

Herbicides for Sod Field Weed Control

By

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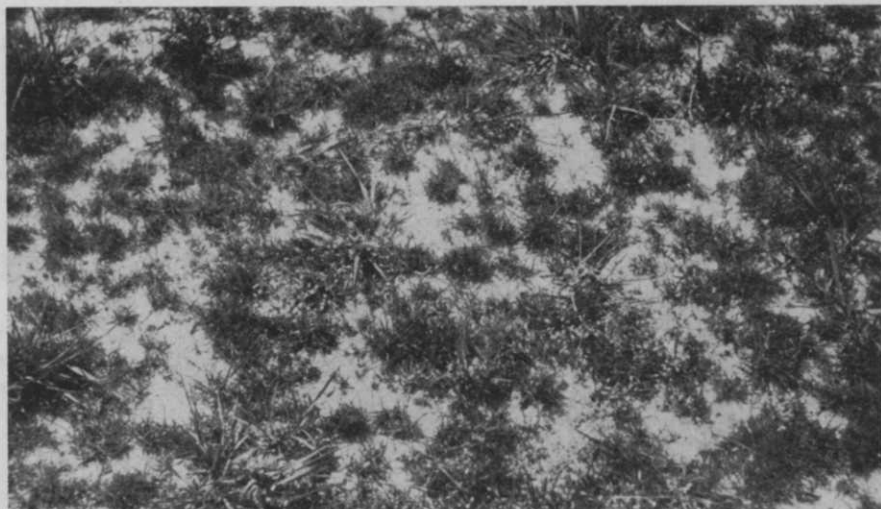
The sod producer is in what is probably the best possible position to make full use of herbicides. He is growing a single crop, has no ornamental plantings or trees to worry about, and has large enough areas to make use of herbicides economically.

The first thing the sod grower must do, of course, is decide whether he in fact has a weed problem or has the trouble spots which lead to weed infestation.

It's worth noting in passing that a good many people make their own weed problems. Any open spot in the turf caused by poor management—scalping by mowers, dead turf due to fertilizer burn, or compaction caused by improper equipment—will be filled in by weeds.

The grower who has the time and persistence to use and make his help use proper management will need herbicides only for isolated problems or areas of severe weed infestations.

Now then, let's assume that through no fault of his own the



Open areas in newly seeded turf are particularly vulnerable to weed invasion, Dr. Meade points out. Bare spots caused by poor management are another invitation to weeds.

grower has a weed problem. What should he use? (We're also assuming this is mostly bluegrass turf. Check company or local authorities for specialty turf.)

Controls Available For Annual Grasses

First and foremost among annual grasses is crabgrass and fortunately there has been tremendous activity in this field with several compounds available. Next most troublesome species is goosegrass, but since

this is normally a pest in areas of heavy traffic and compacted soil, it doesn't trouble the sod producer too much.

Foxtail (green, yellow and giant) as well as barnyardgrass and the panicums are other annual grasses which show up in turf seedings made on land previously in farms. Annual bluegrass (*Poa annua*) is a special case since it germinates in the fall and early spring. Herbicides for its control must be applied in early fall.

Recommended herbicides for controlling annual grasses are shown in Table 1.

Selective Herbicides for Perennial Grasses Lacking

We are weak in selective herbicides for controlling perennial grasses. Use of temporary soil sterilants prior to seeding is effective but expensive. A spot treatment of amitrol or dalapon is probably the best approach to most perennial grasses, especially the bunch type. These two are translocated chemicals and should be applied to the foliage. Kerosene, cacodylic acid or paraquat also will knock down the foliage but generally the grass will come back.

The rhizomatous grasses which

Table 1. Recommended Herbicides for Control of Annual Grasses

At Time of Seeding:	
Bandane	Has given good results in some tests but control is questionable.
Tupersan (Siduron)	Good control of weedy grasses. No injury to germinating bluegrass. Will need watering in with ½ in. of water. Residual activity is short, so retreatment may be necessary.
Preemergence to Weedy Grasses:	
DCPA (Dacthal)	Still a good herbicide, and economical.
DMPA (Zytron)	Excellent. A little broader spectrum of control. (Recent information indicates Zytron will not be manufactured in 1967).
Benefin (Balan)	A good herbicide.
H-9573 (Azak)	Very good for grass control. May injure bents and fineleaf fescues.
Bensulide (Betasan, Pre-san)	Very good for controlling grasses. Must be watered in. Area cannot be reseeded for one year.
Postemergence:	
DSMA or related Compounds	Be sure they are arsonates, not arsenites or arsenates.

spread rapidly over a wide area pose a special problem. These areas should be treated in summer (July) with dalapon or amino triazole and then worked down two weeks later. Desirable grasses may be seeded in September.

If the area to be treated is of small size the grasses may be smothered out with tar paper or similar material. It takes one-half to two months to kill the grass plants.

Nutsedge Left Behind When Sod Is Stripped

Nutsedge, previously called nutgrass, is perennial in nature because of nutlets at the end of rhizomes. In sod production these nutlets are left behind when the sod is stripped and the plant then acts as an annual.

If the nutsedge is too thick in a sod field it can be controlled (not eradicated) with repeat treatments of DSMA (organic arsonate as listed for postemergence crabgrass). Use the rates indicated for mature crabgrass.

For wild garlic and onion, the most economical and efficient control is still 2,4-D applied as a spray in the early spring or late fall. The ester form is preferable. You might want to try treating with 2,4-D in wax bar form. This is certainly more convenient and control has been very good. Dicamba (Banvel-D) has also given very good control.

First problem with broadleaf weeds is to properly identify them, since weed species vary in susceptibility to herbicides. Send a sample in a plastic bag without added water to your local experiment station or extension agent.

There are also some excellent charts available from herbicide suppliers.

A selection of herbicides is available for broadleaf weed control. Choice of the proper one depends on which chemical will do the best job for the least money. For a great many weeds, 2,4-D would be an obvious choice because of cost. But for weeds such as chickweed, henbit, white clover or oxalis, 2,4,5-TP (silvex) is needed.

There are weeds that are resistant to both 2,4-D and 2,4,5-TP but are controlled by dicamba (Banvel-D). Knotweed, sheep sorrel, and spurge come under this category. A good all-around combination is 2,4-D plus Banvel-D at a rate of 1 lb. plus 1/4 lb. This combination should control most broadleaf weeds.

For a more comprehensive list of the reaction of weed species to various herbicides, see University of Maryland Fact Sheet 157, available from the Agronomy Department, College Park, Md.; USDA's Farmers' Bulletin No. 2183, *Using Phenoxy Herbicides Effectively*, available from your local county agent or Government Printing Office, Washington, D.C., for 15¢; or USDA's Home and Garden Bulletin No. 79, *Controlling Lawn Weeds With Herbicides*, available for 10¢.

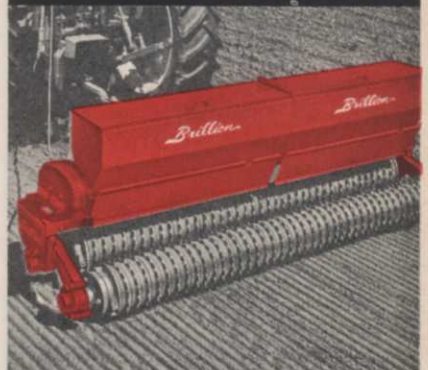
Herbicide Timing Is Critical Factor

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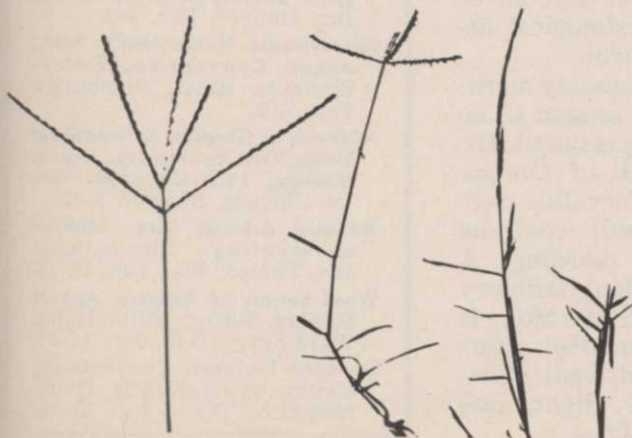
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Seedheads of three grasses troublesome to sod growers, as shown (left to right), are crabgrass, bermudagrass, and nimblewill.

crabgrass herbicides presents problems. These materials should be in the ground *before* crabgrass germinates, which means late March or early April in most cases.

In general, postemergence treatments are more successful when the plant is very young.

Rutgers Releases '66 Turf Research Report

Results of studies conducted at Rutgers University on various phases of turfgrass breeding and management have just been published. The 110-page report covers research in soils, fertilizers, weed control, turf diseases, nematodes, and insect problems.

Information was compiled by Rutgers' sizeable staff of research and extension personnel devoted to turfgrass studies. Sample titles: "Performance of Kentucky Bluegrass Varieties as Influenced by Fertility Level and Cutting Height"; "Response of Bentgrass Turf to Dicamba, Mecoprop, and Silvex Herbicides"; "1966 Recommendations for Insect Control on Turfgrass."

Liberalily complimented with charts and tables, this reference report, Bulletin 816, is available from the College of Agriculture and Environmental Science, Rutgers University, New Brunswick, N. J.

Perennial grasses become more resistant as they approach the heading stage.

In the broadleaf group, almost without exception there is a period early in the life of a plant when it is quite susceptible, but as the plant grows, forms cuticle on the leaves, and develops a strong root system, it becomes more difficult *and more expensive* to control.

Knotweed is an excellent example: In the early stage, 2,4-D does an excellent job of killing

it, but within two to three weeks it becomes resistant to 2,4-D and silvex is needed. If application is put off, dicamba becomes necessary and with each step the cost goes up.

Keep in mind that weed seeds will stay viable in soils for long periods of time, and if weed problems arise in a customer's turf, be prepared to discuss this fact as well as advise him on weed control methods. Don't hesitate to call on your local county or state extension service representative for publications and assistance.


You have a veritable arsenal of compounds available and I am sure you can find one to fit your program. Remember: Read the label. Observe all precautions and use herbicides wisely.

Panels Planned For WSA's Feb. Washington Conclave

Panels on Weed Control in Turf, Techniques and Equipment for Aquatic Weed Control, and Research Needs for Industrial and Right-of-Way Vegetation Control are planned for the Feb. 14-17 Annual Meeting of the Weed Society of America, at Washington D.C.'s Statler-Hilton Hotel.

Other sectional panels proposed include Herbicide Registration, and Progress in Absorption and Translocation Research and Practical Implications for Perennial and Woody Plant Control. Sectional meetings, covering all aspects of weed control in agronomic crops, horticultural crops, and noncrop situations, will also present data on latest developments in equipment and new herbicides, and will cover ecological and physiological aspects of weed control.

Program begins Tuesday morning with a general session to be opened by Society president, Dr. William R. Furtick of Oregon State University, Corvallis. Sectional meetings will continue through Thursday morning. A tour of USDA's Plant Industry Section at Beltsville, Md., is scheduled for Thursday afternoon. Delegates will visit Beltsville's ornamentals, light, and weed research facilities.



Meeting Dates

New York State Arborist's Assn., The Concord Hotel, Kiamasha Lake, N. Y., Jan. 15-17.

Rutgers Lawn and Utility Turf Course, Rutgers University, New Brunswick, N.J., Jan. 16-17.

Maryland Nurserymen's Assn., Annual Meeting, Washington Country Club, Gaithersburg, Jan. 17-18.

Rutgers Golf and Fine Turf Course, Rutgers University, New Brunswick, N.J., Jan. 18-20.

Ohio Chapter, ISTC, Annual Meeting; Ohio Nurserymen's Assn., Winter Meeting; and Ohio State University Short Course for Arborists, Turf Managers, Landscape Contractors, and Nurserymen, Sheraton Hotel, Columbus, Jan. 23-26.

Virginia Turfgrass Council, Hotel John Marshall, Richmond, Jan. 24-25.

California Weed Conference, Hilton Inn, San Diego, Jan. 24-26.

Southern Weed Conference, Jung Hotel, New Orleans, La., Jan. 24-26.

Illinois Custom Spray Operator's Training School, University of Illinois, Urbana, Jan. 25-26.

Rocky Mountain Regional Turfgrass Conference, Colorado State University, Fort Collins, Jan. 25-26.

Associated Landscape Contractors of America Annual Convention, Sheraton Dallas Hotel, Dallas, Tex., Feb. 1-4.

International Turfgrass Conference and Show, Washington Hilton Hotel, Washington, D.C., Feb. 5-10.

Oklahoma Agricultural Chemical Conference, 1st Annual Meeting, Oklahoma State University, Stillwater, Feb. 6-7.

Colorado Pesticide Applicators' Short Course, Western Motor Inn, Denver, Feb. 7-8.

Pennsylvania Nurserymen's Assn., Annual Convention, Penn-Sheraton Hotel, Pittsburgh, Feb. 7-9.

Midwestern Chapter, International Shade Tree Conference, Annual Meeting, Pick-Congress Hotel, Chicago, Ill., Feb. 8-10.

National Arborist Assn., Midwinter Meeting, International Inn, Tampa, Fla., Feb. 12-15.

Weed Society of America, Annual Meeting, Statler-Hilton Hotel, Washington, D.C., Feb. 14-17.

Southern Turfgrass Conference, Sheraton-Peabody Hotel, Memphis, Tenn., Feb. 27-28.