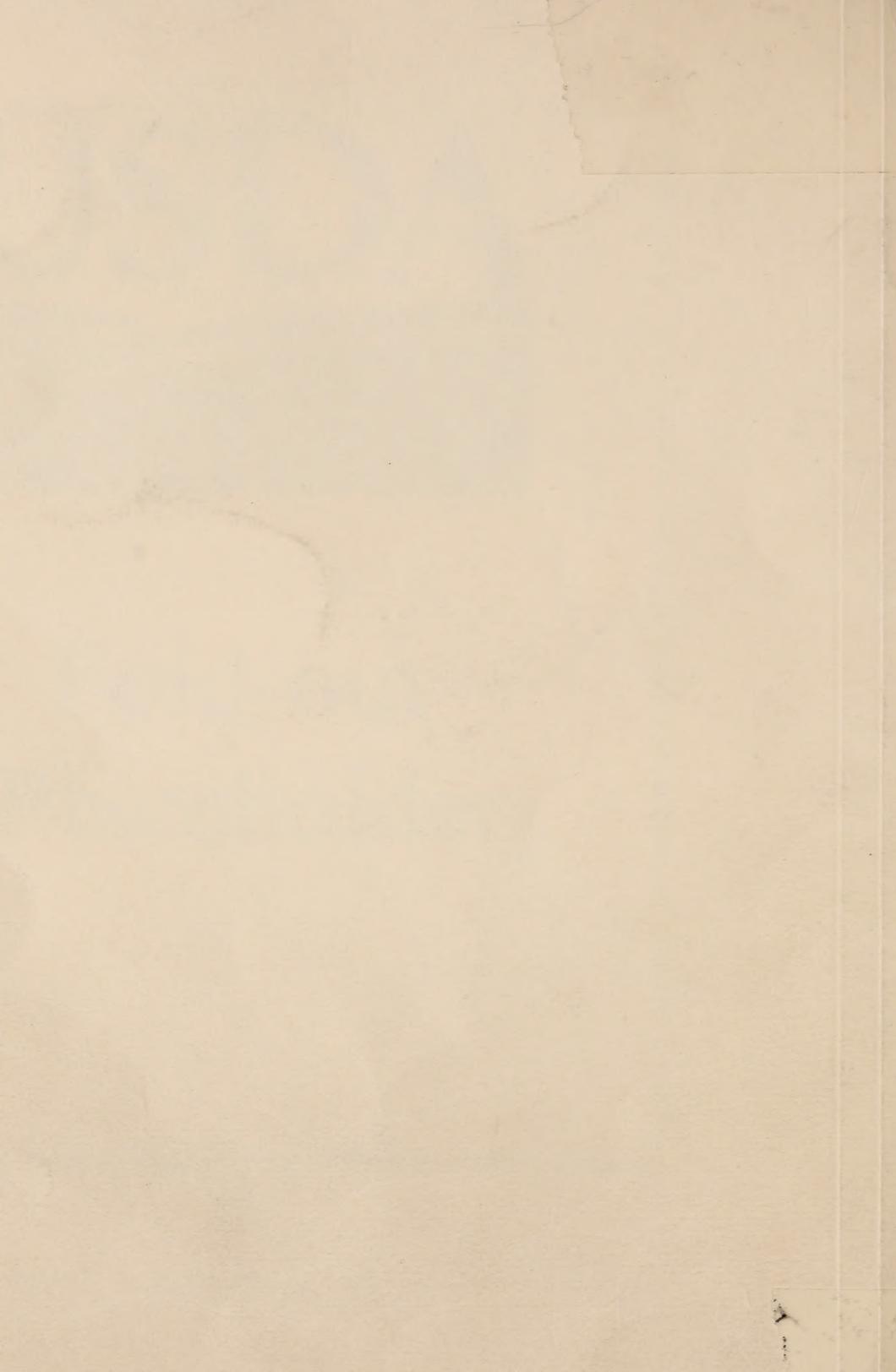


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



1,987
A2078
cp 2

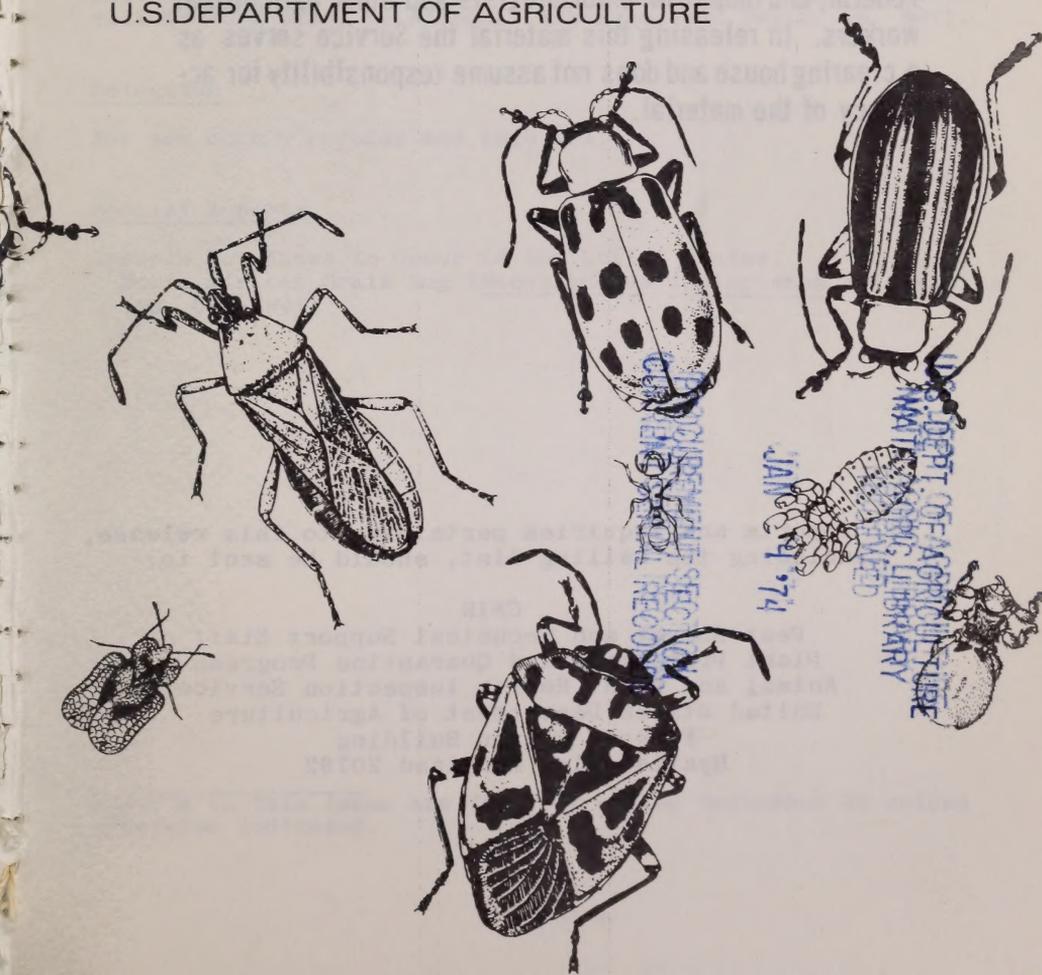
VOL. 23 NO. 40

OCTOBER 5, 1973

Cooperative Economic Insect Report

Issued by

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



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

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Service serves as a clearinghouse and does not assume responsibility for accuracy of the material.

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

CEIR
Pest Survey and Technical Support Staff
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service
United States Department of Agriculture
Federal Center Building
Hyattsville, Maryland 20782

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

FALL ARMYWORM heavy on corn in New Mexico and Kansas, and heavy in lawns and pastures in Texas, Oklahoma, and Missouri. (pp. 683, 684).

STINK BUGS are a problem on soybeans in Kentucky, Virginia, and Alabama. (p. 685).

SHOTHOLE BORER killing fruit trees in New Mexico and Oklahoma.
FALL WEBWORM heavy in Alabama, Arkansas, and Texas. (p. 687).

Detection

For new county records see page 691.

Special Reports

Insects Not Known to Occur in the United States.

South African Grain Bug (Macchiademus diplopterus (Distant)).
(pp. 693-694).

Reports in this issue are for week ending September 28 unless otherwise indicated.

CONTENTS

Special Insects of Regional Significance.....	683
Insects Affecting	
Corn, Sorghum, Sugarcane...683	Potatoes, Tomatoes, Peppers.686
Small Grains.....684	Beans and Peas.....686
Turf, Pastures, Rangeland..684	Deciduous Fruits and Nuts...687
Forage Legumes.....684	Small Fruits.....687
Soybeans.....685	Ornamentals.....688
Peanuts.....685	Forest and Shade Trees.....688
Cotton.....686	Man and Animals.....689
Beneficial Insects.....	689
Federal and State Plant Protection Programs.....	690
Hawaii Insect Report.....	691
Detection.....	691
Light Trap Collections.....	692
Insects Not Known to Occur in the United States.	
South African Grain Bug (<u>Macchiademus diplopterus</u> (Distant))	693
Weather of the week.....	695

NATIONAL WEATHER SERVICE'S 30-DAY OUTLOOK

OCTOBER 1973

The National Weather Service's 30-day outlook for October is for temperatures to average below seasonal normals in the South except for near to above normal in the south Atlantic Coast States. Above normal temperatures are indicated for the Northwest, the northern Great Plains, the southern Plateau, and the south Pacific Coast. Elsewhere near normal temperatures are in prospect. Precipitation is expected to exceed normal from the Gulf Coast States northward through the Ohio and middle Mississippi Valleys to the Great Lakes. Subnormal totals are indicated for the western third of the Nation except for near normal over the north Pacific Coast. In unspecified areas near normal precipitation is in prospect.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the National Weather Service. You can subscribe through the Superintendent of Documents, Washington, D.C. 20250. Price \$5.00 a year.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ARMY CUTWORM (Euxoa auxiliaris) - KANSAS - Fall moth flights much heavier than usual in Barton County according to blacklight trap catches. (Bell).

CORN EARWORM (Heliothis zea) - CALIFORNIA - Damaged field corn at Dunnigan, Yolo County. (Cal. Coop. Rpt.). OKLAHOMA - Averaged 10 per 10 sweeps of alfalfa checked in Payne County. (Okla. Coop. Sur.). WISCONSIN - Larvae of this species and Spodoptera frugiperda (fall armyworm) heavy in ears of late corn in northeast and north-central area. Many larvae still young. (Wis. Ins. Sur.).

GREENBUG (Schizaphis graminum) - NEW MEXICO - Damaged seedling wheat in Curry County. Treatments needed in some fields. (N.M. Coop. Rpt.).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - TENNESSEE - Infested corn in McNairy County. This is a new county record. (Gordon, Bruer). KENTUCKY - Percent infested plants by county (borers per 100 plants in parentheses): Webster 11.2 (10), Union 57.6 (90.8), McLean 21.6 (22.4), Henderson 24.8 (20), Daviess 63.2 (57.6), Hopkins 15.2 (4.4). (Barnett, Gregory). NEBRASKA - Ranged 0-8 per plant in 50 Clay County cornfields. Plants infested by larvae averaged 4 percent. (Keith). SOUTH DAKOTA - Fall abundance survey completed in Clay, Davison, Hanson, Lake, McCook, Miner, Minnehaha, Sanborn, Union, and Yankton Counties. Percent infestation averaged 50, 55, and 57 in Davison, Miner, and Sanborn Counties, respectively. Borers averaged 269 per 100 stalks. (Jones).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - TENNESSEE - Damaged 60-acre cornfield in Fayette County. Corn planted in April; yield reduced one-third. (Locke). KENTUCKY - Damaged late-planted corn in Christian County. Heavy damage in Henderson County. (Barnett, Raney).

FALL ARMYWORM (Spodoptera frugiperda) - NEW MEXICO - Damage heavy to ears of sweet corn in Dona Ana County. (N.M. Coop. Rpt.). KANSAS - Heavy (all larval stages) feeding on kernels, shuck bases, ear shanks, and some leaf sheaths in field of late-planted corn in McPherson County. Larvae averaged 3 per ear in 92 percent of ears. Ear infestation ranged 0-24 percent in three other fields. (Bell).

SORGHUM WEBWORM (Celama sorghiella) - ARKANSAS - Some late sorghum treated in east-central area. Number one pest of sorghum in 1973. (Boyer).

RICE WEEVIL (Sitophilus oryzae) - NORTH CAROLINA - Adults infested corn in many Coastal Plain fields. Infestations in Northampton, Wilson, Onslow, Cumberland, and Johnston Counties. Infestations occurred for several years. (Hunt, Kimbrough).

A WEEVIL (Hyperodes humilis) - CALIFORNIA - Two adults collected from field corn in a field at Marysville, Yuba County. Collected by F. Carl, August 29. Determined by T. Seeno. Intensive survey failed to reveal additional weevils or larvae. Only known location in State at this time. (Cal. Coop. Rpt.).

BANKS GRASS MITE (Oligonychus pratensis) - NEW MEXICO - Increased in southeast area. Up to one colony per leaf on sorghum south of Artesia, Eddy County. (N.M. Coop. Rpt.). TEXAS - Light to moderate in isolated grain sorghum and corn fields in El Paso, Hudspeth, Culberson, Reeves, and Pecos Counties. (Neeb).

SMALL GRAINS

FALL ARMYWORM (Spodoptera frugiperda) - TEXAS - Heavy on wheat and oats in Blanco and San Saba Counties. Treatments applied to some areas. (McWhorter). OKLAHOMA - Up to 8 per square foot in small grains in some areas of southwest counties. Heavy in Okfuskee County. (Okla. Coop. Sur.). MISSOURI - Larvae light to moderate, 1-8 per foot of row, on early seeded small grain in southwest area. Expected to spread throughout the field. (Munson).

PALE WESTERN CUTWORM (Agrotis orthogonia) - KANSAS - According to recent blacklight traps, moth flights substantial in Greeley County. (Bell).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - GEORGIA - Larvae destroyed 45-acre field of rye in Spalding County. (Morrill).

SOUTHERN CHINCH BUG (Blissus insularis) - TEXAS - Damaging populations attacked rice in Jackson County near Ganado. Extensive damage to small area of rice 50 by 100 feet. (Wilson, Newton).

AN APHID (Rhopalosiphum padi) - SOUTH DAKOTA - Adults 2-6 per row foot of winter wheat in Jones and Lyman Counties in all fields surveyed. On winter wheat in Kingsbury and Tripp Counties. (Jones).

TURF, PASTURES, RANGELAND

FALL ARMYWORM (Spodoptera frugiperda) - TEXAS - Damaged St. Augustine lawns in Llano County. (McWhorter). OKLAHOMA - Still heavy in lawns in Tillman County. (Okla. Coop. Sur.). ARKANSAS - New generation present in many pasture areas. This generation in same localized area as previous generations. (Boyer). MISSOURI - Larvae moderate to heavy, 1-25 per square foot, on fescue, orchard grass, and brome pastures throughout south-central and southwest areas. Damage mostly in new stands. (Munson).

A GRASS WEBWORM (Herpetogramma phaeopteralis) - FLORIDA - Heavy on turf grasses, mainly Bermuda grass, in south area; population 85 percent H. phaeopteralis and 15 percent Crambus sp. Severely damaged 50 percent of half-acre Argentine Bahia grass lawn at Leesburg, Lake County, September 16. Damaged mixed lawn grass at Orlo Vista, Orange County, September 17. (Fla. Coop. Sur.).

SOUTHERN CHINCH BUG (Blissus insularis) - CALIFORNIA - Nymphs and adults in St. Augustine grass lawn at Bakersfield, Kern County. This is a new county record. (Cal. Coop. Rpt.).

FORAGE LEGUMES

BEEF ARMYWORM (Spodoptera exigua) - ARKANSAS - Required treatment on seedling alfalfa in St. Francis and Crittenden Counties. Some stand damage occurred before effective controls found. Noneconomic in established fields. (Boyer). ARIZONA - Heavy on alfalfa at Parker Valley, Yuma County. Averaged 30 first and second instar larvae per 100 sweeps in two west Phoenix, Maricopa County, fields. (Ariz. Coop. Sur.).

FALL ARMYWORM (Spodoptera frugiperda) - ARKANSAS - New generation present in alfalfa and hay crops in many areas. (Boyer). MISSOURI - Larvae 3-16 per sweep of alfalfa in south-central and southwest areas. Damaged new stands and alfalfa cut late in the season. (Munson).

A WEEVIL (Sitona scissifrons) - MINNESOTA - Adults very active on Goodhue County alfalfa. Counts of 1,000 per 100 sweeps not uncommon. Central district averaged 425 per 100 sweeps. (Minn. Pest Rpt.).

SOYBEANS

VELVETBEAN CATERPILLAR (Anticarsia gemmatalis) - ALABAMA - This species, Plathypena scabra (green cloverworm), and Pseudoplusia includens (soybean looper) damaged soybeans in numerous fields in Shelby, Montgomery, Conecuh, Marengo, and Covington Counties. Defoliation light to moderate, ranged 5-40 percent. Shelby County is most northern infestation of A. gemmatalis to date. (Clark et al.). TENNESSEE - P. includens flight heavy in Hardeman County. (Emerson, Patrick).

MEXICAN BEAN BEETLE (Epilachna varivestis) - VIRGINIA - Populations in many areas continue to drop but defoliation continues to be common on nearly mature beans. Beetles 30.8 per 30 row feet in Southampton, Isle of Wight, James City, Caroline, Accomack, and Sussex Counties, and in the Independent Cities of Nansemond and Chesapeake (322 acres). Heavy counts in one field responsible for increase. One field needed treatment. Defoliation averaged 12.2 percent. In Virginia Beach, a 32-field project (865 acres) averaged 0.97 beetles per 30 row feet. Defoliation averaged 14.3 percent. (Allen).

GREEN STINK BUG (Acrosternum hilare) - ARKANSAS - One White County field treated. Treatments in soybeans lowest since 1960 due to scarcity of H. zea (corn earworm). (Boyer). KENTUCKY - Averaged 2 per row foot in Hickman County and 3 per row foot in McCracken County. Population mostly nymphs; more damage expected. Heavy in Fayette County. (Barnett, Raney). VIRGINIA - Exceeded treatment threshold in 10 fields (772 of 1,187 acres sampled, 19.1 percent) south of James River. (Allen).

SOUTHERN GREEN STINK BUG (Nezara viridula) - ALABAMA - Adults and nymphs of this species and Euschistus servus (brown stink bug) in many fields in Montgomery, Covington, Marengo, and Baldwin Counties. N. viridula predominant. Most fields treated. Averaged 2 per row foot on one Marengo County farm of several hundred acres. Ranged 2-10 per 30 row feet in 25 of 34 fields surveyed on two farms in Baldwin County; one field had 18 per 30 row feet. Many of these fields previously treated. (Wood et al.).

PEANUTS

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - ALABAMA - Larvae still serious peanut pest throughout several thousand acres in Barbour County. Damage by this pest along with cutworm, weeds, and dry weather has reduced yield for 1973. (Walton et al.).

COTTON

BOLL WEEVIL (*Anthonomus grandis*) - TEXAS - Infestations throughout south-central area. Heavy populations of adults concentrated in few remaining terminal squares of plants not yet harvested. Diapausing weevils 60 percent of population in Frio and surrounding counties. Population ranged 0-10,400 per acre. Second diapause control application planned in San Angelo area; diapause program underway in Glasscock County. Moderate to heavy in isolated fields in parts of Glasscock County. (Cole et al.).

BOLLWORMS (*Heliothis* spp.) - ARIZONA - *H. zea* (bollworm) larvae becoming heavier on cotton at Yuma, Yuma County. (Ariz. Coop. Sur.). NEW MEXICO - *H. zea* damaged up to 12 percent of bolls examined in Lea County. (N.M. Coop. Rpt.). TEXAS - *H. zea* and *H. virescens* (tobacco budworm) light to moderate in isolated fields in Pecos Valley. Eggs 10-80 and small larvae 3-20 per 100 terminals in Pecos and Reeves Counties. About 40-60 percent of larvae *H. virescens*. Chemical control poor in isolated fields, especially where *H. virescens* heavy. Eggs ranged 10-60 and larvae 5-15 per 100 terminals in El Paso Valley. Egg 5-40 and larvae 2-8 per 100 terminals in Glasscock, Midland, Martin, Reagan, and Upton Counties. *H. zea* decreased in south-central area while *H. virescens* increased slightly. Larvae nearly all *H. virescens* in this area. (Neeb, Cole). OKLAHOMA - *H. zea* larvae ranged 0-14 per 100 terminals in Kiowa, Jackson, and Greer Counties. Eggs ranged 10-12 per 100 terminals; damage averaged 8 percent or less. Larvae ranged 0-7 per 100 terminals in Bryan, Muskogee, and Wagoner Counties. Eggs ranged 0-5 per 100 terminals; damaged bolls ranged 0-13 percent. Moderate in Pawnee County. (Okla. Coop. Sur.).

SALTMARSH CATERPILLAR (*Estigmene acrea*) - OKLAHOMA - Defoliated cotton in some areas in southwest and west-central counties. Very common in all areas but only damaged cotton. (Okla. Coop. Sur.).

POTATOES, TOMATOES, PEPPERS

BEE T ARMYWORM (*Spodoptera exigua*) - FLORIDA - Eggs and young larvae very heavy on young tomato foliage in six fields (about 500 acres) in western Manatee County; larvae averaged 14 per plant. Severe on tomatoes at Homestead, Dade County. (Fla. Coop. Sur.).

GRASSHOPPERS - NEW MEXICO - Serious and extensive damage to truck crop tomatoes in Bernalillo County. Fruits almost completely consumed; foliar damage light. (N.M. Coop. Rpt.).

POTATO SCAB GNAT (*Phyxia scabiei*) - WASHINGTON - Larvae found in Russet Burbank potatoes, September 20, south of U.S. Highway 10 between Dodson Road and Adams Road, Adams County, a new location. Reported from 130-acre field of potatoes near Moses Lake, Grant County. (Landis, Foepfel).

BEANS AND PEAS

COWPEA CURCULIO (*Chalcodermus aeneus*) - ALABAMA - Damage heavy in 75 acres of Southern field peas in Escambia County; control efforts difficult. (Bright).

DECIDUOUS FRUITS AND NUTS

SHOTHOLE BORER (*Scolytus rugulosus*) - NEW MEXICO - Heavy on dying sweet cherry trees at Los Ranchos de Albuquerque, Bernalillo County. (N.M. Coop. Rpt.). OKLAHOMA - Killing peach, pear, and plum trees on farm in Cleveland County. (Okla. Coop. Sur.).

PEARSLUG (*Caliroa cerasi*) - NEW MEXICO - Damage moderate to heavy on pear and cherry trees at Los Ranchos de Albuquerque, Bernalillo County. (N.M. Coop. Rpt.).

A PSYLLID (*Psylla trimaculata*) - CALIFORNIA - Adults heavy on *Prunus emarginata* (bitter cherry) on U.S. Forest Service land at Mt. Shasta, Siskiyou County. (Cal. Coop. Rpt.).

SPIREA APHID (*Aphis spiraeicola*) - OKLAHOMA - Moderate on crab apple in orchard near Perkins, Payne County, in June 1973. Determined by L.M. Russell. This is a new county record. (Okla. Coop. Sur.).

FALL WEBWORM (*Hyphantria cunea*) - ALABAMA - Heavy and damaging in many Dale County pecan trees. (Estes). ARKANSAS - Treatments applied to pecans in scattered areas. (Boyer). TEXAS - Heavy activity in widely scattered areas; very heavy in Menard County. Damage reported from Callahan and McCulloch Counties, activity reported from Frio and Atascosa Counties. Light on trees in Pecos, Reeves, Ector, Ward, Midland, and Glasscock Counties. (Stewart et al.).

WALNUT CATERPILLAR (*Datana integerrima*) - KENTUCKY - Damaged walnut and pecan trees in Logan County. (Barnett, Scheibner). TEXAS - Still heavy, caused extensive damage to pecan trees in Comal and Bexar Counties. (Stewart).

YELLOWNECKED CATERPILLAR (*Datana ministra*) - NEW MEXICO - Moderate to heavy defoliation of pecan groves near Artesia, Eddy County. (N.M. Coop. Rpt.).

HICKORY SHUCKWORM (*Laspeyresia caryana*) - TEXAS - Light on pecans in Maverick County, moderate in Medina and Uvalde Counties. Some damage reported on pecans in Llano County. Light in Upton and Foard Counties. Light to moderate at Fort Stockton, Pecos County. (Stewart et al.). OKLAHOMA - Damage heavy on pecans in Payne County. (Okla. Coop. Sur.).

PECAN WEEVIL (*Curculio caryae*) - OKLAHOMA - Heavy on pecans in Oklahoma County, moderate in Payne, and Pittsburg Counties, and light in Marshall County. (Okla. Coop. Sur.).

BLACK PECAN APHID (*Tinocallis caryaefoliae*) - TEXAS - Damaged pecan foliage in Edward County. Some trees nearly defoliated. (Stewart).

SMALL FRUITS

STRAWBERRY CROWN MOTH (*Synanthedon bibionipennis*) - OREGON - Heavier than past years in scattered first and second-year strawberry fields in 3 to 4-square-mile area of Washington County. Infested 50 percent of plants in 5-acre field; 5-10 percent in other fields. (Collins).

SALTMARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Late larvae feeding on grapevines in vineyard at Visalia, Tulare County. (Cal. Coop. Rpt.).

GRAPE MEALYBUG (Pseudococcus maritimus) - CALIFORNIA - Eggs and adults 100 per leaf in grape vineyards at Poplar, Tulare County. (Cal. Coop. Rpt.).

ORNAMENTALS

WHITEMARKED TUSSOCK MOTH (Hemerocampa leucostigma) - OHIO - Larvae severely defoliated group of Potentilla fruticosa (bush cinquefoil) shrubs in Pickaway County. Defoliation complete on several small sweet gum trees in Wayne County. Larvae had been heavily parasitized by 3 wasps in both areas. (Purrington, Nielsen).

POPLAR TENTMAKER (Ichthyura inclusa) - WEST VIRGINIA - Larvae caused 25-percent defoliation to several willow trees in Calhoun County, September 25. Collected by J.M. Atkins. Determined by J.D. Hacker. This is a new county record. (Hacker).

SUGARCANE BORER (Diatraea saccharalis) - FLORIDA - Larvae severely infested stems of 900 Cortaderia selloana (pampas grass) plants at Windermere, Orange County, nursery. (Fla. Coop. Sur.).

A STINK BUG (Euthyrhynchus floridanus) - VIRGINIA - A nymph collected on holly in Greensville County on September 14. This is a new county record. (Allen).

FOREST AND SHADE TREES

REDHEADED PINE SAWFLY (Neodiprion lecontei) - WEST VIRGINIA - Larvae caused 10-percent defoliation to 20 Virginia pines in Calhoun County, September 25. Collected by J.M. Atkins and J.D. Hacker. Determined by J.M. Atkins. This is a new county record. (Hacker).

MIMOSA WEBWORM (Homadaula anisocentra) - OKLAHOMA - Moderate to heavy on mimosa and thornless honeylocust at Cordell, Washita County. This is a new county record. (Okla. Coop. Sur.).

OAK WEBWORM (Archips fervidanus) - WEST VIRGINIA - Larvae moderately damaged two black gum and two black oak trees (15-20 nests per tree) in Calhoun County, September 25. Collected by J.M. Atkins and J.D. Hacker. Determined by J.D. Hacker. This is a new county record. (Hacker).

ORANGESTRIPED OAKWORM (Anisota senatoria) - SOUTH CAROLINA - Larvae still heavy on oaks and other hardwoods in most of State, week ending September 21. (Jones, Pollet).

ELM LEAF BEETLE (Pyrrhalta luteola) - KANSAS - Very small partial third generation underway on Siberian elms in Riley County. Larvae range from first to third instars. (Bell). NEW MEXICO - Feeding on new leaves of Siberian elms in Albuquerque, Bernalillo County. Trees devoid of other leaves due to this pest. (N.M. Coop. Rpt.).

LARGER ELM LEAF BEETLE (Monocesta coryli) - WEST VIRGINIA - Larvae caused 70 to 80-percent defoliation on 10 slippery elms in Calhoun County, September 25. Collected by J.M. Atkins and J.D. Hacker. Determined by J.D. Hacker. This is a new county record. (Hacker).

WALKINGSTICK (Diaperomera femorata) - WEST VIRGINIA - Defoliated 50 percent of several redbud, black oak, and black locust trees in Calhoun County by September 25. Collected by J.M. Atkins and J.D. Hacker. Determined by J.D. Hacker. This is a new county record. (Hacker).

MAN AND ANIMALS

SCREWWORM (Cochliomyia hominivorax) - Total of 687 confirmed cases reported from continental U.S. during September 16-22 as follows: Texas 440, New Mexico 61, Arizona 159, California 27. Total of 936 cases confirmed from Mexico. Number of sterile flies released this period totaled 162,981,400 as follows: Texas 126,331,600; New Mexico 10,206,000; Arizona 25,129,800; California 1,314,000. Total of 29,129,600 sterile flies released in Mexico. (Anim. Health).

HORN FLY (Haematobia irritans) - FLORIDA - Adults averaged 250 per beef animal on farm near Gainesville, Alachua County. (Fla. Coop. Sur.). TEXAS - Heavy in San Angelo and Trans-Pecos areas. Ranged 500-4,000 per animal in most areas where no treatment applied. (McWhorter, Neeb). OKLAHOMA - Ranged 350-400 per head of cattle in Payne County. Heavy in Okfuskee and Comanche Counties, moderate to heavy in McCurtain County, moderate in Tulsa County, and light in Kingfisher County. (Okla. Coop. Sur.).

MOSQUITOES - OHIO - Total of 587 mosquitoes recovered in one evening from 11 traps at Sidney, Shelby County. Trap catches ranged 5-150. Aedes vexans, A. trivittatus, and A. punctipennis predominant. (Ohio Dept. Health). MINNESOTA - Light trap collections made by Metropolitan Mosquito Control District for week ending September 21 were mainly Aedes vexans and Culiseta inornata. Only 473 females taken in 16 traps. (Minn. Pest Rpt.). TEXAS - Moderate to heavy on livestock in Culberson, Jeff Davis, Reeves, Brewster, and Hudspeth Counties. (Neeb).

HORSE FLIES (Tabanus spp.) - OKLAHOMA - Heavy on cattle in river bottom areas in McCurtain County. Ranged 7-8 per head in Haskell County. T. atratus (black horse fly) ranged 15-20 per head in river bottoms in Pittsburg County. (Okla. Coop. Sur.).

LONE STAR TICK (Amblyomma americanum) - OKLAHOMA - Still heavy on cattle in Haskell and Sequoyah Counties. (Okla. Coop. Sur.).

A COMBFOOTED SPIDER (Latrodectus hesperus) - NEVADA - Migrated into homes and other structures at Las Vegas, Clark County. (Zoller et al.).

BENEFICIAL INSECTS

A BLACK BLISTER BEETLE (Meloe niger) - WASHINGTON - First adults found August 7 in Nomia melanderi (alkali bee) beds in Lowden and Touchet area, Walla Walla County. Development 50-percent pupae and 50-percent adults, September 20. Adults apparently overwinter in ground. (Mayer).

A BRACONID (Apanteles epinotiae) - OKLAHOMA - Reared from Laspeyresia caryana (hickory shuckworm) in phylloxera galls on pecan in Payne County during June. Determined by P.M. Marsh. (Okla. Coop. Sur.).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

GRASSHOPPERS - WISCONSIN - Melanoplus femurrubrum still problem in unharvested Dane County tobacco fields. Mating and oviposition by this species, M. differentialis, and M. bivittatus noted. (Wis. Ins. Sur.). IOWA - Annual Melanoplus spp. survey in western area revealed no economic populations in 197 stops in 37 counties. M. femurrubrum and M. differentialis predominant. Populations continue to decline from 1971-1972 observations. (Iowa Ins. Sur.). NORTH DAKOTA - Adult cropland survey completed in 27 counties. Infestations increased in southwest, south-central, central, and southeast districts; areas dry most of season. Infestations decreased in northwest, north-central, northeast and east-central districts. Only economic in alfalfa fields and field margins. Hatch began May 1, early for this area; adults noted by July 1. Conditions in most areas favored maximum egg production. Infestations expected to increase in southern portions again next season. (Brandvik). UTAH - Melanoplus sanguinipes stripped 2,500 acres of planted grasses in basin west of Tooele, Tooele County. Adult survey completed. Unspecified species ranged 8 or more per square yard in 13 counties in southwest, west-central, northwest, and northeast areas. Acreage involves 18,150 acres of private range and 17,600 acres of public range. (Stephens).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Grub-damaged turf statewide by September 14-20. (Relli). OHIO - Grubs heavy in Orrville, Wayne County. Large portion of lawn dead due to feeding. (Lindquist).

MORMON CRICKET (Anabrus simplex) - UTAH - Light in 600 of 2,500 acres of planted grasses in basin west of Tooele, Tooele County. Adults light on 1,000 acres at Vernon. (Stephens).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Light across Trans-Pecos area. Infestation averaged less than 10 percent in most fields. (Neeb). NEW MEXICO - Infested one in 25 bolls in two cotton fields north and east of Hobbs, Lea County. (N.M. Coop. Rpt.). ARIZONA - Some top crop cotton treated at Yuma, Yuma County. One additional treatment expected on long staple cotton and later planted short staple cotton in Avra Valley. Defoliated short staple cotton in Pima County. Infestation at 4 percent at Bowie and San Simon, Cochise County. (Ariz. Coop. Sur.).

RED IMPORTED FIRE ANT (Solenopsis invicta) - TEXAS - Adults taken from nursery at Stephenville, Erath County, by Davenport and Luckey, September 4. Determined by D.R. Smith. One mound found. This is a new county record. (Rosier, Hoelscher).

HAWAII INSECT REPORT

General Vegetables - TOMATO PINWORM (Keiferia lycopersicella) heavy on 25 percent of fruits in 1,500 square feet of tomatoes at Hilo, Hawaii. Light on 75 percent of leaflets. DIAMONDBACK MOTH (Plutella xylostella) at Volcano, Hawaii, in 3 acres of crucifers: All stages heavy in abandoned fields, moderate to light in fields being harvested, and light to trace in young planting. Parasites nil. (Matayoshi). ONION THRIPS (Thrips tabaci) light in 200 square feet of green onions at Waikapu, Maui; 2-7 nymphs and/or adults per leaf. BEANFLY (Melanagromyza phaseoli) oviposition scars heavy on 75 percent of foliage in small planting of yardlongbeans at Waikapu, Maui; only one percent of petioles infested. (Miyahira).

Passionfruit - BARNACLE SCALE (Ceroplastes cirripediformis) at very low level in 200 plus acres at Kahului, Maui. Adults of Coccidoxenus mexicanus (an encyrtid wasp) noted throughout most of the planting. Nymphs and adults of GREENHOUSE THRIPS (Heliothrips haemorrhoidalis) heavy in spots. CARMINE SPIDER MITE (Tetranychus cinnabarinus) heavy in 15 acres. LEAFMINER FLIES (Liriomyza spp.) generally light; 20 percent of foliage with 2-15 mines per leaf. (Miyahira).

General Pests - Delimiting surveys for BANANA SKIPPER (Erionota thrax) indicate that this new immigrant pest may have remained undetected for several generations. Immature stages and foliar damage chiefly on banana, but also on Canna sp., Strelitzia sp. and Heliconia sp. (all ornamentals), at various distances from original point of discovery (as far as 9 miles away at Wahiawa). No infestations observed or reported in commercial banana growing areas of Kaneohe, Waimanalo, and Kahaluu in windward Oahu. Entomology Branch will now direct efforts to introduction of parasites from foreign areas. (Kawamura).

Forest and Shade Trees - Several new infestations by an ADELGID (Pineus pini) on large Pinus spp. (especially P. pinaster) were discovered at Makawao, Olinda, and Kula on Maui during late August. Despite extensive surveys and intensive chemical treatments of hosts, eradication from Maui now appears improbable. (Miyahira).

Miscellaneous Pests - No specimens of GIANT AFRICAN SNAIL (Achatina fulica) observed during August at Wahiawa and Poipu, Kauai; conditions very dry. On Hawaii during this period, the first of three planned aerial drops of snail bait at Kahaluu, Kona, covered 65-70 acres. (Sugawa, Yoshioka).

DETECTION

New County Records - EUROPEAN CORN BORER (Ostrinia nubilalis) TENNESSEE - McNairy (p. 683). LARGER ELM LEAF BEETLE (Monocesta coryli) WEST VIRGINIA - Calhoun (p. 688). POPLAR TENTMAKER (Ichthyura inclusa) WEST VIRGINIA - Calhoun (p. 688). OAK WEBWORM (Archips fervidanus) WEST VIRGINIA - Calhoun (p. 688). MIMOSA WEBWORM (Homadaula anisocentra) OKLAHOMA - Washita (p. 688). REDHEADED PINE SAWFLY (Neodiprion lecontei) WEST VIRGINIA - Calhoun (p. 688). RED IMPORTED FIRE ANT (Solenopsis invicta) TEXAS - Erath (p. 690). SOUTHERN CHINCH BUG (Blissus insularis) CALIFORNIA - Kern (p. 684). SPIREA APHID (Aphis spiraeicola) OKLAHOMA - Payne (p. 687). A STINK BUG (Euthyrhynchus floridanus) VIRGINIA - Greensville (p. 689). WALKINGSTICK (Diapheromera femorata) WEST VIRGINIA - Calhoun (p. 689).

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

SOUTH AFRICAN GRAIN BUG (Macchiademus diplopterus (Distant))

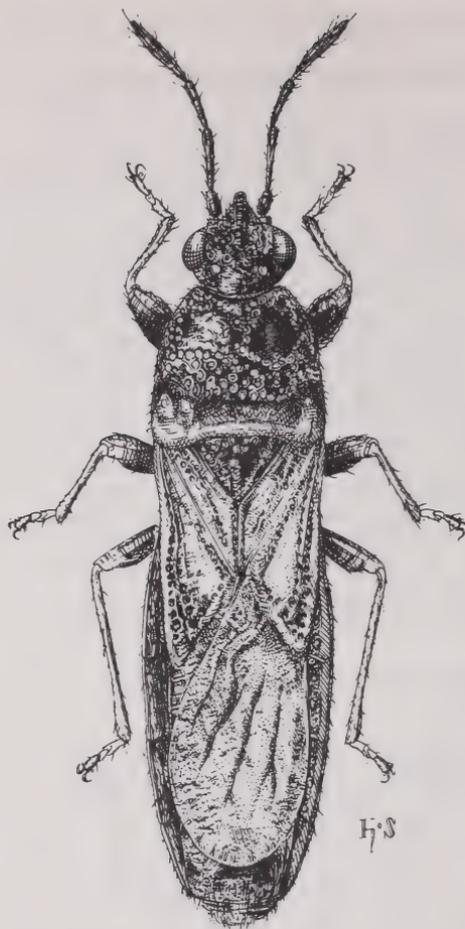
Economic Importance: This lygaeid is one of the more important pests of small grains in South Africa. The adults and nymphs suck the sap from the young plants and later attack the developing grains. Although primarily a grain pest, the species is also a fruit feeder, at least in the adult stage. It has been recorded from "prune trees" and taken on the flower end of a pear. Specimens from South Africa have been intercepted at New York City, Philadelphia, and Washington, D.C., quarantine stations on a number of occasions since 1937 on wheat, peaches, apricots, apples, pears, and grass seed. On fruit, the insects apparently enter at the stem scar and are often found near the seed. It has been shown by Myburgh and Kriegler that this pest is extremely cold hardy. From the results of exposure to the constant low temperatures normal during transport, it was estimated that complete mortality would require the continuation of cold storage at 31 and 34 degrees F. for six and ten weeks, respectively. These are periods well beyond the reasonable storage life of peaches and apricots. It therefore seems likely that this pest could become established in countries much colder than South Africa.

Hosts: Wheat, oats, barley, grass seed, apples, apricots, peaches, plums, and pears.

Distribution: Known only from the Republic of South Africa, aside from interceptions.

Life History and Habits: Eggs are laid from the end of August, earlier in warmer areas, inside the leaf sheath of wheat, in masses of 14-25, the females laying 50-150 each. The nymphs hatch in a month and become adults in six weeks; both stages occur together in large numbers. Adults fly in tremendous numbers at temperatures above 70 degrees F. and migrate when the wheat ripens; some aestivate in the stems or under the bark of fruit trees or under plants or in thatch. The adult bugs leave these summer shelters and congregate on wheat as soon as it emerges from the soil. Observations have shown that this bug develops on several wild grasses found in orchards, as well as on cultivated cereals. There is but one generation per year.

Description: ADULT - Length 3.6-4.2 mm. Head, pronotum, scutellum black, shining, evenly and distinctly punctured except on the large calli; abdomen dark chestnut brown to black. Hemelytra white except apex of corium, corial, and claval margins and veins chestnut brown to black. Antennae and femora black, the latter contrasting sharply with the yellowish tibiae. The more important recognition characters are deep median mesosternal furrow, fore femora each with one ventral spine, labium extending posteriorly only onto extreme anterior portion of mesosternum, second segment exceeds base of head for one-third its length; apical corial margins straight, lateral margins slightly sinuate; body rather flat, nearly linear, pronotum conspicuously tapering anteriorly, posterior margin nearly straight mesally with posteriorly produced lateral lobes.



Adult of Macchiademus diplopterus (Distant)

References: 1. Anonymous. 1955. Coop. Econ. Ins. Rpt., USDA, Agr. Res. Serv. 5:876. 2. Giliomee, J.H. 1959. Grain stink-bug can be controlled effectively. Farming in S. Afr. 35(3):47-48. (RAE 49:153). 3. Slater, J.A. 1964. Hemiptera (Heteroptera) Lygaeidae. S. Afr. Animal Life 10:103. 4. Slater, J.A. and D.E. Wilcox. 1973. The Chinch Bugs or Blissinae of South Africa. Memoir 12. Ent. Soc. Southern Africa. pp. 102-106. 5. Myburgh, A.C. and P.J. Kriegler. 1967. The grain stink-bug, Blissus diplopterus Dist., as a pest of export fruit, with special reference to its cold-hardiness. J. Ent. Soc. Afr. 29:90-95. (RAE 57:699). Illustration from Slater and Wilcox page 103.

Prepared by Pest Survey and
Technical Support Staff in
cooperation with other agencies

U.S. Dept. Agr.
Coop. Econ. Ins. Rpt.
23(40):693-694, 1973

WEATHER OF THE WEEK ENDING OCTOBER 1

HIGHLIGHTS: A slow moving cold front dumped monsoon-like rains on the Nation's midsection last week as it inched its way across the central Plains. Behind the storm front, the weather was not only wet but wild--20 tornadoes touched down in Kansas in a single afternoon. Temperatures in the area affected by the storm system were as much as 9 degrees cooler than normal. Ahead of this weather front, however, the weather was mild with temperatures reaching 80 degrees as far north as Minnesota and Michigan at times during the week.

PRECIPITATION: Monday, a cold front creeping across the central Plains stirred up a rash of thunderstorms and tornadoes as it clashed violently with a flow of tropical air moving up from Texas. Kansas got a taste of things to come as thunderstorms dumped upwards of an inch of rain in a single hour on the already saturated ground. Emporia and Topeka, Kansas, each received 1.50 inches of rain during the afternoon. Meanwhile, tornadoes touched down at Altoona, Atlanta, Fredonia, and Kiowa, Kansas, and near Lindsay, Tonkawa, and Vinita in north-central and northeast Oklahoma. The rest of the week saw more of the same as the cold front inched across the midwest. During the afternoon and early evening Tuesday, 20 tornadoes touched down in Kansas. Two in Nebraska, and one in Oklahoma. The 6 inches of rain which fell on Topeka, Kansas, since Sunday morning pushed that city's precipitation total since the start of year to 46 inches -- the wettest year on record to date. A separate storm front in the Atlantic started causing trouble in the East on Wednesday, too. A storm whipped up 25-35 m.p.h. winds as it moved its way north and dumped more than 3 inches of rain on Orlando, Florida within a 6-hour period. Cocoa Beach, Florida got close to 2 inches. Thursday morning, a major storm system in the Nation's interior had shown little movement -- and continued to dump one to two inches of rain on parts of southeastern Kansas that had already received as much as 9 inches of rain in the preceding 2 days. Texas and Oklahoma came in for a share of bad weather, over 6 inches of rain drenched San Antonio, Texas, in a 24-hour period while Austin received nearly 3 inches in the same time. Friday, a slow moving front continued to dump rain over large areas of the United States. Lafayette, Louisiana, received nearly 1 inch of rain during the afternoon while Tobia, Nebraska, reported 2 inches of rain in a single hour. The sun peeked out briefly over the midwest on Saturday -- only to disappear again as Sunday saw more rain dumped from another storm front drifting east into Kansas. Late Sunday afternoon more than 3 inches of rain fell in about 2 hours at Shawnee in extreme northeastern Kansas. Meanwhile, at the Town of Eden in central Texas, pea-sized hail fell with such intensity that it stripped leaves from trees. Hail accumulated to a depth of 1 inch on the ground and was accompanied by more than 1.25 inches of rain in 15 minutes. Homewood, Alabama, just south of Birmingham, received over 3 inches of rain since early morning.

TEMPERATURES: Temperatures were generally warmer than average over the Nation's eastern third last week, but cooler than normal over much of Plains and mountain States. Monday morning, the only freezing temperatures reported during the night occurred in the Great Basin. Lows in the 40's and 50's were common in the West

and North while 69 degrees and 70 degrees occurred southeast of a line through the southwestern Plains, the middle Mississippi Valley, the Ohio Valley, and the middle Atlantic coast. Tuesday, cold air covered the North Atlantic Coastal States. The lowest temperature during the night was 27 degrees at Houlton, Maine. Freezing temperatures also occurred in the northern and central Rockies. It continued quite warm through the southern and central sections of the country. Temperatures reached 90 degrees from Florida through the Gulf States into the Desert Southwest. Maximums in the 80's were recorded as far north as Minnesota and Michigan. Wednesday through Saturday saw weather continuing unseasonably warm outside the cold front causing much precipitation in the Nation's midsection. Temperature readings of 88 at Toledo, Ohio, and 86 at Fort Wayne, Indiana, equalled the record maximums for Wednesday's date. West, dry off-shore winds known as the Santa Ana winds, sent temperatures soaring into the 90's along California's southern coast. Sunday saw the return of more autumn-like weather as temperatures dropped 10 degrees to 15 degrees from the preceding night over the Great Lakes, North Appalachians, and the northern Ohio Valley.

U.S. DEPARTMENT OF AGRICULTURE
HYATTSVILLE, MARYLAND 20782

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101

