

Lawn Care

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CHINCH BUGS AS LAWN PESTS

SOME lawn pests are easily detected before they succeed in causing any damage. But Chinch Bugs are so small they can work away undetected until sufficient brown spots appear to make their presence suspected. This is the time to take action without delay.

Chinch Bugs are no strangers to American farmers. There is one species attacking grains and other farm crops but injury to lawns in the North is the work of a particular variety called Hairy Chinch Bug (*Blissus hirtus* Montandon). They are tiny insects measuring less than $\frac{1}{4}$ inch from tip to tip, even when full grown. The body is black, the wings white with black markings. Some have long folded wings the full length of the body, others have short wings extending about half way back. They are clasped tightly against the body and not used for flight. Migration through the lawn is accomplished by crawling. The young

bugs are extremely small, have no wings, and are coral or reddish-brown in color, darkening as they grow.

This year, 1944, may be one of considerable Chinch Bug activity because more of the adults live through an open, dry winter than during one of long periods of extreme cold with lots of rain and snow.

The adults that survive the winter lay eggs on grass stems in the spring. These hatch in the warm weather of late May and the bugs make their growth in June. In July the spring generation continues the cycle by laying eggs which hatch in early August. This second generation feeds on the grass in late summer and then hides in leaves and other debris over winter to start the cycle again the following spring.

In order to get sustenance to grow to maturity, the bugs pierce grass stems and suck out the plant juices. If enough bugs attack a plant, the leaves turn brown and the roots may die. Generally, the plants can be saved if early first aid is applied.



When To Suspect Them

Chinch Bugs seem to prefer operating in a relatively thick turf as there the grass is more succulent and the heavy growth gives them a good place to hide. They are not active in shaded areas, feeding only on grass in full sun when the temperature is 70 degrees F. or over and the grass blades dry.

Chinch Bug damage at first appears as irregular spots of dead grass scattered through the lawns. If their activities are not checked by a change in weather or a control treatment they continue to spread out into live grass until large areas are affected.

Other turf injury that may be confused with that of Chinch Bugs includes underground attack of the grubs of Jap or June Beetles (LAWN CARE No. 44). The difference is that grubs sever the roots so large pieces of sod can be lifted up whereas Chinch Bugs only suck the juices and the plants remain whole and firmly anchored to the soil even though the plant may be killed. Sod web-worms sometimes attack grasses in June but they actually cut off grass blades very close to the ground (LAWN CARE No. 5).

In damp, muggy weather, brown dead-looking spots may appear in turf as the result of fungus activities causing various diseases. This is not the kind of weather when Chinch Bugs are normally destructive and so Chinch Bugs need not be suspected (LAWN CARE No. 36).

Heat and drouth may of themselves cause grass to turn brown, but then the lawn is uniformly affected and not in scattered patches as is the case in Chinch Bug attacks.

Finding Chinch Bugs

Since they are so small and so adept at hiding under the crowns of the grass plants, Chinch Bugs are very

hard to locate. If they are suspected the search should be made in the heat of the day in bright sunlight. They are more apt to appear in numbers in the live grass at the edge of the browned



Showing the long winged and short winged forms of Chinch Bugs. Under the glass they are magnified about 7 times while those at the bottom are natural size. It is obvious why their presence in turf may not be suspected.

areas. It is a good idea to get down on the hands and knees and part the grass for close inspection.

Control Possibilities

Chinch Bugs being sucking insects, cannot be controlled by stomach poisons but only by contact or suffocation. For that reason a treatment has no lasting effect and must be timed to do the job immediately on application.

Some form of Nicotine or Rotenone has been relatively most effective in controlling Chinch Bugs. Whatever is to be used should go on in the early stages of development while there are only a few scattered spots of activity. If wide areas are affected the chances are that the bugs are well along to maturity and difficult to kill. The damage will have been done and effort

should be directed toward repair of the lawn.

Possibly the easier control is dusting the spots of activity, using a hand duster, or, even better, an improvised salt shaker effect such as can be made with a metal coffee can in the top of which holes have been punched with an eight-penny nail. The lawn should be mowed relatively close, and the dead material combed out, so the dust will settle close to the grass crowns.

If available, a 1% Rotenone dust may be used or finely ground tobacco dust having a Nicotine content of $\frac{3}{4}$ % or more. Apply generously. The bugs do not immediately succumb as the material seems to have a gradual paralyzing effect—at least that has been our observation. Twenty-five pounds of either material should be sufficient to treat a hundred or so patches averaging about two feet square.

Some report success with Nicotine Sulfate spray, such as Black Leaf 40, at the rate of 1 ounce (2 tablespoonfuls) in 2 gallons of water sprayed in a fine mist over attacked spots.

Any control will be more effective if the treated areas are covered with heavy paper or canvas for a couple hours afterwards in order to confine the vapors close to the ground.

Since controls are more effective in the immature stages and hatching continues over a period of time it is advisable to repeat the spot treatments a time or two, within a week to ten days. It is easier to destroy sizeable numbers of the first brood and the time to do this is in early June. It may also be advisable to try destroying some of the second brood in August.

First Aid After Injury

Since the use of any poisons now known may not be too successful, many lawn owners may find it more important to concentrate their efforts on a

program to rehabilitate the grass. The following suggestions may help to restore a vigorous growth so the effects of attack are lessened.

1. As often as there is evidence of brown grass, rake or brush out the dead, matted stems to enable the roots to send up new shoots to revive growth.
2. Make a very light feeding at not more than half the normal rate. Apply when the grass is perfectly dry and water-in afterwards.
3. Sow seed lightly over the injured areas to start new plants.
4. Keep the lawn well watered—Chinch Bugs will then be less active and the grass roots will be more apt to send up new growth.
5. During this period it would be better to catch the clippings.

As with other insect pests, the damage from Chinch Bugs may pass unnoticed until weed or clover patches suddenly appear in the lawn. These weeds are then blamed for the damage whereas they were an effect rather than a cause as they sprouted only after Chinch Bugs had killed the grass and removed the competition.

In order for Chinch Bugs to multiply in a lawn they must be able to over-winter in leaves or tall grass in areas adjacent to the lawn. Where there has been an infestation it is advisable to rake up and burn the leaves and other refuse that accumulates in shrubbery beds or flower borders.

Identification Service

If you find some bugs and want to be sure of identification, send us a plug of infested sod either to Marysville, Ohio, or Ridgefield, New Jersey. Cut out a section about 2 inches wide and 3 or 4 inches long that includes both injured and normal grass. Wrap the sample in waxed paper so it will stay moist enroute to us.

One thing most interesting in the last LAWN CARE was the many methods of mole eradication. I watch the runs and when a mole is working I kill it in the run with a shot gun and leave it right there, do a little repairing, probably sow a little seed. That is a little destructive but in the proper frame of mind it is very gratifying.

HARRY P. GUILER

Greenwood, Indiana

Late Spring Lawn Hints

1. Watch for a possible early drying out of the lawn soil. Don't wait until the grass wilts to start watering. Do it as soon as the upper inch or so of soil shows signs of getting dry. See Scotts LAWN CARE No. 60.

2. Water your lawn when it is convenient. Pay no attention to the old bugaboo that it's harmful to water when the sun is shining. Nothing to it.

3. The first sprigs of Crabgrass usually appear in late June. A little bending exercise to pluck out the plants in the two-leaf stage will be good for the abdomen and for the late summer lawn. Scotts LAWN CARE No. 70.

4. See that your mower is adjustable for the higher cutting advised in hot weather. LAWN CARE No. 54.

Frequent cutting solves the clippings problem. I think you might well stress the point that lawn clippings are easily disposed of by cutting so frequently that they will not disfigure the lawn.

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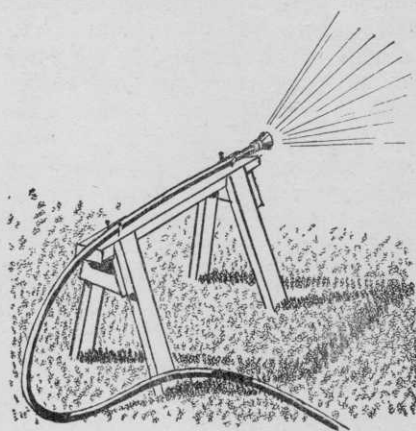
L. Young, greenkeeper, of Dayton, Ohio, sent in this suggestion for pulling off the blossoms of dandelions: Stretch poultry netting over a wooden frame about two feet by four feet and then pull over the lawn.

Watering Stand

SIRS:

There is a subject which I think has been grossly neglected and that is the art of sprinkling the lawn. What can be more harmful than a hoze nozzle turned down fine to simulate rain yet when applied at close range washes away soil from the roots?

Another aversion of mine is a sprinkler which necessitates walking on the soaked lawn to move the sprinkler.



My remedy is simple. I purchased what was called a flower sprinkler (rose spray) to be attached to a regular garden hose. I made a light weight folding horse about 3 feet 6 inches high and approximately 14 inches wide or long. The spray I lay on top of this contraption and thereby I can walk up behind it on dry grass and move it. It also is much easier to control the watering area, keeping it off the sidewalk, driveway and foundation.

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