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## Brown Patch Caused by Beetles

By ARTHUR LAVER, Greenkeeper Muscometcong Country Club, Long Island

 $\mathbf{B}$  ROWN-patch, although generally believed to be fungoid in origin actually is caused by a native beetle known as Cyclocephala. The writer has watched this beetle very carefully at night when on the greens. The beetle does not attack foliage or fruit trees, but seems to live entirely on grass roots.

The turf which seems most attractive to the beetle is one which contains the bents and sheep's fescue. Creeping bent seems to offer better feeding and more protection during the winter months. The fact that we do not have brown-patch except during the months of May, June, July, August and September is because it is only during these months that the Cyclocephala beetle comes out from under the sod.

The first flight of the beetle is probably the strongest and I believe these beetles swarm during the warm months about every three weeks. The young of the first flight will swarm again later, and so on until the weather is against them. Now the closely cut turf of a putting green makes an ideal mating place if the beetles are undisturbed by watering, but if water is kept running freely from sprinklers the beetles will not remain on the green's.

On examining other courses on Long Island I have found the same beetle. The variety seems to be increasing, and—curiously enough —they seem to travel in a north-easterly direction; six of my greens were not attacked the first year or so, but the last two years these greens, which are to the north-east, have been worse for brown-patch.

It is not unusual for the beetles to leave a green entirely alone, although perhaps it may be alongside one which is badly attacked. This is one of the strange things about the animal, and then again, strong winds will blow it in almost any direction. This may account for one green to be attacked and not another.

It is not at all unusual to pick up thousands of these beetles after dark on a moonlight night. They are as plentiful then as the small white grub is when you lift a layer of turf that is grub-infested. There is no question in my mind but that the brown-patch is caused by the swarming of the Cyclocephala beetles on the turf, and that in swarming they are laying their eggs which develop into white grubs; the grubs in due time developing into beetles. Both generations, beetles and grubs, are harmful to turf.

## About Winged Foot

By LEWIS M. EVANS

To those of us who were fortunate enough to attend the National Open at Winged Foot this year I feel safe in saying that we will always carry a mental picture of that wonderful crowd (numbering thousands), and the able manner in which they were handled.

This article would not be complete without some reference to the man who for months had licked the place into shape for that wonderful event. I can form some idea of what John Elliffe's thoughts must have been as the weatherman failed to help along Nature for weeks prior to the event, of a water system that also failed when it was most needed and necessitated bringing water from another source, those hours of mental torture that we all go through in brown patch weather and many other things that all go with events of this kind.

If there was anything wrong with Winged Foot it was something over which man has no control.





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