

Sod Growers Report Progress

EDITOR'S NOTE: Every so often it's a good idea to stop where we are and analyze ourselves, where we are, where we've been and where we're going. This is what John R. Hall, turf specialist at the University of Maryland has done below for the state of Maryland. By showing the progress made in this sod market you will have a chance to compare your own programs and achievements. *JAS.*

Through the efforts of many individuals in the state of Maryland, 1972 can be considered a progressive year for the turfgrass industry.

How do you measure progress in something as ubiquitous as the turfgrass industry? A measure of progress in our industry can come from the answers to the following questions:

Did the knowledge of turfgrass management in the industry in-

crease? Were new chemicals, machines, or methods made available which made turfgrass management easier? Were research, teaching, and extension capabilities strengthened to meet increased demands? Did we establish new markets, interest and demand for turfgrass in Maryland? Did the members of the industry make more money in 1972? Did our industry communicate with other segments of society and upgrade the image of the professional in the turfgrass industry? Did we increase our ability to communicate between segments of our industry? Did our industry become more united or more fragmented?

Educational programs sponsored by the Mid-Atlantic Golf Course Superintendents Association (M.A.-G.C.S.A.), Maryland Turfgrass Association, Professional Grounds Management Society, Maryland Cooperative Extension Service and other organizations served to disseminate research information of practical value to turfgrass managers.

The Baltimore Conference, conducted by M.A.G.C.S.A. in January 1972 provided excellent programs directed at the golf superintendent.

The Seventh Annual Maryland Sod Conference held in March of 1972 presented an educational program beneficial to sod producers in Maryland.

The department of agronomy and the cooperative extension service provided educational programs for turfgrass managers at the December Agronomy Short Course. All of these educational programs served to increase the knowledge of turfgrass managers in Maryland.

We witnessed Environmental Protection Agency (EPA) labeling of many materials in 1972 that were previously held in limbo by lethargic administrative procedures. We are witnessing the increased promotion and usage of organophosphate insecticides such as Trithion carbophenothion, diazinon, ethion, malathion, and Dylox trichlorofon in place of the long residual chlorinated hydrocarbons such as chlordane and methoxychlor. This is, of course, in response to environmental concern voiced by the public.

Increased use of systemic fungicides was witnessed as a result of a

combination of their increased residual effectiveness and the economic impracticality of short residual fungicides.

As labor costs continued to rise in 1972, we witnessed the increased popularity of labor-saving machinery such as the sand trap rake, triplex mower, truckster spray rigs, verticutters, spikers and topdressers.

A management method becoming increasingly popular in Maryland is winter fertilization of cool season turfgrass. The advantages of increased rooting depth and carbohydrate reserves, early green up, and less crabgrass competition for nutrients are being realized.

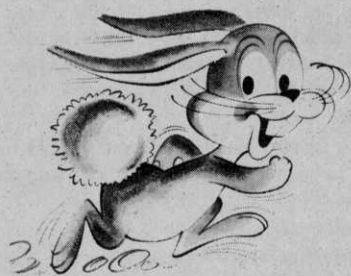
Research capabilities in 1972 at the University of Maryland were enhanced with the employment of Dr. Douglas T. Hawes in the department of agronomy. Dr. Hawes is beginning studies to determine the practicality of utilizing zoysia grass alone and in combination with bluegrass on golf tees in Maryland.

New markets for turfgrass in Maryland were developed in the sod industry. In 1972 we witnessed increased utilization of quality sod specifications that were demanding Maryland State Certified and Approved Sod. The trend will continue toward tighter and tighter specifications for quality sod.

Sod market potential will closely parallel the economic trends of 1973. The Maryland Turfgrass Association's efforts to upgrade the quality of sod in Maryland is now being observed in increased prices and demand for quality sod. Much still needs to be done in promoting the importance of and need for turfgrass in Maryland.

An attempt is being made to upgrade the professional image of the golf course superintendents through their national certification program. In this program the superintendents are rigorously examined to determine the extent of their turfgrass management knowledge. If they meet the high standards set by the National Association they are classified as "Certified Golf Course Superintendents". This provides the superintendents with a status in their profession not unlike lawyers who have passed bar examinations or public accountants who have become

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Certified Public Accountants. It is a means of establishing professional image for their occupation. As of October 1972, five superintendents were currently "Certified" in Maryland.

Attempts to increase communication between segments of the turfgrass industry in Maryland were made by the people involved in the formation of the Maryland Turfgrass Council. This Council was formed to promote and unite the interests of individuals, organizations, public and private institutions, and industry for the improvement of turfgrass in Maryland. The organization hopes to bring together people from all segments of the turfgrass industry and move toward the achievement of common goals. Whether or not the Maryland Turfgrass Council can achieve these objectives remains to be seen, but their objectives are in the interest of the Maryland turfgrass industry.

Progress has been made in 1972. More progress will be made in 1973. Plans are already made for the Eighth Annual Maryland Sod Conference to be held in College Park, March 8. This and other educational programs will continue to increase the body of turfgrass management knowledge in the industry.

Research on quackgrass and bermudagrass eradicating chemicals and management procedures will continue in 1973 as will variety evaluations and studies designed to increase our understanding of turfgrass management.

We must continue in our effort to unite as an industry and establish

lines of communication between the segmented turfgrass interests.

We must continue to promote programs that raise the image of our profession.

We must get about the task of determining the importance of turfgrass to the people of the State of Maryland. Progress requires *time* and people with *determination*. The Maryland turfgrass industry has both.

Environmental Color Film Promotes Wise Herbicide Use

A new film, "In Harmony With Our Environment" has just been released by Amchem Products, Inc.

According to the company, the film helps bridge the gap in associating the use of herbicides with man and his environment. Amchem says that the continued use of weed and brush control chemicals is absolutely essential to man's continued well being. At the same time, they believe applicators must thoroughly understand herbicides and use them properly.

The film shows long shots and close ups of herbicide application along utility rights-of-ways with helicopters. It also depicts the testing and analysis a candidate chemical is subjected to before it can be registered by the Environmental Protection Agency.

Accompanying the film is a new brochure which answers questions about herbicides.

For more information about this 16mm color film write: Amchem Products, Inc., Ambler, Pa. 19002.

Plant Resistance To Pollution Is Maryland Research Project

A botanist at the University of Maryland is conducting research on the ability of plants to withstand disease after exposure to low doses of ozone, an air pollutant.

According to Dr. Charles R. Curtis, an associate professor specializing in plant pathology, the combination of automobile exhaust and sunlight produces ozone, a highly reactive gas which is extremely toxic to plant cells. Dr. Curtis' research will help to establish the degree of influence which ozone has on the susceptibility of plants to disease-causing organisms.

He explained that the work is important because there is a "critical lack of basic scientific data concerning ozone damage to plant enzyme systems associated with plant disease-resistance mechanisms."

Because all enzymes are proteins, Dr. Curtis is studying protein structure in plants to determine the ozone damage to the plant enzyme systems. He is using a relatively new technique in his research, called two-dimensional electrophoresis, which provides a visual image of plant enzymes present.

By comparing the enzymes from ozone-treated and untreated plants, some idea of the ozone effect on plants may be found.

After completion of the study, Dr. Curtis will apply the same techniques to studying effects of sulfur dioxide on plant enzymes. Sulfur dioxide is an industrial air pollutant, but is not as toxic to plant cells as ozone.

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