## 535 at '63 Wooster Field Day Updated on Lawns, Ornamentals

"Excessive thatch can 'suffocate' soil... Bentgrass is a weed in some lawns... Lawn weeds are indicators of deeper turf deficiencies."

This is a sampling of information collected by 535 professionals who attended the annual Lawn and Ornamental Field Day at the Ohio Agricultural Experiment Station in Wooster, September 17.

Thirteen stops on the campus tour provided facts from seeds to weeds, diseases, pests, and trees. At each stop, station staffers presented results of tests conducted this year, and answered delegates' questions.

Agronomy professors R. R. Davis and J. L. Parsons showed visitors that the Ag station is keeping up with new problems such as, for example, thatch control and removal. Thatch is defined as "a tightly mingled layer of living and dead stems, leaves, and roots of grasses which develops between the layer of green vegetation and the soil surface." Thatch may become so thick that soil is nearly "suffocated"; water penetration is lessened also with thick thatch.

Station tests on thatch removal showed that removal appears to rejuvenate turf and make it seem like a young stand. Thatch removal gives Merion bluegrass better color and more drought tolerance, according to Dr. Davis' and Dr. Parson's work.

High mowing, heavy fertilization, returning clippings, excess acidity, and clay soil interact to cause thatch. Several thatch-removing machines of tine and knife types were demonstrated.

## Soil Grub Controls

"Billbugs are the most dominant turf pest in Ohio," explained entomology professor J. B. Polivka. "Powdery material in grass stem bases indicates that billbugs are working.

"Two and one-half pounds of actual chlordane applied to Merion bluegrass in 1959 is still giving good control of billbugs, webworms, cutworms, and earthworms in a treated plot," Dr. Polivka revealed. Control chemicals should be applied before August 15, before grubs begin to go deep in the soil for winter hibernation, the entomologist advised.

"Kelthane, Tedion, or Aramite directed to lower leaf surfaces control spider and red mites on evergreen and deciduous ornamentals," Dr. Ralph B. Neiswander suggested to delegates hearing about ornamental pests. Mites which cause bronzing and stunting of azalea can be controlled with a malathion spray just before new spring growth," he added. Horticulturist Dr. L. C. Chadwick warned that malathion may injure certain juniper species and mottle leaves of roses and sweetgums.

## Weeds Are Symptom, Not Cause

"Annual weeds are a symptom of poor turf and not a cause," Dr. E. W. Stroube revealed to a group of notetakers. "Kill weeds as they crop up, but look for a basic cause, such as soil compaction, poor drainage, or improper mowing," he suggested. Silvex and 2,4-D will kill most broadleaved weeds. For tough weeds like knot-

weed and red sorrel, a new product, Banvel D. (dicamba) shows promise. It is not yet labeled for turf use, Dr. Stroube pointed out.

Head agronomist Dr. Richard R. Davis led off the afternoon tours with an explanation of an experiment in selective control of bentgrass in Merion bluegrass. "Yes, bentgrass is a weed, when it begins to take over Merion turf," Dr. Davis asserted. "Responding to inquiries, we have set out to see if we can find controls to keep bentgrass out of bluegrass lawns." The best recommendation supplied by the station expert was 2 summer applications, 4 weeks apart, of silvex at 6 lbs. per acre. Vertical mowing a week before the first treatment helps the silvex action.

Research of agronomist Dr. Glover Triplett will help those in the field of lawn renovation. Dr. Triplett has shown by tests that several chemicals may be superior to mechanical tillage for lawn replacement. Fumigants, such as methyl bromide, may be used in the hands of those with experience, and reseeding can be accomplished in as little as 48 hours. Other chemicals tested were Amitrol-T plus dalapon, which gives a slow kill and a longer waiting period. Amitrol-T alone kills faster but misses some perennials. Paraquat, can be seeded over in 48 hours, but some broadleaves may escape the treatment.



In a previous meeting this year at the Ohio Agricultural Experiment Station, nearly 125 representatives of the agricultural chemicals industry met to examine results of new turf chemicals. Delegates examined test plots like the one shown here, where (left to right) Lee Hedrick, California Chemical Co., Felix Merullo, Merullo Landscape Service of Columbus; and station staffer Dr. R. R. Davis viewed results obtained with the selective grass killer, Paraquat.