



# COUNTY OF SAN MATEO

**AGRICULTURE/WEIGHTS & MEASURES**



## **Grower's Guide**

# To Our Growers:

This guide provides general information on what is required of a grower who uses pesticides or has pesticides applied by a pest control company for the production of agricultural or ornamental commodities.

Specific or detailed information can be provided by your County Agricultural Biologist. Information is also contained in the Department of Pesticide Regulation (DPR) publications: Pesticide Safety Information Series (PSIS) A-1 through A-11, which can be obtained from your district biologist or on-line at: <https://www.cdpr.ca.gov/docs/whs/psisenglish.htm>.

Additional employer compliance booklets outline the employers responsibility and can be obtained from your district biologist or online at: <https://www.cdpr.ca.gov/docs/enforce/cmpliaast/bkltmenu.htm>.

**Remember: This is a general guide. Laws and regulations are periodically updated. There is no substitute for knowing the laws & regulations that govern pesticide use. If you have questions, contact your County Agricultural Commissioner's Office.**

**For more information and updates, you can access these websites:**

San Mateo County Agricultural Commissioner: [www.smcgov.org/agwm](http://www.smcgov.org/agwm)

California Department of Pesticide Regulation (DPR): <http://www.cdpr.ca.gov>

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Appointments can be made with your district biologists.

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# **Basic Requirements**

Whether you apply pesticides yourself, or you hire a licensed Pest Control Operator to apply pesticides to your property or production commodity,



**You MUST each and every year:**

**OBTAIN AN OPERATOR ID NUMBER**

**Or if you intend to use a**

**California Restricted Pesticide:**

**OBTAIN A RESTRICTED MATERIALS PERMIT**



**Owners** (employers) who apply pesticides themselves are exempt from worker protection safety regulations; however, you **must** comply with **ALL** label requirements including those specifying personal protective equipment (PPE).

**Owners** must meet the following requirements regardless of who applies the pesticides:

1. Pesticide Use Reporting & Record Keeping
2. Following Label Directions (the "Label is the Law")
3. Worker Protection Safety
4. Environmental Safety
5. School Notification

All of these topics are discussed in the Pesticide Safety Information Series which is available online (<https://www.cdpr.ca.gov/docs/whs/psisenglish.htm>) or provided by your district biologist.

# Record Keeping

You must keep a copy of your Operator ID and/or Restricted Materials Permit for two years.



It is the responsibility of the owner/employer to submit **Pesticide Use Reports (PUR)** documenting all pesticides used in the production of any agricultural commodity in the channels of trade. Pesticides include insecticides, herbicides, fungicides, growth regulators, adjuvants, rodenticides, etc.—any material that mitigates a pest. California requires 100% use reporting—for all materials with the exception of fertilizers and soil amendments. This includes **all** pesticides (including sulfur, snail bait and Roundup).

Pesticide use reports (PUR's) **must** be submitted to the agricultural commissioner by the 10th day of the month following the month the pesticide application was made. For example, June applications must be reported by July 10. These can be submitted on paper or online. Maintain a record of these reports for 2 years and provide them to the director or commissioner upon request.

The website for online use reports is: **www.calagpermits.org**. You may ask your district biologist for a log-in name and password to access the system. There are short (3-5 minute) training videos located in the help section of the main page of CalAgPermits.

If a pest control company does the work, then they are responsible for reporting the use. They **must** report the application within 7 days. A copy of the report must be mailed to the operator of the property within 30 days of the completion of the pesticide application. Retain these records for 2 years.

Any recommendation made by a licensed Agricultural Pest Control Adviser must be in writing. A recommendation made by the owner or property operator is not required to be in writing.

It is the employer's responsibility to keep these records:

1. Copy of the training records
2. Written training program
3. Safety Data Sheets (SDS)
4. Application specific information postings:
  - Hazard Communication Information PSIS A-8 for pesticide handlers
  - Hazard Communication Information PSIS A-9 for fieldworkers
  - Pesticide application notice
5. Use reports for 2 years at a central location at the workplace.
6. Copy of Restricted Materials Permit or Operator ID Number. It must be accessible by employees.

# Labels

**Read the label for each material.** The label defines the **legal use** of the material. The label is the law.

A copy of the registered label **must** be available at the work site. The label will identify the rate, the personal protective equipment and all considerations for the use of the material.



If a material has an **EPA Registration Number** on the label, it is a pesticide. This includes all pesticides (including sulfur, snail bait, and Roundup), rodenticides, herbicides, defoliants, growth regulators, adjuvants, and etc.

Special local needs (SLN) and Section 18 registrations are supplemental labeling instructions for additional uses authorized by DPR. If a Section 18 or SLN label is being used, then a copy of that label **must** also be at the use site.

# Non-Restricted vs. Restricted Materials

## Non-Restricted Materials

**Non-restricted materials** are generally the least problematic, and so have the fewest requirements.

An **Operator Identification Number**, issued by the Agricultural Commissioner's Office, allows the application of non-restricted materials to the fields listed on the permit.

Growers do not need to be certified applicators to apply non-restricted materials. However you must be a certified applicator to train employees (fieldworkers or pesticide handlers).

## Restricted Materials

Some materials are more hazardous than others, even when used according to the label. The state of California has created a list of pesticides with additional requirements.

A **Restricted Materials Permit**, issued by the Agricultural Commissioner's Office, allows the application of California-restricted materials to the fields listed on the permit. The permit lists each California restricted material the grower intends to use.

Growers must be certified applicators to apply restricted materials; **Private Applicator Certificates (PAC)** are issued by the Agricultural Commissioner's Office after the grower passes a written test. Other licenses are issued by the state such as Qualified Applicator License (QAL) but the PAC is sufficient to certify growers.

Prior to use of California restricted materials, growers **must** submit a **Notice of Intent (NOI)** to apply a restricted material. NOI's are required at least 24 hours prior to an application and can be submitted by phone or online through CalAgPermits. Certain restricted pesticides will require earlier NOI. These conditions are specified on the permit. Inspectors verify that the application rate and method are appropriate for the crop and pest, and evaluate the site. This review is intended to provide an additional margin of safety for workers, the public, the environment and surrounding crops.

**Reminder:** California requires **100%** use reporting of **all** materials applied for the production of an agricultural commodity. All materials applied must be reported to the Agricultural Commissioner by the 10th of the following month online through CalAgPermits or submitted as a paper record.



# Employee Training

Fieldworkers and pesticide handlers must be trained **every year**. They **must** be trained **before** they are allowed to handle pesticides or work in a field within 30 days of a pesticide application. This includes employees hired through a labor contractor. Growers are sometimes unaware that a worker spot-spraying Roundup is a pesticide handler.

**Treated Field:** A field is considered treated for 30 days beyond the Restricted Entry Interval (REI) following a pesticide application. Even if the pesticide has a REI of a few hours, the field is considered treated for 30 days following the expiration of the REI. **Fieldworkers must be trained** before entering a treated field.

A **qualified person must** do the training for handlers and/or fieldworkers. A grower may take a test to become a certified applicator to become a qualified to do training. You can contact the agricultural commissioner office for qualifications.

The fieldworker and handler **written** training program **must** describe the materials and information that will be provided, and address specific topics. For handler training, if a new pesticide is used then training needs to be updated prior to use.

The Pesticide Safety Information Series (PSIS) leaflets from DPR are the main resource of information for pesticide training. They are available in English, Spanish and Punjabi on the DPR website (<https://www.cdpr.ca.gov/docs/whs/psisenglish.htm>) or enter PSIS in the search box on the DPR website.

The employer **must** record the date and extent of the training. This training must be verified by the employee's signature. These records **must** be kept for the current year and for two years after.

## Hazardous Communication Information:

1. The employer **must** display a completed PSIS A-8 whenever employees are working as handlers.
2. The employer **must** display a completed PSIS A-9 at the field or a central meeting place whenever employees are working as fieldworkers in a "treated field".
3. The employer **must** display a completed PSIS A-9 at a central location along with decontamination supplies when supplies are located at a permanent location or at a location for 11 or more workers or handlers.
4. The employer **must** display, within 24 hours of the completion of a pesticide application, the following application specific information and Safety Data Sheets when employees are required to work in treated fields:
  - Identification of treated area
  - Time and date of application
  - Restricted Entry Interval (REI)
  - Product name
  - EPA registration number
  - Active ingredients.

This application specific information **must** be kept for two years.





# Decontamination Facilities

The employer **must** assure that sufficient water, soap, and single use towels are available for handlers. An employer must provide one gallon of water for each worker and 3 gallons for each handler and early entry worker as measured at the beginning of the work day.

If coveralls are being used, the employer **must** make provisions to store and clean the coveralls. Employees should not be taking coveralls home unless it is necessary. It is recommended that the work clothes be kept in a sturdy, sealed container, until they can be properly washed at the work facility.

For fieldworkers engaged in activities in treated fields, the employer **must** assure that sufficient water, soap and single use towels are reasonably accessible.

If supplies are at a permanent site or there is 11 or more workers or handlers, a hazard communication (PSIS A-9) **must** be posted at the decontamination site.

The decontamination facility **must** be within 1/4 mile of worker activity. The facility can be in an area under a REI for a fieldworker performing early entry activities. In no case can the facility be in an area under treatment.

## Eyewash Requirements

If pesticide product labeling requires eye protection or if using a closed system:

1. The employer **must** provide at the mix/load site:
  - a. An eyewash system capable of delivering 0.4 gallons/minute for 15 minutes **or**
  - b. Six (6) gallons of eyewash water able to flow gently for 15 minutes
  
2. Handlers must carry one (1) pint of water for emergency eye flushing so it is immediately available to each employee. It **must** be carried by the handler or on the vehicle the handler is using.



## Minimum Age/Early Entry

Early entry workers and handlers must be at least 18 years old.

## Application Exclusion Zone

For all outdoor production areas, no persons are allowed entry into a treated area or the application exclusion zone. The application exclusion zone is a 25-100 foot area around the application equipment during a pesticide application. The size of the application exclusion zone depends on the type of application: 25 feet for a regular ground application, 100 feet for an aerial, air blast, fumigant, smoke, mist, fog, or fine spray application.

A handler **must** suspend application if a worker or other person is within the application exclusion zone.

# School Notification Requirements



California has adopted regulations that address agricultural pesticide applications near public K-12 schools and licensed child day care centers (collectively referred to as school sites).

When you apply for your pesticide permit we will let you know if your crops are within one quarter (1/4) mile of a school or daycare and what paperwork and work restrictions apply to your operation. These regulations provide minimum distance standards for certain agricultural pesticide applications near school sites and require **annual** notifications to school sites.

The notification can be done electronically through CalAgPermits which will deliver the notification electronically to the school. A paper form is also available that you may provide physically to the school, in person or by mail.

Pesticide application restrictions will apply Monday through Friday when school is in session, from 6:00 a.m. to 6:00 p.m., if you are within a specified distance of a school site. There are two types of restriction distances: 1/4 mile (1,320 feet) or 25 feet, depending on the type of application equipment used and type of pesticide applied. Please contact your district biologist for the specifics that would apply to your operation.

# Field Posting

The owner or property operator **must** post treated fields when:

1. It is required by the pesticide product labeling, unless access to the field is controlled in a manner that assures no employee (other than the handlers making the application) will enter, work in, remain in, or walk within 1/4 mile during the application and the restricted entry interval (REI)
2. If the (REI) is greater than 48 hours.
3. All greenhouse applications with an REI greater than 4 hours or if label indicates. General posting locations for treated fields and greenhouses: At all usual points of entry, or at the corners. If adjacent to right-of-ways, post signs at not greater than 600 foot intervals.

**Post** before application begins; however, do not post unless a pesticide application is scheduled within the next 24 hours. Posting **must** be removed within 3 days after the expiration of the REI.

General sign requirements for treated fields and greenhouses:

- It must be readable from 25 feet.
- **And contain all of the following:**
  - Skull and Crossbones symbol near the center of the sign
  - "DANGER" and "PELIGRO"
  - "PESTICIDES" and "PESTICIDAS"
  - "KEEP OUT" and "NO ENTRE"



If the REI is more than 7 days, the sign **must** include the following information:

- The date of unrestricted entry.
- The name of the operator of the property and the field identification (if any).

Chemigation applications require additional posting information. Chemigation is a method of irrigation whereby a pesticide is mixed with irrigation water before the water is applied to the crop or to the soil. This is a legal method of applying pesticides if allowed by the registered pesticide labeling and when used in a manner consistent with that labeling.

## Greenhouse Ventilation:

When a pesticide with product labeling requiring respiratory protection is applied by any method or when any pesticide is applied as a fumigant, smoke, mist, fine spray, fog or aerosol in an enclosed space, the REI is extended and ventilation shall continue until:

The concentration is measured and found not to exceed any pesticide product labeling standard; or one of the following:

- a. 10 air exchanges are complete
- b. Two (2) hours of mechanical ventilation, such as with fans
- c. Four (4) hours of passive ventilation, such as opening vents, windows or doors
- d. Twenty-four (24) hours with no ventilation
- e. Or any combination of percentage portions of a, b, c and d—the sum of which equals 100 percent.

# Safety Equipment/Personal Protective Equipment

The employer **must assure** employees are **provided with and use all required ( by label or regulation) Personal Protective Equipment (PPE)** (i.e. protective eyewear, gloves, long-sleeved shirt, footwear, headgear, aprons, respirators, and any other protective clothing). PPE **must** be clean and stored in a pesticide free container.

Eye protection is required, by regulation, for all "hand applications". See PSIS A-1 for some exceptions. Eye wear must meet minimum standards, with brow and side protection and marked and rated to meet ANSI z87.1.

Protective gloves are required by regulation, for all "hand applications" unless the label states otherwise. See PSIS A-1 for some exceptions. Gloves must meet minimum standards, of at least 14 mil thickness, with limited exceptions. See chart for Glove Category Selection Key.

Employers **must assure** employees are **provided with and use** approved respiratory protective equipment when pesticide product labeling or regulations require respirators. See next page: Respirator Requirements.



| Label code | Materials Required by Law | Material Code  |
|------------|---------------------------|----------------|
| A          | 1,2,3,4,5,6,7,8           | 1 Laminate     |
| B          | 1,2                       | 2 Butyl        |
| C          | 1,2,3,4,7,8               | 3 Nitrile      |
| D          | 1,2                       | 4 Neoprene     |
| E          | 1,3,4,8                   | 5 Natural      |
| F          | 1,2,3,8                   | 6 Polyethylene |
| G          | 1,8                       | 7 PVC          |
| H          | 1,8                       | 8 Viton        |

All but Laminate and Polyethylene must be 14 mils or thicker.

## PPE for "Danger" or "Warning" Label Pesticides

Identify the Signal word, indicating the level of immediate toxicity to humans (DANGER > WARNING > CAUTION, in decreasing order of toxicity).

Coveralls **must** be used when an employee handles a pesticide with the signal word "DANGER" or "WARNING" on the label or when required by the label. Coveralls are long sleeves and long pants that are provided by and cleaned by the employer to prevent contamination of the employees' personal clothes. Exceptions include: use of a closed system or working from an enclosed cab or cockpit.

A chemical-proof suit **must not** be worn when temperatures exceed 80°F (or 85°F after sunset).

## Using "Danger" Label Pesticides

A closed system (a system that mixes the pesticide without human contact with the pesticide) is required only for liquid-formulation pesticides with the signal word "Danger", as well as minimal exposure pesticides. Water Soluble packets are considered a closed system. Contact your district biologist for clarification on the requirements.

Employees mixing, loading, or applying pesticides in toxicity category I (Danger), may not work alone unless contact is made at least every 2 hours, unless the permit specifies otherwise. For nighttime, the interval is one hour. A pilot, mixer/loader, and/or flagger team would be considered working together. Two ground applicators in the same field are OK, if they can see one another's vehicle.

# Respirator Requirements

Employers must assure that employees use respirators when **required** by label, restricted material permit condition or regulation. A Respirator Program Administrator who understands the respirator requirements must be identified. A written Respirator Protection Program must be present and include the following:



**1. Fit Testing.** Annual fit test to check that the employee is protected when wearing the respirator.

**2. Medical Evaluation.** The employer shall identify a physician or other licensed health care professional to conduct medical evaluations to determine an employee's ability to wear a respirator, confidentially, using the medical questionnaire found online or at your agricultural commissioner's office. This needs to be done once in the employee 's career with the company unless adverse health effects arise, which would require a re-evaluation.



**3. Training and Information.** Training shall be conducted prior to an employee using a respirator and again if needed.

**4. Program Evaluation.** The employer shall annually consult (and document) employees views on program effectiveness and to identify any problems.

**5. Recordkeeping.** The employer shall retain written information regarding medical recommendations, fit testing, and the respirator program. Records shall be maintained while the employee is required to use a respirator, and for three years after the end of employment conditions requiring the use of a respirator.

Employers **must** ensure handlers are wearing label specified respiratory protection when in enclosed cabs with air filtration. Except when the only label-specified respiratory protection is a filtering facepiece (these filtering facepieces are identified as NIOSH TC-84A).

It is the employer's responsibility to understand the respirator regulations and to implement the applicable portions at the worksite.

## Voluntary Respirator Provision.

An employer may provide respirators to employees or allow employees to use their own respirators on a voluntary basis if a respirator is **not** required by the label, permit conditions or regulations. Under an employer-supplied voluntary respirator provision, the employer must implement a minimal written respiratory protection program.

| Rating for compatibility with oil-based pesticides |  |
|--|--|
| N  | Not suitable for use with oil-based pesticides |
| R  | Oil resistant up to 8 hours                    |
| P  | Oil proof                                      |
| Filter efficacy                                    |  |
| 95   | Filters 95% of particles from atmosphere       |
| 99   | Filters 99% of particles                       |
| 100  | Filters 99.9% of particles                     |

A written program is **not** required when a voluntary respirator program only involves the use of a filtering facepiece that is not required by the label, permit conditions or by regulation.

The Voluntary Respirator Posting must be posted.

# Medical Care Information

Emergency medical care for employees handling pesticides and fieldworkers who enter fields that have been treated with pesticides **must** be planned for in advance.

If employees are handling pesticides, the medical care information **must** be posted at a prominent place at the work site by posting PSIS A-8. Fieldworkers and their supervisors are to be informed of this information, which is provided on PSIS A-9. If the information changes, the postings must be updated within 24 hours.

In either case, if the medical care facility is not readily available, procedures to be followed to obtain immediate medical care **must** be given.

If any employee has become ill or thought to have been exposed to a pesticide which might lead to an illness, the employer **must** ensure the employee is **taken** to a doctor immediately.

The employer shall provide the following information to medical personnel treating an employee suspected of being exposed to a pesticide used in the commercial or research production of an agricultural commodity:

1. Copies of the applicable Safety Data Sheet(s) and the product name(s), U.S. Environmental Protection Agency registration number(s), and active ingredient(s) for each pesticide product to which the employee may have been exposed.
2. The circumstances of application or use of the pesticide.
3. The circumstances that could have resulted in exposure to the pesticide.

## Additional Medical Records & Respiratory Protection Program

The use of carbamates and organophosphates with "Warning" or "Danger" labels may require special medical supervision, record keeping and equipment. Please contact your district biologists for specifics.



# Equipment Maintenance

The employer **must** inspect all application equipment and make sure that it is in good condition and safe to operate prior to any application.

For example, mixing tanks **must** have covers to prevent splashes and spills. Tanks 50 gallons or greater **must** be equipped with either a sight gauge to indicate the liquid level in the tank, or a shut-off device that will automatically stop the filling operation before the pesticide liquid mixture spills over the top.

The employer **must** provide a closed system for employees who handle liquid pesticides with the signal word "DANGER" and for minimal exposure pesticides. See PSIS A-10 for the minimal exposure pesticides. Contact your district biologist for details on closed systems or refer to PSIS-A-3.

You must inform employees cleaning, servicing or repair of pesticide mixing, loading, or application equipment of the hazards of the pesticides that a person may encounter and the methods of protecting against personal injury. They shall be provided with any necessary PPE and supervised in a manner to minimize work hazards.

The owner of the equipment shall notify the person in charge of a service company performing cleaning, servicing or repair of pesticide equipment of the following:

1. Pesticide application equipment may be contaminated with pesticides.
2. Procedures for handling pesticide application equipment and for limiting exposure to pesticide residues.
3. Personal hygiene and decontamination procedures for preventing pesticide exposure and removing pesticide residue.



# Equipment & Container Storage

## Storage

PPE must be stored separately from pesticides and application equipment, to prevent contamination. If pesticide is mixed and used on the property, there is no service container labeling requirement. If it is transferred to a service container and moves off the property, this secondary container should be marked with:

1. Pesticide name,
2. Signal word,
3. Name, address, and phone number of responsible party.

To prevent accidental poisonings, **do not put pesticides in containers designated for food, drink, or household products**. Children are especially vulnerable to poisonings when familiar bottles or jars contain pesticides.

**Never transport** pesticides in the same compartment of a vehicle containing persons, food or animal feed.

Pesticides **must** remain locked up when not attended. The storage of pesticides must have distinct separation from other stored materials.

The storage **must** be posted with warning signs, when the stored pesticides have the signal word, "Danger" or "Warning".

Signs must be visible from any direction of probable approach, and be readable at 25 feet. They **must** contain these statements:

1. **DANGER**
2. **POISON STORAGE AREA**
3. **ALL UNAUTHORIZED PERSONS KEEP OUT**
4. **KEEP DOOR LOCKED WHEN NOT IN USE**



The notice shall be repeated in an appropriate language other than English when it may reasonably be anticipated that persons who do not understand the English language will come to the enclosure.

## Disposal Procedures

Containers of less than 28 gallons must be drained and triple (3x) rinsed at the mix and load site. Use rinse water in the mix. Except for the containers to be returned to the registrant, follow the directions provided in PSIS A-2.

Do not refill or reuse original containers. Destroy canisters and discard in a sanitary landfill.

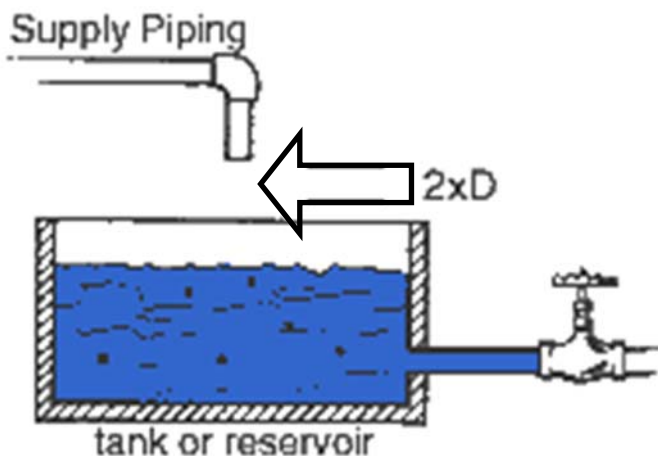
# Backflow Prevention

To protect our water supply, backflow prevention is required to prevent pesticides from flowing back into the water supply. Application equipment **must** have an air-gap separation, reduced pressure principle backflow prevention device or double check valve assembly.

An air-gap separation is a **physical separation** between the water source and the application equipment. The separation must be a distance of at least twice the diameter of the pipe above the topmost rim of the receiving vessel. The gap needs to be at least a one inch separation.

Backflow prevention can be by using a reservoir tank—a “nurse rig”, a water tank, or a reservoir maintained exclusively for irrigation water. The reservoir tank must be separated from the original water source by an acceptable backflow device.

Engineering controls such as a reduced pressure principle backflow prevention device or double check valve assembly are also acceptable.



*Prevent back-siphoning of pesticide back into the water supply (left) by keeping an air gap separation. The air-gap must be at least two (2) times the diameter of the pipe with at least one (1) inch of separation. Example of the air gap on a rig (right).*

Backpack type spray equipment with a capacity not exceeding 5 gallons or less are exempt. They may be filled by hand holding a hose above the tank. The hose must be held well above the tank at all times to prevent contact with the tank or its contents.