Meeting Dates

Chemical Marketing Research Association, Annual Meeting, Plaza Hotel, New York, N.Y., May 15-17.

Florida Nurserymen and Growers Association, Annual Convention, Robert Meyer Motor Inn, Orlando, May 25-27.

National Plant Food Institute, Annual Convention, The Greenbrier, White Sulphur Springs, W. Va., June 11-14.

The Hyacinth Control Society, Annual Meeting, Holiday Inn, Fort Myers, Fla., June 18-21.

American Society of Landscape Architects, Annual Conference, Hotel Regency, Atlanta, Ga., June 25-28.

American Association of Nurserymen, Annual Convention, Americana Hotel, Bal Harbour, Fla., July 8-13.

Third National Grassland Field Day and Conference, University of Nebraska, Mead, July 12-14.

Southwestern Fertilizer Conference and Grade Hearing, Annual Meeting, Skirvin Hotel, Oklahoma City, Okla., July 19-21.

Miss Lark Trade Show and Convention, Convention Auditorium, Hot Springs, Ark., Aug. 10-12.

Penn State 1967 Field Day, Pennsylvania State University, University Park, Aug. 16-17.

Nursery and Garden Supply Show, Texas Association of Nurserymen Annual Convention, City Auditorium, Austin, Aug. 20-23.

International Shade Tree Conference, 43rd Annual Convention, Marriott Motor Hotel, Philadelphia, Pa., Aug. 27-31.

American Society for Horticultural Science, Annual Meeting, Texas A. & M. University, College Station, Aug. 27-Sept. 1.

Pacific Northwest Spraymen's Association, Annual Conference, Seattle, Wash., Sept. 15-16.

National Agricultural Chemicals Association, Annual Meeting, Holiday Inn, Palm Springs, Calif., Nov. 5-8.

American Society of Agronomy, Annual Meeting, Sheraton-Park and Shoreham Hotels, Washington, D. C., Nov. 5-10.

Texas Fertilizer Association's 1967 Agricultural Exposition, KoKo Inn, Lubbock, Nov. 9-10.

Systemic Fungicides For Stripe Smut

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Recent publicity on stripe smut (*Ustilago striiformis*) in bluegrasses focused attention on an important turf disease. The purpose of this article is to describe encouraging results with systemic chemicals, because effective chemical control will permit continued use of smut-susceptible but otherwise high-quality bluegrass varieties, such as Merion.

The tardy development of suitable chemicals prompted the recent suggestion that the most promising method of controlling stripe smut will be by selection and breeding resistant varieties. Yet, the failure to produce a comparable new variety during the 20 years that Merion bluegrass has been in general use illustrates that bluegrass improvement is a slow process. Although a number of smut-resistant bluegrass selections have been found, great difficulty is encountered in locating smut-resistant plants with all the other desirable turf qualities of existing varieties.

A few promising new varieties have failed to produce sufficient seed for commercial use. Diseases other than stripe smut have ruined certain bluegrass selections and will probably eliminate some additional selections when they are multiplied. Finally, it should be mentioned that resistance to plant diseases is often temporary, particularly with rusts, smuts and mildews, because new races of pathogens arise to attack previously resistant plants. New bluegrass varieties resistant to smut probably will be developed eventually; meanwhile, stripe smut control by new fungicides will enable continued general use of time-proven varieties.

Chemical control of stripe smut is particularly difficult because of the infection of adult plants. Seed treatment has only limited value. Prevention of infection might be possible by a number of protectant-type fungicides. This approach has been unattractive because of the probable need for frequent applications of excessive quantities of chemicals which increase both cost and nuisance.

The best hope for feasible chemical control of stripe smut lies in development of systemic fungicides. Such sophisticated chemicals are absorbed by the plants and eradicate or suppress existing infections. Hopefully, some of these chemicals may also prevent new infections. Testing of systemic chemicals for stripe smut control is now in progress at several state agricultural experiment stations. Additional chemicals can be expected from the chemical industry since the turfgrass market has much to offer. The nonfeed, nonfood classification of turfgrass greatly eases the chemical residue restrictions. In addition, relatively more plant injury can be tolerated in turf. Therefore, a new chemical can be brought to the market for turf much faster than for food or feed crops.

Testing of systemic chemicals for stripe smut control is now a major effort in the regional USDA grass disease project in cooperation with Oregon State University at Corvallis. We are prepared to work with all chemical companies in evaluation of candidate systemic chemicals in the development of new fungicides for stripe smut.

A significant breakthrough in chemotherapy was made during 1966 in the studies at Corvallis. Flag smut (*Urocystis agropyri*), one of two diseases involved in