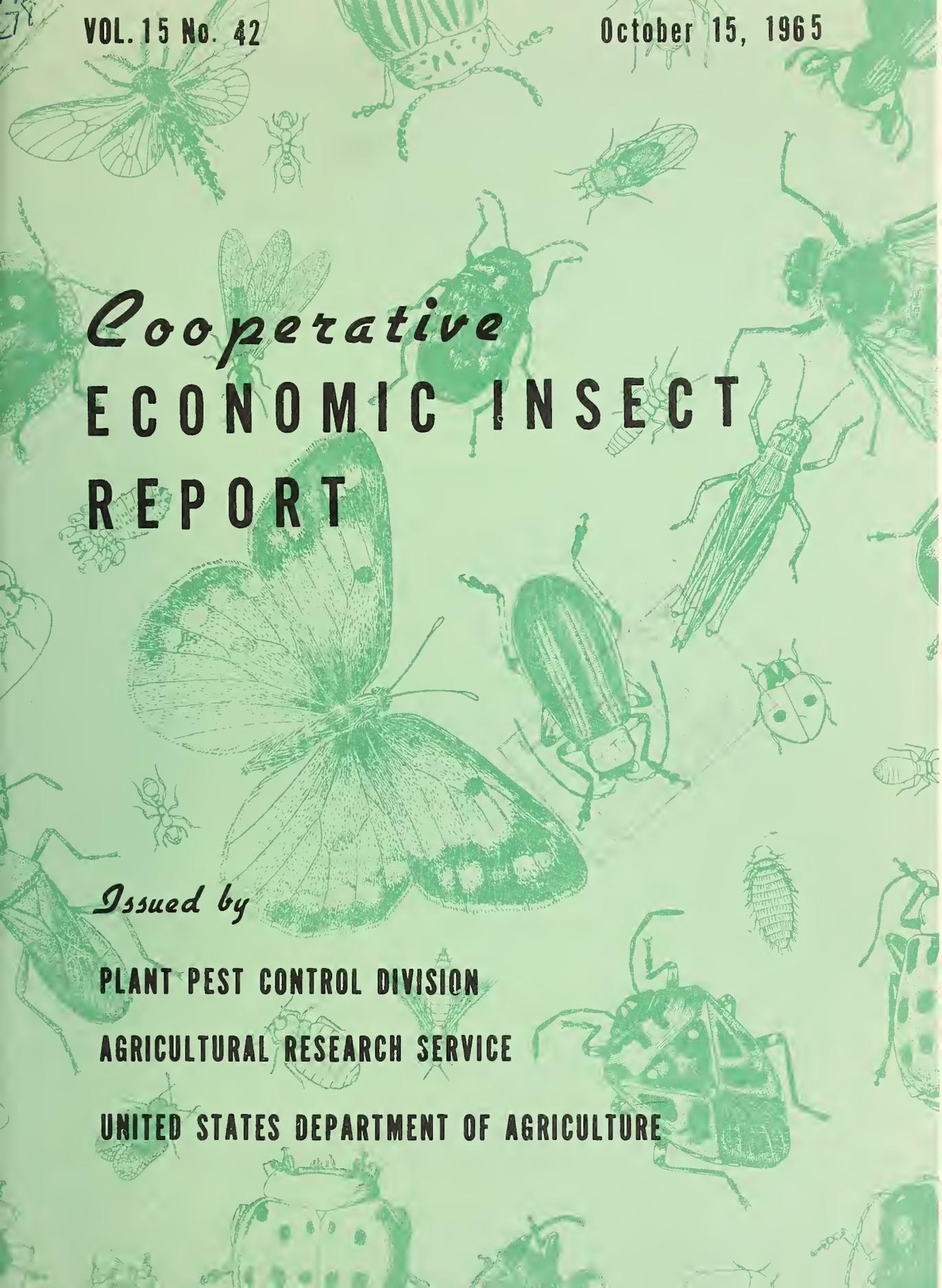


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*Cooperative*  
**ECONOMIC INSECT  
REPORT**

*Issued by*

**PLANT PEST CONTROL DIVISION**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**

# AGRICULTURAL RESEARCH SERVICE

## PLANT PEST CONTROL DIVISION

### SURVEY AND DETECTION OPERATIONS

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

CORN EARWORM heavy in milo in California and active in corn in Ohio. SOUTHWESTERN CORN BORER heavy in corn in New Mexico and infestation high in sweet corn in Oklahoma. PINK SCAVENGER CATERPILLAR numerous in corn and damaging grain in Alabama. (p. 1183). CORN LEAF APHID could become problem on seed heads of sorghums in Arizona; numerous unfilled ears of corn as result of feeding by this pest observed in Ohio. (p. 1184). SPOTTED ALFALFA APHID increased in alfalfa in areas of Arizona, and first specimens of season observed in Ohio. (p. 1185). THREE-CORNERED ALFALFA HOPPER caused moderate to heavy damage to alfalfa in Arizona. RED-NECKED PEANUTWORM heavy in terminals of peanuts in New Mexico. (p. 1186).

Larvae of a FRUIT FLY (Anastrepha suspensa) found for first time in grapefruit in Florida. (p. 1188). COWPEA CURCULIO reported to have caused loss of several thousand dollars to growers of Crowder peas in Alabama. (p. 1188). Single male PINK BOLLWORM moth taken in sex-lure trap 4 miles west of Colorado River in Riverside County, California. (p. 1189).

DETECTION

A new North American record reported was a MEALYBUG (Chorizococcus brevicurvis McKenzie) collected from succulents in Sacramento California. This species was previously known only from a single specimen intercepted in quarantine in Hawaii in 1935 from an unknown California source, and described in 1960. (p. 1191).

New State records reported were ASIATIC OAK WEEVIL (Cyrtopistomus castaneus) from Missouri (p. 1191); and EUROPEAN MANTIS (Mantis religiosa) from Washington (p. 1195).

New county records included: SORGHUM MIDGE (Contarinia sorghicola) in Johnson County, Kansas, (p. 1184); SPOTTED ALFALFA APHID (Therioaphis maculata) in Lenawee County, Michigan, (p. 1185); WALNUT HUSK FLY (Rhagoletis completa) in Fresno, Contra Costa and Kings Counties, California, (p. 1187); a MEALYBUG (Geococcus coffeae) in Polk County, Florida, (p. 1188); SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) in Potter County, Texas, (p. 1191); two MEALYBUGS, Chorizococcus brevicurvis in San Bernardino County and Rhizoecus cacticans in Sacramento County, California, (p. 1191); and GIANT HORNET (Vespa crabro germana) in Vinton and Scioto Counties, Ohio, (p. 1193).

CORRECTIONS

See page 1195.

SPECIAL REPORTS

Status of the Screw-worm in the Southwest. (p. 1197).

Estimated Losses and Production Costs Attributed to Insects and Related Arthropods Attacking Apples, Tomatoes (for processing) and Tobacco in Maryland (pp. 1198, 1199), and Alfalfa and Cotton in Oklahoma in 1964 (p. 1200).

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

WEATHER OF THE WEEK ENDING OCTOBER 11

HIGHLIGHTS: (1) Record cold, freezing, northeast sections. (2) Heat breaks long cold spell, northern Rockies. (3) Mostly dry West, rainy in East.

TEMPERATURE: Cool weather continued east of the Mississippi where it was the 2nd cold week in many sections. Weekly averages were 6° to 9° below normal in the Ohio Valley and northeastward. In the West, temperatures were 3° to 6° above normal and in the northern Great Plains this was the first above-normal week in about 2 months. In the Plains, temperatures reached 90° or higher as far north as South Dakota. Oklahoma City reported a late season record of 95°. The warm and sunny weather in the West was excellent for all outdoor activities.

FREEZING: Low temperatures during October 4-6, sent the freeze line southward into northeastern Indiana, and over most of Ohio, all of West Virginia, northwestern Virginia, and most of Delaware. Freezing was light to moderate in the south portions of this area and moderate to heavy in northern Pennsylvania, upper New York State and most of New England. Many lows in the middle or low 20's were early season records in New England. The first freezes in Ohio were about 5 days earlier than average; in the Virginia Piedmont the freezes would be about 2 weeks early.

PRECIPITATION: Very little occurred in the West, except 1 to 2 inches over Oregon and Washington. General rains in the East occurred as a weak Low moved from the northern gulf to the Great Lakes and there became very deep causing much windy and showery weather. Totals were mostly 0.8 to 1.5 inches east of the Mississippi with larger amounts in the west Florida area. The Northeast drought area received more than 1.0 inch.

STORMS: Winds were strong in the upper midwest on the 7th reaching 60 m.p.h., in Iowa, Nebraska, and southern Minnesota. On the same date, tornadoes occurred in the Carolinas with one fatality at Ashboro, North Carolina. On the 8th, gale winds continued over the Great Lakes and there was some damage from the thunderstorms and squall lines in the Ohio Valley. (Summary supplied by the U. S. Weather Bureau)

CEREAL AND FORAGE INSECTS

CORN EARWORM (Heliothis zea) - CALIFORNIA - Larvae heavy in milo in Visalia, Tulare County; averaged 2 or more per head. (Cal. Coop Rpt.). NEBRASKA - Moderate ear damage noted in field corn in some areas of Perkins County. (Rhine). OHIO - Active in Scioto County, with some fields having approximately 1 infested ear per 10 ears examined. (Blair). WISCONSIN - Few fully grown larvae present in corn in scattered locations. (Wis. Ins. Sur.). ARKANSAS - Larvae ranged 50-60 per 100 sweeps in Crittenden County alfalfa; ranged zero to very low in other areas. (Ark. Ins. Sur.).

FALL ARMYWORM (Spodoptera frugiperda) - WISCONSIN - Larvae persist in late field corn. (Wis. Ins. Sur.). KANSAS - Injury to corn light in Stafford County; much less than in 1964. (Painter). ALABAMA - Extremely heavy damage occurred to most late-planted corn in patches and fields examined in Wilcox, Dallas and Chilton Counties. Late pupation occurring in Chilton County field, with few full-grown larvae still feeding. Larvae reported feeding on small grain on farm in Madison County. (Magnusson, Davis, et al.).

WESTERN BEAN CUTWORM (Loxagrotis albicosta) - NEBRASKA - Some larvae still active in Dawson County field corn. (Rhine).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - NEW MEXICO - Moderately heavy in cornstalks in Roosevelt County. (Kloepfer). KANSAS - Infestation of 37 percent in border rows of corn reported at Saint John, Stafford County. Infestation partly reinforced by introduction of infested stubble in fall of 1964. (Painter). OKLAHOMA - Infested 90 percent of stalks of sweet corn checked in Pontotoc County; also damaging ears. (Okla. Coop. Sur.).

EUROPEAN CORN BORER (Ostrinia nubilalis) - ILLINOIS - Annual fall survey, in general, indicates large decrease in populations in counties in northern half of State compared with those present in 1964; populations in southern half of State show an increase, except in Pulaski and Alexander Counties which showed large decrease. State average of 57 borers per 100 plants in 1965 is slightly more than half of the 100 borers per 100 plants found in 1964. (Ill. Ins. Rpt.). SOUTH DAKOTA - Fall survey indicated extremely low borer populations in fields checked in Brule, Aurora, Davison and Sanborn Counties. Larvae mostly third stage. (Jones).

PINK SCAVENGER CATERPILLAR (Sathrobota rileyi) - ALABAMA - Larvae numerous in all corn and damaging grain in Mobile, Baldwin, Monroe, Wilcox, Dallas and Chilton Counties. (Davis et al.).

NORTHERN CORN ROOTWORM (Diabrotica longicornis) - OHIO - Corn badly lodged or bent over just above soil level and with weak root systems observed in Clinton and Greene Counties; 10-20 percent of corn down in two Clinton County fields and one field in Greene County. Other fields in these counties showed less damage. Stalk rot prevalent in many fields in central and south central areas; most of downed corn had strong root systems and lodging appeared due to this factor. (Rose). Populations in State appear to have decreased generally during 1965. (Blair). WISCONSIN - Adults of this pest, although scarce, and few Glischrochilus quadrisignatus (a sap beetle) present in few fields of corn. (Wis. Ins. Sur.).

WESTERN CORN ROOTWORM (Diabrotica virgifera) - NEBRASKA - Adults still active in southwest. Lodging due to larval damage noted in few Furnas County fields of corn. (Rhine).

CORN ROOTWORMS (Diabrotica spp.) - SOUTH DAKOTA - D. longicornis (northern corn rootworm) and D. virgifera still found in corn and alfalfa in Charles Mix and Bon Homme Counties. Adults ranged 2-4 per plant in fields checked in Charles Mix County; populations about evenly divided between D. longicornis and D. virgifera. Adult counts per 100 sweeps in field of alfalfa west of Springfield, Bon Homme County, averaged 5 D. undecimpunctata howardi (southern corn rootworm) and 8 D. longicornis. (Jones).

RICE WEEVIL (Sitophilus oryzae) - ALABAMA - Adults of this species and Cathartus quadricollis (square-necked grain beetle) present in ears of corn in all fields surveyed in Mobile, Baldwin, Monroe, Wilcox, Dallas and Chilton Counties. S. oryzae dominant species. (Davis).

CORN LEAF APHID (Rhopalosiphum maidis) - OHIO - Populations as well as evidence of past heavy infestations noted in field corn in three central and west central counties. Numerous unfilled ears resulting from earlier feeding on tassels observed in two Clark County fields and one Greene County field; approximately 50 percent of 25 ears checked in one field were barren. Active populations found in several fields in these two counties and in Pickaway County. Corn previously heavily infested showed remnants of sooty mold growth on honeydew. (Rose). Aphids best observed now in layers of husks and under leaves. (Blair). WISCONSIN- Few winged forms collected in fields of rye. (Wis. Ins. Sur.). KANSAS - Noted on late corn in east central district, with fairly large numbers (200-500 per stalk) present in some instances. (Simpson). ARIZONA - Light infestations appearing on sorghums in Maricopa and Pinal Counties. Could become problem on seed heads. (Ariz. Coop. Sur.).

CORN ROOT APHID (Anuraphis maidiradicis) - OHIO - Abundant in southern area and general throughout State. (Blair).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - WISCONSIN - Common in fields of rye; averaged as high as 1 per two sweeps. (Wis. Ins. Sur.).

A LARGID BUG (Largus cinctus californicus) - CALIFORNIA - Medium on corn plants in Fieldbrook, Humboldt County. (Cal. Coop. Rpt.).

HESSIAN FLY (Mayetiola destructor) - KANSAS - Larvae and flaxseed stage estimated at 10 percent on volunteer wheat plants in Stafford County; eggs observed. Infestation of volunteer plants about 100 percent at another location; eggs noted on leaves of newly emerged wheat in planted field. (Painter). OREGON - Infesting nonvernalized wheat in field of spring-planted barley near Albany, Linn County; 20-50 percent of pupae parasitized by polyembryonic parasites. (Ritcher, Oct. 9).

SORGHUM MIDGE (Contarinia sorghicola) - KANSAS - Collected in Johnson County on September 28, 1965. This is a new county record. (Wilkins).

TERMITES - OHIO - Unspecified species reported feeding on sweet corn in Darke County garden. (Blair).

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - ALABAMA - Extremely active mounds, with considerable height, found in large numbers in fields of corn in much of coastal and Black Belt areas in southwest section of State. Unusually heavy rains during recent weeks may be cause of mounds having been built up higher than usual; many mounds 15-20 inches high noted. (McQueen).

GRASSHOPPERS - OKLAHOMA - Moderate numbers of grasshoppers (several species) reported moving into new alfalfa and small grains in Mayes County. (Okla. Coop. Sur.). MISSOURI - Survey revealed noneconomic populations over most of State; counts per square yard ranged 0-2 within fields, 5-10 in margins. Highest numbers north of Missouri River found in Montgomery and St. Charles Counties and classified as light; ranged 3-7 per square yard within fields and 11-20 in margins. Light numbers also found in isolated spots in southeastern area and in large section of southwest and west central areas. Highest counts, classified as moderate, recorded from small area in Douglas County, a narrow strip in southwestern area from Newton to Cedar Counties, and small area in Henry County; grasshoppers per square yard ranged 8-14 within fields, 21-40 in margins. Melanoplus femurrubrum (red-legged grasshopper) dominant species in State; other species found, in order of prominence, were M. differentialis (differential grasshopper), M. sanguinipes (migratory grasshopper) and M. bivittatus (two-striped grasshopper). (Houser, Thomas). NEBRASKA - Light to moderate numbers of M. differentialis (differential grasshopper) noted on field margins in southwestern section. (Rhine). SOUTH DAKOTA - Grasshoppers, including M. femurrubrum, M. bivittatus and M. differentialis, active at field borders of corn

and road edges in Brule, Aurora, Davison and Sanborn Counties. Usually ranged 10-20 per square yard in these areas. Temperatures ranged from low forties in mornings to low eighties by midafternoon during period October 4-8. (Jones). WYOMING - Adults of several species ranged 4-8 per square yard in alfalfa in northern Big Horn County. (Marks). ARIZONA - Survey indicates approximately 1,106,000 acres of rangeland infested with several species of grasshoppers in Saligman and Chino Valley areas of Yavapai County; counts ranged 9-100 per square yard. (Ariz. Coop. Sur.).

A CTENUCHID MOTH (Ctenucha multifaria) - CALIFORNIA - Larvae locally heavy in lawns in Redding, Shasta County. (Cal. Coop. Rpt.).

SOD WEBWORMS - UTAH - Damaging lawn of school at Huntington, Emery County. (Knowlton). OREGON - Large numbers of larvae, probably Crambus topiarius (cranberry girdler), infesting field of orchard grass near Corvallis, Benton County. (Every, Oct. 8).

CHINCH BUG (Blissus leucopterus) - VIRGINIA - Infested lawn in Richmond. Det. by J. L. Herring. (Matheny).

A SPITTLEBUG (Prosapia bicincta) - ALABAMA - Nymphs and adults causing considerable damage to grass crops in Chambers County. (Stewart).

A LEAF MINER FLY (Liriomyza trifolii) - CALIFORNIA - Larvae medium in clover lawns in Orinda, Alameda County. (Cal. Coop. Rpt.).

PEA APHID (Acyrtosiphon pisum) - VIRGINIA - Light in alfalfa in Giles, Bland and Tazewell Counties; ranged 1-3 per sweep. Averaged 10 per sweep in Russell County alfalfa. (Isakson). ILLINOIS - Populations vary 280-1,600 (average 690) per 100 sweeps in alfalfa in southeast district. (Ill. Ins. Rpt.). ARKANSAS - Numbers vary widely in alfalfa checked. Thousands per 100 sweeps collected in Carroll and Marion Counties; none taken in Boone and Crittenden Counties. (Ark. Ins. Sur.). OKLAHOMA - Light numbers noted in few east central area fields. (Okla. Coop. Sur.). COLORADO - Numbers low in alfalfa checked. (Simpson). WYOMING - Adults and nymphs per 100 sweeps in alfalfa averaged 44 in Park County, 38 in Big Horn County and 26 in Washakie County. (Marks). NEVADA - Very light in alfalfa in Alamo area, varied 5-30 per sweep in Hiko area and only occasional specimen found in Panaca, all in Lincoln County. (Bechtel, Zoller).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - Increased populations found in alfalfa in Yuma County, in Chandler and Mesa areas of Maricopa County, and in scattered fields near Casa Grande in Pinal County. (Ariz. Coop. Sur.). NEVADA - Light in alfalfa in Alamo area, with none found in Hilo or Panaca areas, all in Lincoln County. (Bechtel, Zoller). OKLAHOMA - Ranged 5-90 per 10 sweeps in most alfalfa checked in east central area; ranged up to 350 per 10 sweeps in occasional field. Averaged 175 per 10 sweeps in Tulsa County. (Okla. Coop. Sur.). NEBRASKA - Populations declining in Dundy and Keith Counties. (Manglitz). SOUTH DAKOTA - Present in low numbers in Bon Homme County alfalfa; averaged 10 per 100 sweeps. (Jones). ILLINOIS - Counts vary 20-2,200 (average 1,325) per 100 sweeps in southeast district alfalfa. (Ill. Ins. Rpt.). OHIO - Two-winged adults taken in field of alfalfa south of Oxford, Butler County. This first observation of species in State for 1965. (Wells, Barry, Rose). MICHIGAN - Small numbers of adults and nymphs collected in field of alfalfa in Lenawee County. This is a new county record. (Newman).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - ILLINOIS - Adults varied 1-20 (average 12.75) and nymphs 0-30 (average 10) per 100 sweeps in alfalfa in southeast district. (Ill. Ins. Rpt.).

RAPID PLANT BUG (Adelphocoris rapidus) - ILLINOIS - Adults varied 1-30 (average 10.75) per 100 sweeps with no nymphs observed in southeast district alfalfa. (Ill. Ins. Rpt.).

TARNISHED PLANT BUG (Lygus lineolaris) - ILLINOIS - Adults varied 5-80 (average 31.25) and nymphs 0-20 (average 7.5) per 100 sweeps in alfalfa in southeast district. (Ill. Ins. Rpt.).

LYGUS BUGS (Lygus spp.) - WYOMING - Adults averaged 34 per 100 sweeps in alfalfa in Park, Big Horn and Washakie Counties. (Marks).

GREEN STINK BUG (Acrosternum hilare) - MISSOURI - Adults and nymphs present in most soybeans in Boone County. Generally light, but heavy in some isolated spots. Nymphs found feeding on seeds of multiflora rose in Ashland Wildlife Area, Boone County. (Foster, Crow).

POTATO LEAFHOPPER (Empoasca fabae) - ILLINOIS - Adults varied 30-60 (average 47.5) and nymphs 100-240 (average 153) per 100 sweeps in southeast area alfalfa. (Ill. Ins. Rpt.). NEBRASKA - General light damage noted in alfalfa in Dundy and Keith Counties. (Manglitz).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - ARIZONA - Populations decreased in alfalfa in Yuma, Maricopa and Pinal Counties, but remain high in Graham County. Moderate to heavy damage apparent in many fields. (Ariz. Coop. Sur.). OKLAHOMA - Ranged 1-21 per 10 sweeps in alfalfa checked in Wagoner, Muskogee, Sequoyah, Le Flore and Tulsa Counties. Light in soybeans in same area. (Okla. Coop. Sur.).

ALFALFA CATERPILLAR (Colias eurytheme) - NEVADA - Larvae varied 1-3 per sweep in several fields of alfalfa in Hiko area, Lincoln County. (Bechtel, Zoller). ARIZONA - Larval counts increasing in alfalfa in Buckeye, Chandler and Peoria areas of Maricopa County; decreases noted in Pinal and Yuma County fields. (Ariz. Coop. Sur.). ARKANSAS - Averaged about 100 per 100 sweeps in Crittenden County alfalfa; low in other areas checked. (Ark. Ins. Sur.).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - ALABAMA - Almost complete defoliation of soybeans in some isolated fields occurred in Mobile and Baldwin Counties; less damage observed in other fields in these counties and in Monroe County. (McQueen).

GREEN CLOVERWORM (Plathypena scabra) - ILLINOIS - Larvae varied 3-40 (average 21) per 100 sweeps in alfalfa in southeast district. (Ill. Ins. Rpt.).

A LOOPER (Pseudoplusia includens) - MICHIGAN - Blacklight trap collections indicate recent heavy adult flights in Jackson and Livingston Counties. (Dowdy).

RED-NECKED PEANUTWORM (Stegasta bosqueella) - NEW MEXICO - Heavily infested terminals of peanut plants in most fields checked in Roosevelt County. (Kloepfer). OKLAHOMA - Averaged 40 per 100 terminals in peanuts checked in Tulsa County. (Okla. Coop. Sur.).

GARDEN WEBWORM (Loxostege similalis) - ARIZONA - First infestation of season found in alfalfa in Yuma Valley in Yuma County. Averaged 20 per 100 sweeps. (Ariz. Coop. Sur.).

ALFALFA WEEVIL (Hypera postica) - NEVADA - All larval stages, pupae and adults present in alfalfa in Hiko area at northern end of Pahrangat Valley in Lincoln County. Counts per sweep varied 1-5 larvae and 0-2 adults. Larvae and pupae present in cocoons in debris at bases of plants. Light damage evident in some fields. (Bechtel, Zoller). COLORADO - Averaged approximately 1 larva per sweep in alfalfa checked near Fort Collins, Larimer County. (Simpson). ARKANSAS - Surveys of alfalfa negative in Carroll, Boone, Marion and Crittenden Counties. (Ark. Ins. Sur.). ILLINOIS - Adults varied 0-7.5 (average 2.25) per 100 sweeps in alfalfa in southeast district. No larvae observed. (Ill. Ins. Rpt.). VIRGINIA - Adults scarce in alfalfa in Giles, Bland, Tazewell and Russell Counties, averaged two per 100 sweeps. Larvae heavy (130 per 100 sweeps) in field in Bland County; ranged 5-15 per 100 sweeps in Giles, Tazewell and Russell Counties. (Isakson).

WEEVILS (Sitona spp.) - SOUTH DAKOTA - Relatively common in alfalfa sampled in Bon Homme County; up to 50 adults per 100 sweeps taken. (Jones).

BEAN LEAF BEETLE (Cerotoma trifurcata) - OKLAHOMA - Increasing in soybeans and alfalfa in eastern Sequoyah County and in northern Le Flore County. Increase occurring too late to result in serious damage to soybeans in area. (Okla. Coop. Sur.).

ALFALFA SEED CHALCID (Bruchophagus roddi) - OKLAHOMA - Emergence rate of adults from nondiapausing larvae greatly reduced in Payne County alfalfa. (Okla. Coop. Sur.).

#### FRUIT INSECTS

WHITE PEACH SCALE (Pseudaulacaspis pentagona) - FLORIDA - Adults general and causing moderate damage to stems and bark of peach at Brandon, Hillsborough County, October 1. (Simmons).

PEAR RUST MITE (Eptrimerus pyri) - CALIFORNIA - Medium on 275 plants of pear nursery stock (Pyrus kawakami) in Pacoima, Los Angeles County. Normally, hibernating forms would be present at this time of year. This is unusual infestation and may be due to host being evergreen pear. (Cal. Coop. Rpt.).

HICKORY SHUCKWORM (Laspeyresia caryana) - ALABAMA - Large numbers of larvae present in shucks of pecans under trees throughout central and southern parts of State. L. caryana and Hyphantria cunea (fall webworm) continue to damage pecans in Covington County. (Linder et al.).

FALL WEBWORM (Hyphantria cunea) - OKLAHOMA - Infestations continue heavy on pecans in Mayes County. (Okla. Coop. Sur.).

WALNUT CATERPILLAR (Datana integerrima) - OKLAHOMA - Continues to damage pecan trees in Noble County. (Okla. Coop. Sur.).

NAVEL ORANGEWORM (Paramyelois transitella) - CALIFORNIA - Medium in almond nuts locally in Oakland, Alameda County. (Cal. Coop. Rpt.).

PECAN WEEVIL (Curculio caryae) - OKLAHOMA - Continues to cause moderate to heavy damage to pecans in Cleveland County. (Okla. Coop. Sur.).

WALNUT HUSK FLY (Rhagoletis completa) - CALIFORNIA - Adults heavy in walnuts in Auberry, Fresno County, and in Lafayette, Contra Costa County, and light in peach fruit in Hanford, Kings County. (Cal. Coop. Rpt.). These are new ARS county records. (PPC). UTAH - Light in black walnuts at Millville, Cache County. (Knowlton).

A FRUIT-TREE MITE (Bryobia rubrioculus) - CALIFORNIA - Eggs medium on almond trees in Paso Robles, San Luis Obispo County. (Cal. Coop. Rpt.).

Citrus Insect Situation in Florida - End of September - CITRUS RUST MITE (Phyllocoptruta oleivora) infested leaves in 58 percent of groves (norm 59 percent), 37 percent economic (norm 37 percent); and infested fruit in 64 percent of groves (norm 70 percent), 46 percent economic (norm 46 percent). Fall increase has started and will continue into November. Statewide population now in high range and is near normal level for October. Highest districts are south, west, central, east and north. CITRUS RED MITE (Panonychus citri) infested 20 percent of groves (norm 40 percent); 4 percent economic (norm 19 percent). Population is much below average and in the low range. An upward trend is underway but population is not expected to exceed normal level in October. All districts are low. TEXAS CITRUS MITE (Eutetranychus banksi) infested 20 percent of groves (norm 24 percent); 3 percent economic (norm 8 percent). Population is below normal and in very low range. Increase will occur but only scattered groves are expected to develop

important infestations in October. All districts are low; west is highest. GLOVER SCALE (Lepidosaphes gloverii) infested 57 percent of groves; 7 percent economic. Population is above average; increase is expected. Highest district is south. PURPLE SCALE (L. beckii) infested 45 percent of groves; 3 percent economic. Population is below average; increase is expected. Highest district is south. YELLOW SCALE (Aonidiella citrina) infested 48 percent of groves; 4 percent economic. Population is above average; little change expected. Highest district is central. CHAFF SCALE (Parlatoria pergandii) infested 33 percent of groves; 3 percent economic. Population is below average; increase is expected. Highest district is south. BLACK SCALE (Saissetia oleae) infested 38 percent of groves; 15 percent economic. Population is above average but will decrease and be in low range. Highest district is central. WHITEFLY larvae infested 62 percent of groves; 8 percent economic. Population is near average. Larvae will increase; adults will decrease. (W. A. Simanton, (Citrus Expt. Sta., Lake Alfred)).

CITRUS FLAT MITE (Brevipalpus lewisi) - ARIZONA - Economic populations continue to require controls on citrus on Yuma Mesa in Yuma County. (Ariz. Coop. Sur.).

CITRUS RUST MITE (Phyllocoptruta oleivora) - ARIZONA - Two new infestations found in citrus groves on Yuma Mesa in Yuma County. (Ariz. Coop. Sur.).

GLOVER SCALE (Lepidosaphes gloverii) - FLORIDA - Severely damaged stems of calamondin (Citrus mitis) at Pinellas Park, Pinellas County, September 29. (Barber, Bingaman).

A MEALYBUG (Geococcus coffeae) - FLORIDA - Eggs and adults generally infesting roots of key lime in Winter Haven, Polk County. (Youtsey, Boring, Sept. 27). This is first ARS record for county. (PPC).

A FRUIT FLY (Anastrepha suspensa) - FLORIDA - Larvae found in grapefruit for first time in State at Pompano Beach, Broward County, on September 30 and October 1. Two larvae in shiners from June blooms on same tree; not in current crop. Similar type infestations develop occasionally in Puerto Rico. (O'Brien et al.).

A LEAF-FOOTED BUG (Leptoglossus clypealis) - CALIFORNIA - Adults present in medium numbers on pomegranate fruit at Willows, Glenn County. (Cal. Coop. Rpt.).

CITRUS MEALYBUG (Pseudococcus citri) - CALIFORNIA - Medium on banana trees in La Mesa, San Diego County. (Cal. Coop. Rpt.).

#### TRUCK CROP INSECTS

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Populations continue to increase in lettuce and require controls in areas of Maricopa County. (Ariz. Coop. Sur.). ALABAMA - Larvae of T. ni. and Pieris rapae (imported cabbageworm) range light to heavy on cabbage and collards in home gardens throughout central area. (McQueen).

BET ARMYWORM (Spodoptera exigua) - ARIZONA - Larvae increasing in lettuce in Yuma and Maricopa Counties; controls applied to few fields. (Ariz. Coop. Sur.).

CROSS-STRIPED CABBAGEWORM (Evergestis rimosalis) - MARYLAND - Infesting broccoli planting at Fairland, Montgomery County. (U. Md., Ent. Dept.).

GARDEN WEBWORM (Loxostege similalis) - ARIZONA - Scattered infestations appearing on lettuce in areas of Yuma County. (Ariz. Coop. Sur.).

BEAN LEAF ROLLER (Urbanus proteus) - FLORIDA - Larvae severely damaged snap beans at Ocala, Marion County, October 1. (Roberson).

COWPEA CURCULIO (Chalcodermus aeneus) - ALABAMA - Reported to have caused loss of several thousand dollars to growers of Crowder peas in southeast area during 1965. (Gates, Glasscock).

FLEA BEETLES (Epitrix spp.) - OREGON - Surveys show E. subcristata (western potato flea beetle) again present this season in Malheur, Baker and Klamath Counties but no severe damage seen. E. tuberis (tuber flea beetle), once present in heavy numbers in Deschutes, Crook and Jefferson Counties, not a problem in these areas in 1965; spotted damage occurred in Willamette Valley, but differentiation between damage by this pest and that of symphylans difficult. (Morrison, Oct. 8).

A MINT FLEA BEETLE (Longitarsus waterhousei) - OREGON - Some damage occurring in mint fields in Umatilla County and in Willamette Valley, but apparently less than that in 1964. (Morrison, Oct. 8).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - TEXAS - Heavy locally on peas in Midland County. (Green).

### COTTON INSECTS

BOLLWORM (Heliothis zea) - CALIFORNIA - Evident in many fields of cotton in San Joaquin Valley; larvae ranged up to 40 and 50 per 100 plants. Generally, new hatch very light and populations appear on decline. (Leigh, Oct. 4). ARIZONA - Decreasing on cotton in nearly all growing areas; occasional infestation requires control. (Ariz. Coop. Sur.). NEW MEXICO - Occasional damaged boll noted in Roosevelt County cotton. (Kloepfer). TEXAS - Light to moderate, widespread populations infesting cotton in King and Cottle Counties. (Meisch).

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Late season buildup on cotton required some controls in scattered areas of Yuma, Maricopa and Pinal Counties. (Ariz. Coop. Sur.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - ARIZONA - Infestations range light to moderate in cotton, with some light damage reported. Controls required in few fields. (Ariz. Coop. Sur.).

PINK BOLLWORM (Pectinophora gossypiella) - CALIFORNIA - Single male moth taken in sex-lure trap October 4; trap located in Riverside County, approximately 4 miles south of Blythe and 4 miles west of Colorado River. Det. by W. R. Bauer; verified by genitalia mount. Survey intensified in area; all other traps negative to October 8. (Cal. Coop. Rpt.). ARIZONA - Live moths continue to appear in experimental cages in heavily infested field in Graham County; 385 moths collected during period September 15 through October 8. New infestations found in Underwood, Citrus Park and lower Gila areas of Maricopa County; some degree of infestation present in all fields of stub cotton in county. (Ariz. Coop. Sur.). NEW MEXICO - Moderate to heavy infestations found in cotton east of Deming, Luna County. (Hare). Infestations very light in Roosevelt County cotton. (Kloepfer).

BOLL WEEVIL (Anthonomus grandis) - OKLAHOMA - Heavy in cotton in east central area and in Payne and Bryan Counties. Damaging squares and small bolls that will not mature; considered noneconomic in most areas. (Okla. Coop. Sur.). TEXAS - Light to heavy, widespread populations reported on cotton in Hall, Cottle, King and Stonewall Counties. (Texas Coop. Rpt.).

LYGUS BUGS (Lygus spp.) - CALIFORNIA - Very abundant on cotton in some situations in San Joaquin Valley, with 1-2 found on every plant. Damage severe to bolls 1.5 inches in diameter or smaller in some such situations. Control not very practical at this time. (Leigh, Oct. 4).

COTTON APHID (Aphis gossypii) - CALIFORNIA - Evident in many fields of cotton in San Joaquin Valley, but no economic infestations encountered. Parasitism high. (Leigh, Oct. 4).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - NORTH CAROLINA - Larvae noted in pine tips in Person County. (Mount). SOUTH CAROLINA - Very damaging to Scotch pine on farm in Lexington County; 5 sprays failed to give control. Little damage on farm in Darlington County. No damage in Georgetown County. (Nettles et al., Sept. 28). OKLAHOMA - Fourth-generation larvae present on pines in Payne County; some pupating and emerging but most larvae will overwinter. (Okla. Coop. Sur.).

AN OLETHREUTID MOTH (Rhyacionia pasadenana) - CALIFORNIA - Larvae, probably this species, locally heavy in pine trees in Vallejo, Solano County. (Cal. Coop. Rpt.).

PINE WEBWORM (Tetralopha robustella) - RHODE ISLAND - Injuring pine in planting in Lafayette, Washington County; all larvae observed with 1-5 parasite eggs, probably tachina flies. (Mathewson, Sept. 28).

BAGWORM (Thyridopteryx ephemeraeformis) - MISSOURI - Males began emergence September 10 in Columbia area, Boone County. (Craig).

ENGRAVER BEETLES (Ips spp.) - ARKANSAS - Few spot infestations remain active, primarily in Ouachita Mountains, but remained at static level or decreased in most areas. Some locations reported increased activity partly due to lightning strikes or other stress. (Ark. For. Pest Rpt., Oct.).

WEEVILS - ARKANSAS - Numbers of Pissodes nemorensis (deodar weevil), Hylobius pales (pales weevil) and a pitch-feeding species lower than in recent years. . . Some increased activity noted in Oden Ranger District; elsewhere, population levels static or not observed. (Ark. For. Pest Rpt., Oct.).

PINE BARK APHID (Pineus strobi) - WISCONSIN - Nymphs appearing in Madison area. (Wis. Ins. Sur.).

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - VIRGINIA - Very large population of larvae feeding on few isolated pines in Covington County community. (Pike).

FALL WEBWORM (Hyphantria cunea) - ARKANSAS - Very light in southern two-thirds of State in early summer. Increase noted in Coastal Plain and in delta areas in midsummer to late summer. Infestations in northern area consisted almost, if not entirely, of orange race. First-generation activity very heavy south of Arkansas River Valley; very light partial second generation of orange race observed. Infestations nuisance and not generally considered economic. Increasing value of walnuts in Ozark Region where severe to complete defoliation of trees occurred warrants reevaluation of pest. (Ark. For. Pest Rpt., Oct.).

CATALPA SPHINX (Ceratonia catalpae) - OKLAHOMA - Heavy on catalpa trees in Okfuskee County. (Okla. Coop. Sur.).

MIMOSA WEBWORM (Homadula albizziae) - CALIFORNIA - Medium on Albizia julibrissin in Durham, Butte County. (Cal. Coop. Rpt.). OHIO - Fully grown larvae noted on 200 honeylocust trees in Mahoning County. (Kelly).

OAK SKELETONIZER (Bucculatrix ainliella) - RHODE ISLAND - Locally heavy in residential area in Warwick, Kent County. Caused unsightly feeding; most now pupating. (Mathewson).

VARIABLE OAK LEAF CATERPILLAR (Heterocampa manteo) - OKLAHOMA - Light to moderate on oaks in east central area; considerably lighter than in 1964 in most areas. (Okla. Coop. Sur.).

ELM LEAF BEETLE (Galerucella xanthomelaena) - NEVADA - Larvae and associated damage found on elms in Panaca, Lincoln County. This is second known location in county; previously reported in Caliente. (Bechtel, Zoller). UTAH - Damage in Logan-Smithfield area, Cache County, more conspicuous this year. (Davis, Knowlton). COLORADO - Noted under bark scales in Fort Collins. (Hantsberger).

TWIG GIRDLER (Oncideres cingulata) - OKLAHOMA - Active on several species of shade trees in Mayes and Washington Counties. (Okla. Coop. Sur.).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - TEXAS - Heavy locally on elms in Potter County. (Meisch). This is a new county record. (ARS).

A SCARAB (Cotinis texana) - ARIZONA - Feeding on sap on elms; nuisance to homeowners in Yuma, Yuma County. (Ariz. Coop. Sur.).

ASIATIC OAK WEEVIL (Cyrtepidomus castaneus) - MISSOURI - Numerous specimens collected from motel near Rolla, Phelps County, September 7; additional specimens and damage to oaks observed in area on September 17. This is a new State record. (Craig, Thomas).

A WEEVIL (Smicronyx profusus) - TEXAS - Large numbers noted on elms in Pecos County; possibly seeking hibernation sites. (Neeb, Sept. 3).

APHIDS - NEVADA - Lachnus salignus heavy on willows in Panaca, Lincoln County. (Bechtel, Zoller). UTAH - Fall migration of various species began throughout Cache County and in Brigham-Willard area, Box Elder County. Heavy on beech and moderate on linden trees at Logan, Cache County. Pterocomma smithiae very heavy on bark of willows at Providence, Cache County. (Knowlton). ALABAMA - Enormous groups of Prosiphilus tessellatus (woolly alder aphid) noted on widely isolated alders along pond and creek banks. (McQueen).

A MAPLE WHITEFLY (Aleurochiton forbesii) - OHIO - Ranged up to 50 per leaf on most of lower leaves of many red maples in Montgomery County; none observed on sugar or Norway maples. (Cooley).

TULIPTREE SCALE (Toumeyella liriodendri) - NORTH CAROLINA - Many crawlers present on yellow-poplar in Cumberland County. (Robertson, Oct. 1).

GALL WASPS - TEXAS - Many specimens noted over very wide area of State; hosts mainly oak and hackberry. (Texas Coop. Rpt.). CALIFORNIA - Bassettia herberti heavy on evergreen oak in San Rafael, Marin County. (Cal. Coop. Rpt.).

A FALSE SPIDER MITE (Brevipalpus cardinalis) - CALIFORNIA - Medium on ash trees in Earp, San Bernardino County. (Cal. Coop. Rpt.).

A MEALYBUG (Chorizococcus brevicruris McKenzie) - CALIFORNIA - Heavy on stems, crowns and roots of succulents (Stapelia sp.) and light on Huernia spp. in hobbyist's hothouse at Sacramento, Sacramento County; collected September 7 by B. A. Taylor. Det. by R. F. Wilkey. Adults and crawlers found on roots of cactus in local nursery in Sacramento week ending September 24. This species was known only from a single specimen intercepted in quarantine in Honolulu, Hawaii, in 1935 on Caralluma nebrowni from an unknown California source; species described in 1960. These records constitute the first established infestations in North America. Heavy, week ending October 8, on Stapelia sp. in nursery in Yucca Valley and medium on Huernia sp. in Twentynine Palms, San Bernardino County. This is a new county record. (Cal. Coop. Rpt.).

MEALYBUGS - CALIFORNIA - Rhizoecus cacticans heavy on Echeveria sp., Sempervivum sp., Haworthia sp. and Mammillaria sp. nursery stock in Sacramento, Sacramento County. This is a new county record. (Cal. Coop. Rpt.). FLORIDA - Ferrisia virgata (striped mealybug) localized and severely damaging stem and leaves of Fatshedera sp. at Tampa, Hillsborough County. (Hale, Sept. 28). This is a new host record for Florida Division of Plant Industry. (Fla. Coop. Sur.). F. virgata.

localized and severely damaging leaves and stem of Codiaeum variegatum at Tampa. (Hale, Sept. 28).

COTTONY-CUSHION SCALE (Icerya purchasi) - SOUTH CAROLINA - Affecting boxwoods, camellias and other garden plants in Greenville. (Nettles, Oct. 5).

CHAFF SCALE (Parlatoria pergandii) - TEXAS - Heavy on euonymus in Bee County. Det. by B. McDaniel. (Holt).

Coccids in Florida - Diaspis boisduvalii generally infesting and severely damaging queen palm at Pinellas Park, Pinellas County. (Barber, Bingaman, Sept. 29). Aspidiotus cyanophylli general on and severely damaging leaves of dwarf date palm at St. Petersburg, and caused moderate to severe damage to Ligustrum sp. at Pinellas Park. (Barber, Bingaman, Sept. 29). Chrysomphalus aonidium (Florida red scale) caused moderate to severe damage to Ligustrum sp. at Pinellas Park. (Bingaman, Barber, Sept. 29). All stages of Fiorinia theae (tea scale) localized and severely damaging leaves of camellia and holly in nursery at Leesburg, Lake County, (Bentley, Oct. 4); scattered and moderately damaging camellia, and localized and lightly damaging Burford holly in nursery at Bradenton, Manatee County. (Bickner, Sept. 29).

RUSTY PLUM APHID (Hysteroneura setariae) - ARIZONA - Heavy on ornamentals throughout Phoenix, Maricopa County. (Ariz. Coop. Sur.).

A PYRAUSTID MOTH (Undulambia polystichalis) - FLORIDA - Larvae damaging and pupae noted on leatherleaf fern (Polystichum adiantiforme) in fernery at Pierson, Volusia County. (Roberts).

MORNING-GLORY LEAF MINER (Bedellia somnulentella) - CALIFORNIA - Medium on morning-glory in Kerman, Fresno County. (Cal. Coop. Rpt.).

BEE T ARMYWORM (Spodoptera exigua) - CALIFORNIA - Medium on amaranthus in Visalia, Tulare County. (Cal. Coop. Rpt.).

CABBAGE LOOPER (Trichoplusia ni) - NEW HAMPSHIRE - Larvae damaging ornamental peppers in greenhouse at Concord. (Sutherland).

HOLLYHOCK WEEVIL (Apion longirostre) - CALIFORNIA - Adults heavy on hollyhock flowers in Willows, Glenn County, and taken on peach fruit in Chico, Butte County. (Cal. Coop. Rpt.).

BLACK BLISTER BEETLE (Epicauta pennsylvanica) - ALABAMA - Large number of adults noted on goldenrod throughout central and southern areas. (McQueen).

A SPRINGTAIL (Proisotoma minuta) - CALIFORNIA - Nymphs medium in soil around African-violets in Fresno, Fresno County. (Cal. Coop. Rpt.).

A FALSE SPIDER MITE (Brevipalpus sp.) - ARIZONA - Causing severe damage to chrysanthemums in Yuma, Yuma County. (Ariz. Coop. Sur.).

CYCLAMEN MITE (Steneotarsonemus pallidus) - RHODE ISLAND - Damaging African-violet in Westerly, Washington County. (Hindle, Mathewson, Sept. 29).

#### INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - LOUISIANA - Jefferson Parish Department of Mosquito Control larval collections for week of October 8 included Aedes sollicitans (salt-marsh mosquito), A. vexans, Anopheles bradleyi, A. crucians, A. quadrimaculatus (common malaria mosquito), Culex erraticus, C. pipiens quinquefasciatus (southern house mosquito), C. restuans, C. salinarius, Psorophora confinnis and Uranotaenia sapphirina. Collections indicated sharp increase in Culex salinarius breeding. Light-trap collections of adults in same period showed slight increase; 19,065 specimens taken. Culex salinarius predominated. Culex restuans found for first

time this year. (Stokes). OKLAHOMA - Adults of several species annoying people in Bryan and Washington Counties; numbers decreased in east central area. (Okla. Coop. Sur.). COLORADO - Mosquitoes, mostly Aedes dorsalis, increasing to moderate levels near Fort Collins, Larimer County. (Johnsen). OHIO - Numerous species collected August 13-September 10 and September 14-17 by incandescent light trap at Wright-Patterson Air Force Base near Dayton. Species included: 6 Culex tarsalis, 29 C. pipiens quinquefasciatus, 5 C. nigripalpus, 8 Culiseta spp., 35 Aedes vexans, 23 Anopheles punctipennis and 11 Uranotaenia sapphirina. Det. by Raye. (Wilson).

FACE FLY (Musca autumnalis) - UTAH - Active and annoying cattle and horses in Logan-Hyrum area of Cache County; populations lower following severe frost in late September. (Knowlton).

HOUSE FLY (Musca domestica) - OKLAHOMA - Heavy and very annoying in residential areas in Stillwater, Payne County. (Okla. Coop. Sur.).

HORN FLY (Haematobia irritans) - KANSAS - Ranged 200-400 per animal in Doniphan and Brown Counties. (Simpson). OKLAHOMA - Light to moderate on cattle in Cleveland County. (Okla. Coop. Sur.).

HORSE BOT FLY (Gasterophilus intestinalis) - OKLAHOMA - Heavy and annoying horses in Kay County. (Okla. Coop. Sur.).

A BLACK FLY (Simulium sp.) - COLORADO - Annoying humans in vicinity of Fort Collins; small numbers present. (Thatcher).

DRONE FLY (Eristalis tenax) - UTAH - Larvae found in dairy shed at Elmo, Emery County. (Knowlton, Hanson).

A BLOW FLY (Phaenicia pallescens) - NORTH CAROLINA - Larvae recovered from vomitus of 5-year-old child in Burke County October 1. Child complained of stomach ache for 2 weeks previously. Fever of 101° F. noted October 7. Det. by D. A. Mount. (Reece, Parton).

A SOLDIER FLY (Hermetia illucens) - NORTH CAROLINA - Larvae passed in stool of patient of Pitt County physician August 31. Det. by D. A. Mount. (Travathan).

A FEATHER CHEWING LOUSE (Lipeurus sp.) - RHODE ISLAND - Species, apparently in this genus, heavy on pheasants in Kingston, Washington County. (Durfee, Mathewson).

GIANT HORNET (Vespa crabro germana) - OHIO - Single male collected September 22 in Vinton County; three workers collected July 27 and 2 workers collected August 3 in Scioto County; one worker collected September 22 in Vinton County. These are new county records. Four specimens collected October 10, 1947, by C. A. Reese in Medina County are in the Ohio State University Insect Collection. (Shew).

WASPS - UTAH - Various species, largely Polistes fuscatus, particularly annoying about communities and homes in northern and central areas. Vespula maculata (bald-faced hornet) and Vespula spp. troublesome in local areas. Yellow jackets annoyed fishermen in High Creek and parts of Logan Canyon areas of Cache County. (Knowlton).

HONEY BEE (Apis mellifera) - UTAH - Annoying on Utah State University campus at Logan, Cache County. (Bohart, Knowlton).

TICKS - SOUTH CAROLINA - Quite numerous around roads near marsh on Johns Island, Charleston County. (Nettles et al., Oct. 5). OKLAHOMA - Rhipicephalus sanguineus (brown dog tick) heavy on dogs in Lawson, Comanche County. (Okla. Coop. Sur.).

A BROWN SPIDER (Loxosceles reclusa) - OKLAHOMA - Numerous specimens taken under leaves, boards and other objects around Lake Carl Blackwell, Payne County. (Okla. Coop. Sur.).

HOUSEHOLD AND STRUCTURAL INSECTS

BOXELDER BUG (Leptocoris trivittatus) - UTAH - Extremely numerous on fourth floor of Utah State Capitol building; numerous on other floors. (Hutchings). Annoying in homes and cabins in canyons east and southeast of Salt Lake City, Salt Lake County. Invaded schoolrooms in Ogden area, Weber County. Large number in air ducts of heating system in State Capitol caused concern. (Knowlton).  
OKLAHOMA - Entering homes in Cleveland County. (Okla. Coop. Sur.).

ELM LEAF BEETLE (Galerucella xanthomelaena) - OHIO - Very numerous in home in Dayton, Montgomery County; number of adults in that home increased within past few weeks. (Wallace, Delaplane). VIRGINIA - Adults entered home in Bedford County. (Isakson, Boone).

COCKROACHES - RHODE ISLAND - Blatta orientalis (oriental cockroach) infested food establishment September 28 and Supella supellectilium (brown-banded cockroach) infested home October 4 in Providence, Providence County. Parcoblatta sp. (a wood cockroach) appearing in homes in Warwick, Kent County, and Providence. (Veilleux).

MOTH FLIES - MARYLAND - Nuisance in homes in Frederick, Fredrick County, and in Baltimore. (U. Md., Ent. Dept.).

MILLIPEDS - WISCONSIN - Continue as principal household pests statewide. (Wis. Ins. Sur.).

LARDER BEETLE (Dermestes lardarius) - MICHIGAN - Adults and larvae submitted from many counties; infested several homes in Cass City. (Dowdy).

INDIAN-MEAL MOTH (Plodia interpunctella) - OREGON - Inquiries and complaints of household infestations more than usual in Willamette Valley. (Every).

OLD-HOUSE BORER (Hylotrupes bajulus) - SOUTH CAROLINA - Damaged floors of 2-century-old house (once occupied by Cornwallis). Close observation underway for additional injury. (Nettles et al., Oct. 5).

A SUBTERRANEAN TERMITE (Reticulitermes sp.) - MARYLAND - Infested building near Centreville, Queen Annes County. (U. Md., Ent. Dept.).

STORED-PRODUCT INSECTS

Stored-product Insects in Maryland - Adults of Stegobium paniceum (drugstore beetle) and adults of Tribolium castaneum (red flour beetle) noted in feed mill at Harmony, Caroline County. (U. Md., Ent. Dept.).

Stored-product Insects in Missouri - Oryzaephilus surinamensis (saw-toothed grain beetle), Typhaea stercorea (a hairy fungus beetle) and Ahasverus advena (foreign grain beetle) collected from stored grain in several counties. (Houser, Thomas).

Stored-product Insects in Oklahoma - Ground cowfeed checked in Payne County showed heavy infestations of Lasioderma serricorne (cigarette beetle) and Plodia interpunctella (Indian-meal moth) and light numbers of Tenebroides mauritanicus (cadelle). (Okla. Coop. Sur.).

BENEFICIAL INSECTS

LADY BEETLES - ILLINOIS - Adults of several species ranged 10-30 (averaged 20) and larvae ranged 0-2 (averaged 0.75) per 100 sweeps in alfalfa in southeast district. (Ill. Ins. Rpt.). COLORADO - Moving up to mountains to hibernate; some active at 8,500 to 9,000 feet altitude in Larimer County. (Thatcher).

PUNCTURE-VINE WEEVILS (Microlarinus spp.) - NEVADA - M. larenyii and M. lypriformis damaged puncture-vine seeds, stems and crowns in Alamo and Caliente, Lincoln County. Larvae but no adults observed. (Bechtel, Zoller).

A BIG-EYED BUG (Geocoris bullatus) - RHODE ISLAND - Heavy in lawns of estate in Newport, Newport County; probably predaceous on leafhoppers. (Skogley, Mathewson).

DAMSEL BUGS (Nabis spp.) - ILLINOIS - Varied 40-80 (averaged 60) per 100 sweeps in alfalfa in southeast district. (Ill. Ins. Rpt.).

#### MISCELLANEOUS INSECTS

EUROPEAN MANTIS (Mantis religiosa) - WASHINGTON - Numerous specimens collected by high school students during fall of 1964. Det. by A. B. Gurney. Reported as quite numerous in Spokane area of Spokane County. Apparently was introduced prior to 1964, as reports indicate the species had been observed earlier. This is a new State record. (Telford). Note originally carried in CEIR 15(41): 1167. (PPC).

A SCORPIONFLY (Panorpa nuptialis) - OKLAHOMA - Adults active for past 2 weeks in eastern part of State; quite numerous in some areas. (Okla. Coop. Sur.).

VELVETBEAN CATERPILLAR (Anticarsia gemmatalis) - MICHIGAN - Five adults taken in Jackson County blacklight trap evenings of September 21 and 22. (Newman, Stanley).

#### CORRECTIONS

CEIR 14 (INDEX): 29 - Megaloceraea resticornis should read Megaloceraea recticornis

CEIR 15(38): 1108 - LIGHT-TRAP COLLECTIONS - Maryland, Centreville and Snow Hill - Entries for spp. should be entered under Protoparce.



STATUS OF THE SCREW-WORM (Cochliomyia hominivorax) IN THE SOUTHWEST

During the period October 3-9 a total of 19 cases was reported in the Southwestern Eradication Area by States and counties as follows: TEXAS - Presido 1; NEW MEXICO - Catron, Grant, Luna and Hidalgo one each; ARIZONA - Pinal 3, Maricopa, Santa Cruz, Pima and Graham two each, Cochise, Gila and Mohave one each. The Republic of Mexico reported 200 cases: Sonora 129, Chihuahua 53, Territorio sur de Baja California 10, Tamaulipas 4 and Coahuila 1. Sterile screw-worm flies released: Texas 18,176,250, New Mexico 6,180,000, Arizona 15,108,000, and Mexico 63,828,000.

Positive Cases                      Negative Cases                      Ratio of Positive Cases  
to 100 Cases Negative

Year      Current      Cumulative      Current      Cumulative      Current      Cumulative

Table 1. Comparison of specimens reported during corresponding week in 1963 and 1964 in Southwestern Eradication Area. (1965 area figures include cases reported from Arizona and/or California; 1964 figures reflect those from the 5-state area).

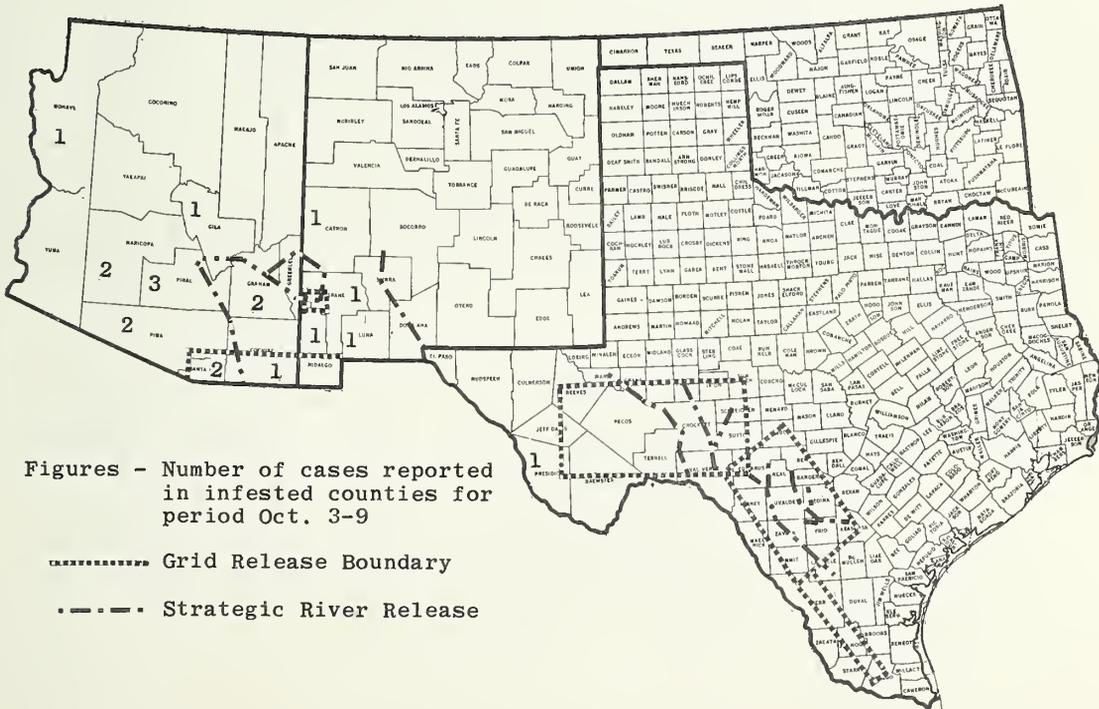
1963	578	4484	179	5488	322.90	81.70
1964	5	117	134	4837	3.73	2.41
1965	19	800	41	4025	46.34	19.87

Table 2. Comparison of specimens reported during corresponding week and in a corresponding area in 1964 in the United States-Mexico Barrier Zone.\*

1964	189	2916	42	1582	450.00	184.32
1965	216	4331	39	1851	553.84	233.98

Feasibility Survey - During this period 198 cases were identified in Mexico south of the Barrier Zone. (Anim. Health Div.)

\* Barrier Zone - Area in which screw-worm eradication operations are being carried out in an effort to prevent establishment of self-sustaining screw-worm populations in the United States. (Anim. Health Div.)



ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

IN Maryland DURING 1964  
 (State or District) (Year)

ATTACKING Apples  
 (Commodity or Crop)

ATTACKING Tomatoes (processing)  
 (Commodity or Crop)

A. Pest or pest complex: Codling moth, aphids, mites

B. Number of acres	a produced	(From CRS)	No.	1,480,000 bu.
C. Average yield per	---- a	(From CRS)	Units/	----
D. Price <sup>b</sup> per unit (	bu. ) <sup>c</sup>	(From CRS)	\$/	2.00
E. --- a	needing control		No. all (commercial)	
F. --- a	treated		No. all (commercial)	
G. Reduction due to not treating where needed:				
H. Loss in yield, percent			%	----
I. Loss in yield, units per	---- a, C x H		Units/	----
J. Loss in yield, \$ per	---- a, D x I		\$/	----
K. Loss in quality, \$ per	---- a		\$/	----
L. Yield loss for all	---- a, (E-F) x I		Units	----
M. Control cost, \$ per	bu. a,		\$/	0.25
N. Control cost for all	bu. a,	F x M	\$	370,000
O. Yield loss for all	---- a, (E-F) x J		\$	----
P. Quality loss for all	---- a, (E-F) x K		\$	----
Q. Combined control cost and losses,	N + O + P		\$	370,000 *
R. Percent loss due to each insect in the complex:				

Comment: \* Cost of control only. Spider mites were the most important pest of apples during 1964.

- a. Acres, head of cattle or other producing units used by Crop Reporting Service.
- b. Season average price per unit as given by CRS (describe basis).
- c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Wallace C. Harding, Jr.  
 Date June 22, 1965

A. Pest or pest complex: Flea beetles, cutworms, Colorado potato beetle, hornworms, aphids

B. Number of acres	a produced	(From CRS)	No.	7,200
C. Average yield per	acre a	(From CRS)	Units/	13.00 tons
D. Price <sup>b</sup> per unit (	ton ) <sup>c</sup>	(From CRS)	\$/	32.30
E. --- a	needing control		No.	7,200
F. --- a	treated		No.	4,000
G. Reduction due to not treating where needed:				
H. Loss in yield, percent			%	20
I. Loss in yield, units per	acre a, C x H		Units/	2.6 tons
J. Loss in yield, \$ per	acre a, D x I		\$/	83.98
K. Loss in quality, \$ per	---- a		\$/	----
L. Yield loss for all	---- a, (E-F) x I		Units	8,320 tons
M. Control cost, \$ per	acre a,		\$/	12.00
N. Control cost for all	acre a,	F x M	\$	48,000
O. Yield loss for all	---- a, (E-F) x J		\$	268,736
P. Quality loss for all	---- a, (E-F) x K		\$	----
Q. Combined control cost and losses,	N + O + P		\$	316,736 *
R. Percent loss due to each insect in the complex:				Colorado potato beetle and hornworms 50; others 50

Comment: \* Estimate does not include loss from reduction in quality.

- a. Acres, head of cattle or other producing units used by Crop Reporting Service.
- b. Season average price per unit as given by CRS (describe basis).
- c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Wallace C. Harding, Jr.  
 Date June 22, 1965

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Tobacco IN Maryland DURING 1964  
 (Commodity) (State or District) (Year)

A. Pest or pest complex: Green peach aphid, flea beetles, hornworms, budworms

B. Number of <u>acres</u> <sup>a</sup> produced (From CRS)	No.	39,000
C. Average yield per <u>acre</u> <sup>a</sup> (From CRS)	Units/	1,000 lb.
D. Price <sup>b</sup> per unit ( <u>lb.</u> ) <sup>c</sup> (From CRS)	\$/	0.43 (1963 season average price)
E. <u>Acres</u> <sup>a</sup> needing control	No.	39,000
F. <u>Acres</u> <sup>a</sup> treated	No.	30,000
G. Reduction due to not treating where needed:		
H. Loss in yield, percent	%	20
I. Loss in yield, units per <u>acre</u> <sup>a</sup> , C x H	Units/	200 lb.
J. Loss in yield, \$ per <u>acre</u> <sup>a</sup> , D x I	\$/	86.00
K. Loss in quality, \$ per <u>----</u> <sup>a</sup>	\$/	----
L. Yield loss for all <u>acres</u> <sup>a</sup> , (E-F) x I	Units	1,800,000 lb.
M. Control cost, \$ per <u>acre</u> <sup>a</sup>	\$/	6.00
N. Control cost for all <u>acres</u> <sup>a</sup> , F x M	\$	180,000
O. Yield loss for all <u>acres</u> <sup>a</sup> , (E-F) x J	\$	774,000
P. Quality loss for all <u>----</u> <sup>a</sup> , (E-F) x K	\$	----
Q. Combined control cost and losses, N + O + P	\$	954,000 *
R. Percent loss due to each insect in the complex: <u>Green peach aphid 50; flea beetles 25; hornworms and budworms 25.</u>		

Comment: \* Estimate does not include loss from reduction in quality.

- a. Acres, head of cattle or other producing units used by Crop Reporting Service.
- b. Season average price per unit as given by CRS (describe basis).
- c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Wallace C. Harding, Jr.

Date June 22, 1965

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

IN Oklahoma DURING 1964  
 (State or District) (Year)

ATTACKING Alfalfa  
 (Commodity or Crop)

ATTACKING Cotton  
 (Commodity or Crop)

A. Pest or pest complex: Pea aphid, spotted alfalfa aphid, webworms, cutworms, grasshoppers, armyworms

B. Number of acres <sup>a</sup> produced (From CRS) No. 520,000

C. Average yield per acre <sup>a</sup> (From CRS) Units/ 2.2 tons

D. Price<sup>b</sup> per unit ( lb. )<sup>c</sup> (From CRS) \$/ 23.50

E. Acres <sup>a</sup> needing control No. 187,044

F. Acres <sup>a</sup> treated No. 46,667

A. Pest or pest complex: Bollworm, boll weevil, fleahoppers, thrips, aphids

B. Number of acres <sup>a</sup> produced (From CRS) No. 575,000

C. Average yield per acre <sup>a</sup> (From CRS) Units/ 239 lb.

D. Price<sup>b</sup> per unit ( lb. )<sup>c</sup> (From CRS) \$/ 0.279

E. Acres <sup>a</sup> needing control No. 364,838

F. Acres <sup>a</sup> treated No. 198,129

G. Reduction due to not treating where needed:

H. Loss in yield, percent % 18

I. Loss in yield, units per acre <sup>a</sup>, C x H Units/ 0.396 tons

J. Loss in yield, \$ per acre <sup>a</sup>, D x I \$/ 9.31

K. Loss in quality, \$ per <sup>a</sup> \$/ -----

L. Yield loss for all acres <sup>a</sup>, (E-F) x I Units 55,589.3 tons

M. Control cost, \$ per acre <sup>a</sup>, \$/ 2.86

N. Control cost for all acres <sup>a</sup>, F x M \$ 133,467.62

O. Yield loss for all acres <sup>a</sup>, (E-F) x J \$ 1,306,909.87

P. Quality loss for all <sup>a</sup>, (E-F) x K \$ -----

Q. Combined control cost and losses, N + O + P \$ 1,440,377.49

R. Percent loss due to each insect in the complex: Pea aphid 36, spotted alfalfa aphid 19, webworms 7, cutworms 7, grasshoppers 6, armyworms 4, others 21.

G. Reduction due to not treating where needed:

H. Loss in yield, percent % 34

I. Loss in yield, units per acre <sup>a</sup>, C x H Units/ 81.26 lb.

J. Loss in yield, \$ per acre <sup>a</sup>, D x I \$/ 22.67

K. Loss in quality, \$ per <sup>a</sup> \$/ -----

L. Yield loss for all acres <sup>a</sup>, (E-F) x I Units 13,546,773 lb.

M. Control cost, \$ per acre <sup>a</sup>, \$/ 9.48

N. Control cost for all acres <sup>a</sup>, F x M \$ 1,878,262.92

O. Yield loss for all acres <sup>a</sup>, (E-F) x J \$ 3,779,293.03

P. Quality loss for all <sup>a</sup>, (E-F) x K \$ -----

Q. Combined control cost and losses, N + O + P \$ 5,657,555.95

R. Percent loss due to each insect in the complex: Bollworm 40, boll weevil 34, fleahoppers 8, thrips 6, aphids 3, others 9.

Comment: \_\_\_\_\_

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Don C. Arnold  
 Date August 27, 1965

Comment: \_\_\_\_\_

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Don C. Arnold  
 Date August 27, 1965



UNITED STATES DEPARTMENT OF AGRICULTURE  
Hyattsville, Maryland 20781

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