



Photo by Daniel Peck

Alerting and arming the Northeast against European crane flies

Two invasive species of European crane flies were detected in northwestern New York in 2004. Their range expanded eastward in 2005. Crane fly larvae inhabit the top layer of soil, where they feed on turfgrass roots; they will also emerge from soil at night to graze on the stems. Superintendents need information on how to detect, identify and monitor these new pests, and they need tools to suppress populations if they become a nuisance. The objectives of this research are to establish the current geographic distribution of European crane flies and monitor future range expansion, conduct studies on their biology to properly time control tactics, field-test a range of products to make control recommendations and disseminate the findings to superintendents. Surveys will be conducted to delimit the current distribution of both species; the populations will be monitored regularly on several golf courses to determine their life cycle; and field tests of control products will be conducted on golf courses to measure timing and efficacy. The research is funded in part by The Environmental Institute for Golf and the New York State Turfgrass Association. — Daniel Peck, Ph.D. (dp25@cornell.edu), Cornell University

Stormwater retainment for golf course irrigation

Water continues to be a critical resource for the maintenance of golf courses. Even in water-rich areas like the Great Lakes Basin, states are actively regulating water use, and these regulations are increasing. This research will evaluate the retainment of stormwater on golf courses as a water source for irrigation and the environmental benefits of these systems to the communities in which they are located. Stormwater retainment systems on three golf courses in Michigan will be evaluated for water quality and the costs and benefits they provide compared to a holding pond recharged with a well used for irrigation by three other courses in the state. This research will help superintendents identify a potential new source of irrigation water and weigh its costs and benefits to the golf course, the community and the environment. This research is funded in part by the Mark Kizziar Research Grant through The Environmental Institute for Golf. — Kevin Frank, Ph.D. (frankk@msu.edu), Michigan State University



Photo by Tom Smith

Developing an Integrated Pest Management (IPM) template

Although most golf courses have embraced some or all of the principles of IPM, the development, implementation and optimization of a comprehensive IPM plan can be a challenge. Individuals serving on the Environmental Programs Committee and related task groups believed that making a series of templates electronically available to superintendents would be an asset in helping superinten-



Photo by Gabriel Towers

dents develop and improve written IPM plans for their golf courses. The goal of this project is to produce a series of templates that guide superintendents in integrating agronomic and biological principles with site-specific information and financial resources into a proactive IPM plan. The adoption of a written IPM plan will help superintendents enhance performance, communicate with their staff and owners, and use resources effectively while improving the compatibility of the golf course with the environment. This research is funded in part by The Environmental Institute for Golf. — Kai Umeda, Ph.D. (kumeda@cals.arizona.edu), University of Arizona

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