

## Update on Michigan Turfgrass Insect Problems 1986

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Frequent precipitation resulted in healthy home lawns this year. Grass plants were healthy and capable of withstanding some insect injury. Most lawns recovered quickly from grub and chinch bug injury. In most cases insect injury was not visible unless grass plants were examined very closely. Sampling of chinchbug in the Lansing area indicated that the numbers of chinch bugs may be slightly down in 1986 due to the frequent rain and, perhaps, activity of the fungal pathogen *Beauveria bassiana*.

The largest number of reports of insect injury this year, were due to European chafer and Japanese beetle. These two insects continue to expand their ranges in southern Michigan. In 1985, chinch bugs were the most frequently reported lawn insect problem. The decrease in chinch bug injury this year was probably due to abundant rain that prevented lawns from becoming drought stressed. One insect that continued to cause dramatic injury in isolated locations is the June beetle (*Phyllophaga* sp). *Phyllophaga* larvae caused extensive damage to a few scattered lawns in the Detroit area, Flint, Port Huron, Grand Rapids, and at a few locations in northern Michigan. Recent studies of these large grubs at Cornell University using x-rays to follow their movement, suggest that these grubs feed deeper in the soil than do Japanese beetles and European chafers. This agrees with previous observations that *Phyllophaga* larvae are difficult to control with insecticides. If these grubs live an inch or more below the soil-thatch interface, then very little insecticide will penetrate deep enough to contact them. Additional observations suggest that these grubs are capable of moving 30 feet or more per year below the soil surface. Although damage from June beetles is unusual, when it does happen it is a very difficult problem for professional turf managers. The best strategy is to attempt to educate customers about the insect.

Several events occurred this year that are news-worthy to turf managers. Diazinon was reviewed by the EPA because of reported goose-kills on Long Island, New York. After the EPA review committee heard both sides of the Diazinon issue, they decided to cancel the label for use on commercial turfgrass. EPA has not banned the use of Diazinon on home lawns. Ciba-Geigy is contesting the ruling in court.

Recent research on a parasitic nematode has yielded promising results in several states. An insect pathogenic nematode is being mass produced by a company in California called Biosis. Initial tests with their product have provided a level of grub control comparable to some insecticides. This product could become available in the next 2 to 5 years.

A new turfgrass insect book was released in January, 1987. This is by far the most comprehensive book available on turfgrass insects. A center section of the book contains 64 pages of color photographs. This book is a necessity for professional turf managers: "Turfgrass Insects of the United States and Canada" by Haruo Tashiro, Comstock Publishing Associates, Cornell University Press.