23rd Year No 111

Lawn Care
T.M. REG
PUBLISHED FIVE TIMES YEARLY FOR LAWNTHUSIASTS

THE UNDOING OF CRABGRASS

PIONEER seedsman O M Scott was a man of vision. He also had a hatred of weeds that was unusual in his day and would still be. Although he long since has left this world, his antipathy toward weeds has continued as a strong force in the business left for his sons to carry on.

During the last 25 years one weed in particular has been annoying to the Scotts force—Crabgrass, also called Watergrass, Summer Grass, Fall Grass Finger Grass and Wiregrass *(Digitaria sanguinalis; D. ischaemum)*. Here is a weed that is a low-down sneak. It has no virtues, no friends in the seed trade—which is often innocently blamed for its depredations.

Something good can be said about almost every other weed. The dandelion makes good salad greens. Its sprightly blossom taken individually is not unattractive, but in mass they look bad, especially in your own yard. Other weeds have herbal or medicinal value. Some occupy ground that would otherwise be barren, thus reducing erosion.

But Crabgrass doesn't even do that. It is a lazy variety, hardly stirring from the soil until the sun gets the ground cozily warm. Even then Crabgrass really won't get up and go until it's so hot that the desirable grasses subside. As they go into their summer siesta the real Crabgrass invasion develops.

With the first adversity of a fall frost Crabgrass gives up. The plant dies, but its remains show up as ugly brown patches through the entire winter. Before that it will have insured a

Color Photo by Scotts Lawn Research

Crabgrass has grown to maturity to smother the turf.

Beautiful turf because SCUTL stopped the Crabgrass.

crop for another year by dropping thousands of seeds to the earth.

Not every lawn suffers this fate because some folks have learned to keep the upper hand. They pluck the seedling Crabgrass plants or get rid of mature plants before they set seeds.

Most lawn owners do not have the time, patience or inclination for cultural control of Crabgrass. It is the devastation wrought by Crabgrass in those lawns that has bothered Scott people these many years.

Scotts Tried A to X

During the last quarter-century Scotts Lawn Research has grasped every suggestion as to what to do about Crabgrass. The list of experimental chemicals starts with ammonium thiocyanate, continues with borax, chlorate, di-nitro, fertilizer, ground glass, kerosene, lead arsenate, mercury, oils, potassium, sodium arsenite, and on through the alphabet to xanthate. Other efforts involved shading, covering with tin cans and old magazines, freezing with dry ice, painting with dyes.

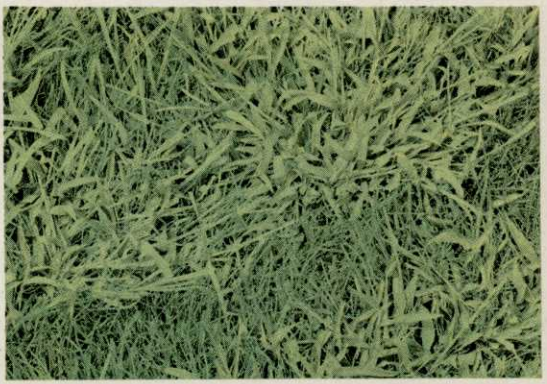
In these 25 years there were years of hope. In fact so much that Scotts tests were carried on in South America and Guatemala to gain extra growing seasons, but to no avail.

In the winter of 1946, new hope appeared in a preliminary report on observations made at Rhode Island State College. Those in charge of work on turf noted that certain plots being treated for disease control were clear of Crabgrass. It happened that the fungicidal treatment carried a complex organic mercury as its active ingredient. Here was an indication that mercury in the right form might prove a differential chemical for Crabgrass control.

Toxicity Was One Problem

So far so good. But immediately the problem arose that concentrates of mercury were strongly poisonous. That

Insidious beginning of a Crabgrass invasion in a good piece of turf. Stopped in this stage, Crabgrass will do little harm.



Typical late summer mess of Crabgrass allowed to grow unchecked. Seeds are developing to set the crop for future years.

seemed to rule it out immediately because the feeling in the Scott organization was that it was necessary to keep away from hazardous substances.

Nevertheless, a series of trials was laid out. Results in 1947 were erratic but before the summer was over there was sufficient encouragement to justify large scale experiments except for the recurring problem of toxicity. The dilute sprays themselves were relatively harmless but the concentrate used to make the spray was not.

It was then suggested that a dry formulation be tried, on the basis that a bulky carrier would result in such a

dilute amount of toxic material as to be relatively safe. At first the idea seemed preposterous and was almost dismissed with little thought. However, stubbornness won out and a series of greenhouse studies was undertaken.

The Scott research crew was spurred on by the knowledge that lawn owners were pleased to use dry materials so easily applied with a lawn spreader.

It was no easy task to find the right dry carrier. It had to be relatively light in weight, fine but free from dust, absorptive, uniform in particle size. A select grade of vermiculite emerged after two years of trials as the substance meeting these requirements.

Beginning with the 1948 Crabgrass season, many of the dry formulations were applied to Crabgrass infested areas. Before that time several acres of Scotts testing grounds had been seeded to various species of Crabgrass to insure adequate experimental areas.

The Quest For Something Better

When the reports were in at the end of the season, it was obvious that here was something. But the research crew was not satisfied. Their results with the dry treatments were as good as the best spray program, but not better. And better they had to be if a Scott Lawn Care product were to emerge.

So day and night work continued until a unique method of solubilizing the chemicals was developed. This solution was then sprayed at controlled temperatures into the inert carrier. After cooling and screening, the result was a product of good uniformity, chemically as well as physically.

These superior formulations and others were sent to a large list of volunteer investigators for 1949 use on home lawns. They had previously agreed to apply the material identified simply as a "summer treatment." They had no idea of the purpose but made applications and reported what they saw. None had a hint he was trying a Crabgrass control until the final questionnaire at the end of the summer.

Not everyone achieved good results. For one thing, questionable formulations were sent to some folks to double check that nothing was being overlooked. Then too, directions were not always followed. In some places heat and drouth killed Crabgrass as well as desirable varieties. But, by and large, the enthusiasm of these volunteer testers equalled or exceeded that of the Scott organization.

SCUTL Is Its Name

That is only part of the story but from this work has emerged a dry compound called SCUTL. It subdues Crabgrass with little or no harm to desirable grasses. It is applied by hand or spreader in the active Crabgrass season.

In country-wide tests SCUTL has proven effective on all species of Crabgrass, whether in Washington, D. C., (where it is jokingly called Washington Bluegrass), southern California, Minnesota or Long Island.

A walk over the lawn and the job's done. It's an easy treatment.

Two stories in this picture: (1) patches of large Crabgrass killed by a double dose of SCUTL in late August, while (2) desirable grasses remain bright green—dramatic evidence of selectivity of the control.

How SCUTL Is Used

JUNE-JULY.—It is best to get rid of Crabgrass as it is getting started and before it is smothering the lawn. Late June or July, when Crabgrass is about as pictured at the top of page 2, is a good starting time.

One or two repeat treatments are advised at intervals of a week or ten days. This is necessary to catch plants missed the first time, also new plants. There is delayed germination of Crabgrass seeds throughout the summer so one application is really not enough.

As Crabgrass plants die from the dose of SCUTL, they will naturally wither, turn brown and finally decay. This means some degree of discoloration, depending upon how extensively Crabgrass had taken over.

AUGUST-SEPTEMBER.—If Crabgrass grows unchecked through midsummer, it will make the heavy, rank growth as shown by the second picture on page 2. Then more drastic action is required: Double rate treatment, repeated in a week. July treatment would have stopped Crabgrass in the lawn pictured on this page before it did so much damage.

Since Crabgrass is a self-seeding annual, stopping its growth before seed is matured means a much smaller infestation next year.

SCUTL is active only on vegetative growth, so it is all right to sow lawn seed immediately after use, if time and conditions are favorable to planting.

If Crabgrass control is delayed until late August or September, the use of SCUTL is advantageous in the fall renovating program. It stops growth of Crabgrass within a matter of hours after which lawn food and seed may be used to restore the lawn promptly.

O M Scott & SONS CO

Seedsmen since 1870 at Marysville, Ohio