

# Lawn Care

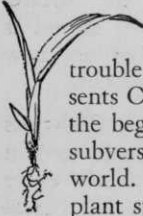
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PUBLISHED IN FEBRUARY, MARCH, APRIL, AUGUST AND SEPTEMBER BY  
O. M. SCOTT & SONS CO. MARYSVILLE, OHIO

Fifteenth Year

Number 70

## CRABGRASS: THE INCREASING MENACE

 A few innocent looking sprouts like this may foretell trouble in a lawn. The sketch represents Crabgrass in the two-leaf stage, the beginning of one of the slickest subversive operations in the plant world. From one of these sprouts a plant spreading out as much as two feet may develop almost unnoticed within a period of ninety days.

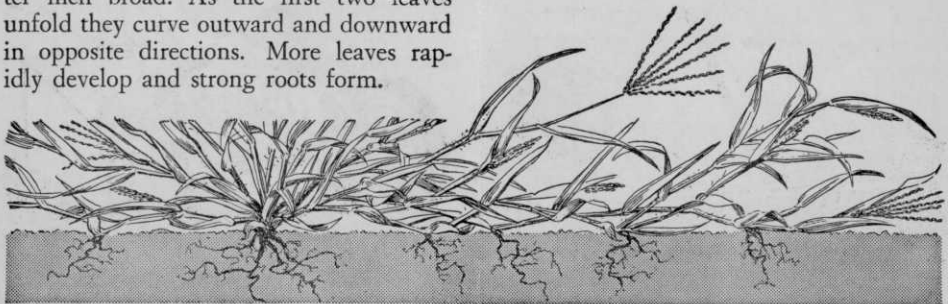
Crabgrass is found all over the world and its seeds are in practically all soils waiting to spring into life when conditions are right. In a lawn Crabgrass often gets started when the desirable grasses are weak and undernourished. In contrast, those lawns that are properly cared for have no difficulty in keeping the necessary offensive advantage over Crabgrass.

Crabgrass is strictly an annual so it lives just one season. New plants develop from seed after the ground gets warm in May or June. This early growth may not be recognized by many lawn owners although it really is not hard to detect. Even in the two-leaf stage the young plants contrast in color and texture with any surrounding desirable grasses. They are of a definite yellow green color and the rather hairy leaves are about a quarter inch broad. As the first two leaves unfold they curve outward and downward in opposite directions. More leaves rapidly develop and strong roots form.

As spring passes into summer with rising temperatures, the innocent appearing and unsuspected clusters of small leaves seem suddenly to change into ugly monsters with crawling tentacles. Wherever the stem joints come in contact with moist soil, new roots develop to form another plant which in turn produces still more plants. It is then the casual observer begins to realize with a shock that his lawn is being taken over by this weed. Its presence will be even more painfully evident as the stems become stiff and wiry and resist mowing. This suggests another name—"Wiregrass."

By late July or August, Crabgrass plants will have sent out flowering seed heads, usually three to six in number and arranged in a whorl at the end of the stalk, like the fingers of a hand.

As the seed heads mature they turn purplish or reddish brown in color and in this stage Crabgrass first becomes extremely unsightly. In fact it may not be recognized as a serious pest until that time. By then the damage is already being done because the plants are maturing seeds which drop to the ground and thus sow the crop for next year.



It is only by this abundant seeding that the life cycle is continued. As the days get shorter in late summer the plants cease growth and the first heavy frost kills the roots and turns the tops an ugly brown. This dead color may encompass the whole lawn or only certain spots depending upon the severity of infestation.

Of the many varieties, Large Crabgrass is the most obnoxious and is the one discussed here. The Small or Smooth variety makes a more upright growth of smoother and finer stalks. It is less troublesome since it does not root at the joints, hence there is less spreading.

**Where Does It Come From?** A severe infestation usually reflects failure to control seeding of Crabgrass in the same lawn the previous year but there are other sources of infection. Seeds may be blown in or be carried in on shoe soles from nearby lawns or vacant lots. They may be deposited in the droppings of birds, or occasionally introduced in cheap, poorly cleaned lawn seed. This is the least probable source although lawn seed is blamed more than anything else.

Introduction is more likely in manure, topsoil, "black dirt" or other natural materials added to the lawn. It is practically impossible to get weedfree soil or manure. Weed seeds are too small to be removed by screening and are not killed by freezing. Some nurseries, however, can furnish soil made sterile of weeds by steaming.

In most parts of the country exposure of a lawn to Crabgrass is inevitable just as a person is continuously exposed to disease. But a healthy turf, like a healthy person, has the strength to resist no matter what the source of infection.

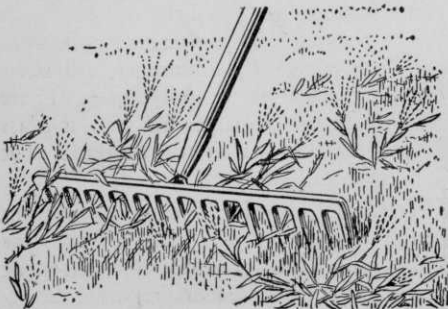
**Wrong Ideas About Crabgrass** are many including the belief that control is effected when the brown plants are raked out in the early spring. But then it is too late and the seeds that did not drop off over the winter will be threshed out in the raking. Neither will spading under Crabgrass eliminate it—because that is likely to turn up other seeds formerly buried. Crabgrass seeds may remain dormant in soils for years and years and still be able to sprout when brought to the surface. Skimming off an inch or two of sod is likewise ineffective whether or not new soil is brought in as a replacement.

A common statement is that Crabgrass "could not possibly have gone to seed in my yard, because I cut it closely every week." But that does not deter Crabgrass from seeding. The closer the mowing, the tighter the seeding stalks hug the ground. This is visibly demonstrated by the development of short seeding spikes in golf greens which are cut as close as  $\frac{1}{2}$  inch.

**Controllable?** Yes, and not too difficult at that, especially with alert, aggressive action. First in importance is a program of feeding and seeding that will develop a solid sod which in turn reduces the germination of Crabgrass seeds.

Crabgrass will not grow where there is reduced sunlight, whether caused by the shade of trees or buildings. Its development is noticeably discouraged even by a fairly long growth of grass. That is why setting the mower to cut no shorter than  $1\frac{1}{2}$  inches is very essential.

Proper watering (LAWN CARE No. 60) is important in Crabgrass control. Many think sprinkling causes it. In fact in some



localities "Watergrass" is a commonly used name. It is true that Crabgrass with its multitude of shallow roots is stimulated by light sprinklings while the deeper rooted desirable grasses are not benefited by such waterings. However, Crabgrass thrives with or without abundant water and will make a vigorous growth in either wet or dry summers if the lawn does not compete strongly against it. In a very dry season waterings may cause germination of additional Crabgrass, but if water is withheld the lawn will look even worse as the good grasses turn brown.

**Begin Control Early** when the plants are just getting underway either in the two-leaf stage or at least before the spreading characteristic develops. This will generally be during June or in very early July. At that time the plants are easily hand plucked or cut out with a knife. If the growth is scattered, this is not an impossible task even over a large area. But "once over" is not enough. Germination continues quite a while so the area should be gone over every week or so as long as new sprouts are found.

On small lawns the flame from a plumber's blowtorch may be used to kill Crabgrass in the two-leaf stage. The young plants need not be burned but merely wilted. They will die but well established perennial grasses will not be permanently injured because new leaves will come up from the roots.

If Crabgrass is not removed in its early stage, the plants begin to spread during the hot weather of July. There is less active competition from good grasses because these definitely do not like extremely hot weather. In contrast, Crabgrass being of tropical origin, loves the heat and its spreading development of shallow roots can make use of whatever water may be in the surface soil.

In this spreading stage, hand pulling or digging the plants will leave deep, ugly scars and bare places. It is better to concentrate on prevention of seeding. Mowing, alone, will not accomplish this since some of the seed heads will develop flat against the ground to escape mowing.

To prevent seeding it is necessary to rake up these prostrate stems so they can be cut by the mower.

A strong-toothed garden rake can be used for this job. It is more effective if the teeth are tapered by filing. Then if the handle is elevated the teeth slide under the creeping stems.

The clippings must be caught so the seeding spikes are not spread over the lawn as seeds will mature even when the heads are separated from the plant. Such clippings should be destroyed and not added to the compost pile.

- (1) *Mow the lawn. Catch the clippings.*
- (2) *Rake up the prostrate stems on which seeds would develop.*
- (3) *Mow the lawn again opposite to the direction of raking to cut off the raked-up stems. Catch the clippings.*
- (4) *Repeat raking and mowing if necessary and follow same program whenever necessary to prevent seeds maturing.*



A special Crabgrass rake has been developed for removing entire Crabgrass plants and eliminating the need for mowing. It makes use of a clever principle of tapered teeth set obliquely on the head. While these lift up the creeping runners and then shear off the plant of Crabgrass, they only comb the desirable grass. These rakes work better on heavier soils as grass in sandy soils is so lightly anchored that it may be dislodged.

**Chemical Control** The use of Sodium Chlorate to control Crabgrass was described in *LAWN CARE* a number of years ago. Many readers reported favor-

able results, others obtained no control, or destroyed everything in their lawns. Because of government restriction Sodium Chlorate is not usable during war times. Substitute chlorate types of weed killers are available, as well as other commercial chemicals but it seems advisable to point out a few limitations in their use.

The value of such treatments is based on their effect in controlling Crabgrass, their effect on desirable lawn grasses and their possible harmful effect on the soil. In turn these results will be determined to a large extent by:

(1) Diligence of the user in following the directions of the manufacturer.

(2) Generally, ample soil moisture at time of application is important, also a well fertilized soil.

(3) Weather at the time of treatment should be clear and not extremely hot. If heavy rain follows too soon, effect is lessened because the chemical is washed off the leaves. If it turns too hot, the good grasses may be damaged beyond repair.

(4) The effect of chemical treatments applies only to the above-ground growth and will not destroy Crabgrass seeds already in the ground.

Selective control of weeds by the use of chemicals is as yet only in the very early stages of development. Encouraging results in research and in lawn trials are reported frequently but there is still a lot to be learned as to selection of the best chemicals and how and when they are best applied. The botanical structure and growing habits of desirable grasses are so similar to those of Crabgrass and other lawn weeds that there is only a very narrow distinction between a treatment that picks out only weeds for destruction and one that kills all vegetation.

Since there is at least the danger of discoloring grass it would seem better to wait until late summer to make such

chemical treatments. If the lawn is badly burned or even streaked in June, that means an unsightly condition through the summer when a lawn is most enjoyed. In contrast a treatment in late August can be followed with an immediate seeding and feeding and a better turf than ever restored in a few weeks. Trial on a small area is advised in order to gain experience before hazarding the entire lawn.

**Control By Burning** An intensive flame heat may be utilized to burn Crabgrass plants and seeds. This is effective if properly done but a high powered torch is needed and the flame held on the infested spots for quite a long time to effect complete burning. If the vegetation is quite green and succulent, two burnings are advised, the first one to scorch the plants so they will wither and be susceptible to complete kill the second time. Special weed burning torches may be purchased or a high powered torch borrowed from city or county officials who use them in road repair work.

Of course this also burns down desirable grasses and leaves them ugly looking for a while but new topgrowth will come back from the roots if the burning is carefully done in late summer or fall.

**Prevention of Seeding** is the important factor in the control of Crabgrass, whether accomplished by use of chemicals or by raking and mowing. The roots will be killed by the first fall frost but the infestation will be worse the following year if the plants are allowed to mature seeds. A single plant will cause a lot of trouble since it may produce as many as 200,000 seeds. Seeding usually starts in early August and continues well into September—unless something is done about it.

Regardless of the control method used, follow it with feeding and seeding in early fall to replace the Crabgrass with strong, healthy lawn grass.

O. M. SCOTT & SONS CO.



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