

ters will play increasing roles in weed control in the future.

### Scanning the Diseases

With Gallagher on the program was Dr. Michael Britton of the Department of Plant Pathology, University of Illinois, Urbana.

A noted authority of turfgrass diseases, the Illinois scholar presented an orderly slide review of typical turf ailments and their symptoms. Throughout his talk, the scientist insisted that disease control, through the application of fungicides, is best carried out on a preventive basis, since once the disease is evident, damage frequently has already been done.

In the case of snowmold, for example, fungicides *must* be applied before snowfall, since the disease forms under cover of snow and doesn't become evident until thawing occurs.

### Probing the Causes of Wilt

Another discussion of singular importance to turfgrass managers was a review of research into the causes of wilt, presented by Harry W. Meusel, Superintendent, Yale University Golf Course, New Haven, Conn.

Meusel's highly detailed studies involve microscopic analysis of the paths water takes when distributed through blades of grass. Understanding these patterns, Meusel feels, will help to discover maintenance practices which will alleviate the wilting problem in fine turf.

So far the Connecticut turf expert has found that phenylmercuric acetate with a nonionic wetting agent is useful in helping prevent wilt.

Heavy watering and fertilization in conjunction with a wetting agent has also proved helpful. Sometimes wilting can be caused, in part, by compacted soil, conceivably because of shallow root systems which exist in such packed-down areas.

### Avoiding Ravages of Winter

Last winter's inordinate severity has made turf managers more cognizant than ever of the damages wrought by cold, snowy, windy weather, so the resumé of winter damage problems presented by Alexander M. Radco was most welcome.

Radco is Director, Eastern Region, U. S. Golf Association Green Section, and does his re-

search at Rutgers University, New Brunswick, N.J.

Damages which occur in winter range from rodent problems (burrowing animals) to inundation caused by melting snows.

One way to alleviate the latter, Radco said, is to remove a strip of the sod and dig a ditch through which water may run off. The turf which is removed is placed somewhere else to grow, and can then be replaced when winter is over.

### Weather and Insects

An adjunct to the winter damage study was offered by John C. Schread, a Professor of Entomology from the University of Connecticut Agricultural Experiment Station in New Haven.

Professor Schread's observations about Japanese beetles and the chinch bug were particularly notable. Theoretically, a temperature of 15° F. will kill Japanese beetles, but because snow layers protects the pests even when they're near the soil surface, there are recorded instances of survival of even -28° F.

In his discussion of the effect of weather on insect infestations, the Connecticut entomologist said that the chinch bug is adversely affected by heavy rainfalls in late June or early July. This applies, of course, to the Connecticut area, which until recently did not number the chinch bug among its important turf pests.

"Since 1960, however, the chinch bug has been a major pest in turf in Connecticut—in lawns, parks, and other large turf areas," the professor proclaimed.

### Fertilizer Trio

"Understanding Fertilizer Behavior" was the theme of another half-day session, in which a trio of turf-feeding specialists discussed the rudiments of their field of interest.

The ecology of nitrogen breakdown was explained by Dr. Roy E. Blaser from the Department of Agronomy at Virginia Polytechnic Institute in Blacksburg, Va.

Dr. Blaser hastened to warn that overstimulation with nitrogen had increased other problems in turf maintenance. For example, grass heavily fertilized with nitrogen produces more thatch, increases the wilt hazard, and ups the weight of clippings.

Nevertheless, nitrogen is the

key to quality control in turf, the Virginian commented.

Role of other major elements in turf nutrition (phosphorus and potassium) was examined by Dr. Marvin S. Ferguson, National Research Coordinator, USGA Green Section, Texas A&M College, College Station, Tex.

"You can't depend on deficiency symptoms to indicate when and how much to feed the turf," Dr. Ferguson said, "because it will be too late and the damage will have been done."

It is therefore important to understand the mechanics and technicalities of turf fertilization so proper feeding can be carried out continuously.

Along this line of thought, delegates were told that they should be able to tell the pH of the soil in every green, and if not, should take a soil test to determine the factor. Why? Because the acidity or alkalinity of soil affects the availability of trace elements such as boron, copper, iron, etc.

This observation was part of a talk on trace elements by Dr. J. R. Love, Department of Soils, University of Wisconsin, Madison.

"A cold wet spring may herald iron deficiency," Dr. Love indicated in his catalog of tips on trace-element management.

The other educational sessions of the 35th International Turf-Grass Conference and Show were given over to matters affecting golf course people only. Next year the meeting will be in Cleveland, Ohio, at the Sheraton Cleveland Hotel, January 31-Feb. 4.

### New Name for Ansul

Stockholders of the Ansul Chemical Company voted recently to change the corporate name to The Ansul Company, it was just reported.

In addition to chemicals, the Marinette, Wis. firm also manufactures tanks, pumps, and related equipment for fire fighting and other uses; refrigeration components, and other products.

Ansul spokesmen predict significantly higher sales gains in 1964, as a result of, among other things, the development of the company's "Ansar" line of herbicides.