

UC Davis Policy and Procedure Manual

Chapter 290, Health and Safety Services

Section 95, Pesticide Applications

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Responsible Department: Environmental Health and Safety

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I. Purpose

This section outlines policy and procedures regarding the safe storage, transportation, disposal, handling, use, and application of agricultural pesticides by University personnel. This section supplements and does not replace local, State, and Federal requirements. This section does not apply to non-agricultural use of pesticides, such as research laboratory use of pesticides.

II. Definition

- A. Agricultural Pest Control Use--all pest control use that does not fit into the listed non-agricultural use categories is agricultural use.
- B. Non-Agricultural Pest Control Use--categories include use of pest control in homes, industrial, institutional, structural, vector control (mosquito abatement) and veterinarian. Both the site or situation of use and the user must be considered to determine how a particular use is classified.
- C. Pesticide--used as defined in the California Food and Agricultural Code, Section [12753](#), includes but is not limited to insecticides, fungicides, herbicides, rodenticides, nematocides, plant growth regulators, fumigants, and desiccants.

III. Policy

- A. Pesticide application standards are designed to provide protection for the pesticide applicator; reduce adverse environmental effects due to the improper use of pesticides; protect the health, safety, and well-being of students, staff, faculty, and neighboring communities and adjacent wildlife habitat.
- B. UC Davis complies with the California Code of Regulations (CCR) and Federal and local regulations pertaining to the use of pesticides.
- C. University personnel engaged in official duties relating to agricultural use of pesticides are exempt from the need to obtain an agricultural pest control advisor license. It is required that personnel handling or applying restricted pesticides or the supervising applicator obtain a State Qualified Applicator Certificate or License.
- D. Prior written approval must be obtained from the Dean of the College of Agricultural & Environmental Sciences and from Environmental Health & Safety (EH&S) for application on campus by aircraft.

IV. Safety Requirements

- A. Departments using pesticides on campus are responsible for ensuring that posting, personnel, storage, and disposal safety requirements are met in accordance with the procedural guidelines below and the requirements of CCR Titles 3 and 8.
- B. All efforts will be made to apply pesticides with the use of ground application equipment. In exceptional cases, the following policy regarding the use of aircraft for the application of pesticides will be followed:
 - 1. Application by aircraft will be approved only when absolutely necessary, where such application is not hazardous to the health of people, animals, or living organisms other than the target organism in or near the area being treated, and where such application

- does not cause undesirable noise pollution.
2. Application by aircraft is prohibited on University property east of State Route 113 and north of Interstate 80.
 3. Application by aircraft is permitted west of State Route 113 and south of Interstate 80 provided that:
 - a. The application by aircraft has been authorized as stated in III.D, above.
 - b. All aerial applications of restricted materials comply with Yolo or Solano County conditions for buffer zone setbacks.
 - 1) These setbacks and other restrictions must comply with the Restricted Materials Permit issued by the County Agricultural Commissioner.
 - 2) Buffer zones are not required for non-restricted materials.
- C. Any person applying pesticides must be trained prior to the use of each pesticide, regardless of toxicity, unless they possess a current Qualified Applicators Certificate or Qualified Applicators License. General pesticide safety training requirements include:
1. Training must be updated annually.
 2. A record must be made of each employee applying pesticides and evidence of training certified by the trainer/supervisor. Copies of the record form will be kept by the employee and the department and be available to EH&S and local and State officials.
 3. Persons providing training must be qualified as one of the following:
 - a. A California certified commercial applicator.
 - b. A California certified private applicator.
 - c. A person holding a valid County Biologist License in Pesticide Regulation issued by the Department of Food and Agriculture.
 - d. A farm advisor employed by the University of California.
 - e. A person who has completed an "instructor trainer" program presented by the UC Statewide Integrated Pest Management (IPM) Project.
 - f. A California licensed Agricultural Pest Control Adviser.
 - g. A California registered Professional Forester.
 - h. Other trainer qualification approved by the California Department of Pesticide Regulation Director.
 - i. A Qualified Applicator Certificate.
 - j. A Qualified Applicator License.
- D. University personnel anticipating or actually engaged in the application of cholinesterase-inhibiting carbamates or organophosphates more than 6 days in a 30 day period must obtain cholinesterase level readings (see [Section 290-60](#)). Those days do not count if handling with a closed mixing system or water soluble bags.
- E. The department will provide protective clothing and equipment to University personnel engaged in the application of pesticides on campus as stated in CCR Title 3 and the manufacturer's label (see [Section 290-50](#)).
- F. The department will ensure that all employees who may enter areas for the 30 days following the expiration of a restricted entry interval (REI) have current training required by the Environmental Protection Agency (EPA) Worker Protection Standard.

V. Procedures

A. Reporting of pesticide use

Each department using pesticides on the Davis campus must complete and return the State of California Monthly Summary Pesticide Use Report to the Yolo or Solano County Agricultural Commissioner's Office by the tenth of each month following application.

B. Application of restricted materials

1. Departments that plan to apply restricted materials must obtain a Restricted Materials Permit from the County Agricultural Commissioner's Office, unless the material is being used for experimental purposes (research use only where no pest control benefit is intended or expected).
2. A Notice of Intent to Apply Restricted Materials (NOI) must also be submitted to the Agricultural Commissioner at least 24 hours prior to the application.
3. The Permit application does not become valid until the NOI for the job has been received and approved by the Agricultural Commissioner.

C. Notice of application

If required by product label, the operator of the property must provide a notice of application to the area being treated. If the application requires posting, the re-entry sign needs to be on site prior to the application. The operator must also make an oral notification to any employee within ¼ mile of treated area.

D. Posting of application sites

1. The department will post the area of application with an approved sign for any of the following:
 - a. When required by the product label;
 - b. For all greenhouse applications;
 - c. When any application results in a restricted-entry interval (REI) greater than 7 days.
2. Signs shall be constructed as follows:
 - a. Approved signs are available from the pesticide manufacturer.
 - b. All such signs will bear the skull and crossbones symbol and will state in both English and Spanish, "Danger--Pesticide Spray--Keep Out," name of the chemical, date of spraying, permissible re-entry date, and name and phone number of the responsible applicator.
 - c. Signs shall be legible from a distance of at least 25 feet.
3. All applications of pesticides requiring posting as outlined in the State regulations must be posted prior to application (but no sooner than 24 hours prior to the application), and include means of application and any other information necessary to the safety of individuals who may wish to enter that field.
 - a. Signs shall be placed at usual points of entry and along each road, footpath, or walkway.
 - b. Fields adjacent to an unfenced public right-of-way shall be posted at least every 600 feet.
 - c. Any variance from these restrictions must be approved prior to application by the County Agricultural Commissioner.

4. Signs must be removed within three days after the expiration of the REI and before anyone is allowed back to work in the treated area.

E. Storage, transportation, and disposal

The department chairperson will designate one person to be responsible for all containers in his/her area that hold or have held a pesticide. That person will ensure that the following requirements are met:

1. All pesticide storage locations must be posted with visible warning notices legible from a distance of 25 feet from any direction and worded in both English and Spanish as follows:
DANGER
POISON STORAGE AREA
ALL UNAUTHORIZED PERSONS KEEP OUT
KEEP DOOR LOCKED WHEN NOT IN USE
2. Adequately secure pesticides and pesticide containers to prevent unauthorized access.
3. Pesticides shall not be transported in the same compartment with persons, food or feed.
4. Pesticide containers shall be secured during transport to prevent spills.
5. Empty pesticide containers, other than bags, must be rinsed and drained into the spraying equipment on site by the user, at the time of use, using the triple-rinse method.
 - a. The bottom of the container must be punctured and the label and caps removed prior to disposal via regular trash route.
 - b. Burning of plastic containers is prohibited by the Yolo and Solano Air Quality Management District.
 - c. Plastic pesticide containers may be [recycled](#) once they are certified by the Agriculture Department.
6. Only the amount of pesticide spray needed for the area to be treated should be prepared. Rinse solution should be applied to the treated areas.
7. Empty pesticide bags must be emptied as much as possible. Once emptied, dispose via regular trash route.
8. Leftover pesticides and pesticide rinsate that will not be used must be disposed of as hazardous waste.
 - a. Departments should request a [waste pickup online](#) from EH&S.
 - b. All containers must be capped and labeled with the contents.
 - c. Inaccurate labels must be removed or obliterated. Rinsate containers must be labeled with the following information: name of product, number of gallons, percentage dilution (if known), and name and phone number of a person who is familiar with the waste contents.
 - d. A completed Hazardous Waste Label must accompany containers picked up by EH&S.

F. Medical surveillance and spill response

1. The testing, intervals for testing of new employees, and interpretation of tests will be determined by the Occupational Health Physician.
2. Departments must provide Occupational Health Services the names of employees with

potential of organophosphate or carbamate pesticide exposure. Baseline RBS and Serum Cholinesterase will be documented. If on-going exposure is expected, annual levels will be taken to insure the adequacy of PPE

3. In the event of accidental exposure due to spills or splashes, immediate examination and testing by a physician is necessary. Call 911 if appropriate, or ensure that the affected person is provided prompt medical attention, either by Occupational Health Services, or the nearest emergency room.
4. Employers and supervisors must have accident response information available at the mixing and loading dock or work site, including a phone number of the employer, an emergency phone number, and the name and phone number of the nearest hospital (off-campus sites should also have the name of an available doctor). Posting DPR's [PSIS A-8](#) can be used to satisfy this requirement.
5. Researchers experimenting with new, unregistered pesticides should have a copy of the Technical Release Data or safety data sheet (SDS) with them at the time of application, in case of a spill or emergency.
6. Small spills of pesticides should be cleaned up immediately. For major toxic pesticide spills, follow Chemical Emergency Procedures and call 911.

G. Research and experimental applications

1. With few exceptions, pesticide laws, regulations, and policies apply to all materials--both registered and nonregistered--used for research and experimentation. When University employees are using pesticides on crops for which they are not registered in the course of their employment, a Research Authorization (filed with the State) is not normally required.
2. The potential groundwater contaminating chemicals listed in 3 CCR §6800(a) may be applied for research or experimental use only with a valid Research Authorization from DPR (3 CCR §6416). All research or experimental use using these chemicals on land not owned or controlled by the University requires a valid Research Authorization from DPR.
3. Genetically engineered/modified organisms
 - a. The U.S. Environmental Protection Agency generally requires a notification or a federal experimental use permit for any experimental program involving the deliberate release into the environment of living, genetically engineered microbial pesticides, irrespective of the acreage involved in the experiment (see 40 CFR section 172.45 for exemptions).
 - b. The DPR Pesticide Registration Branch must also be notified of any proposed field testing (on or off University property) by University personnel involving genetically engineered microbial pesticides.
 - c. The Biological Safety Administrative Advisory Committee may require an approved Biological Use Authorization to produce or use any genetically modified organism for research.
4. When a pesticide will be applied to more than 10 acres of crop for which it is not registered, a Federal Experimental Use Permit (EUP) from the EPA is required.

When the toxicity of a material is unknown or only partially known, it should be considered to belong in Category I and the necessary safety precautions must be taken, which include the proper storage, labeling, training of personnel, and use of personal safety equipment as outlined in this section.

5. All University personnel working off-campus with regulated pesticides and biological

materials must also operate under the requirements of the Division of Agricultural and Natural Resources Administrative Handbook [Section 281](#) (Policies on Pesticides and Related Chemicals: Use and Experimentation) and [Section 580](#) (Use of Agricultural Research and Extension Centers).

6. University personnel doing experimental work with pesticides at any UC field station must contact the superintendent of the station and operate under Administrative Handbook Section 580.

VI. Further Information

Further information is available from EH&S (530-752-1493).

VII. References and Related Policies

- A. [California Food and Agricultural Code](#), Sections 12753-13192
- B. [California Code of Regulations - California Code of Regulations](#)
 1. Title 3, Division 6, Pesticides and Pest Control Operations
 2. Title 8, Industrial Relations
- C. [Code of Federal Regulations, Title 40, Part 172, Experimental Use Permits](#)
- D. [UC Agriculture and Natural Resources Administrative Handbook](#):
 1. Section 281, Policy on Pesticides and Related Chemicals: Use and Experimentation
 2. Section 580, Use of Agricultural Research and Extension Centers
- E. [UCD Policy and Procedure Manual](#):
 1. Section 290-50, Protective Clothing and Equipment.
 2. Section 290-60, Occupational and Preventive Medicine.