

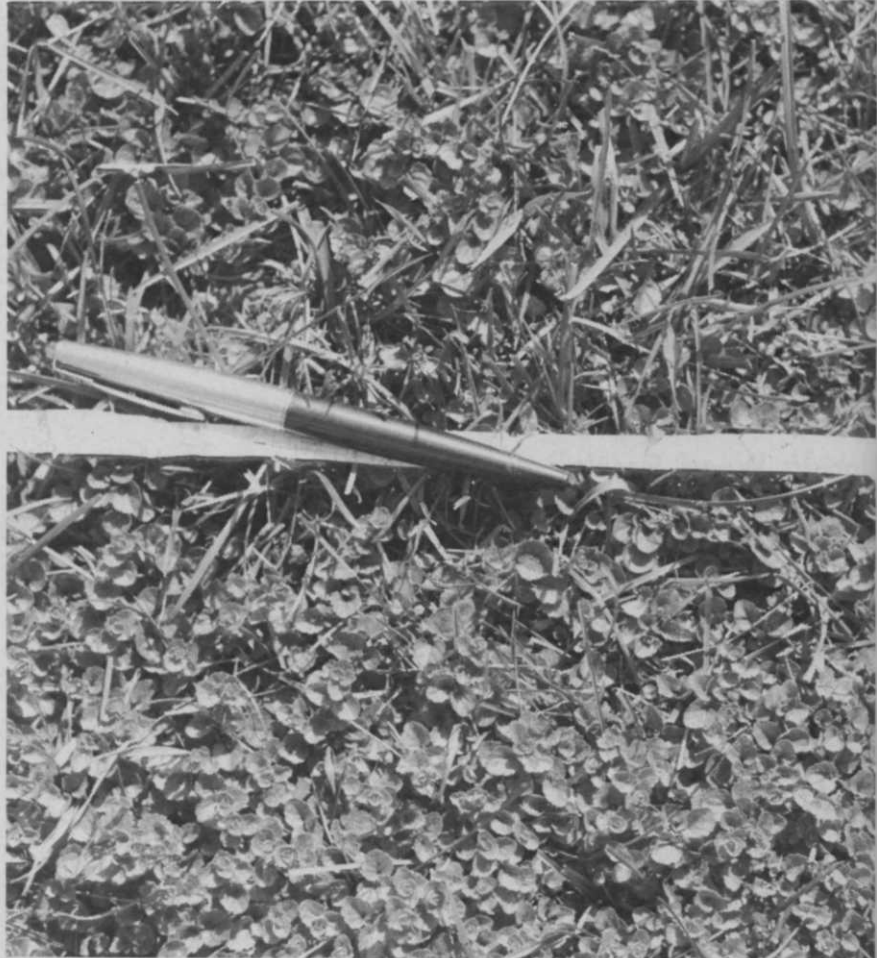
Washington State Finds Dacthal

Effective in Postemergence Trail

Turf maintenance personnel have long battled the troublesome, persistent weed, Creeping Speedwell (*Veronica filiformis* Sm.). Now help may be on the way in the control of this broad-leaved weed, which infests turf-grasses in many areas of the Northern United States and Canada. Veronica is an annual weed—sometimes perennial—a prolific spreader that's hard to control in turf without damaging desirable grasses. But tests during 1967 using Dacthal herbicide produced encouraging results in the control of this weed pest. Dacthal is a patented herbicide, developed by the Agricultural Chemical Division of Diamond Shamrock Corporation, Cleveland, Ohio.

In most of the tests, the Dacthal required at least one month to show visible effects, but then produced 99% control or better.

Most of the research was coordinated by T. J. Neidlinger, technical service representative of Diamond Shamrock, in cooperation with the Western Wash-



Control of *Veronica filiformis* Sm. by Dacthal is evident in this photograph of the edge of a test area. Check area at bottom is heavily populated with Veronica, which has choked out almost all turfgrass. Application of Dacthal on section at top has started to control the weed effectively, with turfgrass actively growing back.

T. J. Neidlinger, Diamond Shamrock Corp., Cleveland, O., delivered a paper on this study at the recent Weed Science Society of America Conference at New Orleans, La.



ington Research and Extension Center, a branch experiment station of Washington State University, at Puyallup, Washington. Tests were supervised by Dr. Roy L. Goss, associate agronomist and extension turf specialist.

Early in January a greenhouse screening trial was conducted to test various chemicals on actively growing Veronica. Dacthal was applied at the rate of 12 and 24 pounds active ingredient per acre, to four 25-square-foot plots. By April visual evaluations

showed 95% effective control for the 12-pound rate, with the 24-pound rate giving 100% control.

With this data in hand, Dacthal was tested at two golf courses in the Pacific Northwest and one in northeastern Ohio. Three thousand square feet of fairway turf were treated with the 12-pound-per-acre concentration on a golf course near Seattle early in June. In addition to actively growing Veronica, the plot contained Highland bentgrass, fine-leaved fescues, Kentucky bluegrass and annual bluegrass. Dur-

Keep Your WEEDS TREES AND TURF magazines

In specially designed

Permanent Binders

Magazines can be inserted
as they are received

Still Just \$3.25

- ◇ Keeps back numbers handy for quick reference
- ◇ Protects issues from needless damage. Holds 12 issues.
- ◇ Gives your bookshelf a neat appearance

Please send check or money order to

WEEDS TREES AND TURF

9800 Detroit Ave. Cleveland, Ohio 44102

ing the test, the plot received about one inch of water a week and was mowed regularly.

By the end of June, the Dacthal had provided 99% control. Areas devoid of Veronica were apparent where large clumps had been growing. Continued observation showed no redevelopment of the weed.

In a similar test at a golf course in Northern Idaho, 150 square feet of fairway turf were treated with only 6 pounds per acre of active Dacthal. The ground was 95% healthy, actively growing Veronica, 4% plantain, and 1% dandelion. By October, visual observation showed 99% control of the Veronica.

At the Ohio golf course, Dacthal was applied at 9, 12, and 15 pounds active ingredient per acre to plots in the rough that were heavily populated and dominated by Veronica. Some Kentucky bluegrass and fine-leaved fescues were also present. The applications were made on August 1st.

Results of Evaluations Made on September 24

RATE (active)	PERCENT CONTROL
9 pounds per acre	40
12 pounds per acre	50
15 pounds per acre	65

Although the results of this test were not as significant as previous results, the plots may have been mowed soon after application, thus removing much

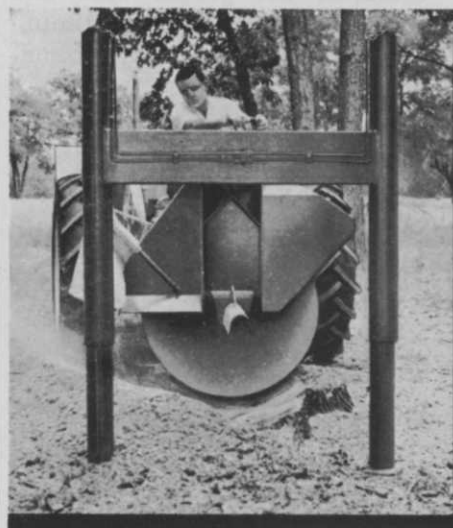
Visual Evaluation Results on September 6

Chemicals	Rate	Percent Control				Average
		R1	R2	R3	R4	
Dacthal (W.P.)	9	90	90	80	90	87.5
Dacthal (W.P.)	12	100	95	90	90	93.8
Dacthal (W.P.)	15	90	90	90	90	90.0
Dacthal (Granule)	12	50	60	50	40	50.0

Dacthal before it could be washed by irrigation water into the soil.

Tests were also conducted on Veronica-infested lawns in the State of Washington. In Yakima, a home lawn was treated with 12

pounds per acre of Dacthal on one 160-square-foot plot. A similar adjacent plot received one-pound-acid equivalent each of a 2,4-D/2,4,5-T combination. On September 15th, about two months after application, the



PROBLEM:

How to remove stumps fast, at lowest cost

SOLUTION:

ARPS STUMP-MASTER...
economical one-man operation... cuts out stumps in minutes

One man with an ARPS STUMP-MASTER can remove dozens of stumps per day... quickly, easily, safely and at low cost. Compare these outstanding features and see why your best bet... best buy... is the ARPS STUMP-MASTER.

EASIEST TO OPERATE/HIGHLY MANEUVERABLE — Mounts on most any tractor with 40 HP (or higher) rating having a 3-point hitch with hydraulic system. Easy to position precisely over stumps up to 37" high with hydraulic control of lift, feed and outrigger placement. Cuts to 16" below ground level.

FAST, SAFE STUMP REMOVAL — Cuts one cubic foot of stump in less than 60

seconds. Cutting wheel is safely shielded; canvas curtain prevents chip scattering.

HEAVY, POWERFUL CUTTING WHEEL has 21 carbide-tipped steel teeth (easily replaceable). Wheel swings through a 30° arc.

GET MORE INFORMATION...
WRITE OR PHONE TODAY!

Dept. WTT-3
ARPS CORP.
(A Chromalloy American Subsidiary)
NEW HOLSTEIN, WIS. 53061
Phone: (414) 898-4291





Automate Your Sod Production and Reduce Your Payroll This Year with the NEW RYDER-ROLLER ATTACHMENT

Installs easily in less than two hours on your Ryan Sod Cutter—equipped with a C-8 or C-9 Auto Cut-Off Unit with —

**NO DRILLING, WELDING,
CUTTING or BASIC
CHANGES TO YOUR CUTTER**

The attachment is guaranteed unconditionally to roll your sod on the first day of operation or your money refunded.

*Will work on all types of soils
from clay to peat.*

Address all inquiries to:

RYDER-ROLLER CO.

44533 Sterritt

Utica

Michigan

Phone: 313 / 731-2570

2,4-D/2,4,5-T showed only 5% control with the Dacthal giving 85%.

A similar test was made on the state capital lawn at Olympia, Washington. On July 14th, 9, 12, and 15 pounds per acre of Dacthal were applied as a wettable powder, 12 pounds active Dacthal as a 5% granule, and several rates of picloram, picloram + 2,4-D, DSMA, and MSMA. All treatments were replicated four times on 100-square-foot plots. On September 6th visual evaluations showed the following:

None of the other chemicals gave adequate control. The best of these showed an average of only 42.5% effectiveness, which really only suppressed the Veronica, rather than killing it.

According to Neidlinger, Diamond Shamrock plans further tests in 1968 to determine exactly how Dacthal affects the Veronica plant physiologically. Field tests will also be made to establish the proper rate and time of application for optimum control under a variety of conditions.

Although Veronica is not presently on the Dacthal label, it is hoped this data will be sufficient to add Veronica to the label in the near future.

Chemicals Control Weeds In Bermudagrass Stands

Herbicides can give control of weeds in new bermudagrass stands. Dr. Elwyn Deal, agronomist, University of Maryland, College Park, Md., reports no evident damage to the new grass.

Winter survival the first year after sprigging (planting small sections of the plant) proved excellent. Grass was sprayed with DMPA (Zytron). Where DCPA (Dacthal) was used, Deal reports winter survival was almost as good, but weed control was slightly poorer.

Deal said that Simazine, in

the Maryland tests, severely injured sprigs, and almost all grass died out during the winter. However, this chemical did give excellent weed control. Another chemical, bensulide (Betasan or Pre-San) caused no visible damage to the plants during the first few weeks, but stolon (runner) development suffered even during the second season.

Plots fumigated with methyl-bromide, before sprigging showed good weed control and the bermudagrass survived well through the winter. Trifluralin (Treflan) worked lightly into the soil with a rototiller after planting gave good weed control but caused some stunting and retarded grass root growth.

Deal says that all the chemicals except methyl-bromide and trifluralin were applied to Tufcote bermudagrass plots seven days after planting.

Quality of Water Important In Irrigation

Turf specialists in greater numbers are beginning to check the quality of water used on turf areas. This can help eliminate many of the so-called grass problems, according to Dr. Robert W. Miller, agronomist at the Ohio State University, Columbus, O.

Miller says that excessive concentrations of inorganic salts, boron which is toxic to plant growth in many instances, organic toxic compounds, and high sodium concentrations may prove troublesome.

All water used for irrigation contains inorganic salts derived from rock, soil, or other solid phase materials through which water percolates, according to Miller. The concentration of these will determine the suitability of any water supply for irrigation purposes on turf. Thus, the need for a laboratory check is evident before turf problems arise.