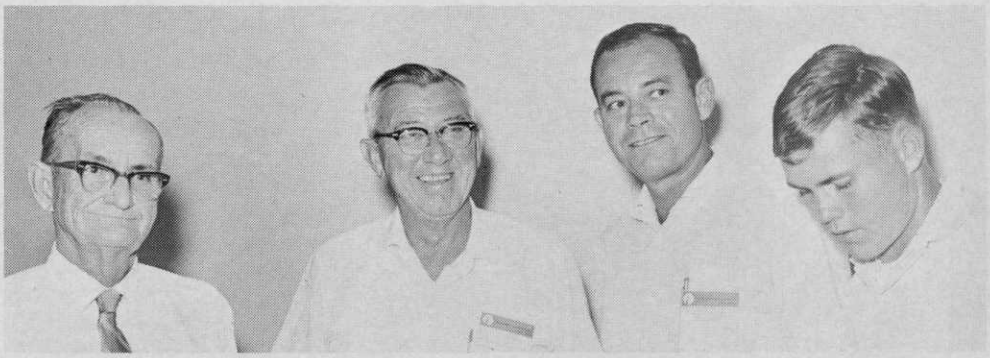
# Turf Beauty Key: Irrigation

How to get maximum use and yet maintain the beauty of turf was utmost in the minds of some 75 commercial representatives and turf growers attending the 10th annual turfgrass short course in September at Auburn University, Auburn, Ga.

One aid in accomplishing this is through automatic irrigation, said Dick Hoffman, district sales manager, Febco, Inc., West Palm Beach, Fla. Hoffman pointed out that the savings in labor costs alone would go a long way in paying for the system, not discounting the fact that timeliness, convenience, uniform coverage and other factors are to be considered in installing an automatic system.

Diseases often steal the beauty of the turf especially on golf greens.



Participants in the turfgrass short course at Auburn University included: From the left, Albert R. Mellon, Decatur parks and recreation department; Harold Thornhill, specialist in ornamental horticulture, Auburn Cooperative Extension Service; R. I. Collingsworth, NASA management agronomist, Huntsville; Wayne Milligan, Decatur parks and recreation department . . .

In his presentation, "Dew Is Not Dew," Tom Mascaro, divisional vice-president, Kearney-National, Inc., New York, said that many times exudation of plants was mistaken for dew. This, he said, always presents a problem in that spores germinate and grow very rapidly in this material when compared to normal water.

He recommended early morning watering as one means of controlling diseases. Also, syringing to dilute the exudate material is helpful. In

## Insect Report

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

### TURF INSECTS

#### BUFFALO GRASS WEBWORM
*(Surattha indentella)*

KANSAS: Larvae found in buffalograss fairway on golf course in Harper County. This is a new country record.

#### FALL ARMYWORM
*(Spodoptera frugiperda)*

ALABAMA: Small to half-grown larvae 5 per square foot of zoysia and bermudagrass on lawn at Auburn, Lee County. SOUTH CAROLINA: On coastal bermudagrass in Beaufort and Hampton counties.

### INSECTS OF ORNAMENTALS

#### BAGWORM
*(Thyridopteryx ephemeraeformis)*

TEXAS: Heavy; damage excessive to juniper and other shrubs in Wilbarger County. IOWA: Fully developed at Mt. Pleasant, Henry County. VIRGINIA: Heavy on junipers in Middlesex County.

#### RED-HUMPED CATERPILLAR
*(Schizura concinna)*

VIRGINIA: Completely defoliated dogwood in Rappahannock County.

### TREE INSECTS

#### ASIATIC OAK WEEVIL
*(Cyrtepistomus castaneus)*

MISSOURI: Adults collected in Shannon, Dent, Crawford, Ripley, and Oregon counties. All are new county records. OHIO: Light, 1-2 per square yard of foliage, on black oaks in Monroe and Morgan counties for new records.

#### ELM LEAF BEETLE
*(Pyrrhalta luteola)*

MISSISSIPPI: Damage heavy to Chinese elms in Pontotoc County for new county record. NEW MEXICO: More severe at Albuquerque, Bernalillo County, than past two years. No undamaged leaves on many trees; others completely defoliated. Heavy damage on elms at Caprock, Lovington and Hobbs in Lea County. UTAH: Damage especially severe at Green River and Huntington, Emery County. Defoliation 98% on elms at Blanding, San Juan County. TEXAS: Damage heavy to Chinese elms in Martin, Glasscock, and Pecos counties. Damage heavy in Wilbarger, Foard, Wichita, Throckmorton, Baylor, Lubbock, Garza Scurry, and Nolan counties. Found in Archer County for a new record. WEST VIRGINIA: Defoliated 60-80% of Franklin County elms.

#### MIMOSA WEBWORM
*(Homadaula anisocentra)*

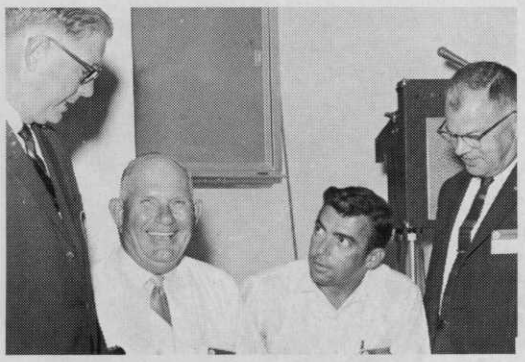
OKLAHOMA: Percent damage on mimosa 30-70 in Hughes, McCurtain, Pittsburg, and McIntosh counties. All except Hughes new records. TENNESSEE: Damage and webbing heavy in Davidson, Montgomery and Robertson counties.

#### SADDLED PROMINENT
*(Heterocampa guttivitta)*

PENNSYLVANIA: Severe outbreak continued in northeastern area. Defoliated at least 50,000 acres of beech and sugar maple in southern and northern Wayne, western Pike, northwestern Monroe, eastern Lackawanna, and eastern Susquehanna counties. Beech and sugar maple in Sullivan County on state game lands continuing to die and decline due to one complete stripping in 1967; 50 million board feet of timber lost.

#### A STINK BUG
*(Elasmucha Lateralis)*

CALIFORNIA: Heavy on birch tree at Burney, Shasta County. A new state record.



. . . James B. Moncrief, U. S. Golf Association greens section, Athens, Ga.; Mike Johnson, Birmingham; Bill Norrie, Jr., secretary-treasurer of the Alabama-Northwest Florida Turfgrass Association, Pensacola, Fla.; and Dr. T. B. Haglen, chairman of plant science division, Auburn's Cooperative Extension Service.

some cases drying of the greens will help in disease control. He also advised that 5-10 pounds of hydrated lime per 1,000 square feet placed on grass when dry will help.

Some of the necessities for a healthy turf, he added, are good soil, aeration, the right grass, water, nutrition, and proper management. Zoysia, ryegrass, and fescues, he pointed out, seem to be the driest grasses at early morning.

Of course the most beautiful golf courses start with proper green construction. James B. Moncrief, director of Southern Region USGA-Green Section, Athens, Ga., said that the green should be one that resists compaction, supports proper growth, one constructed to attract fewer disease problems, proper drainage and good infiltration. An improperly drained area is usually where diseases show first. For proper sub-drainage he suggested that 100 linear feet of drainage pipe be used per 1,000 square feet of area. Drain bunkers, he said, are also helpful. A good soil mixture at least 12 inches in depth is necessary. A green-keeper should have plenty of good soil mixture and a place to store it properly.

Ed Kearley, graduate assistant, agronomy and soils, talked on research on the use of surfactants. He pointed out that the use of a surfactant most always increased the effectiveness of an herbicide. A surfactant, he said, is a tool trying to get more from an herbicide, allowing more efficient and effective use.

The two-day short course was sponsored by Auburn University and the Alabama-Northwest Florida Turfgrass Association.

## Interactions Significant For Trees and Turfgrasses

Established turfgrass has a striking effect on root development of newly planted trees, and established tree roots can greatly reduce root production and vigor of newly planted turfgrass.

Carl E. Whitcomb, ornamental horticulturist with the University of Florida, told members of the American Society for Horticultural Science Meeting at Washington State University at Pullman that when common Kentucky bluegrass was established before tree roots grew into that soil volume, silver maple root production was reduced by 50%. Honeylocust roots were not affected. The trees had no measurable effect on the bluegrass.

However, when bluegrass was seeded on soil containing well established silver maple or honeylocust roots, four major reductions in the vigor of bluegrass were noted with no measurable effect on tree roots:

(1) Germination of bluegrass seed was reduced by 29%, with no effect on subsequent tiller development.

(2) Clipping yields were reduced by as much as 30% immediately following fertilization.

(3) Grass sod yields were reduced by 40%.

(4) Grass root yields were reduced by 59%. Grass roots were very shallow, with few penetrating the established mass of tree roots more than a few inches.

## North Dakota State To Study Pesticide/Plant Metabolism

Research to learn how pesticides are metabolized by plants will be conducted at North Dakota State University, Fargo, under a two-year grant awarded by the U.S. Department of Agriculture.

USDA's Agricultural Research Service will provide $17,118 for the study, which will be led by Dr. George Graf, biochemist at the University.

Researchers will be particularly concerned with determining how crop plants and weeds biochemically break down urea, amide, and carbamate pesticides.

Among common weeds to be included are lambsquarter, goosefoot, ragweed, and mustard.

Findings are expected to add to a better understanding of pesticide susceptibility and resistance in plants and to improved pesticide management.