

Happy over results of experiments are these five speakers on this year's program for the Ala.-N.W. Fla. Turfgrass Short Course. They are, from left, James B. Moncrief of Athens, Ga., and Dr. Ben Hagler, Bill Gregg, and Dr. L. E. Ensminger, all of Auburn University. 150 attended.

small, gives excellent control. However, it will not kill crabgrass after three or four leaves are present unless used at rates that will injure lawn grasses.

Arsenates used at recommended rates have given excellent control. Dr. Sturkie said arsenates may be applied to small or large crabgrass. But, he adds that it is usually necessary to make several applications during summer because crabgrass seeds germinate in favorable periods.

The arsenates must not be used on centipede, st. augustinegrass or bahiagrass lawns.

Another advantage, Dr. Stur-

Ala.-N.W. Fla. Turfmen Get Latest on Zoysia, Centipedegrass, Bermudagrass Field Trial Results

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Turfgrasses from B to Z (bermuda to zoysia) were examined in detail during the fact-filled sixth annual short course of the Alabama-Northwest Florida Turfgrass Association, Sept. 9-10, at Auburn University.

One of the biggest interest getters seemed to be the discussion and tour centered around the grass demonstration plots of Dr. D. G. Sturkie, Agricultural Experiment Station scientist.

His experiments now in progress involve fertilizer tests with zoysia matrella on four soil types, fertilizer tests on centipedegrass, strain test of bermudagrass, method and removal time of thatch on zoysia matrella, and herbicide use.

Pre-, Post-Crabgrass Control

For crabgrass control, Dr. Sturkie said the following herbicides have given good control at the corresponding application rates.

1. Pre-emergent

Material	Rate A. I. A.
Azak	20 lbs.
Betasan	10-20 lbs.
Dacthal	10-20 lbs.
Simazine	1.5-3.0 lbs.
Treflan	3-6 lbs.

The effect these chemicals

might have, the soil scientist noted, on stands of ryegrass and winter grass mixtures overseeded in the fall following their application has not been tested. Neither has their effect on shrubs, trees, or flowers been tested.

2. Post-emergent

PMA (phenyl mercuric acetate), used at recommended rates and applied when crabgrass is kie pointed out, is that when arsenates are used at same rate and frequency of application as for crabgrass, they greatly reduce nutgrass populations. It has not been determined how long it takes to eradicate nutgrass, but the surest way to get rid of it is still by fumigation with methyl bromide, he added.

Experiments showed that arsenates will kill dallisgrass and bahiagrass when used at rates somewhat higher than for crabgrass.

W. R. Thompson, assistant



Early registrants (standing, left to right): Cooper Morcock, Atlanta; T. J. Loftin, Birmingham; Robert L. Tompkins of Jackson; and J. C. Noggle, Gainesville, Fla. Bill Norrie, Jr., of Pensacola, seated left, and Clem Simon, Birmingham, help with the registration. Tompkins is president of the association. agronomist at Mississippi State University, told about the university's study of golf course turf management practices. He said they are much more effective when performed on a regular schedule than at haphazard intervals.

Thompson observed that most management practices are aimed at both improving air and water penetration into the soil, and controlling thatch accumulation.

Topdressing with soil is the most effective method available for controlling thatch accumulations, the agronomist said. Mississippi research shows that monthly applications of $\frac{1}{8}$ - to $\frac{1}{4}$ -inch soil to be best, but bimonthly applications are far superior to no topdressing.

Thompson also told that vertical mowing is a useful tool for control of thatch and grain accumulation. The danger with vertical mowing, he added, is when it's done at irregular intervals.

"We have found we damage grass less by regular vertical mowing (every 2 wks.) than at wider intervals (6 wks.). To avoid permanent growth patterns, always change direction at each mowing. Begin vertical mowing in the spring and continue until overseeding," he advised.

Spiking is good for spring management. Spike every week to 10 days, beginning just before grass starts turning green. This eases the spring transition by bringing out the bermudagrass faster, according to Thompson.

Monthly aerification allows better water and air movement into the soil and provides a very desirable turf. The agronomist advises to begin aerifying in spring and continuing until 30 days prior to overseeding.

Overseeding Bermudagrass

James B. Moncrief, agronomist, USGA Green Section, Southeastern Region, discussed overseeding bermuda greens. He said that even though ryegrass is still used quite often for overseeding, interest in fine-leaved grasses is growing because:

1. There is poor transition in the spring with ryegrass;

2. Color is retained by fine-

leaved grasses in severe cold weather:

3. Ryegrass is very competitive with bermuda but dies fast when hot weather prevails; and

4. There's a constant disease problem with ryegrass, but it can be controlled with fungicides.

Moncrief added that cost definitely influences the type of seed some courses use for overseeding. However, he said the cost of seed per 1,000 square feet can be deceptive. For instance, 40 pounds of ryegrass at eight cents per pound equals \$3.20 per 1,000 square feet. Bent seed (colonial) at five pounds per 1,000 square feet at \$.60 equals \$3.00 per 1,000 square feet. Pennlawn at \$.60 per pound at 10 pounds per 1,000 square feet equals \$6.00.

Grass Choice Secondary

Dr. Robert W. Schery, director, The Lawn Institute, in his discussion of lawn maintenance said, "Response of the turf is generally contingent upon a number of primary and secondary practices, which, in toto, can be more important than the type grass. Any one of these can limit performance, but mistakes in planting, mowing and fertilizing are apt to be more serious and will show more quickly. All maintenance practices together establish the environment for the lawn, and if they are adjusted to meet the ecological needs of the particular grasses chosen, there will be a minimum of problems and failures. The grass then fights most of its own battles against pests."

Other speakers on the program were: Marshall S. Helm, program chairman, Alabama-Northwest Florida Turfgrass Association; Tom Mascaro, West Point Products Corp., West Point, Penn.; and Warren Whitney, vice president and general manager, James B. Clow and Sons, Inc., Birmingham, Ala.

Participants in the conference from Auburn University, Auburn, Ala., were: L. E. Ensminger, professor, agronomy and soils; Bill Gregg, agronomistseed; R. T. Gudauskas, associate professor, Department of Botany and Plant Pathology; Henry P. Orr, professor, ornamental horticulture; and Hoyt M. Warren, assistant director, Extension Service.

Dr. T. B. Hagler, chairman of Plant Science Division, Auburn University Extension Service, was chairman of the short course.

About 150 people attended from the two-state area, including turfgrass producers, country club and golf course superintendents, cemetery managers, park and recreational area caretakers, military groundskeepers, nurserymen, fertilizer dealers and landscape consultants.



Nothing like colored slides to show results, these participants agreed as they readied their part of the Ala. program. Shown are, from left, Dr. R. W. Schery of Marysville, Ohio; Dr. D. G. Sturkie and Dr. R. D. Rouse, both of Auburn University; and H. G. Smoak of Montgomery, Ala.