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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 clearinghouse and does not assume responsibility for accuracy of the material.

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COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

SPOTTED ALFALFA APHID infestations on alfalfa moderate to heavy in Torrance and Santa Fe Counties, New Mexico; increasing in southeast and central Arizona; increasing in some fields in Idaho; moderate in areas of eastern Millard County, Utah; counts up to 3,000-5,000 per 100 sweeps in areas where water shortage exists in Colorado; and reported for first time this season in Washington. (p. 910). MEADOW SPITTLEBUG adult survey completed in Illinois; populations continue to decline from those of past 3 years. THREE-CORNERED ALFALFA HOPPER infestations continue heavy in Arizona alfalfa and averaged 2-7 per sweep in Burleson County, Texas. (p. 911). STRIPED and SPOTTED CUCUMBER BEETLES feeding heavily on soybeans in Westmoreland County, Virginia, and BEET ARMYWORM causing considerable foliage damage to alfalfa in central Arizona. (p. 912).

BROWN SOFT SCALE a major pest of citrus in the lower Rio Grande Valley of Texas. CITRUS RUST MITE expected to increase to above average level on citrus in Florida before October and infestations will become more numerous and severe, with fruit more infested than leaves. In New Mexico, CODLING MOTH infested 20-80 percent of random apple samples, statewide, and WESTERN GRAPE LEAF SKELETONIZER larvae causing serious damage to grapevines in Dona Ana County. (p. 913).

CABBAGE LOOPER eggs very high on lettuce in all areas of Arizona and infestations heavy in areas of Alabama and Maryland on crucifers. (p. 915). PICKLEWORM severely injured squash and other cucurbits locally in Massachusetts. (p. 915).

SOUTHERN PINE BEETLE infestations continued to spread during August in Texas, with infestations reported in Chambers and Jefferson Counties for first time. Damage to pine by a PINE SAWFLY (Neodiprion pratti pratti) expected to drop appreciably by 1962 in the Piedmont and Coastal Plain areas of Virginia. (p.917). ELM LEAF BEETLE completely defoliated elms in areas throughout Missouri and POPLAR-AND-WILLOW BORER evident throughout southern Michigan. FALL WEBWORM locally abundant in Plymouth and Barnstable Counties, Massachusetts, and second-generation larvae defoliating various trees throughout New Mexico. AZALEA CATERPILLAR (Datana major) causing considerable damage to azaleas in areas of Alabama, Florida and South Carolina. (p. 918).

CORRECTION. (p. 921).

HAWAIIAN INSECT NOTES. (p. 916).

INSECT DETECTION: An eriophyid mite (Aceria neocynodonis) reported for first time in Texas. (p. 912). New county records reported were soybean cyst nematode in Carroll and Weakley Counties, Tennessee (p. 912); pine false webworm in Indiana County, Pennsylvania (p. 917); mimosa webworm in Wabash, Edwards, Fulton, Marion and Moultrie Counties, Illinois (p. 918); imported fire ant in Catahoula and La Salle Parishes, Louisiana (p. 920); white-fringed beetles in St. Clair County, Alabama, Columbia County, Georgia, and Winston and Choctaw Counties, Mississippi (p. 920); and an earwig (Euborellia cincticollis) in Butte County, California. (p. 921).

Reports in this issue are for week ending September 22 unless otherwise indicated.

WEATHER OF THE WEEK ENDING SEPTEMBER 25

Cold air covering the Far West at the beginning of the period pushed eastward to a line joining Cleveland, Ohio, and Dallas, Texas, by the end of the period. Below-normal temperatures prevailed all week in most of this area, with freezing widespread in central and northern interior areas. Temperatures for the week averaged as much as 12° below normal in the central and northern Rockies.

Elsewhere in the Nation, temperatures rose from below-normal levels at the beginning of the period to midsummer levels by the end. Weekly averages were 3° to 6° above normal in the Ohio Valley, eastern Great Lakes region and the Northeast. Some northeastern sections reported near-record heat for so late in September.

Little or no precipitation fell in the extreme western and southern portions of the country, but most other areas received generous amounts which were particularly beneficial in the northern Great Plains and parts of the Far West. Moderate to heavy amounts were general in North Dakota where several stations measured more than 2 inches. Weekly totals exceeded an inch in most of South Dakota. General moderate to heavy amounts in Montana furnished adequate topsoil moisture, except north central areas, and even replenished subsoil moisture locally. This beneficial precipitation extended over much of Idaho, Utah, Wyoming and northeastern Nevada. Snow fell in the central and northern Rockies, and the higher mountains in Montana are now snowcapped. Heavy snow fell in the mountains of northern Colorado; 6 to 12 inches or more were record amounts for September in some areas.

Rainfall along the Atlantic coast virtually all fell during the passage of hurricane Esther early in the week. Totals generally ranged from 1 to 2 inches in the lower Appalachians and along the middle and north Atlantic coast, except in southeastern New England and Long Island, where amounts ranged up to more than 4 inches. Esther caused damage in coastal areas from New Jersey to southern New England that probably totaled a few million dollars. On the 22d, a small tornado and hail north of Grand Rapids, Michigan, damaged crops and orchards, chiefly fruit; losses were estimated at \$2 to \$3 million. (Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - INDIANA - Melanoplus differentialis and M. femurrubrum counts in Ripley, Decatur and Shelby Counties ranged 2-12 adults per square yard; some damage to beans and leaf feeding on corn readily observed. (Matthew). MISSOURI - Grasshopper damage to fall-seeded alfalfa and early small grain evident in south central and southwest areas. Much vegetation in wastelands and fence rows matured and beginning to dry up. (Munson, Thomas, Wood). MINNESOTA - Adult survey showed continued buildup in number of areas; threatening to severe infestations most numerous in west central and northwestern districts; small localized areas observed in some north central, central, east central, southwest and southeast counties. Infestations scattered and localized in all areas where economic populations present; no large contiguous blocks found. Alfalfa or alfalfa-grass mixtures principal grasshopper habitat, but high populations also observed in most other legumes and in grass plantings in some instances. Economic numbers observed in or associated with Conservation Reserve land in many instances, causing considerable trouble in some areas. In fields with threatening to severe populations, approximately 30 percent in Conservation Reserve land and remaining 70 percent in crop or pastureland, indicating most infested acreage in croplands. Heavy damage occurred to hay crops in fields with high populations; less damage to soybeans, corn and some small grains in adjacent areas. Some controls applied to soil bank fields, roadsides and croplands; treated acreage generally limited. M. femurrubrum dominant species in all districts, followed by M. bivittatus and M. bilituratus in northwest. Increases in Camnula pellucida and M. packardii noted during past season, with each species being dominant in some fields in northwest and north central counties. In west central district, M. bivittatus and M. differentialis second and third in predominance, with heavy infestations present. (Minn. Ins. Rpt., Sept. 15). NORTH DAKOTA - Survey in Richland County showed light infestation of M. bivittatus and M. differentialis along field margins at most locations; egg laying continues in area. (N. D. Ins. Sur.). NEBRASKA - M. bilituratus and M. femurrubrum averaged approximately 2 per square yard on alfalfa in Blaine, Logan and Thomas Counties. (Bergman). COLORADO - As high as 40 Melanoplus spp. per square yard present on soil bank land in Kiowa and Crowley Counties. Grasshoppers migrating into margins of winter wheat and damaging as much as 4 drill widths. Controls applied on margins of wheat fields, with more than one application in many cases. (Whitmore, Wilshusen).

EUROPEAN CORN BORER (Ostrinia nubilalis) - DELAWARE - Average infestation 80 percent, with 399.2 borers per 100 plants in 10 corn fields examined in Sussex County fall abundance survey. This represents slight decrease from 1960 population in same area. (Burbutis, Mason). NEBRASKA - Third and fourth instars infesting upper half of corn stalks in northern portion of State. (Bergman).

SORGHUM WEBWORM (Celama sorghiella) - TEXAS - Averaged 1-5 per head in grain sorghum in Leon County. (Randolph). OKLAHOMA - Several fields of immature sorghum checked in south central area, with negative results. (Okla. Coop. Sur.).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - MISSOURI - Larvae beginning to girdle stalks in more mature fields of corn in southwest; highest average 5 percent. (Munson, Thomas, Wood).

SOUTHERN CORNSTALK BORER (Diatraea crambidoides) - DELAWARE - Heavy in several fields of corn in Sussex County, compared with last 2-3 years. (Burbutis, Mason).

SUGARCANE BORER (Diatraea saccharalis) - TEXAS - Infested 20-100 percent of grain sorghum plants in local field in Brazos County. (Randolph).

DESERT CORN FLEA BEETLE (Chaetocnema ectypa) - ARIZONA - Adults averaged 6-8 per plant in some central area sorghum. (Ariz. Coop. Sur.).

CORN LEAF APHID (Rhopalosiphum maidis) - CALIFORNIA - Heavy on milo in Colusa, Colusa County. (Cal. Coop. Rpt.). WYOMING - Decreasing in corn in Park, Big Horn, Hot Springs, Washakie and Fremont Counties. (Fullerton). OKLAHOMA - Light and scattered on sorghum in south central area. (Okla. Coop. Sur.).

A SPITTLEBUG (Prosapia bicincta)* - SOUTH CAROLINA - Heavy on grain sorghum in Orangeburg County; estimated at 50-100,000 nymphs per acre. (Ackerman).

RICE STINK BUG (Oebalus pugnax) - ARKANSAS - Highest count in rice fields checked in Chicot County; 70 per 100 sweeps of 15-inch net. (Ark. Ins. Sur.).

RICE DELPHACID (Sogata orizicola) - Surveys for this species and the rice disease, hoja blanca, that it transmits, were conducted in all commercial rice-growing areas from Texas to Florida during August. No infected rice observed and no S. orizicola collected in sweepings. No rice found on 2 previously infested sites in Mississippi. (PPC, So. Reg.).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - COLORADO - Numbers low on corn in Mesa, Delta, Montrose, Garfield, Otero and Crowley Counties. (Bulla, Jenkins). WYOMING - Found in damaging numbers for first time in Big Horn Basin; lower 4-5 leaves heavily damaged in many fields of corn in Park County. Traces of damage found in Big Horn, Hot Springs, Washakie and Fremont Counties. (Fullerton). IDAHO - Adults light on Austrian winter peas at Parma, Canyon County, but oviposition heavy. (Waters, Sept. 15).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEW MEXICO - Buildup rapid in many fields of alfalfa in Torrance and Santa Fe Counties; infestations moderate to heavy. (N. M. Coop. Rpt.). ARIZONA - Infestations increasing in southeast and central area alfalfa, with average of 1-3 per trifoliate leaf in some fields. Fall buildup beginning; peak expected in October. (Ariz. Coop. Sur.). NEVADA - None found in fields checked in Fallon area, Churchill County. (Lauderdale). OREGON - Has not appeared in Klamath County despite occurrence in Jackson County and southward. (Goeden). WASHINGTON - Low numbers of winged adults and nymphs collected at Pasco, Franklin County; none found in previous survey, August 25. (Klostermeyer). Single nymph collected near Asotin, along Snake River. These are first records for season. (Telford). IDAHO - Increasing in some fields, particularly later planted new seedings; decreasing in some hay fields due to migration or predator pressure. Reinfested one field in Arena Valley 4 days after treatment; averaged 20 plus per stem. (Waters). Populations greatly increased in some third and fourth-cutting hay fields from previous week; increased from one heaping teaspoon to as high as one-half to three-fourths cupful per sweep. Few fields treated; most being cut or abandoned. In field of newly seeded alfalfa, plant population 40 plus per square foot and aphid population 10-40 per plant one week previous; checks following week revealed practically all plants dead and aphids either migrated or dead. (Waters, Sept. 15). UTAH - Infestation moderate on alfalfa in areas of eastern Millard County. (Knowlton, Rickenbach). COLORADO - Populations low where irrigation water has been plentiful; 50-1,000 per 100 sweeps. Where water shortage exists, counts up to 3,000-5,000 per 100 sweeps. Inspections made in Otero, Crowley, Mesa, Delta, Montrose and Garfield Counties. (Bulla, Schweissing). NEBRASKA - Ranged 1-14 per sweep in central and northern sections. (Bergman). OKLAHOMA - Light in occasional alfalfa fields in south central and southwest areas. (Okla. Coop. Sur.). MISSOURI - Counts in south central and southwest areas generally very light; averaged 2-5 per sweep in most fields. Counts as high as 27 per sweep found in one field. (Munson, Thomas, Wood). ARKANSAS - Examination negative in several northwest area fields; however, 40 per 25 sweeps of 5-inch net taken in one field near Mulberry, Crawford County. (Ark. Ins. Sur.).

* Fennah, R. G. 1948. Ann. and Mag. Nat. Hist. Ser. 12, 1(9):606.

GARDEN FLEAHOPPER (Halticus bracteatus) - DELAWARE - Adults and nymphs greatly reduced on soybeans over State; high count 3 per sweep in Kent County. Generally, counts range 30-100 per 100 sweeps. (Burbutis, Mason).

BEAN LEAF BEETLE (Cerotoma trifurcata) - VIRGINIA - Infestations severe on soybeans throughout Middlesex County. (Tarpley, Edwards, Sept. 12).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - VIRGINIA - Feeding heavily on soybean leaves and pods in Westmoreland County; feeding on pods does not go into beans in most cases. This is a new problem in this area. (Dawson).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - VIRGINIA - Feeding on leaves and pods of soybeans heavy in Westmoreland County; beans not involved in most instances. This is a new problem in this area. (Dawson). DELAWARE - Adults per 100 sweeps averaged 70 in alfalfa and 50 in soybeans in New Castle County; generally under 50 per 100 sweeps elsewhere on these crops. (Burbutis, Mason).

CORN ROOTWORMS (Diabrotica spp.) - NEBRASKA - D. virgifera and D. undecimpunctata howardi averaged 6 per 10 sweeps on alfalfa adjacent to corn in central and northern areas. (Bergman).

ALFALFA CATERPILLAR (Colias eurytheme) - IDAHO - First instars causing some damage to newly seeded alfalfa in the one-true-leaf stage, south of Parma, Canyon County. (Waters). CALIFORNIA - Larvae light on Ladino clover in Williams, Colusa County. (Cal. Coop. Rpt.). OKLAHOMA - Light populations (0.5-3 per sweep) noted in south central and southwest areas. (Okla. Coop. Sur.). DELAWARE - Larvae averaged 2 per sweep in one field of alfalfa in southern New Castle County, with moderately heavy injury; present on soybeans and alfalfa in Kent County. (Burbutis, Mason).

BEE T ARMYWORM (Spodoptera exigua) - TEXAS - Infestations subsiding in Burleson County; averaged 1-3 per sweep in alfalfa. A parasite is very prevalent. (Randolph). ARIZONA - Larvae averaged 50-60 per 100 sweeps in some central area alfalfa fields; considerable foliage damage evident. (Ariz. Coop. Sur.). CALIFORNIA - Larvae light on Ladino clover in Williams, Colusa County. (Cal. Coop. Rpt.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Light larval populations present on Ladino clover in Williams, Colusa County. (Cal. Coop. Rpt.).

WEBWORMS (Loxostege spp.) - IDAHO - Large adult flights of L. commixtalis and L. sticticalis occurred in Parma-Wilder area of Canyon County each evening during period September 14-18. (Waters).

WHITEFLIES - IDAHO - Eggs ranged 1-25 per trifoliate leaf on Austrian winter peas at Parma, Canyon County. Adults averaged about one per plant. (Waters, Sept. 15).

SOYBEAN CYST NEMATODE (Heterodera glycines) - TENNESSEE - Infestations found in Carroll and Weakley Counties for first time during August. (PPC, So. Reg.).

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - Locally severe infestation in lawn averaged 65 larvae per square foot in suburbs of Fairfax, Fairfax County. (Blair).

SPITTLEBUGS - ALABAMA - Heavy populations of an undetermined species damaging Bermuda grass in Crenshaw County. (Buttram).

AN ERIOPHYID MITE (Aceria neocynodonis) - TEXAS - Specimens collected from Bermuda grass in El Paso County, July 4, 1961, constitute a new State record. Det. by E. W. Baker. (Cook).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - NEW MEXICO - Random samples of apples ranged 20-80 percent infested throughout State. Frosts killed fruit in most areas to point where many growers felt they could not afford to conduct necessary spray programs. (N. M. Coop. Rpt.).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - IDAHO - Larvae damaged 95 percent of fruit in small orchard near Parma. (Scott, Sept. 15).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - MICHIGAN - Third-brood larvae common locally in orchards at Sparta, Paw Paw and Fennville. (Hutson).

A LYONETIID (Bucculatrix pomifoliella) - VIRGINIA - Heavily infested apple foliage in abandoned orchards in Winchester and other areas. (Hough, Hill, Grayson, Rowell; Sept. 15).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - COLORADO - Light on fruit trees in Mesa and Delta Counties; ranged 0-10 per leaf. (Bulla). MICHIGAN - Populations on uneven downward trend at Sparta, Benton Harbor and Paw Paw. (Hutson).

PLUM GOUGER (Anthonomus scutellaris) - COLORADO - Damaged plums at Arriba, Lincoln County. (Hantsbarger).

BLACK PECAN APHID (Melanocallis caryaefoliae) - ALABAMA - Caused heavy damage to pecans in Mobile County. (Seibels).

WALNUT HUSK FLY (Rhagoletis completa) - UTAH - Larvae numerous in English walnuts locally in Ogden area, Weber County; infested black walnuts in Ogden-Slaterville area, Weber County, and Clearfield, Davis County. (Knowlton).

WESTERN GRAPE LEAF SKELETONIZER (Harrisina brillians) - NEW MEXICO - Larvae causing serious damage to grapevines in Dona Ana County. (N. M. Coop. Rpt.).

GRAPE BERRY MOTH (Paralobesia viteana) - MICHIGAN - Noticeable egg laying on September 6 at Paw Paw, Lawton and Caloma; larvae readily found by September 18. (Hutson).

BROWN SOFT SCALE (Coccus hesperidum) - TEXAS - A major pest of citrus in lower Rio Grande Valley. (Newton).

CALIFORNIA RED SCALE (Aonidiella aurantii) - TEXAS - Increased on citrus in lower Rio Grande Valley. (Newton).

Citrus Insect Situation in Florida - Mid-September - CITRUS RUST MITE (Phyllocop-truta oleivora) infested 55 percent of groves (norm 56 percent); 34 percent economic (norm 37 percent). Populations will increase to above average level before October and infestations will become more numerous and severe, with fruit more infested than leaves. Highest districts with threatening conditions are west coast, Bartow, Gainesville, Brooksville, upper east coast and ridge. CITRUS RED MITE (Panonychus citri) infested 24 percent of groves (norm 40 percent); 8 percent economic (norm 20 percent). Populations below average; all districts have very low levels of infestation. Very few threatening infestations expected before mid-October. TEXAS CITRUS MITE (Eutetranychus banksi) infested 15 percent of groves; 5 percent economic. More groves will become infested; few will develop damaging infestations. FLORIDA RED SCALE (Chrysomphalus aonidum) infested 55 percent of groves (norm 54 percent); 5 percent economic (norm 9 percent). Population near average for time of year; increase to above average level expected during October. Highest districts are ridge, with threatening conditions, and Indian River. PURPLE SCALE (Lepidosaphes beekii) infested 47 percent of groves; 2 percent economic. Parasite activity has resulted in very low populations in

all districts; little change expected. CHAFF SCALE (Parlatoria pergandii) infested 40 percent of groves. Light infestations at present; some increase expected in few groves. (Simanton, Thompson, Johnson (Citrus Exp. Sta., Lake Alfred)).

MEXICAN FRUIT FLY (Anastrepha ludens) - MEXICO - Total of 7,518 trap inspections made of 1,624 traps installed on 852 properties in Municipios Tijuana, Tecate and Ensenada, Baja California, during August, with negative results. Fallen fruit also examined, with negative results. (PPC, Mex. Reg.). CALIFORNIA - Trapping activities and larval inspections continued during August in San Diego County, with negative results. (PPC, West. Reg.). TEXAS - During August, 2 adults trapped in Starr County; one male and one gravid female. Larvae also found in grapefruit. In Hidalgo County, both adult and larval surveys negative. (PPC, So. Reg.).

MEDITERRANEAN FRUIT FLY (Ceratitidis capitata) - MEXICO - Near end of August, 100 traps shipped to Mazatlan, Sinaloa, and 100 to Hermosillo, Sonora, from Tapachula, Chiapas, to initiate survey in these areas of Pacific coast. In state of Chiapas, a total of 3,334 inspections made of 1,667 traps during August; all inspections negative. (PPC, Mex. Reg.).

CITRUS BLACKFLY (Aleurocanthus woglumi) - MEXICO - In chemical control zone, 2 heavy infestations found; one on August 22 at Altamira, Municipio Allende; Nuevo Leon, and the other on August 31 in Las Raices, Municipio Montemorelos, Nuevo Leon. Latter infestation the heavier and consisted of about 50 very heavily infested trees; adults observed in large numbers on succulent growth of trees. In delimiting the infestations, a large percentage of groves found lightly infested. Survey crews working in chemical and free zones of states of Sonora, Baja California, Nuevo Leon and Tamaulipas inspected 46,771 citrus trees on 1,828 properties and found 1,654 trees infested on 96 properties. Infestations found only in Municipios Allende, Montemorelos and Linares in Nuevo Leon. In biological control zone, generally good control by parasites reported in Tamaulipas; parasitism rapidly improving in state of Campeche and, with favorable conditions, general commercial control of infestation can reasonably be expected latter part of 1961; parasitism remains low on some properties in Guadalajara, Jalisco, but has improved satisfactorily in others (generally, citrus blackfly infestation much reduced since June); and biological control excellent in state of Veracruz. During August, 2,300 Prospaltella opulenta released in Campeche and 12,200 in Guadalajara, Jalisco. Another parasite, Eretmocerus serius, reported controlling citrus blackfly in 2 small areas of Veracruz. (PPC, Mex. Reg., Aug. Rpt.).

CRANBERRY GIRDLER (Crambus topiarius) - MASSACHUSETTS - Severely injured bogs in Rochester and Carver, Plymouth County. (Tunis).

TRUCK CROP INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - VIRGINIA - Heavy populations of adults on fall potatoes on Eastern Shore; larvae present. (Hofmaster, Sept. 19).

TUBER FLEA BEETLE (Epitrix tuberis) - COLORADO - Populations light in Montrose County; ranged 20-30 per 100 sweeps. (Bulla).

POTATO TUBERWORM (Gnorimoschema operculella) - VIRGINIA - Generally present on fall potatoes on Eastern Shore. (Hofmaster, Sept. 19). CALIFORNIA - Medium infestations in potatoes in Escondido, San Diego County. (Cal. Coop. Rpt.).

TOMATO FRUITWORM (Heliothis zea) - ALABAMA - Tomatoes damaged in Jefferson County. (Buttram).

HORNWORMS (Protoparce spp.) - SOUTH DAKOTA - Serious pest in gardens in Brookings County. (Mast). DELAWARE - Larvae very abundant, with complete defoliation of peppers common locally in New Castle County. (Burbutis, Mason).

POTATO PSYLLID (Paratrioza cockerelli) - COLORADO - Nymphs light on late potatoes in Weld County. (French).

GREEN PEACH APHID (Myzus persicae) - COLORADO - Populations high on late potatoes; ranged 20-7,200 per 100 leaves in Weld County. (French). UTAH - More numerous on potatoes in northern area. (Knowlton). MARYLAND - Light populations on spinach at White Marsh, Baltimore County. (U. Md., Ent. Dept.).

BUCKTHORN APHID (Aphis nasturtii) - MICHIGAN - Numerous on potatoes at Stanton; noticeably heavier on Cherokee variety. (Hutson).

SLUGS - PENNSYLVANIA - Present on potatoes in Sullivan County, on cabbage in Erie County and damaged tomatoes in home gardens in Centre County. (Gesell, Udine).

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Egg counts very high on lettuce in all areas; controls recommended. (Ariz. Coop. Sur.). ALABAMA - Infestations high on collards in Jefferson County. (Buttram). DELAWARE - Larvae present on cabbage and peppers in New Castle County, cabbage and cauliflower in Kent County and pumpkin squash in Sussex County. (Burbutis, Mason). MARYLAND - Heavy on broccoli and cabbage at Colesville, Montgomery County. (U. Md., Ent. Dept.).

IMPORTED CABBAGEWORM (Pieris rapae) - VIRGINIA - Damaged cole crops on Eastern Shore due to poor controls. (Hofmaster, Sept. 19).

BET ARMYWORM (Spodoptera exigua) - ARIZONA - Light infestations present on lettuce statewide. (Ariz. Coop. Sur.).

SPINACH LEAF MINER (Pegomya hyoscyami) - MARYLAND - Mines becoming noticeable on young spinach at White Marsh, Baltimore County. (U. Md., Ent. Dept.).

BEAN LEAF BEETLE (Cerotoma trifurcata) - VIRGINIA - Very numerous in fields on Eastern Shore; controls recommended. (Hofmaster, Sept. 19).

GREEN CLOVERWORM (Plathypena scabra) - MICHIGAN - Common on beans in St. Clair-Port Huron area, St. Clair County, and Deckerville area, Sanilac County. (Hutson). VIRGINIA - Present on Eastern Shore but little damage. (Hofmaster, Sept. 19).

IO MOTH (Automeris io) - VIRGINIA - Unusually large number of larvae on bean foliage on Eastern Shore; damage not appreciable. (Hofmaster, Sept. 19).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - VIRGINIA - Most numerous pest of cucumbers on Eastern Shore. (Hofmaster, Sept. 19).

PICKLEWORM (Diaphania nitidalis) - MASSACHUSETTS - Severely injured squash and other cucurbits in Barnstable, Barnstable County. (Tunis).

CURCULIONIDS (Brachyrhinus spp.) - UTAH - B. sulcatus and B. ovatus damaged strawberry plantings in Cache, Weber and Salt Lake Counties. (Knowlton).

RASPBERRY CROWN BORER (Bembecia marginata) - OREGON - Oviposition began in fields in Marion and Linn Counties about September 3. (Rosenstiel).

TOBACCO INSECTS

GREEN PEACH APHID (Myzus persicae) - VIRGINIA - Local, severe infestation on burley tobacco near Bristol, Scott County. (Tarpley, Rich, Sept. 6).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Continues most damaging insect in scattered locations in low plains area. (Texas Coop. Rpt.). OKLAHOMA - Heavy infestations continued in southwest and south central areas. (Okla. Coop. Sur.).

BOLLWORMS (Heliothis spp., et al.) - ARIZONA - Counts of eggs and small larvae continue high in cotton statewide. Most larvae being immediately destroyed by controls and predators. Damage to bolls appears light. (Ariz. Coop. Sur.).

PINK BOLLWORM (Pectinophora gossypiella) - FLORIDA - One larva collected from hibiscus on September 1 at Plantation Key, Monroe County. (Fla. Coop. Sur., PPC). ARIZONA - Two larvae collected from field 2 miles west of Stanfield, Pinal County. This is first collection this year in central area, but infested field not treated in eradication program. Initial field checks failed to reveal additional larvae. (Ariz. Coop. Sur.). MEXICO - Gin trash inspections completed in state of Sinaloa during August, with negative results. Light trap inspections also negative. (PPC, Mex. Reg.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - ARIZONA - Infestations increasing in all areas, with larvae beginning to migrate in some areas. (Ariz. Coop. Sur.).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - ARIZONA - Infestations declining in all areas; now light in most instances. (Ariz. Coop. Sur.).

COTTON APHID (Aphis gossypii) - NEW MEXICO - Light to moderately heavy in Dona Ana and Luna Counties. If populations continue to increase, honeydew may become a problem. (N. M. Coop. Rpt.).

HAWAIIAN INSECT NOTES

The following reports were submitted by the Hawaiian Entomological Society and were abstracted from the "Notes and Exhibitions" in the minutes of the September 11, 1961, meeting.

Several species of FLIES were reared from an African snail (Achatina fulica) which had been killed by a commercial snail bait. During May and June 1961, bait was set out at 8 locations in Honolulu and windward Oahu. A sample of the dead snails was taken from each collection 5 to 6 days after baiting and kept in the insectary for 6 weeks. A total of 158 snails yielded 109 specimens of Megaselia setaria, 245 Fannia pusio, 59 Helicobia morionella and 192 Sarcophaga misera. The absence of calliphorids, especially Chrysomya megacephala, was noteworthy. When crushed A. fulica was used as a bait in Honolulu, 49 percent of the flies trapped were calliphorids and the overwhelming majority of these were C. megacephala. (Wilton).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - TEXAS - Infestations continued to spread during August; 110 new spots detected from aerial observations. Eleven of new locations in Chambers County; few in Jefferson County. These are first reports of infestations in these 2 counties. (Texas For. Pest Comm., Aug. Rpt.).

VIRGINIA - Infestation on Eastern Shore checked September 5-8; of 8 areas with active infestations in July, 3 had no current brood trees evident and all but one of remaining areas had 1-3 trees currently supporting beetles. Generally, current attacks in Temperanceville area, Accomack County, at low level and unless optimum conditions for build up occur by late October, infestation should not prove too serious this year. Additional check of area will be made in November. (For. Pest Surv. Rpt., Aug. Sum.).

BARK BEETLES (Dendroctonus spp.) - ALABAMA - D. frontalis and D. terebrans severely attacked large pine trees in Semmes community in Mobile County. (Seibels, Sept. 15). **CALIFORNIA** - D. jeffreyi beginning to damage Jeffrey pines on 100-acre stand in high recreational value area of Mono Hot Springs, Sierra County. Controls may be required if infestation increases. (J. W. Paldi).

ENGRAVER BEETLES (Ips spp.) - CALIFORNIA - Causing severe damage to Jeffrey pines on 100 acres of Indian-owned land in Taro Peak area, San Bernardino National Forest. Controls to be applied by Indian Service. (J. Pierce). **TEXAS** - Infesting approximately 20 acres in Houston County. (Texas For. Pest Comm., Aug. Rpt.). **VIRGINIA** - Active on loblolly pine plantation in Dinwiddie County, killing 12 trees; larvae and adults present in green and red-topped trees. Killed 1-6 loblolly pines in 4 areas of Henrico County, mostly around dwelling areas. Infesting 10-acre area of Virginia pine in Fauquier County and 2 spots of 2-4 trees in Albemarle County. (For. Pest Surv. Rpt., Aug. Sum.).

TURPENTINE BEETLES - TEXAS - Control operations reported in National forests in Houston, Montgomery and Walker Counties. (Texas For. Pest Comm., Aug. Rpt.). **VIRGINIA** - Noted in occasional spots in Halifax County involving 1-6 trees. Noted on loblolly and Virginia pines in Richmond, Westmoreland and Middlesex Counties; infestations ranged from individual trees to one-half a acre in size. (For. Pest Surv. Rpt., Aug. Sum.).

PINE FALSE WEBWORM (Acantholyda erythrocephala) - PENNSYLVANIA - Webbing noticeable on pines in Indiana County. (Yackley, Sept. 15). A new county record.

BLACK PINE LEAF SCALE (Aspidiotus californicus) - CALIFORNIA - Heavy on young Jeffrey pines on 60 acres in Laguna campground in Cleveland National Forest, San Diego County. This is a high usage recreational area. (A. W. Magill).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - PENNSYLVANIA - Infesting white and Engelmann spruce in a plantation in Washington County. (Simons).

SAWFLIES - TEXAS - Activity of unspecified species on pines in Montgomery and Liberty Counties greater than usual but not yet concentrated enough for alarm. (Texas For. Pest Comm., Aug. Rpt.). **VIRGINIA** - Larvae of Neodiprion lecontei defoliated small groups of 1-4 loblolly, pitch and Virginia pines in 4 areas in Albemarle, Nelson and Fluvanna Counties, and damaging in several spots in Halifax County. Undetermined species caused severe defoliation in a 120-acre, 2-year-old loblolly pine plantation in Essex County and caused spotty damage on seedlings in parts of Tappahannock area. A 2-year study of N. pratti pratti, which reached epidemic proportions in Piedmont and some Coastal Plain areas in 1958, 1959, 1960 and 1961, nearing completion. Recent studies of cocoon predation by mice, ants and insect parasites indicate natural control will approach 90 percent in most stands moderately to heavily defoliated last year. This is highest degree of natural control noted. Damage by N. pratti pratti expected to drop appreciably by 1962. (For. Pest Surv. Rpt., Aug. Summ.).

NATIVE ELM BARK BEETLE (Hylurgopinus rufipes) - MINNESOTA - Dutch elm disease found

40 miles northwest of Twin City area, with only this vector species found in area. This is second confirmed location of disease in State. (Minn. Ins. Rpt., Sept. 15).

ELM LEAF BEETLE (Galerucella xanthomelaena) - MISSOURI - Elms in areas throughout State completely defoliated. Adults moving into houses, outbuildings and other structures to hibernate. (Munson, Thomas, Wood).

OAK BORERS (Romaleum spp.) - ALABAMA - Severely damaged large live oaks in Mobile County. Large numbers of Camponotus pennsylvanicus (black carpenter ant) present about borer injuries. (Seibels).

POPLAR-AND-WILLOW BORER (Sternochetus lapathi) - MICHIGAN - Evident throughout southern portion of State; heaviest infestation in Detroit area. (Hutson).

FALL WEBWORM (Hyphantria cunea) - MASSACHUSETTS - Locally abundant in Plymouth and Barnstable Counties. (Tunis). VIRGINIA - Active mainly on sourwood throughout Waverly area, causing slight to severe defoliation. Active on scattered trees in Nelson, Amherst, Fauquier, Rappahannock and Loudoun Counties; also on black gum and sourwood in Henry, Franklin and Patrick Counties. Active on oak along Skyline Drive between Front Royal and Waynesboro and widespread in Portsmouth area, including Eastern Shore, particularly on sourwood, oak and cherry. Scattered on sourwood and persimmon in Tappahannock area. (For. Pest Surv. Rpt., Aug. Sum.). NEW MEXICO - Second-generation larvae defoliating elm, poplar, fruit and nut trees throughout State. Infestations more severe than first generation. (N. M. Coop. Rpt.).

ORANGE-STRIPED OAKWORM (Anisota senatoria) - PENNSYLVANIA - High mortality of middle to late instars on oak in Franklin County, due to disease. Surviving larvae probably in last instar. (Balsbaugh, Slesman).

VARIABLE OAK LEAF CATERPILLAR (Heterocampa manteo) - RHODE ISLAND - Larvae infesting oak in Exeter, Washington County. (Mathewson).

CATALPA SPHINX (Ceratomia catalpae) - DELAWARE - Several large, wild catalpa trees in northern Sussex County heavily infested, with considerable defoliation. (Burbutis, Mason).

A LEAF ROLLER (Fascista cercerisella) - OKLAHOMA - Infestation ranged 1-2 per leaf on redbud in Ardmore area, Carter County. (Okla. Coop. Sur.).

ELM LEAF APHID (Myzocallis ulmifolii) - CALIFORNIA - Infestations heavy on elms in La Mesa, San Diego County, and in Grimes, Colusa County. (Cal. Coop. Rpt.).

AZALEA CATERPILLAR (Datana major) - ALABAMA - Infestations heavy and damage severe on azaleas throughout much of central and southern areas. (Buttram). FLORIDA - Probably this species, causing considerable damage to azaleas in Marianna area, Jackson County. Controls necessary to prevent complete defoliation. (Fla. Coop. Sur., PPC, Sept. 15). SOUTH CAROLINA - Damaging azaleas in Aiken County. (Nettles et al.).

MIMOSA WEBWORM (Homadaula albizziae) - ILLINOIS - Found in Wabash, Edwards and Marion Counties during period September 5-8, and in Fulton and Moultrie Counties during period September 11-15. These are new county records. (Ill. Ins. Rpt.).

JUNIPER WEBWORM (Dichomeris marginella) - VIRGINIA - Locally medium on juniper in Lawrenceville, Brunswick County. (Tarpley, Abbott; Sept. 11).

HICKORY HORNED DEVIL (Citheronia regalis) - RHODE ISLAND - Larvae mature in southern portion of State; caused concern. (Hansen).

LILAC BORER (Podosesia syringae syringae) - COLORADO - Damaging privet in Brighton, Adams County. (Lesser, Hantsbarger).

APHIDS - CALIFORNIA - Heavy populations of Aphis nerii occurring on oleander shrubs in Maxwell, Colusa County. (Cal. Coop. Rpt.). UTAH - Periphyllus negundinis numerous at Coalville, Summit County. (Knowlton). OKLAHOMA - Several species range light to medium on crapemyrtle in Tulsa area. (Okla. Coop. Sur.). SOUTH DAKOTA - Large population of Lachnus salignus reported on weeping willows in Rapid City, Pennington County. (Zimmerman). MICHIGAN - Longistigma caryae troublesome on willows in Detroit area. (Hutson).

COCCIDS - MARYLAND - Aspidiotus perniciosus and Pseudalacaspis pentagona heavy on street plantings of cherry and Lepidosaphes ulmi heavy on street maples, all at Cheverly, Prince Georges County. (U. Md., Ent. Dept.). TEXAS - Coccus hesperidum attacking several species of ornamental plants in lower Rio Grande Valley. (Newton). UTAH - Diaspis caruelli severely damaging ornamental juniper at Logan, Cache County. (Knowlton). CALIFORNIA - Icerya purchasi severe on maple, pyracantha and other shrubs in street plantings and public building grounds in Oakdale, Stanislaus County. Phenacoccus solani heavy on Sida hederacea along Bryon-Tracy highway northwest of Tracy, San Joaquin County. (Cal. Coop. Rpt.).

HACKBERRY LACE BUG (Corythucha celtidis) - INDIANA - Unusually abundant on hackberry in many areas. (Schuder).

ROSE LEAFHOPPER (Edwardsiana rosae) - UTAH - Very numerous on rose and spirea at Logan, Cache County. Rose foliage badly discolored; discoloration on spirea light at present. (Knowlton).

VIRGINIA-CREEPER LEAFHOPPER (Erythroneura ziczac) - NEVADA - Heavy on Virginia-creeper in Fallon, Churchill County, and in Reno, Washoe County. (Lauderdale).

INSECTS AFFECTING MAN AND ANIMALS

HORN FLY (Haematobia irritans) - ARKANSAS - Common but less numerous throughout State. (Ark. Ins. Sur.). NEBRASKA - Counts ranged 25 to 100 per animal in sandhills area. (Bergman). OKLAHOMA - Medium to heavy populations on cattle in south central area; some increase in north central area over previous week. (Okla. Coop. Sur.).

STABLE FLY (Stomoxys calcitrans) - ARKANSAS - Common but less numerous throughout State. (Ark. Ins. Sur.).

SCREW-WORM (Callitroga hominivorax) - OKLAHOMA - Scattered infestations continue throughout south, north and east central areas. (Okla. Coop. Sur.).

MOSQUITOES - UTAH - Populations very low in Salt Lake City, Salt Lake County, and Weber County; troublesome in Delta-Sutherland area, Millard County. (Knowlton).

HOUSE FLY (Musca domestica) - NEVADA - Populations increased in Churchill County with locally heavy infestations. (Lauderdale, York). UTAH - Numerous on mink farm at Perry, Box Elder County. (Knowlton). SOUTH DAKOTA - Continues a pest throughout State. (Hanten). NEBRASKA - Moderate to heavy populations around ranch homes and farm buildings in sandhills area. (Bergman). OKLAHOMA - Populations increased over previous week. (Okla. Coop. Sur.). ARKANSAS - Common but less numerous throughout State. (Ark. Ins. Sur.).

TABANIDS (Tabanus spp.) - OKLAHOMA - Populations of T. abactor, T. sulcifrons and T. lineola decreased from previous week. (Okla. Coop. Sur.).

SHEEP KED (Melophagus ovinus) - UTAH - Common to numerous on herds in Wasatch and Summit Counties. (Knowlton).

PUSS CATERPILLAR (Megalopyge opercularis) - VIRGINIA - Woman received local and systemic reaction from this species at Bayside, Princess Anne County; present on pecans at La Crosse, Mecklenburg County. (Pastermack, Tarpley; Sept. 19).

EAR TICK (Otobius megnini) - UTAH - Present on cattle in Minersville and Milford areas, Beaver County. (Knowlton).

STORED-PRODUCT INSECTS

KHAPRA BEETLE (Trogoderma granarium) - MEXICO - Inspections in states of Sonora and Baja California negative during August. Fumigation of 3 known infestations in Altar, Sonora, completed. (PPC, Mex. Reg.).

SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis) - SOUTH DAKOTA - Damaged stored grain in Brookings and Spink Counties. (Mast).

CONFUSED FLOUR BEETLE (Tribolium confusum) - SOUTH DAKOTA - Adults and immatures damaged stored foods in Pierre, Hughes County, and Clear Lake, Deuel County. (Hanten).

CADELLE (Tenebroides mauritanicus) - MISSOURI - Extremely heavy infestation in seed cleaning and storage plant in southeast area; seed seriously damaged. (Munson, Thomas, Wood).

ANGOUMOIS GRAIN MOTH (Sitotroga cerealella) - PENNSYLVANIA - Infested storage of over 900 bushels of barley in Huntingdon County. (Udine, Sept. 15).

BENEFICIAL INSECTS

LADY BEETLES - CALIFORNIA - Heavy population of Scymnus sp. present on milo heavily infested with corn leaf aphid in Colusa, Colusa County. (Cal. Coop. Rpt.). OKLAHOMA - Several species light in alfalfa in south central and southwestern areas. (Okla. Coop. Sur.). NEBRASKA - Immatures of Hippodamia spp. averaged 20 per 10 sweeps in alfalfa in Logan County. (Bergman). ALABAMA - H. convergens numerous and congregating in Cheaha Mountain area, Talladega County. (Grimes).

LACEWINGS (Chrysopa spp.) - NEBRASKA - Immatures averaged 2 per 10 sweeps on alfalfa in central area. (Bergman). OKLAHOMA - Light in alfalfa in south central area. (Okla. Coop. Sur.).

NABIDS (Nabis spp.) - NEBRASKA - Averaged 3 per 10 sweeps in alfalfa in Logan County. (Bergman).

MISCELLANEOUS INSECTS

WHITE-FRINGED BEETLES (Graphognathus spp.) - During August, infestations found for first time in St. Clair County, ALABAMA; Columbia County, GEORGIA; and Winston and Choctaw Counties, MISSISSIPPI. New infestations also found in Morgan and Hancock Counties, Georgia, where infestations have not been recorded in several years. (PPC, So. Reg.).

ASIATIC OAK WEEVIL (Cyrtopistomus castaneus) - PENNSYLVANIA - Appeared in numbers in home at Bedford, Bedford County. (Udine, Sept. 19).

SAP BEETLES (Glischrochilus spp.) - INDIANA - Late-generation adults very abundant in picnic and recreational areas. (Osmun).

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - LOUISIANA - Infestations found in Catahoula and La Salle Parishes for the first time during August. (PPC, So. Reg.). FLORIDA - Delimiting survey in Polk County disclosed 27 additional intensive infestations; arrangements being made to treat nurseries within one-fourth mile of infestations. (Fla. Coop. Sur., PPC).

A WASP (Scolia dubia) - PENNSYLVANIA - Appeared in Bainbridge, Lancaster County,

flying over lawns. (Raub, Sept. 13).

BOXELDER BUG (Leptocoris trivittatus) - SOUTH DAKOTA - Serious nuisance in and around homes in eastern part of State. (Mast). NORTH DAKOTA - Scattered, heavy populations nuisance around homes in many sections. (N. D. Ins. Sur.).

FALL WEBWORM (Hyphantria cunea) - OREGON - Numerous complaints in Willamette Valley by homeowners bothered by larvae migrating in search of overwintering sites. (Capizzi).

A PHYCITID (Rotruda mucidella) - CALIFORNIA - Collected from Cirsium spp. in Willets, Mendocino County, and Yuba, Siskiyou County. Larvae destroy thistle seeds. (K. E. Frick).

AN APHID (Drepanaphis utahensis) - UTAH - Extremely heavy flights in Blacksmith Fork Canyon, Cache County on September 9; extremely heavy flights, 90 percent this species, September 15-19 in Logan Canyon and throughout Logan area. (Knowlton).

SUBTERRANEAN TERMITES - MINNESOTA - Total of 22 properties found infested in St. Paul, within general area of previous infestations. New area of 12 infested properties found infested 3 miles from original infestation. (Minn. Ins. Rpt., Sept. 15).

AN EARWIG (Euborellia cincticollis) - CALIFORNIA - First record for this species for Butte County at Chico. (Cal. Coop. Rpt.).

EUROPEAN EARWIG (Forficula auricularia) - UTAH - Numerous and brought into homes on cut flowers in northern and central areas. (Knowlton).

BLACK WIDOW SPIDER (Latrodectus mactans) - IDAHO - Generally abundant in Parma and vicinity; high population in sweetpotato storage southwest of Wilder. (Scott, Waters; Sept. 15). UTAH - Annoyance about homes increased in Salt Lake, Ogden and Logan areas. (Knowlton).

MILLIPEDES - ILLINOIS - Unidentified species very abundant in subdivision in Campaign; hundreds appeared in streets. (Ill. Ins. Rpt.). NEBRASKA - Heavy numbers infesting homes in Lincoln, Lancaster County, and North Platte, Lincoln County. (Bergman).

CORRECTION

CEIR 11(35):834 - Delete note on JAPANESE BEETLE from California. Adults placed in traps at Citrus Heights by prankster.

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Agrot. ips.	Perid. saucia	Prod. ornith.	Laphyg. frug.	Trich. ni	Heliothis zea vires.	
ARIZONA								
Mesa 9/14-20				205		76	290	
ARKANSAS								
Hope 9/14-20	13	3	2				9	
Morrilton 9/14-20	8	5					4	
Kelso 9/14-20	2						3	
Fayetteville 9/14-20							5	
COLORADO								
Two Buttes 9/15-22	121		96					
Alamosa 9/15-22	1		1			2	4	
Dolores 9/15-22	7		16					
FLORIDA								
Quincy 9/12		5				26	7	
INDIANA (Counties)								
La Porte 9/8-13	64	110	52		4		39	
Tippecanoe 9/13-21	6	15	4		1		15	
Vanderburgh 9/10-11	50	39	2		14		24	
MINNESOTA								
Crookston 9/4	1							
Fergus Falls 9/5-13	5	8						
MISSISSIPPI								
*Stoneville 9/15-21	153	70	3	108	49	90	243	16
NEBRASKA								
North Platte 9/7-20	129	163	12		3		33	3
Lincoln 8/31-9/20	44	46	51	21			151	5
Scotts Bluff 9/10-16	17	10	6					
SOUTH CAROLINA								
Clemson 9/16-22	17	11	2	77	21		10	
Charleston 9/18-24	27	48		77	68	4	84	8
TENNESSEE (Counties)								
Monroe 9/5-11	32	8		8	20		32	
Maury 9/5-11	12	4	8	4	12		24	
Robertson 9/5-11	24			4	8		40	
Cumberland 9/5-11	22	8	6	4			30	
Greene 9/5-11	88	72		104			56	
Blount 9/5-11	8	28		88	36		40	
Johnson 9/5-11	104	64	24	24			64	
TEXAS								
Waco 9/16-22	311	25	254	92		104	299	6

* Two traps - Stoneville.



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