

Lawn Care

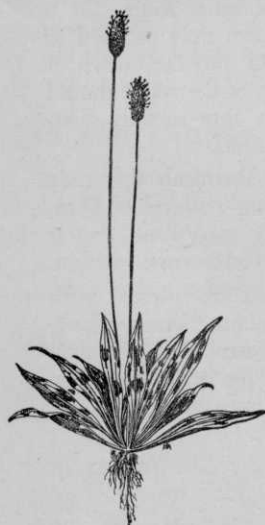
PUBLISHED FIVE TIMES YEARLY FOR LAWNTHUSIASTS

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Seventeenth Year

Number 82

BUCKHORN AND PLANTAIN—Lawn Saboteurs



Buckhorn Plantain

THE plantain family contains many members, most of which are pretty well distributed throughout the world. Buckhorn Plantain and Broad-Leaved Plantain are obnoxious pests in Eurasia and practically all of North America. They are perennials that live year after year but spread mostly from seeds rather than underground root stalks. The seeds remain dormant in the soil for many years and will sprout when brought near the surface by cultivation.

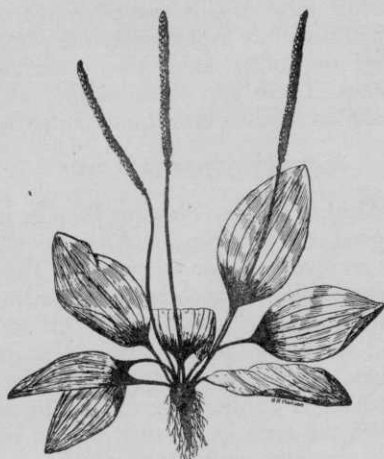
One reason for the broad distribution of these two plantain varieties is the unusual mucilaginous coating of the seeds. When the seeds are damp they stick to almost anything with which they come in contact and so are eventually spread far and wide.

Because of this sticky coat plantain seeds are often found as impurities in Clover and grass seeds. However, careful seedsmen have learned how to utilize the mucilage-like coat on plantain

to remove this weed completely from their seed.

One of the varieties of Plantain seen most frequently is Buckhorn, also called Narrow Leaved Plantain or Ribwort. Again the Latin is more descriptive: *Plantago lanceolata*, meaning the lance-leaved plantain. The leaves do indeed have this shape and as Spencer puts it "Were its leaves made of steel they would make perfect pigmy lance heads."

Buckhorn or Narrow Leaved Plantain is considered a more pernicious farm weed than its broad leaved relatives, yet it is not as hard to control in lawns. It thrives where the soil is lacking in fertility. If a regular fertilizing program is adopted and good grasses



Broad-Leaved Plantain

sown, the Buckhorn will soon be forced out.

Once started Buckhorn may spread rapidly because each plant produces hundreds of seeds and these will be scattered in mowing. The seeds are formed at the summit of a thin, wiry stem, the bloom forming into a cylindrical head about an inch in length.

The lawn mower may cut the leaves of Buckhorn all right but the wiry stems often remain standing, presenting a very unsightly effect. Special mowers are sometimes used in parks and other large turfed areas to cut off the seeding spikes. A sickle may be used on a lawn.

Broad-Leaved Plantain was well designated by Linnaeus as *Plantago major* because it is the greater pest from the standpoint of persistence, spread and longevity of its seeds. The leaves of Common Plantain are broad and coarse with several prominent lengthwise veins that draw together into a thick, channeled petiole. These ugly leaves plus the blunt flowering or seeding spikes make plantain one of the most unsightly lawn weeds.

As the leaves of Broad-Leaved Plantain are arranged in a somewhat flat rosette they usually escape mowing. Then from July to September the plants send up rather long, tough seeding spikes. These also resist cutting and make an infested lawn quite unsightly.

CONTROL MEASURES

Neither type of Plantain belongs in a good lawn any time, and they should be removed as soon as possible. They have shallow branching root systems but these cling tenaciously to the soil and make hand pulling difficult except when the soil is damp. There does seem to be a time along about August when the roots loosen their hold a bit and are more easily hand plucked. A spud, chisel, putty knife or weed knife

may be used any time to cut plantain from the lawn. Most of the root must be destroyed or a new plant will develop. The holes left by the removal should be filled with good soil and then seeded.

Individual attacks may be made with cheap crude acids or with gasoline or kerosene. Sulfuric acid or battery acid may be inserted in the crown of each plant by using a sharpened stick, ice pick or skewer of some kind. Or a spring bottom oil can may be used to squirt a bit of fluid into the crown of each plant. The top of the spout should be pressed partially shut so only a little comes out at a time.

There are other chemicals that may be used for "spotting" control of Plantain and probably new and better ones will be developed as time goes on.

Where large areas are infested with Broad Leaved Plantain there has been some attempt at control with chemical sprays and dusts. This is not necessary in control of Buckhorn as regular fertilizing will do that.

In England they report success in controlling Common Plantain with iron sulfate (powdered copperas) but the experience in this country has not been very favorable. The suggested procedure is to dissolve 3 pounds of iron sulfate in 5 to 10 gallons of water and sprinkle or spray this solution on 1000 square feet of lawn area. Several treatments may be necessary and repeat applications should be carried out at the first signs of recovery shown by the weeds. This chemical solution leaves an ugly, rust stain on clothing, metal and stonework. Care should be taken in handling it to avoid spilling and splashing.

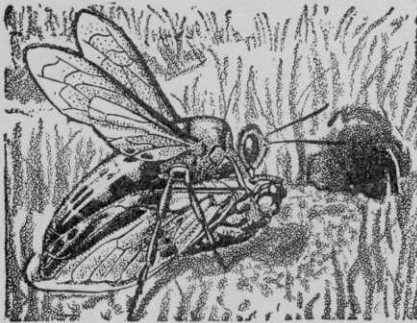
Sodium chlorate and sodium arsenite have shown promise in the selective control of plantain in lawns but results are unpredictable and there is a severe fire hazard in using chlorate

while arsenite is a virulent poison that is dangerous to work with. The time will probably come when chemical control of lawn weeds will be safe and effective but so far many of the problems remain to be solved.

If a lawn is very badly infested with plantain it is probably better to tear it up and replant. The new seeding should be completed by early September if possible. If the area can be turned over a couple of months earlier and summer fallowed, all types of weeds will be better subdued and the soil improved.

Golden Digger Wasps

A terrifying yet relatively harmless insect at times becomes quite a lawn nuisance in August and September. This is the Golden Digger Wasp or Cicada Killer (*Sphecius speciosus*).



The damage to lawns is that these wasps dig burrows that are about $\frac{1}{2}$ inch in diameter but from 12 to 18 inches deep. In so doing they throw out as much as a pint of granulated soil and this may make an unsightly mound around the entrance to the burrow.

The burrows or tunnels are usually made in dry soils often along the side of a roadway or walk or in the higher ground that drains rapidly. They select dry ground with little vegetation and in full sun because moisture is unfavor-

able to growth of the larvae which are hatched in these burrows.

When the burrow is ready the female wasp goes zooming about looking for her prey—cicadas or locusts. Her actions are somewhat terrifying to humans especially when the wasps appear in large numbers. Actually they are not aggressive although they resent undue familiarity as do other hornets. Their appearance is spectacular because of the black body, about $1\frac{1}{2}$ inches long, with golden markings and rust brown wings.

When the shrill song of a cicada stops suddenly and becomes a discordant shriek lasting just a moment, one of nature's little tragedies has been enacted. The cicada-killer has caught up with its prey, stung it into a state of complete helplessness, and started moving it to its burrow. Frequently the wasp drags its victim laboriously up a tree and then glides diagonally down toward its burrow.

Control. After the burrow is made the wasp spends very little time in it. The female lays an egg on the body of the cicada, then departs, closing the burrow behind her. A few drops of carbon bisulphide or a few grains of Cyanogas squirted into the burrow may kill the wasp, if it is at home, and probably kills the egg too. The same results may be obtained by closing the burrow entrance with a stone.

Where there are so many flying wasps as to present a nuisance, it is said their numbers may be diminished by a vigorous attack with home-made giant fly swatters, or even with a heavy charge of a potent insect spray.

These methods are not very feasible and the best insurance against an invasion of cicada-killers is to have the ground covered with a healthy, vigorous turf. If possible, keep the ground thoroughly moist through the summer and cut the grass not shorter than $1\frac{1}{2}$ inches.

Zoysia Grasses

A recent issue of a garden magazine of national circulation carried a very tempting story about a new grass called Flawn. This is identified as *Zoysia matrella*, a variety introduced from the tropics. Most of what was said in the article is verified by agricultural authorities but unfortunately the part left unsaid is that this grass is unsuitable for general lawn use north of the Mason-Dixon Line. In fact, it has not come into very much use in the south, possibly because of its slow growth.

Zoysia matrella is not new. There have been successful stands in Florida and in the Hawaiian Islands for years. There it is known as Manila grass, probably because it is native to the Philippine Islands. This gives the key to its climatic requirements: lots of heat and a fair amount of moisture.

Above the Mason-Dixon Line this grass refuses to "green up" before the end of May and its habit of again turning brown and becoming dormant in the early fall provides a short-lived lawn. During the very hot weather, it can be groomed to a pleasing appearance, but this is too few months of the year to be acceptable to lawn enthusiasts.

Some day it will probably have some use on summer playgrounds where there is no disadvantage to the dead appearance for eight or maybe nine months of the year. At present no seed is produced for use either in the north or south. Practical methods for seed production have not yet been devised and the only means for propagation is vegetative planting. The recommended procedure is to set out squares or tufts

at intervals of from three to six inches. Since there is so short a time during which this grass grows vigorously in temperate climes, a solid turf is not developed during the first year. Not until the second full year does a planting develop into turf. During this time the space between the tufts or squares must be regularly weeded, watered, fertilized and mowed. Winter hardiness in the north is still a question also. So far a few test plantings in Connecticut have wintered all right. Some test plantings in southern Ohio have lived but others in central and northern Ohio have killed.

There are still other varieties of *Zoysia* that may prove somewhat more hardy and faster growing in the north. They are *Zoysia japonica* and *Zoysia tenuifolia*. Like *Zoysia matrella* these may have some special uses but it is very unlikely that they will ever have much use for lawn purposes. There is no commercial seed or sod available and little prospects for any for many years to come.

Lawn Care Binder



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