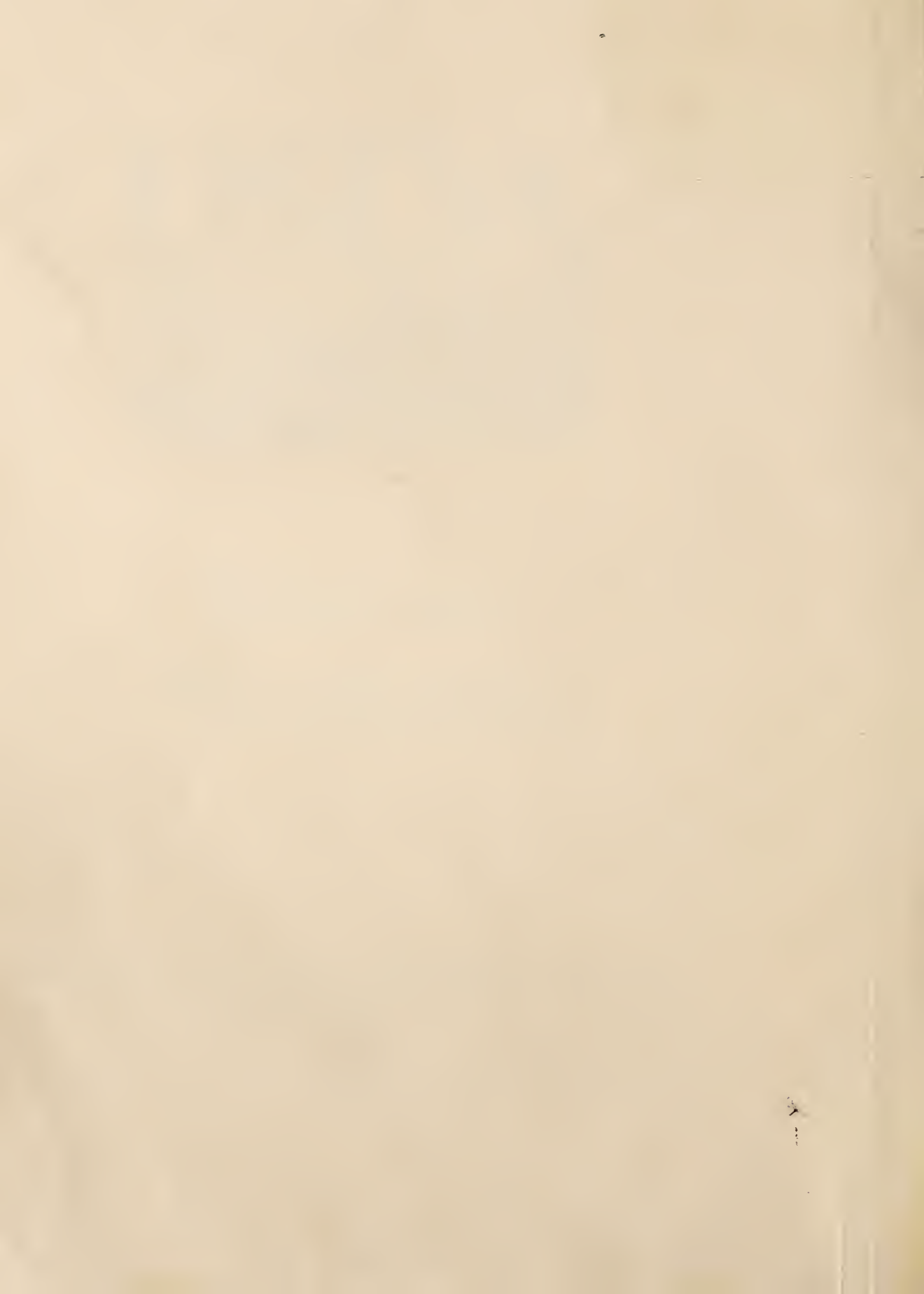


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*Cooperative*  
**ECONOMIC INSECT  
REPORT**

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**PLANT PROTECTION DIVISION**

**AGRICULTURAL RESEARCH SERVICE**

**UNITED STATES DEPARTMENT OF AGRICULTURE**



## COOPERATIVE ECONOMIC INSECT REPORT

## HIGHLIGHTS

Current Conditions

SORGHUM MIDGE damaged sorghum in Florida, Alabama, Oklahoma, and Missouri. (p. 695).

FALL ARMYWORM larvae damaged small grains in Virginia, Tennessee, and Alabama. Decreasing on grasses in South Carolina; third brood expected soon in Piedmont area. Damaging grasses in Alabama. (p. 696).

GREEN JUNE BEETLE larvae heavy in fescue, clover, and Bahia grass pastures in Georgia. (p. 696).

VELVETBEAN CATERPILLAR larvae heavy in soybeans in south Alabama. (p. 697).

CARROT WEEVIL larvae heavy on untreated commercial carrots in Delaware. (p. 699).

VARIABLE OAK LEAF CATERPILLAR infestations heaviest in 10 years in Arkansas. (p. 701).

Detection

● An ICHNEUMON WASP reported for the first time from Hawaii. This is a new Western Hemisphere record. This is a widely distributed Asiatic parasitic species. (p. 704).

New State records include a SEED BEETLE from California (p. 701), and a SKIPPER and an ICHNEUMON WASP from Hawaii (p. 704).

For new county records see page 706.

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Reports in this issue are for week ending September 25 unless otherwise indicated.

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WEATHER OF THE WEEK ENDING SEPTEMBER 28

HIGHLIGHTS: The hottest weather of the year occurred in parts of the Northeast before a cold front dropped temperatures 20° to 30°. Heavy thunderstorms caused flooding along some streams in the central Great Plains. Heavy snow fell in the central Rocky Mountains. Brush fires burned uncontrollable in southern California.

PRECIPITATION: Showers and thunderstorms occurred early in the week along a frontal system which extended from the upper Mississippi River Valley to Texas. Heraldton, Oklahoma, received 6.00 inches and Blue Springs, Missouri, received 5.40 inches of rain in the 24-hour period ending Tuesday morning. Larger totals fell in Oklahoma in the following 24-hour period, 7.93 inches at Stroud, and 6.38 inches at Norman. Tuesday afternoon, hail as large as baseballs fell about 10 miles south of Topeka, Kansas. These heavy rains caused overflowing of rivers and flooding of lowlands. Heavy snow fell in the Wyoming and Colorado Rockies shortly after midweek accumulating to 10 inches at Fraser, Colorado. Showers continued over the central Great Plains and Ohio River Valley. The Northeast and the gulf coast also received light rain Thursday evening and Friday morning. Weekend showers and thunderstorms occurred along a sharp cold front as it advanced southeastward across the Eastern States and the Deep South. The Far Southwest continued dry. The unfortunate combination of no rain, low humidity, and strong winds caused brush and forest fires to spread rapidly in southern California and hindered their control.

TEMPERATURE: A large High centered off the northern Pacific coast brought northerly winds, clear skies, and cool temperatures to most of the West. Afternoon temperatures were in the 50's and 60's on most days. Early morning readings were generally in the 30's and 40's except in the Southwest where the 50's and 60's were common. Thursday morning, many stations in the northern Rocky Mountains and parts of the Great Basin recorded temperatures in the 20's. Big Piney, Wyoming, registered 14° on that day. Temperatures in the humid air that covered the East and the Deep South ranged from warm to hot. Ninety-degree weather occurred in central Ohio on Tuesday and Harrisburg, Pennsylvania, recorded 97° Thursday afternoon. Numerous locations in the Northeast recorded higher temperatures than had been previously recorded so late in the season. Trenton, New Jersey, registered 90° or higher on 5 consecutive days; this is the first such occurrence in late September in more than 100 years. The cold front that separated the cold and warm airmasses reduced temperatures slightly as it advanced southeastward across mid-America. Weather of the week continued on page 706.

## SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

BEET LEAFHOPPER (Circulifer tenellus) - UTAH - Curly top caused 25 percent loss in Washington County tomatoes this season; light in Iron County tomatoes. (Huber, Sjoblom).

CORN EARWORM (Heliothis zea) - ARIZONA - Larvae 1 per 3 plants in 10-acre sorghum field at Wellton, Yuma County. (Ariz. Coop. Sur.). OKLAHOMA - Moderate on alfalfa in Kiowa and Jackson Counties and on peanuts in Bryan County. (Okla. Coop. Sur.). TENNESSEE - Did not build up to damaging numbers on soybeans in Carroll, Weakley, Obion, Lake, Dyer, Gibson, Madison, and Haywood Counties. Diseased larvae in most fields surveyed. Beneficial insects heavy in all fields. (Gordon et al.). GEORGIA - Infested soybeans and grain sorghum in Oglethorpe County. (Carter et al., Sept. 18). SOUTH CAROLINA - Still a problem on late-planted soybeans. (Thomas, Sept. 23). VIRGINIA - Remains scarce in most soybean fields in Tidewater area except in Middlesex and nearby counties. Larvae still moderate on peanuts. (Allison). MARYLAND - Fed on newly dug sweetpotatoes near Salisbury, Wicomico County. Destroyed 150 bushels. (U. Md., Ent. Dept.).

GREENBUG (Schizaphis graminum) - COLORADO - Infested 90-95 percent of sorghum in Arkansas Valley. Controls and parasites effective by end of first week in September. (Burchett).

## CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - KANSAS - One pupa in cornstalk in Cloud County. Many third-generation larvae in Cloud and Republic Counties. Many still feeding at base of leaf sheaths. (Bell). WISCONSIN - Freshly emerged moths in Arlington blacklight trap week of September 21. Few second instars in very late plantings of field corn in eastern Waushara County; possibly tail end of second generation. (Wis. Ins. Sur.). VIRGINIA - Medium on grain sorghum in Charles City County. (Allen, Davis, Sept. 15). GEORGIA - Lodged grain sorghum in Taylor County. (Reddish, Nolan, Sept. 18). Currently lodged half of grain sorghum plants in Houston County. (Smith).

SORGHUM WEBWORM (Celama sorghiella) - ALABAMA - Badly damaged grain sorghum heads in late field of 20 acres in Macon County. (Brown). MISSISSIPPI - Larvae 36-290 per 8 sorghum heads in test plot in Oktibbeha County. (Sartor). TENNESSEE - Averaged 4-5 per head in Hardin and Henry Counties. (Johnson). MISSOURI - Larvae 11-138 per 100 heads in southeastern area. All stages present. (Munson).

WESTERN BEAN CUTWORM (Loxagrotis albicosta) - NEBRASKA - Larva on corn ear near Atkinson, Holt County, for a new county record. Collected by J. Burbank July 30. Determined by R.E. Roselle. (Keith). COLORADO - Larvae, 0-20 per 100 row feet, scattered throughout corn area of Morgan County. Center of infestation in Bijou and Hill area. (Johnson).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - OKLAHOMA - Heavy on late corn in Marshall County. (Okla. Coop. Sur.). KANSAS - Average percent of infested cornstalks (and percent girdled) by county: Pratt 47 (27 with maximum of 52 percent girdled in one field), Barton 35 (18), and Rice 25.6 (8). (Redding).

SORGHUM MIDGE (Contarinia sorghicola) - FLORIDA - Sorghum kernels 70-90 percent damaged or lost in plots at Marianna, Jackson County. (Fla. Coop. Sur.). ALABAMA - Almost destroyed grain heads in 10-acre field of late grain sorghum near older plantings in lower Macon County. Older nearby fields not affected. (Brown). OKLAHOMA - Heavy on late-planted sorghum in several southwest counties. (Okla. Coop. Sur.). MISSOURI - Severely damaged late-planted sorghum in southeast area. Adults numerous. (Munson).

CHINCH BUG (Blissus leucopterus) - KANSAS - Adults and few nearly full-grown nymphs numerous behind leaf sheaths and shucks of corn in field in southeastern Cloud County. Not reported elsewhere in State this year. (Bell).

## SMALL GRAINS

FALL ARMYWORM (Spodoptera frugiperda) - ALABAMA - Larvae heavy; damaged young rye fields at Tyler, Dallas County. Controls applied. (Hines). TENNESSEE - Damaged wheat in Tipton County. Controls applied. (Gordon). VIRGINIA - Severe local infestations on small grain in Appomattox County. (Allen, Sept. 18).

## TURF, PASTURES, RANGELAND

FALL ARMYWORM (Spodoptera frugiperda) - SOUTH CAROLINA - Marked reduction in number of complaints past week noted. Mostly pupae or emerging moths at Clemson, Oconee County. Several moths emerged September 20. Third brood in Piedmont imminent unless weather or other conditions intervene. (Nettles, Sept. 23). GEORGIA - Larvae and adults numerous on forage and pasture crops and lawns in northern area. (Nolan). ALABAMA - This and Pseudaletia unipuncta (armyworm) occurring in Coastal Bermuda grass and other grass hay crops over wide area. Damaging populations reported on several thousand acres September 18 in Bibb, Sumter, Autauga, Macon, Tallapoosa, and Geneva Counties. Controls applied to several fields; crop harvested early in several counties to prevent further damage. (Odom et al.). TENNESSEE - Light to moderate on newly seeded pasture in Dyer County. (Barrett). VIRGINIA - Severe numbers damaged lawns in Prince George County. Spotted damage on several crops and turf areas throughout State. (Allen).

WHITE GRUBS - UTAH - Damaged several Washington County lawns. (Huber). GEORGIA - Cotinis nitida (green June beetle) grubs destroyed stands of fescue and clover pastures in northern area week of September 18. Currently heavy under fescue, clover, and Bahia grass pastures statewide. (Nolan). OHIO - Cyclocephala borealis (northern masked chafer) grubs damaged lawns in Franklin, Licking, and Fairfield Counties. Grubs about third instar. (Roach). PENNSYLVANIA - Cyclocephala sp. averaged as many as 50 grubs per square foot, turf dead in Lawrence County. (Adams, Sept. 18). VIRGINIA - Severe local infestations of white grubs killed orchard grass in Franklin County pasture. (Allen, Sept. 15).

CHINCH BUGS (Blissus spp.) - WEST VIRGINIA - B. leucopterus (chinch bug) damage heavy to several lawns in Kanawha County; damage moderate to lawn in Harrison County previous week. (Hacker, Tustin). PENNSYLVANIA - B. hirtus (hairy chinch bug) damaged many lawns in September. Statewide, but especially troublesome in eastern half of State. (Gesell).

TWO-LINED SPITTLEBUG (Prosapia bicincta) - ALABAMA - Adults and nymphs heavy on centipede grass lawns in Dallas County. (Hines).

A WHITEFLY (Aleurocybotus occiduus) - ARIZONA - Nymphs heavy in some Bermuda grass seed fields at Yuma, Yuma County; may become problem. (Ariz. Coop. Sur.).

A MARCH FLY (Dilophus orbatus) - CALIFORNIA - Larvae and adults heavy in lawns at Loomis, Placer County, and Sacramento, Sacramento County. Swarms annoying homeowners. Many complaints from residents with mixed dichondra and grass lawns. (Cal. Coop. Rpt.).

## FORAGE LEGUMES

FALL ARMYWORM (Spodoptera frugiperda) - OKLAHOMA - Moderate on alfalfa in Jackson County. (Okla. Coop. Sur.). GEORGIA - Infested forage and pasture crops in northern area. (Nolan, Sept. 18). VIRGINIA - Severe local infestations on alfalfa in Orange and Montgomery Counties. (Allen, Sept. 18).

NOCTUID MOTHS - ARIZONA - Spodoptera exigua (beet armyworm) larvae averaged 140 per 100 sweeps of alfalfa in north Gila Valley, Yuma County. (Ariz. Coop. Sur.). NEW MEXICO - Colias eurytheme (alfalfa caterpillar) larvae 2-8 per 25 sweeps of Chaves County alfalfa. (Mathews). OKLAHOMA - S. exigua very heavy on alfalfa in Jackson County. Damage especially heavy in young fields. Many diseased larvae dying. Pseudoplusia includens (soybean looper) very heavy and damaging young



alfalfa in Jackson County. Plathypena scabra (green cloverworm) heavy on alfalfa in Kiowa and Jackson Counties. (Okla. Coop. Sur.).

ALFALFA WEEVIL (Hypera postica) - WISCONSIN - Beginning to break diapause. Adults 1 in 50 sweeps in alfalfa field in northeastern Dodge County. (Wis. Ins. Sur.). MASSACHUSETTS - Larvae 2 and adults 1 per 100 sweeps in Hampshire County alfalfa field. (Jensen).

LYGUS BUGS (Lygus spp.) - ARIZONA - Lygus sp. averaged 450 adults per 100 sweeps of alfalfa at north Gila Valley, Yuma County. (Ariz. Coop. Sur.). NEW MEXICO - Lygus spp. adults and nymphs 8-20 per 25 sweeps of Chaves County alfalfa. (Mathews). MASSACHUSETTS - L. lineolaris (tarnished plant bug) adults 22 per 100 sweeps of alfalfa in Hampshire County field. (Jensen).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - OKLAHOMA - Very heavy on Jackson County alfalfa. (Okla. Coop. Sur.).

PEA APHID (Acyrtosiphon pisum) - CALIFORNIA - Still damaging alfalfa hay in Fresno County. (Cal. Coop. Rpt.). NEW MEXICO - Light, 10-50 per 25 sweeps, in Chaves County alfalfa. (Mathews). MASSACHUSETTS - Light, 60 per 100 sweeps of alfalfa in Hampshire County field. (Jensen).

LEAF MINER FLIES (Agromyza spp.) - MASSACHUSETTS - Adults 78 per 100 sweeps of alfalfa in Hampshire County field. (Jensen).

#### SOYBEANS

VELVETBEAN CATERPILLAR (Anticarsia gemmatalis) - FLORIDA - Larvae decreased to 7-8 per row foot in several untreated fields totaling 20 acres at Quincy, Gadsden County. Plants completely defoliated. (Hasse). Adults in light traps averaged over 100 per night at Quincy. (Greene). ALABAMA - Heavy in several thousand acres in Marengo County; controls applied in several fields. (Miller). Young larvae very heavy in over 85 percent of several thousand acres at Foley, Baldwin County. Will probably be last generation of season. One grower reported 80 small larvae per 3 row feet. Controls applied. (Wilson). MISSISSIPPI - Larvae averaged 1 per 2 row feet in 8 Oktibbeha County fields. (Sartor). ARKANSAS - Very light in southern area. (Boyer).

NOCTUID MOTHS - ALABAMA - Pseudoplusia includens (soybean looper), Trichoplusia ni (cabbage looper), Plathypena scabra (green cloverworm), A. gemmatalis, and Spodoptera frugiperda (fall armyworm) larvae continue medium to heavy over all of Covington County. (Pike et al.). MISSISSIPPI - P. includens larvae averaged 1 per 3 row feet in 8 Oktibbeha County fields. (Sartor). MISSOURI - Second to third instars of P. scabra 3-16 per 3 row feet in southeastern area. (Munson). OKLAHOMA - P. includens very heavy in Jackson County. T. ni heavy in Bryan and Jackson Counties. (Okla. Coop. Sur.).

MEXICAN BEAN BEETLE (Epilachna varivestis) - VIRGINIA - Widespread defoliation in Tidewater area. This, extreme drought, and hot weather will hurt beans in maturity groups 5, 6, and 7. (Allison).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MISSISSIPPI - Adults averaged 1 per 3 row feet in 8 Oktibbeha County fields. (Sartor).

GREEN STINK BUG (Acrosternum hilare) - GEORGIA - Heavy in Crisp and Tift Counties. (Nix, Todd).

## PEANUTS

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - ALABAMA - Larvae heavy in late field in Covington County; fed on vines and "pegs." (Pike). OKLAHOMA - Moderate on sandy soils in Marshall County and moderate in Hughes County. (Okla. Coop. Sur.).

RED-NECKED PEANUTWORM (Stegasta bosqueella) - OKLAHOMA - Heavy in Caddo County. (Okla. Coop. Sur.).

## COTTON

BOLL WEEVIL (Anthonomus grandis) - ALABAMA - Still heavy. First of 4 insecticide treatments in a diapause control program applied to several thousand acres in Shelby, Talladega, St. Clair, and Bibb (all of acreage) Counties. (McQueen). GEORGIA - Heavy in cotton still fruiting over southern area. (Womack).

BOLLWORMS (Heliothis spp.) - GEORGIA - Damaged small bolls where controls discontinued in southern area. (Womack). OKLAHOMA - H. zea still light to moderate in Kiowa, Jackson, and Bryan Counties. (Okla. Coop. Sur.).

CABBAGE LOOPER (Trichoplusia ni) - OKLAHOMA - Heavy in Marshall and Jackson Counties. (Okla. Coop. Sur.).

## SUGAR BEETS

SUGAR-BEET ROOT MAGGOT (Tetanops myopaeformis) - NORTH DAKOTA - Larvae up to 42 (average 4) per root in Walsh, Pembina, and northern Grand Forks Counties. Maggots at 3 to 7-inch levels. Entered diapause early this season; all lesions healed. (Kaatz, Sept. 18).

A LEAF ROLLER MOTH (Platynota stultana) - CALIFORNIA - Larvae, 3-4 per leaf, scattered through 80-acre planting at Caruthers, Fresno County. (Cal. Coop. Rpt.).

## POTATOES, TOMATOES, PEPPERS

CABBAGE LOOPER (Trichoplusia ni) - WISCONSIN - Caused much damage to tomato plants in Waushara County. (Wis. Ins. Sur.). RHODE ISLAND - Infested tomatoes in Providence County. (Hartley).

POTATO TUBERWORM (Phthorimaea operculella) - UTAH - Rare in Iron and Washington County potatoes. None elsewhere in State. (Sjoblom, Knowlton).

GRASSHOPPERS - ARIZONA - Damaged peppers in Yavapai and Yuma Counties. (Ariz. Coop. Sur.).

A LEAFHOPPER (Empoasca filamenta) - UTAH - Seven per 10 sweeps of potatoes at North Logan, Cache County. (Knowlton).

## BEANS AND PEAS

MEXICAN BEAN BEETLE (Epilachna varivestis) - COLORADO - Adults and larvae heaviest on beans at harvesttime in Morgan County; controls used in some fields. (Fithian).

GARDEN FLEAHOPPER (Halticus bracteatus) - GEORGIA - Severe on Spalding County lima beans. (Minter, Dupree).

## COLE CROPS

CABBAGE LOOPER (Trichoplusia ni) - OKLAHOMA - Heavily damaged 10 acres of collards, mustard, and turnips ready to harvest for greens in Tulsa County. Heavy on okra in Jackson County and on several fall-planted vegetables in Marshall County. (Okla. Coop. Sur.). WISCONSIN - Problem serious in commercial cabbage in Outagamie County. (Wis. Ins. Sur.).

FALSE CHINCH BUG (Nysius ericae) - OREGON - Severely damaged 8-acre seed planting of cabbage in Marion County. Initial treatment ineffective; may need replanting. Nymphs and adults heavy in adjacent cabbage litter; apparently source of infestation. (Capizzi).

CABBAGE MAGGOT (Hylemya brassicae) - OREGON - Larvae in basal portions of recently harvested cabbage in Willamette Valley. (Capizzi).

## GENERAL VEGETABLES

ASPARAGUS APHID (Brachycolus asparagi) - PENNSYLVANIA - Heavy in spots on asparagus on farm in Worcester Township, Montgomery County. Oviparous females and males collected by J.R. Robb September 17, 1970. Some parasitized. Determined by L.M. Russell. This is a new county record. (PPD).

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Heavy moth flights September 12 at Roll, Yuma County. Eggs 2-27 (averaged 5) per plant in field of young lettuce near Luke Air Force Base, Maricopa County; no larvae September 23. (Ariz. Coop. Sur.).

CARROT WEEVIL (Listronotus oregonensis) - DELAWARE - Larvae heavy on untreated carrots in large commercial fields in eastern Sussex County. (Boys).

GRASSHOPPERS - ARIZONA - Heavy feeding injury to okra September 12 at Dome, Yuma County. (Ariz. Coop. Sur.).

## DECIDUOUS FRUITS AND NUTS

APPLE MAGGOT (Rhagoletis pomonella) - WISCONSIN - Adults almost completed flight. One adult trapped in Eau Claire area and none in Door County. Problem serious in improperly treated apples in Kewaunee County. (Wis. Ins. Sur.).

FILBERTWORM (Melissopus latiferreanus) - OREGON - Larvae more damaging to prune crop in Marion and Polk Counties this year than in previous years. Generally very light with damage occurring at sporadic locations. Increased damage may be due to favorable climatic conditions or possibly adaptation to a new host. (Brown).

WOOLLY APPLE APHID (Eriosoma lanigerum) - SOUTH CAROLINA - Heavy on apple at Longcreek, Oconee County. (Nettles, Sept. 23). GEORGIA - Heavy in 2 apple orchards in Haralson County. (Heath).

PEAR PSYLLA (Psylla pyricola) - UTAH - Numerous in unsprayed small orchard at North Ogden, Weber County. (Davis). OREGON - Overwintering forms numerous in pear orchards at Hood River, Hood River County. (Zwick).

SPIDER MITES (Tetranychus spp.) - UTAH - Most females in Davis County orchards in overwintering stage. (Davis). OREGON - T. mcdanieli (McDaniel spider mite) overwintering forms appearing in pear orchards at Hood River, Hood River County. (Zwick).

FALL WEBWORM (Hyphantria cunea) - GEORGIA - Infested Clarke County pecans. (Nolan, Sept. 18). ALABAMA - Buildup very heavy in many pecan trees in Dallas and Montgomery Counties. (Hines, Thompson). MISSISSIPPI - Light to moderate on pecans in southern half of State. (Sartor). COLORADO - Webs heavy on fruit trees in Mesa County on Western Slope. (Sisson).

WALNUT CATERPILLAR (Datana integerrima) - GEORGIA - Moderate on Jackson County pecans. (Welborn).

HICKORY HORNED DEVIL (Citheronia regalis) - GEORGIA - Infested Clarke County pecans (Nolan); light on Decatur County pecans (Wheeler).

PECAN WEEVIL (Curculio caryae) - OKLAHOMA - Heavy emergence at Bixby, Tulsa County; moderate in Nowata County. (Okla. Coop. Sur.).

APHIDS - ALABAMA - Myzocallis caryaefoliae (black pecan aphid), Monellia spp., and mites heavy on thousands of unsprayed pecan trees. Damage, along with physical and nutritional conditions of unknown causes, continues in south and central areas. Diseases part of problem causing heavy premature leaf drop. Early and heavy leaf drop in over 60 percent of pecan area of State in Pike, Henry, Bullock, Barbour, Covington, Conecuh, Butler, Washington, Mobile, Tallapoosa, Macon, Lee, Wilcox, Montgomery, Lowndes, Elmore, Dallas, Sumter, and St. Clair Counties. (Carter et al.).

#### CITRUS

GRASSHOPPERS - ARIZONA - Damaged foliage of young citrus nursery stock for resale at Gadsden, Yuma County. (Ariz. Coop. Sur.).

CITRUS FLAT MITE (Brevipalpus lewisi) - ARIZONA - Light in some groves at Yuma, Yuma County. Earlier feeding injury showing up in packing houses after fruit sweated. (Ariz. Coop. Sur.).

CITRUS RED MITE (Panonychus citri) - ARIZONA - Controls excellent in infested groves at Yuma, Yuma County. One small grove with 20 per leaf. (Ariz. Coop. Sur.).

#### OTHER TROP. & SUBTROP. FRUITS

A LEAF-FOOTED BUG (Leptoglossus zonatus) - ARIZONA - Nymphs and adults feeding on pomegranates at Tucson, Pima County. (Ariz. Coop. Sur.).

VINEGAR FLIES (Drosophila spp.) - CALIFORNIA - Heavy buildup of larvae and adults on figs at Hayward, Alameda County, and at Sacramento, Sacramento County. Nuisance where dropped fruit not removed. Built up during melon season. (Cal. Coop. Rpt.).

#### SMALL FRUITS

WESTERN GRAPE LEAF SKELETONIZER (Harrisina brillians) - UTAH - Most severe damage to grapes in 10 years. (Knowlton, Huber).

GRAPE BERRY MOTH (Paralobesia viteana) - UTAH - Damage unusually severe to several vineyards at Dixie, Washington County. (Huber, Knowlton).

#### ORNAMENTALS

A PSYCHID MOTH (Apterona crenulella) - OREGON - Larval cases collected at Baker, Baker County, week of July 31. Determined by D.M. Weisman. (Every). This is a new county record. (PPD).

AZALEA LACE BUG (Stephanitis pyrioides) - CONNECTICUT - Infestations on azaleas heaviest in years in Fairfield County. (Schread).

MEALYBUGS - FLORIDA - Rhizococcus sp. eggs and nymphs moderate on 65 percent of 1,000 plants of Norfolk Island pine (Araucaria excelsa) at Snead Island, Manatee County. (McFarlin, Bickner, Sept. 15). CALIFORNIA - Spilococcus implicatus one per leaf on cypress trees in 0.5-acre planting at Gualala, Mendocino County. This is a new county record. (Cal. Coop. Rpt.).

CITRUS FLAT MITE (Brevipalpus lewisi) - ARIZONA - Heavy on plantings of pittosporum and viburnum at Phoenix, Maricopa County. (Ariz. Coop. Sur.).

#### FOREST AND SHADE TREES

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - VIRGINIA - Damage currently at peak in Coastal Plain. Light, 20 percent infestation, in pine plantations in Richmond and Essex Counties. Heavy in young Virginia pine throughout southwest counties; moderate in loblolly plantations in Frederick County. (For. Pest Sur. Rpt., Sept.).

BAGWORM (Thyridopteryx ephemeraformis) - VIRGINIA - Defoliation moderate to cedar and spruce in scattered locations in Prince William, Orange, Campbell, and Prince Edward Counties. Active on eastern redcedar and arborvitae in several locations in Wise County and moderate to severe on individual trees of white pine and arborvitae in Shenandoah County. (For. Pest Sur. Rpt., Sept.).

PINE TUBE MOTH (Argyrotaenia pinatubana) - OHIO - Late instars light to moderate on Licking County Christmas tree planting of 6 to 7-foot white pine. First time this summer when pest heavy enough for treatment. (Roach).

WHITE-PINE SAWFLY (Neodiprion pinetum) - WEST VIRGINIA - Larvae moderately damaged small stand of white pine in Barbour County. Heavily damaged a small white pine in Preston County. These are new county records. (Hacker).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - IOWA - Eggs averaged 21 per female scale on twig of Black Hills spruce from Clutier, Tama County, September 22. Females 4.5 per infested needle. (Iowa Ins. Sur.).

NOTODONTID MOTHS - ARKANSAS - Heterocampa manteo (variable oak leaf caterpillar) heavy past few weeks in central and eastern areas. Trees nearly stripped of leaves, especially along Crowleys Ridge in eastern and northeastern areas. Heaviest infestations in 10 or more years. (Boyer). IOWA - Dicentra lignicolor defoliated linden, redbud, and maple trees at Leon, Decatur County, and fed on oak at Whitten, Hardin County, week of September 18. Symmerista canicosta and Datana ministra (yellow-necked caterpillar) currently defoliated 75-100 acres of timber in Lyon County; larvae 6-12 per leaf at one time. (Iowa Ins. Sur.).

CITHERONIID MOTHS - OHIO - Anisota senatoria (orange-striped oakworm) completely defoliated black oaks in acre-area of Carroil County. Larvae about 1,000 per tree. (Custer, Sept. 18). SOUTH CAROLINA - Citheronia regalis (hickory horned devil) infested sweetgum at Livingston, Greenwood County. (Nettles, Sept. 23).

FALL WEBWORM (Hyphantria cunea) - COLORADO - Webs heavy on shade trees in Mesa County on Western Slope. (Sisson). CONNECTICUT - Heavy throughout Canterbury and southern Brooklyn, Windham County. (Anthony).

A SPHINGID MOTH (Pachysphinx modesta) - ARIZONA - Heavy on cottonwoods at Tucson, Pima County. (Ariz. Coop. Sur.).

A SEED BEETLE (Amblycerus robiniae) - CALIFORNIA - Infested pods of honeylocust at Sacramento, Sacramento County. Collected by L. Carnahan September 4, 1970. Five adults emerged from pods. Identified by G. Okumura. This is a new State record. (Cal. Coop. Rpt.).

#### MAN AND ANIMALS

SCREW-WORM (Cochliomyia hominivorax) - Seven cases reported in U.S. September 20-26 as follows: ARIZONA - Cochise 1; NEW MEXICO - Luna 4, Sierra 1; TEXAS - Hudspeth 1. Total of 212 laboratory-confirmed cases reported in portion of Barrier Zone in Republic of Mexico as follows: Sonora 76, Chihuahua 122, Nuevo Leon 5, Tamaulipas 9. Total of 89 cases reported in Mexico south of Barrier Zone. Barrier Zone is area where eradication operation underway to prevent establish-

ment of self-sustaining population in U.S. Sterile screw-worm flies released: Texas 44,868,000; New Mexico 11,900,000; Arizona 9,560,000; Mexico 74,400,000. (Anim. Health Div.).

HORN FLY (Haematobia irritans) - OKLAHOMA - Ranged 50-300 per head of cattle in Cherokee County. Moderate in Cleveland County. (Okla. Coop. Sur.). KANSAS - Average estimated at 400+ per cow on shoulders and backs in herd of range cattle in southeastern Cloud County. (Bell).

FACE FLY (Musca autumnalis) - MARYLAND - Adults on horses near Snow Hill, Worcester County, September 22, 1970. Collected and determined by J. Hellman. This is a new county record. (U. Md., Ent. Dept.). NEVADA - Adults medium on cattle in Clover Valley, Elko County. (Nichols).

HORSE BOTS (Gasterophilus spp.) - OKLAHOMA - Averaged 6 per head on horses in Lincoln County. Heavy in Adair and Cherokee Counties. Moderate in Payne County. Egg laying very heavy in most of these areas. (Okla. Coop. Sur.). MARYLAND - G. intestinalis (horse bot fly) egg laying heavy at Snow Hill, Worcester County. Adults averaged 2 per horse. (U. Md., Ent. Dept.). MAINE - G. intestinalis eggs reported by 3 horseowners in Penobscot County. (Gall, Sept. 21).

MOSQUITOES - GEORGIA - Culex pipiens quinquefasciatus abundant around homes in Spalding County. (Snoddy, Sept. 18). Currently, mosquitoes still annoying about residences in Spalding County; unusually heavy this year. (Beckham). OKLAHOMA - Larvae common at Stillwater, Payne County, following rains of last 2 weeks. Species most commonly collected: Culex tarsalis, C. salinarius, Psorophora ciliata, P. confinis, Aedes hendersoni, A. dorsalis, and A. atropalpus. Adult emergence of most species begun and should increase rapidly next 7 days. (Okla. Coop. Sur.). WISCONSIN - Activity increased in Walworth County and in low areas of Jefferson County. (Wis. Ins. Sur.). MINNESOTA - Aedes vexans 184 of 316 females from 16 light traps at Minneapolis and St. Paul week ending September 18. Balance were Culex, Culiseta, and Anopheles (A. walkeri 4 percent). Two egg samples collected and immersed September 21 showed 18 and 22 percent hatch next day. (Minn. Pest Rpt.). UTAH - Aedes dorsalis increased since recent rains in Salt Lake County. Decreased in Cache County but some annoyance continues. (Collett, Knowlton). IDAHO - Aedes sp. unusually abundant and biting voraciously in sandy areas southwest of Shoshone, Lincoln County. (Barr, Sept. 17).

A LOUSE FLY (Lipoptena mazamae) - OKLAHOMA - Adults abundant in areas frequented by deer in Cherokee County. (Okla. Coop. Sur.).

LONE STAR TICK (Amblyomma americanum) - OKLAHOMA - Nymphs and larvae still heavy on deer in Cherokee County. (Okla. Coop. Sur.).

#### BENEFICIAL INSECTS

GREEN LACEWINGS (Chrysopa spp.) - ARIZONA - Heavy on milo in Cochise County. (Ariz. Coop. Sur.).

EUROPEAN MANTID (Mantis religiosa) - MASSACHUSETTS - Adults numerous in Hampshire County; egg laying begun. (Jensen).

A CINNABAR MOTH (Tyria jacobaeae) - CALIFORNIA - Two per leaf in stand of tansy ragwort (Senecio jacobaea) at Fort Bragg, Mendocino County. (Cal. Coop. Rpt.).

#### FEDERAL AND STATE PLANT PROTECTION PROGRAMS

EUROPEAN CHAFER (Amphimallon majalis) - Results of 1970 survey showed extensions of known infested areas in Massachusetts, New York, and Pennsylvania. No new county records established. Significant negative findings from New Jersey and Rhode Island. Over 11,000 acres of infested land treated over 9-year period in New Jersey. An infestation in Rhode Island found and treated in 1969. (PPD).

EUROPEAN CRANE FLY (Tipula paludosa) - WASHINGTON - More than 500 adults, mostly males, in light trap in one week one mile west of Lynden, Whatcom County. Adult activity peaked third week in September although adults still plentiful from Birch Bay to Blaine. (Nonini, PPD).

GIANT AFRICAN SNAIL (Achatina fulica) - FLORIDA - Survey September 17-24 of 22 infested properties in Dade County revealed 98 dead and no live snails. First time since start of survey no live snails found. Weekly baits continuing with thirty-third treatment completed September 22. (PPD).

GYPSY MOTH (Porthetria dispar) - PENNSYLVANIA - Seven moths in trap in Shade Township, Somerset County. Collected by W.R. Kline, August 28. Determined by E.L. Todd. This is a new county record. (PPD).

MEXICAN FRUIT FLY (Anastrepha ludens) - CALIFORNIA - Total of 13 native flies trapped in San Ysidro and San Diego area since July 7. Release of sterile flies in area began September 23. Release of 12,000-15,000 sterile flies planned each week. (PPD).

ORIENTAL FRUIT FLY (Dacus dorsalis) - CALIFORNIA - Fourth fly trapped September 18 at Garden Grove, Orange County. (PPD).

PINK BOLLWORM (Pectinophora gossypiella) - CALIFORNIA - Release of 5,965,234 sterile moths September 17-24 at Bakersfield, Kent County; total to date 54,932,556. ARIZONA - Release of 67,500 sterile moths at Redington, Pima County; total to date 1,349,800. Infested 9 cotton bolls for total of 18 to date. Field now has 1.8 percent infestation. Catch of 7 native and 4 sterile moths in field for 34 native and 231 sterile moths to date. (PPD). Crop loss of 5-10 percent in Pima County. Cool nights promoting larval diapause. Infested top crop of all cotton at Safford, Graham County. (Ariz. Coop. Sur.). NEW MEXICO - Very light in bolls in Chaves County. No larvae in 14 of 15 fields; infestation 4 percent in other field. (Mathews).

SOYBEAN CYST NEMATODE (Heterodera glycines) - Cysts collected on farms for new county records. Determined by A.M. Golden. ARKANSAS - In Drew County by B.F. Goolsby September 11. MISSISSIPPI - In Tippah County by Wilson and Worley September 16. (PPD).

WHITE-FRINGED BEETLES (Graphognathus spp.) - Following are new county records. All adults light on aster on roadsides except as noted. All determined by R.E. Warner. NORTH CAROLINA - G. leucoloma striatus collected at Columbus, Polk County, by T.N. Hunt September 14; also on ragweed. Same species at Mocksville, Davie County, by C.D. Bowers September 15. G. leucoloma fecundus at Rutherfordton, Rutherford County, by T.N. Hunt September 15, and in Durham County, by A.S. Elder September 22. G. leucoloma striatus in Chatham County by A.S. Elder September 22. KENTUCKY - G. leucoloma striatus only on goldenrod at Bowling Green, Warren County, by G. T. Berrien September 17. ARKANSAS - G. leucoloma striatus only on weeds in alley at Black Rock, Lawrence County, September 15. Same species at Datto, Clay County, September 24; both collected by J.H. White. (PPD).

HAWAII INSECT REPORT

New State Records - Specimen of an ICHNEUMON WASP (*Xanthopimpla punctata* (Fabricius)) collected at Honolulu, Oahu, by R. Kobayashi in December 1969. Determined by R.W. Carlson. Second specimen collected by E. Shiroma at Wahiawa, Oahu, during same period. *X. punctata* is a widely distributed Asiatic species known from Afghanistan, through India, Ceylon, China, Indonesia, Malaysia, Mauritius, Philippines, Japan, Ryukyu Islands, and Taiwan. Principally parasitic on pyralid and tortricid moth borers, including *Chilo suppressalis* (Asiatic rice borer), *Maruca testulalis* (bean pod borer), and *Anomis flava* (hibiscus caterpillar). (Beardsley). *X. punctata* is a new Western Hemisphere record. (PPD).

First specimen of an ICHNEUMON WASP (*Pachysomoides stupidus*) collected at Honolulu, Oahu, by G. Smith May 11, 1970. Second specimen in student collection. Third specimen collected live on car window at Honolulu by J. Beardsley. Parasitizes larvae of *Polistes* wasps. Identified by R.W. Carlson. (Beardsley). Adults of a SKIPPER (*Hylephila phylaeus*) collected on Bermuda grass at Salt Lake, Oahu, and submitted September 8, 1970, by G. Komatsu. Serious pest of lawn grasses, possibly preferring Bermuda grass and bentgrass. First record of the Family HesperIIDae in Hawaii. Identified by G. Funasaki; confirmed by W. Bauer. (Kawamura).

Ornamentals - MANGO FLOWER BEETLE (*Protaetia fusca*) adults light, one per 4 flower stems, on flowers and buds in 0.25 acre of commercial tuberose. Heavy, as many as 3 adults per ear, in adjacent small planting of corn. (Kawamura).

Forest and Shade Trees - MONKEYPOD MOTH (*Polydesma umbricola*) and a NOCTUID MOTH (*Melipotis indomita*) in larval ratio of 2:3 on monkeypod trees along boulevard at Honolulu. (Kawamura).

Beneficial Insects - MELASTOMA BORER (*Selca brunella*) moderate to heavy on flowers and fruits of Indian rhododendron (*Melastoma malabathricum*) at Keaukaha, Komohana, and Waiakea, Hawaii. Infested 12-79 (average 41) percent of 100 fruits and flower buds. (Yoshioka).

Miscellaneous Insects - Adults of a GRASSHOPPER (*Oedaleus abruptus*) on dirt road at Salt Lake. Nymphs and adults abundant in most dry, grassy areas throughout Hickam Air Force Base, Oahu. (Au, Olson).





## DETECTION

New Western Hemisphere Record - An ICHNEUMON WASP (Xanthopimpla punctata (Fabricius)) HAWAII - Oahu Island (p. 704).

New State Records - An ICHNEUMON WASP (Pachysomoides stupidus) HAWAII - Oahu Island (p. 704). A SEED BEETLE (Amblycerus robiniae) CALIFORNIA - Sacramento County (p. 701). A SKIPPER (Hylephila phylaeus) HAWAII - Oahu Island (p. 704).

New County Records - ASPARAGUS APHID (Brachycolus asparagi) PENNSYLVANIA - Montgomery (p. 699). FACE FLY (Musca autumnalis) MARYLAND - Worcester (p. 702). GYPSY MOTH (Porthetria dispar) - PENNSYLVANIA - Somerset (p. 703). A MEALYBUG (Spilococcus implicatus) CALIFORNIA - Mendocino (p. 700). A PSYCHID MOTH (Apterona crenulella) OREGON - Baker (p. 700). SOYBEAN CYST NEMATODE (Heterodera glycines) ARKANSAS - Drew; MISSISSIPPI - Tippah (p. 703). WESTERN BEAN CUTWORM (Loxagrotis albicosta) NEBRASKA - Holt (p. 695). WHITE-FRINGED BEETLES (Graphognathus spp.) - G. leucoloma fecundus in NORTH CAROLINA - Durham, Rutherford; G. leucoloma striatus in ARKANSAS - Clay, Lawrence, KENTUCKY - Warren, NORTH CAROLINA - Chatham, Davie, Polk (p. 703). WHITE-PINE SAWFLY (Neodiprion pinetum) WEST VIRGINIA - Barbour, Preston (p. 701).

## CORRECTIONS

CEIR 20(39):687 - BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Damaged lettuce plantings ... should read Ruined 12 acres of experimental lettuce plantings ... (Ariz. Coop. Sur.).

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Weather of the week continued from page 694.

Another cold front, which pushed into the northern Rocky Mountains and northern Great Plains shortly after midweek brought autumn weather to those areas. Temperatures in Wyoming Thursday afternoon ranged from 39° at Lander to 58° at Cheyenne. Thursday's maximums over the northern Great Plains ranged from the 50's near the international boundary to the 60's in northern Nebraska and Iowa. As this front advanced southeastward, cool autumn weather replaced summer heat. Much of the East was 20° or more cooler Sunday afternoon than on Saturday. Temperatures averaged slightly above normal along the Pacific coast. Inland portions of Washington, Oregon, and California and eastward to a line from northwestern Wisconsin to southeastern Texas averaged cooler than normal. Much of the Great Basin, the central Rocky Mountains, and the western edge of the Great Plains averaged from 9° to 11° colder than normal. Most areas from the northern and middle Atlantic coast averaged 6° to 15° warmer than normal. (Summary supplied by Environmental Data Service, ESSA.)

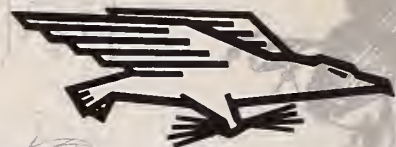






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