IPM^3 Training Consortium

Releases IPM Core Concepts Module

The IPM^3 Training Consortium is proud to announce the release of the *IPM Core Concepts Module*. The '*IPM Core Module'* is designed for anyone who is seeking a strong understanding of the principles that underlay the development and implementation of any IPM program, and who wishes to become proficient in the principles and application of IPM as taught by leading IPM authorities from various U.S. universities. A major goal is to provide practical information that will help individuals, agencies and organizations utilize IPM principles in their day-to-day pest management decisions. Completion of the *IPM Core Module* will also facilitate success in other IPM^3 training modules, as each additional training module assumes a basic understanding of the principles of IPM.

The *IPM Core Module* will be delivered entirely online. Delivery is asynchronous, that is, on demand as opposed to set class periods. The initial offering of the IPM Core Module will run from 2 November to 11 December 2009. Additional offerings will be scheduled based on demand. Within the 6 week period, students can proceed at their own pace based upon their work schedule and learning style. A student who successfully completes the *IPM Core Module* will earn 1.5 CEU's and a Certificate of Completion. Course tuition is $375 for 15 contact hours. Detailed information and registration information is available at http:/www.umn.edu/ipm3.

The *IPM Core Module* employs multiple media learning techniques including text, videos, still photos and case studies. The text portion of each lesson is 10-15 minutes. Lessons with videos and graphics are longer. Assessments are provided at the conclusion of each lesson – a grade of 80% is required for a student to progress to the next lesson in the IPM Core Module. Since our goal is to increase student knowledge and understanding, there are no limitations to the number of times a student may retake an assessment. Grades are based on the highest score achieved for each assessment. For the IPM Core Module and pest biology modules, all of the necessary course materials are contained within the modules—supplemental textbooks are not necessary.

Course content for the *IPM Core Concepts Module* includes the following:

- Unit 1. Introduction to IPM: pests and pest impacts; pest management; history of pesticide use; IPM developed in response to pesticide problems.
- Unit 2. IPM Economic Concepts: pest populations; natural control and general equilibrium position (GEP); economic thresholds (ET); economic injury level (EIL).
- Unit 3. Host Plant Resistance: coevolution and selection pressure; resistance mechanisms: antixenosis, antibiosis, and tolerance; constitutive and induced resistance and their fitness costs; resistance genetics.
- Unit 4. IPM Tactics—Biological Control: biological control organisms; arthropod parasites and parasitoids; arthropod predators; behavior modification.
- Unit 5. IPM Tactics—Chemical Control: pesticide regulation; pesticide classification; pesticide mode of action (MOA); pesticide resistance; insecticide, fungicide, and herbicide resistance; pesticide safety, pesticide residues, and tolerances; environmental fate of pesticides.
- Unit 6. IPM Tactics—Physical Control: physical barriers; manual weeding; mulches; pneumatic control; thermal techniques.
- Unit 7. IPM Tactics—Cultural Control: sanitation; soil tillage; crop rotations; interplanting; trap crops; cover crops elimination of alternate hosts.
- Unit 8. IPM Tactics—Regulatory Control: USDA Animal Plant Health Inspection Service (APHIS) Plant Protection and Quarantine Program; Department of Homeland Security (DHS) Customs and Border Protection; Agricultural Inspections.
- Unit 9. Introduction to Invasive Species: definition of an invasive species; Executive Order 13112. National Invasive Species Council (NISC); impact of invasive species; APHIS prevention, monitoring, control and emergency program costs. Balancing multiple priorities.
- Unit 10. Introduction to Restoration Ecology: definition of ecological restoration; multiple disturbances to ecosystems; the importance of setting goals for restoration; ecosystem restoration.

Course management and course content is provided through the University of Minnesota's web-based education system, WebVista (Blackboard Learning System). The Blackboard Learning System is used by thousands of universities, colleges, and corporations throughout the US. The WebVista application encapsulates content and has full course management features such as: assessments (objective quizzes) and internal email for communications between students and instructors. Grades are continuously updated and available as students complete the assessments.

The IPM^3 Training Consortium invites you to take a few minutes to explore our web page, http:/www.umn.edu/ipm3. Whether you are an employee of a federal agency, a state/local government official, an Extension educator, master gardener, 4-H staffer, crop consultant, a green industry practitioner, or a pest management professional– in fact, anyone tasked with IPM implementation, we think you will like what you see. Enrollments are limited so please register now.