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Prospects for Managing Turfgrass Pests with Reduced Chemical Inputs

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Abstract

Turfgrass culture, a multibillion dollar industry in the United States, poses unique challenges for integrated pest management. Why insect control on lawns, golf courses, and sport fields remains insecticide-driven, and how entomological research and extension can best support nascent initiatives in environmental golf and sustainable lawn care are explored. High standards for aesthetics and playability, prevailing business models, risk management–driven control decisions, and difficulty in predicting pest outbreaks fuel present reliance on preventive insecticides. New insights into pest biology, sampling methodology, microbial insecticides, plant resistance, and conservation biological control are reviewed. Those gains, and innovations in reduced-risk insecticides, should make it possible to begin constructing holistic management plans for key turfgrass pests. Nurturing the public's interest in wildlife habitat preservation, including beneficial insects, may be one means to change aesthetic perceptions and gain leeway for implementing integrated pest management practices that lend stability to turfgrass settings.

Keywords

[urban entomology \(/keyword/Urban+Entomology\)](/keyword/Urban+Entomology), [integrated pest management \(/keyword/Integrated+Pest+Management\)](/keyword/Integrated+Pest+Management), [biological control \(/keyword/Biological+Control\)](/keyword/Biological+Control), [microbial control \(/keyword/Microbial+Control\)](/keyword/Microbial+Control), [insecticides \(/keyword/Insecticides\)](/keyword/Insecticides), [landscape ecology \(/keyword/Landscape+Ecology\)](/keyword/Landscape+Ecology)

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