The Bluegrass Billbug

Outbreak in Minnesota

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If your turf has shown brown patchy areas this summer, it may be victim to the bluegrass billbug. The bluegrass billbug is an insect that has been present for at least 100 years in the Midwest and has been observed to be a serious pest of bluegrass in Nebraska since 1961. Yet, we know of no serious outbreaks of the pest in turfgrass in Minnesota before 1976.

The weather this summer has been abnormally hot and dry in central and southern Minnesota, the temperature and rainfall readings being more typical of a Nebraska summer. Thus, conditions have been good for an outbreak of a Nebraska pest, the bluegrass billbug.

The first billbug damage we noticed this year was in the southwestern Minneapolis suburb of Eden Prairie at the home of Northrup King turf agronomist, Howard Kaerwer. In early June, Kaerwer noticed that his relatively problem free Nugget bluegrass lawn was developing symptoms that from a distance appeared to be a mild case of "dollar spot". During the week of June 21, however, the symptoms changed from barely noticeable to severe, the turf showing many unsightly brown spots. Examination of the turf revealed the small,
white, legless larvae of the bluegrass billbug. A survey of Kaerwer's neighborhood showed that many of the lawns in the vacinity were damaged by the billbug.

In the weeks that followed we found billbug damage in lawns all over Eden Prairie and at Excelsior, Minnesota. We found it killing many of our bluegrass and ryegrass clones and in turf plots at the Northrup King research facility in Eden Prairie. University of Minnesota extension entomologists received reports of billbugs in lawns in St. Paul, Minneapolis, Brooklyn Center and in Kandiyohi County west of Minneapolis. The billbug appears to have been a general problem this year, at least in the Twin Cities area.

Damage by the bluegrass billbug is not very evident until late June. Until that time, the young larvae feed inside the grass stems, killing only the stems fed upon. Later (late June through late August) damage is more noticeable in that older larvae feed upon the crown and roots. Tufts of grass in damaged areas are very easily pulled apart from the roots. A sand-like grass is seen at the separation point and into the stem where larvae have fed. In areas of large numbers of larvae the turf may be completely killed. Bluegrass billbugs prefer higher areas of bluegrass lawns and damage will be most prominent there.

The billbug larvae, which may be found in the turf crown area and root zone, are small, fat-bodied white larvae with a brown head. They have a humped-back appearance and reach a length of up to about one third inch.

The billbug adults are black weevils about one fourth to one third inch in length. They have a distinctive long snout and rows of puncture marks on their backs. The adults emerge from the pupal stage starting in mid July, will overwinter, and deposit eggs starting in late May.

University of Nebraska extension entomologists suggest the following insecticides for controlling bluegrass billbugs: Diazinon 25% EC at 8 Fl. oz. per 1,000 sq. ft., Diazinon 5% G at 2.5 lbs. per 1,000 sq. ft., Sevin (carbaryl) 50% WP at 7 oz. per 1,000 sq. ft., or Dursban (chlorpyrifos) 22% EC at 3 fl. oz. per 1,000 sq. ft. Insecticides should be applied in mid May to kill the adult billbugs before they deposit their eggs.

Control of billbug larvae is difficult to accomplish and is not recommended. The best thing to do after May is to keep the turf well watered and fertilized.

It is suggested that 1 tablespoon of 1 percent pyrethrins in two gallons of water be applied to 2 square feet of turf and wait 15 minutes to flush the adults from the thatch area. This should be done in May to determine if billbugs are present and whether or not controls will be needed.

If you suspect that you had bluegrass billbugs this summer, be on the lookout for this insect next May. Prompt control at that time may prevent an unsightly appearance to your turf later in the summer.