

antidesiccant. After the injury has occurred, little can be done to correct the damage except to prune or shear all dead materials and fertilize and water to restore vigorous growth.

A more severe type of injury may occur as a result of a rapid and extensive drop in temperature, either in late fall following a period of warm weather and before tissues have matured and hardened, or in early spring following a warm period which has caused tissues to break dormancy or at least to resume metabolic activity. The symptoms of low-temperature injury may be similar to desiccation or they may appear as twig or branch dieback or splitting of bark near the ground line. Another symptom is wilting and death of new shoots during the growing season as a result of stem injury or girdling which occurred during the previous winter.

This type of injury is common on evergreen varieties which are planted north of their normal range of distribution. Low-temperature injury can be avoided to some extent by selecting plants which have been grown locally for one or more years and by avoiding any practice, such as early fall fertilization, which will tend to delay maturation or hardening of tissues.

Needle drop is quite common on some evergreens, particularly spruce, fir, and hemlock, and to a lesser extent on pines and yews, as a result of climatic shock or adverse growing conditions. Protection of sensitive plants from winter injury by mulching, watering, and selecting protected planting sites are the most practical and effective control measures for this type of injury.

Wounds or breaks of any type on plants provide entrance for disease and insect pests and result in weakened tissues which are more susceptible to attack by parasitic organisms. Even a small wound or scar on the stem of a sensitive plant such as a yew can cause the injured stem to weaken or die. All ornamental plants should be handled with care to prevent mechanical injury, and all wounded branches

(Continued on page 38)

## Insect Report

\*\*\*\*\*

WTT'S compilation of insect problems occurring in turfgrasses, trees, and ornamentals throughout the country.

\*\*\*\*\*

### Turf Insects

#### A BILLBUG

(*Sphenophorous venatus vestitus*)

**Florida:** Adults, probably this species, active at night and causing very light damage to zoyia grass golf greens in Miami, Dade County.

#### GRASS BUGS

**Utah:** *Irbisia pacifica* ranges 25-300 per sweep on severely discolored Great Basin wildrye at Beaver Dam, Box Elder County. *Irbisia* sp. badly discolored 200 acres of intermediate wheatgrass at 7,000 feet elevation above Peterson; this area severely damaged in 1966.

#### A MILLIPED

(*Pleurolooma brunnes*)

**Arkansas:** Taken in st. augustine-grass in Desha County. This is same species that has been very heavy in city of Paragould, Greene County.

#### TWO-LINED SPITTLEBUG

(*Prosapia bicincta*)

**Alabama:** First adults noted throughout central and southern areas. Becoming common on lawn and other grasses; no damage reported.

### Insects of Ornamentals

#### BAGWORM

(*Thyridopteryx ephemeraeformis*)

**Oklahoma:** Heavy on juniper at Stillwater, Payne County, and Perry, Noble County; moderate in Beckham and Cleveland Counties.

#### SPIDER MITES

**California:** *Eurytetranychus buxi* heavy on boxwood hedges generally in Ontario, San Bernardino County. *Tetranychus telarius* medium on boxwood nursery stock in Escondido, San Diego County.

#### A FLATID PLANTHOPPER

(*Anormenis septentrionalis*)

**Alabama:** Numerous nymphs feeding on new growth of azaleas, camellias, dahlias, and many other plants throughout southern, central, and much of northern areas; damage not serious. Growers and homeowners concerned for several weeks in Mobile, Lee, Bibb, Franklin, Winston, and other counties. Mostly adults as far north as Winston County.

#### ARMORED SCALES

**California:** *Hemiberlesia lataniae* adults heavy on Japanese maple nursery stock in San Diego, San Diego County. **Florida:** *Pinnaspis aspidistrae* adults severe on 15 percent of 2,000 liriope plants at nursery in Dover, Hillsborough County.

#### GLOBOSE SCALE

(*Lecanium prunastri*)

**Delaware:** Young crawlers on ornamental plum in New Castle County area.

#### WEEVILS

**Maryland:** *Apion longirostre* adults heavy on hollyhock at University Park, Prince Georges County. **Rhode Island:** *Brachyrhinus sulcatus* pupating in North Kingstown, Washington County.

### Tree Insects

#### A SHIELD BEARER

(*Coptodisca* sp.)

**Arizona:** Larvae severely defoliated many cottonwood trees in Yuma and Maricopa Counties.

#### BLACK TURPENTINE BEETLE

(*Dendroctonus terebrans*)

**Alabama:** Adults and larvae active on isolated pine trees in Lee, Baldwin, and other counties.

#### ENGRAVER BEETLES

(*Ips* spp.)

**Maine:** Numbers and damage of *I. pini* heavy on white pine at Fal-mouth Foreside, Cumberland County; injured trees transplanted last fall. Heavy sap flow prevents insects from being established. **Nebraska:** Heavy in Nebraska National Forest near Halsey.

#### ELM BORER

(*Saperda tridentata*)

**North Dakota:** Heavy larval populations damaged elm at Walhalla, Pembina County; pupae present.

#### CANKERWORMS

**New York:** Peak descent from trees at Riverhead, Suffolk County. Numbers medium in Nassau County. **Pennsylvania:** Mainly *Alsophila pometaria* heavily defoliated oak and other hardwoods at Schickshinny, Luzerne County.

#### TENT CATERPILLARS

(*Malacosoma* spp.)

**Maine:** *M. americanum* infestations and damage evident in most areas. **New Hampshire:** Pupating at Durham. **Utah:** *M. disstria* damaged bitterbush, serviceberry, chokecherry and wild rose in ranch area of Blacksmith Fork Canyon, Cache County.

#### A SPIDER MITE

(*Oligonychus milleri*)

**Missouri:** Collected and det., at Columbia, Boone County. Light to heavy on new growth of shortleaf pine.

Compiled from information furnished by the U. S. Department of Agriculture, university staffs, and WTT readers. Turf and tree specialists are urged to send reports of insect problems noted in their areas to: Insect Reports, WEEDS TREES AND TURF, 1900 Euclid Ave., Cleveland, Ohio 44115.