

## trimmings

**AQUATIC VEGETATION** is reducing the sport fishing potential of ponds and lakes in many parts of the midwest. In Jackson county, South Dakota, largemouth bass, green sunfish and black bullheads generally exceed 500 fish per surface acre. But when heavy growths of aquatic vegetation occur in the summer, the fishing potential is reduced. Solution: fish from a tube float. This doesn't solve the aquatic weed problem, but it keeps weeds out of the active fishing area.

**WHO ELSE USES PESTICIDES?** According to the National Agricultural Chemicals Association, Industry is the largest non-agricultural user of pesticides. It accounts for nearly one-fifth of domestic sales. An estimated \$300 million was spent in 1970 by industry. Uses include: mildew control in paint, wood preservatives, carpet treatments for insect pests, contamination in food preventative; preservation of plaster board, and others.

**YOU DIDN'T HEAR THIS** from us. The Associated Press reports that Kidwell Turf Farms of Culpepper, Va. has hired a new sales representative. He's been in the turf business for 12 years. The kicker is his name. He's C. S. (Pete) Moss!

**WHAT IS AN ARBORIST?** What is a forester? According to the American Society of Consulting Arborists an arborist deals with trees as individuals whether naturally seed or planted. The value of such trees, whether on private or public property, to be considered from the standpoint of shade, landscape beautification or recreational enhancement. A forester deals with trees en masse whether naturally seeded or planted. The value of such trees to be considered from the standpoint of lumber, pulpwood, wildlife habitat or erosion control.

**SLUGS**—everybody hates them, nobody likes them. But how do you get rid of them? Richard L. Miller, extension entomologist at Ohio State University, says use slug bait. With the introduction of Mesurool, we probably have one of the most effective slug killer ever known, he says. Don't feed good beer to those lousy slugs. They don't deserve that kind of treatment, he comments.

**ARE YOU AN INTERSTATE** commerce businessman? If you are, take a tip from those in the nursery business. Many of these fellows experienced problems in shipping plants to other states this spring. Seems like some states place rigid quarantines on the movement of certain plants into their states. If you have experienced this problem, better contact the state department of agriculture in your state. Or, ask your association to provide a list of quarantined states. The American Association of Nurserymen has periodically published a Quarantine Wall Chart for its members.

**REMEMBER THAT PURPLE INK** meat processors use to mark hanging carcasses? The ink is Violet No. 1 and the Food and Drug Administration has banned its use. Why? Two Japanese studies indicate that the food coloring may cause cancer.

The dye has been in common use for 22 years. Not just on meat, however, but in drugs, cosmetics, beverages, ice cream and bakery goods.

**NOISY MILE** might be the best way to describe the size of the insect population. Researchers calculate that over 80 percent of all animal life consists of insects. More than a million species of insects have been identified to date and the list is growing. While there are about three billion people in the world, scientists estimate that there are that many insects for every square mile of the earth.

**TUSSOCK MOTH** damage is causing much clamor in western states. According to the Associated Press, the Oregon department of forestry has sprayed Zectran insecticide on 1000 acres of forests with a reported kill of 78 percent after 12 days.

## Turfgrass Insects

By **HERBERT T. STREU**

Department of  
Entomology and Economic Zoology  
Rutgers — The State University



Many insects feed on turfgrass and some can cause severe damage. Several common and important pests are illustrated in the accompanying figure.

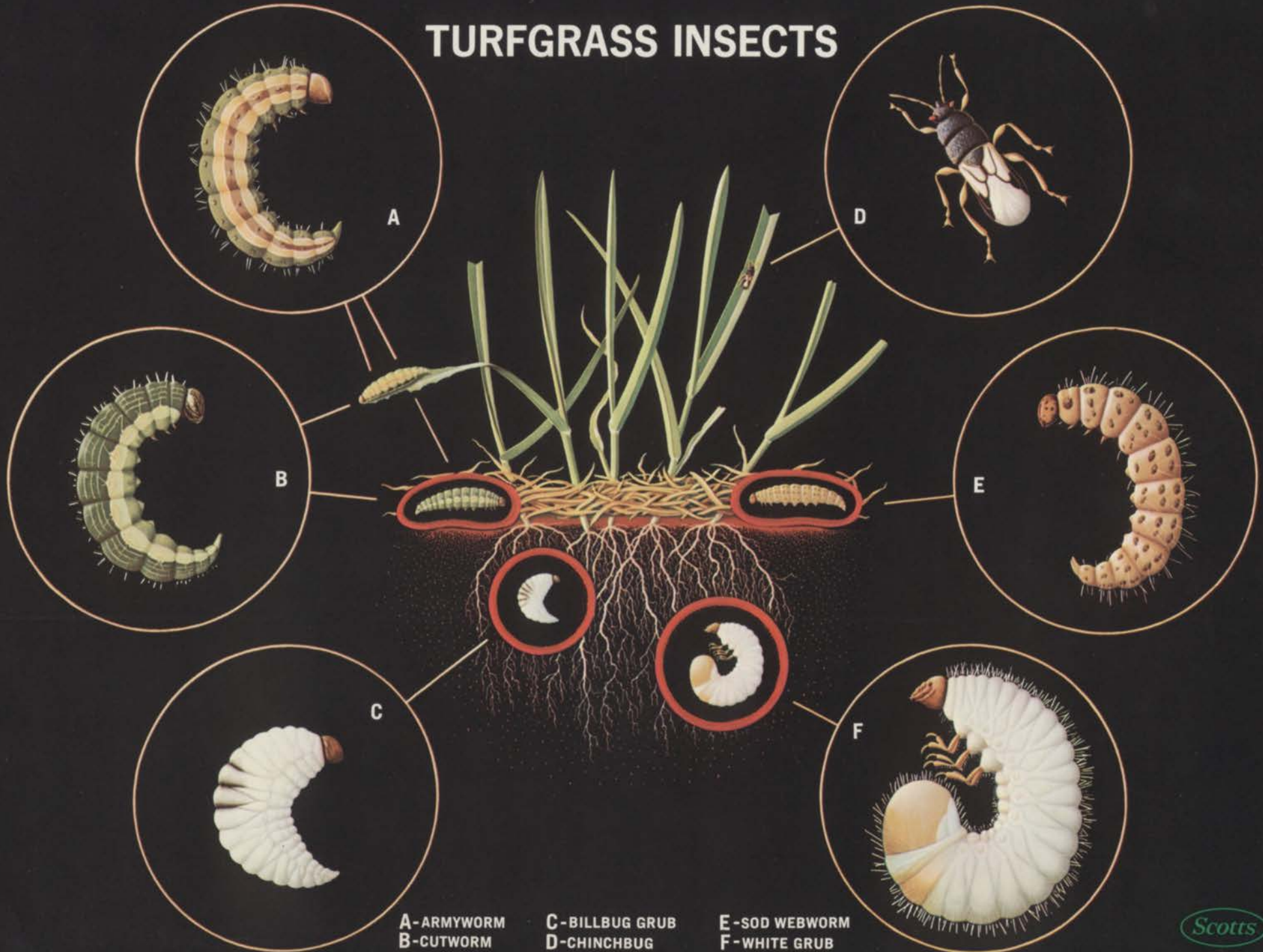
Chinch bugs feed on the above ground plant parts with sucking-type mouthparts. The bugs tend to congregate and early damage is often spotty. Greatest damage occurs during hot, dry seasons when populations may reach many hundreds or more, per square foot.

Billbug and white grubs are beetle larvae which feed below ground chewing off grass roots. As a result, heavily infested sod may be easily rolled, or pulled up, and uncontrolled populations may kill extensive areas of turfgrass.

Sod webworms, armyworms and cutworms are the larvae of a number of species of moths. These caterpillars or "worms" feed above ground chewing off grass leaves and stems, leaving patchy dead areas in the turf.

Any of the above insects may occur at the same time in turfgrass and the combined attack on the various plant parts result in multiple damage.

# TURFGRASS INSECTS



A-ARMYWORM  
B-CUTWORM

C-BILLBUG GRUB  
D-CHINCHBUG

E-SOD WEBWORM  
F-WHITE GRUB