



# COLORADO ENVIRONMENTAL PESTICIDE EDUCATION PROGRAM

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## CONTINUING EDUCATION CREDIT WORKSHOPS

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This fact sheet describes how to request approval for continuing education credit workshops and defines each subject area.

<http://www.cepep.colostate.edu>

## Continuing Education Credit Workshops

**The following Continuing Education Credits (CEC's) are required** for qualified supervisors and certified operators to maintain their license without reexamination:

- 2 credits in the subject area of State, Federal, and Local Laws and Regulations
- 1 credit in the subject area of Pesticides and their Families
- 1 credit in the subject area of Applicator Safety
- 1 credit in the subject area of Public Safety
- 1 credit in the subject area of Environmental Protection
- 1 credit in the subject area of Use of Pesticides
- 1 credit for each licensed category in the subject area of Pest Management except for 2 credits for each of the following licensed categories:
  - Residential/Commercial Pest Control
  - Turf Pest Control
  - Ornamental Pest Control

### Requesting CEC workshop approval:

- The course must be approved in advance by the Pesticide Section under the authority of the Commissioner
  - Requests for approval must be in writing
  - Requests for approval must be submitted by the sponsors
  - Requests for approval must be submitted no less than fifteen days prior to the course
  - Requests for approval shall include the proposed agenda, the identity of all speakers at pertinent course(s) and a synopsis of the topics to be addressed in each course for which credit is being requested
- If the Commissioner's approval of the course has been received at least 60 days prior to the course date, the Commissioner will notify applicators of the approval for continuing education credits. The Commissioner will not provide notification of such approval if the request for its approval was received less than 60 days prior to the course
- The list of those attending each approved course shall be sent by the sponsor to the Commissioner no later than 7 days after the conclusion of the course. It is the individual's responsibility to confirm that his/her name appears on the attendance list when he/she attends an approved course
- A course will be approved for continuing education credit, if, in the opinion of the Commissioner, it covers at least 1 topic from the following subject areas adequately to justify the approval for credit:

### **Applicable state, federal, and local laws and regulations (30 minute presentation)**

- State, federal, and local regulations dealing with: pesticides, application, disposal, notification, transportation, registration, uses, licensing, worker protection, endangered species, storage, residues and tolerances, emergency planning and right-to-know, advertising, record keeping, business practices, insurance, training standards, supervision, agricultural chemicals and groundwater, or consumer protection
- Compliance problems/actions, analysis of most frequent violations, and discussions of specific problems and actions

### **Pesticides and their families (30 minute presentation)**

- Pesticide label and labeling including: label requirements, label terminology, and effect of failure to comply with label requirements
- Pesticides in general including: families and types, mode of action, and other properties
- Formulation of pesticides: types, properties, limitations, toxicity, dilution, mixing, and uses
- Semiochemicals for pest detection and control
- Adjuvants and additives
- Specific pesticide characteristics and concepts including: compatibility, synergism, persistence, environmental fate, resistance, mode of action (contact, systemic, etc.), mobility, leachability, potential for biological concentration and/or accumulation, volatility, solubility, inert ingredients and/or carriers, and phytotoxicity
- National trends on pesticide problems

### **Applicator safety (30 minute presentation)**

- Safe use of pesticides by the applicator including: label requirements, transportation, mixing, loading, disposal, equipment cleanup, spill management, storage, application, and precautions to prevent exposure and injury
- Applicator protection including selection, care, and maintenance of protective clothing and safety equipment
- Human health effects including: acute and chronic toxicity, hazard determination, routes of exposure, symptoms of pesticide poisoning, and allergies
- First aid and emergency actions for pesticide exposure and use related injuries
- Reference sources pertinent to applicator safety including: Material Safety Data Sheet(s) (MSDS), telephone hotlines, emergency procedures, and label requirements
- Major label revisions and national trends and updates relevant to applicator safety
- Responsibilities of qualified supervisors, certified operators, technicians, and other employees

### **Public Safety (30 minute presentation)**

- Safe use of pesticides by the applicator including: label requirements, transportation, mixing, loading, disposal, equipment cleanup, spill management, storage, application, and precautions to prevent exposure and injury
- Human health effects including: acute and chronic toxicity, hazard determination, routes of exposure, symptoms of pesticide poisoning, and allergies
- Reference sources pertinent to applicator safety including: Material Safety Data Sheet(s) (MSDS), telephone hotlines, emergency procedures, and label requirements
- Major label revisions and national trends and updates relevant to public safety
- Responsibilities of qualified supervisors, certified operators, technicians, and other employees

- Public education about pesticides and pesticide application, public relations, communication, and trouble shooting
- Pesticide sensitivities, allergies, and phobias, including chemophobia and entomophobia

### **Environmental protection (30 minute presentation)**

- Precautions to protect the environment and minimize the effects of pest management on it, including: identification of meteorological and climatic factors affecting application (drift, runoff, etc.); identification of terrain, soil, substrata influence on possible surface and ground water contamination; recognition of sensitive areas and organisms that could be affected by application, drift, and runoff such as endangered species, wildlife, ornamentals, beneficial insects, humans, and domestic animals; identification of methods of spill prevention, control, and cleanup; observation of preharvest intervals; timing of applications for specific pest controls; and pesticide storage and transportation
- Major label revisions and national trends and updates relevant to environmental protection
- Responsibilities of qualified supervisors, certified operators, technicians, and other employees

### **Use (30 minute presentation)**

- Mixing and loading including: proper mixing and loading techniques, label requirements, closed systems, adjuvants for drift control and other purposes, measuring, pH of water and other factors to consider, procedures for spill prevention, control and clean up, site location and construction, prevention of contamination, and security
- Application including: proper application techniques to control off target movement, new application techniques, procedures for spill prevention, control and clean up, label requirements
- Equipment including: calibration, selection of correct equipment for the job, maintenance and care, clean up, new equipment
- Storage and disposal including: bulk storage, label requirements, site requirements such as ventilation, containment, procedures for spill prevention, control and clean up, disposal of containers, rinsate, excess material, security, fire prevention, posting, temperature, product separation to prevent cross contamination
- Responsibilities of qualified supervisors, certified operators, technicians, and other employees
- Major label revisions and national trends and updates relevant to pesticide use
- Practical demonstration of use methods and techniques

### **Pest management (60 minute presentation per licensed category)**

- Identification and biology including: principles of host and pest identification and recognition of such organisms, principles of site/habitat identification, damage and/or symptoms caused by pests, recognition of beneficial organisms, understanding host, pest, and beneficial life cycles and susceptible stages, and evaluate environmental conditions and ecology on host and pest biology
- Pest management criteria including: determining economic or aesthetic threshold levels, consideration of environmental impact of control methods, selection of control method, post-treatment evaluation, ability to integrate various pest management methods, comparative effectiveness of management methods and techniques, sampling and survey techniques, host and pest resistance, effects of control methods on host and off target organisms, timing of control alternatives, and pest management history
- Chemical control method and practices including: select material, formulation, and/or equipment, determine dosage of selected control, selection of proper pesticides and adjuvants for a particular job, and timing of pesticide application

- Alternative control methods and practices including: mechanical, biological, cultural, and physical methods, and timing of control methods
- References in decision making for pest management
- Major label revisions, evolution of pest management, and national trends and updates relevant to pest management

A [request for continuing education credit workshop approval](#) is available online from the [Colorado Department of Agriculture, Division of Plant Industry](#) site or contact John Scott, Pesticide Applicator Coordinator, Colorado Department of Agriculture, DPI, 700 Kipling Street, Suite 4000, Lakewood, CO 80215-5894. Phone: (303) 239-4178.

### **References and Resources**

*Pesticide Applicators' Act*. Title 35, Article 10, Colorado Department of Agriculture, Division of Plant Industry, Lakewood, CO.

<http://www.cepep.colostate.edu/PAA.pdf>

*Rules and Regulations Pertaining to the Administration and Enforcement of the Pesticide Applicators' Act*. Title 35, Article 10. Colorado Department of Agriculture, Division of Plant Industry, Lakewood, CO.

<http://www.cepep.colostate.edu/PAA%20Rule.pdf>

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