

2-4-D damaged bent grass lawn. It was sprayed on during July's hot weather and the damage lasted all season.



Turf damage from 2-4-D on small plot established on bent green. Maximum recommended rate was used. This was one of first tests.



Extensive damage to watered bent fairway sprayed twice between September and October in a vain attempt to control chickweed.



This Bermudagrass green was damaged following one application of 2-4-D and below is a damaged spot of Everglades strain of Bermudagrass on putting green. It was caused by localized application of 2-4-DD to control pennywort.



"How to Do" Turf Tips

from O. J. Noer

Warning on Herbicides

CHEMICAL weed killers, otherwise known as "herbicides," serve a very useful purpose. They simplify and speed the job of weed control in turf. Sodium arsenite and arsenic acid were used first. They still are excellent for chickweed control and for turf renovation jobs.

The discovery of 2, 4-D paved the way for control of broad-leaf weeds with a single application. Then came a related compound – 2, 4, 5-T for clover control. Results with both have been satisfac-

Results with both have been satisfactory when properly used. There have been enough instances of serious damage to justify the warning to be discreet in their use, especially with bent grass. The same is true of Bermudagrass but to a lesser degree.

These weed killers are almost never used on bent grass greens. The hazard of permanent grass injury is too great. There are other better and safer ways to control clover and other weeds.

Winterkill May Follow

Loss of bent grass on watered fairways has occurred from the use of 2, 4-D, and likewise from 2, 4, 5-T. Severe damage has resulted from their use during hot weather. Winterkill has been bad following the use of 2, 4-D in September and again in October in a futile attempt to control chickweed.

Gradual deterioration of bent turf on some fairways has been blamed upon the insidious effects of repeated 2, 4-D treatments – even from one or two applications a year over a span of years.

Some authorities favor early season or late fall treatments after grass goes dormant as the safest times to use 2, 4-D and 2, 4, 5-T. They suggest lighter rates also for bent grass turf, in the order of one-half pound of 2, 4-D and one-quarter to onehalf pound of 2, 4, 5-T per acre.

The use of 2, 4-D immediately before or right after seeding is frowned upon because very frequently its use stops seed germination.

Discretion Advised

Bermudagrass is much more tolerant of 2, 4-D than any of the cool season grasses. Yet damage has resulted from its repeated (Continued on page 46) "This way I get to watch the good swings and the bad swings, the address and the follow through. And along with it I get the sound, You know, you can often tell by the sound whether a player is straining and pulling unnecessarily," Esposito says. "I guess you could say that this is just like looking at a sound movie and being able to talk to the man on the screen at the same time."

What does it cost? Practically nothing. The day after Esposito's discovery, one of his enthusiastic pupils rushed down to a camera shop and purchased a range finder for approximately four dollars.

The next day he presented it to the pro. A check for \$1,000 could not have been more welcome.

Depth Impression

"As far as I'm concerned," says Esposito, "it's the most profitable teaching discovery I've ever made, I had realized for a long time that if I could stand 100 yards away from a pupil it was much easier to pick out the faults in his swing than if I was standing close to him. But you can't teach that way. You've got to be somewhere near the fellow, talking to him.

"Now, with this tiny bit of ground glass, the player's image is far away, yet is as clear as if I were standing eight ft. away from him."

Don't get the idea that Esposito is the only one raving about the new discovery. More than a score of his pupils during the last two months have attested to the merits of the "little gizmo," as they call it.

"The funny thing is," Esposito laughs, "a fellow on the local newspaper wrote a little piece about the new discovery a few weeks ago, and within the next three or four days, four different members came by my shop with range finders."

Early Returns Show \$53,723 in from National Golf Day

Preliminary reports from PGA show that a total of \$58,723 was received for various association golf charities and projects as well as general charities from the 1957 National Golf day which was played June 8. The above amount had been received through June 24 with further returns expected.

As of this date 47,988 men, 5,223 women and 449 caddies are reported to have participated. Each paid \$1 for the chance to match strokes with Cary Middlecoff, 1956 USGA Open champion, and Kathy Cornelius, last year's Women's Open winner. The early returns show that 6,214 men and 105 caddies topped Middlecoff's Golf Day score while 481 women turned in lower totals than the one posted by Mrs. Cornelius,

Middlecoff submitted his score from Inverness in Toledo during the recent Men's Open, a 70, while Mrs. Cornelius played her round in Pittsburgh during the Ladies PGA Championship. She shot a 73.

Final returns for the 1956 Golf Day showed total receipts of \$81,751. Disbursements amounted to \$17,762, leaving a net income of \$63,969. In the last five years (exclusive of 1957), National Golf Day sponsors have raised close to \$550,000 for the various agencies that benefit from it.

Northern Ohio GCSA Honors Green Chairmen at Meeting ...

Northern Ohio GCSA members entertained their green chmn, when they held



Supts. and green chmn. at Northern Ohio GCSA meeting.

their June meeting at the Sleepy Hollow GC in Brecksville. Eighty-four persons attended the meeting and of this number, 46 played golf. A tour of the course was held for those who didn't play golf. Following dinner, Charles G. Wilson of the Milwaukee Sewerage Commission spoke on the latest developments in turf research.

Warning on Herbicides

(Continued from page 32)

use on greens to kill pennywort and other persistent, hard-to-kill weeds. So here again discretion is advisable.

In the past the factors which insure maximum kill of weeds has been stressed. Too little attention has been given to insidious accumulative damage to the grass. It is time for some turf grass investigators to reevaluate both 2, 4-D and 2, 4, 5-T so these useful tools can do their work without doing any permanent damage to grass. There is no reason why this desirable objective cannot be achieved.