



Cannabis In California

Cannabis: it's just different

From seedling to sale, cannabis will be regulated and tracked unlike any other agricultural product.



California Legislation

- 1996: Compassionate Use Act
 - Proposition 215
- 2003: Medical Marijuana Program Act
 - Senate Bill 420
- 2015: Medical Marijuana Regulation and Safety Act
 - AB 243, AB 266, and SB 643
- 2016:
 - Medical Cannabis Regulation and Safety Act (MCRSA)
 - SB 837
 - Adult Use Marijuana Act (AUMA)
 - Proposition 64
- 2017: Medicinal and Adult Use Cannabis Regulation and Safety Act (MAUCRSA)
 - SB 94

MCRSA and AUMA

First attempts to regulate cannabis from seedling to sale.

- Three licensing authorities

California Department of Food and Agriculture

- [CalCannabis Cultivation Licensing](#)

Department of Public Health

- [Manufactured Cannabis Safety Branch](#)

Department of Consumer Affairs

- [Bureau of Cannabis Control](#)

DPR's roles

- Provide guidance to cannabis cultivators
- Provide guidance to the Bureau
- Compliance assistance with Division 6 of the Food and Agricultural Code



Guidance to Cannabis Cultivators

- Legal pest management practices
 - [Tolerance exempt and 25\(b\)](#)
 - Tolerance exempt and broad label language

[Available on DPR Website](#)



LEGAL PEST MANAGEMENT PRACTICES FOR MARIJUANA GROWERS IN CALIFORNIA

Department of Pesticide
Regulation

PESTS OF MARIJUANA IN CALIFORNIA

Marijuana pests vary according to cultivar (variety), whether the plants are grown indoors or outdoors, and where the plants are grown geographically. The pests included in this review are preliminary and based on the following sources: a presentation given in 2013 by Whitney Cranshaw, an extension entomologist at Colorado State University, and a review article by John M. McPartland, a professor of family medicine at the University of Vermont. We also received input from Kevin Hoffman, Primary State Entomologist, California Department of Food & Agriculture (CDFA).

HOW TO INTERPRET THE TABLES

Table 1 lists active ingredients not illegal to use on marijuana and the pests that these active ingredients target.

These active ingredients are exempt from residue tolerance requirements¹ and either exempt from registration requirements² or registered for a use that's broad enough to include use on marijuana. Residue tolerance requirements are set by U.S. EPA for each pesticide on each food crop and is the amount of pesticide residue allowed to remain in or on each treated crop with "reasonable certainty of no harm." Some pesticides are exempted from the tolerance requirement when they're found to be safe. Some of these pesticides are bacterial-based insect pathogens (e.g., *Bacillus thuringiensis*) or biofungicides (e.g., *Bacillus subtilis*, *Glucoladium virens*).

Active ingredients exempt from registration requirements are mostly food-grade essential oils such as peppermint oil or rosemary oil.

Tables 2 and 3 list pests of marijuana grown outdoors and indoors, and **Table 3** shows pests arranged by the portion of the plant they attack. An explanation of the column labels for Tables 2 and 3 follow.

PESTS. The tables show the most likely pests in California based on Cranshaw's presentation and McPartland's list and gleaned from California-based web sites and blogs. Some pests that drew attention on several blogs (e.g., russet mites) may be worse during drought years. Many have cyclic population

fluctuations and others are mainstays of general greenhouse cultivation (e.g., whiteflies, thrips, and fungus gnats). We'll add weeds to this compendium when we have more information.

DAMAGE. For damage caused by greenhouse pests, we derived information from Cranshaw's presentation; for that of outdoor pests when there wasn't any overlap, McPartland's list was used and information from UC IPM for various crops. Accounts of damage by rodents is anecdotal.

PESTS NOT OFFICIALLY IDENTIFIED IN CALIFORNIA. Kevin Hoffman of CDFA notes that several marijuana pests in other states are not yet known in California. These pests would add to the russet mites, aphids, cutworms, budworms, borers, and flea beetles already in California. As more and more marijuana is planted throughout the state, collecting potential pests will enable entomologists to identify new species.

THE IMPORTANCE OF CORRECT IDENTIFICATION. It's essential to identify the potential pest, or you may launch a futile program for a mite or insect that isn't a pest. And likewise, you need to know the correct species or you may use the wrong management strategy. For accurate identification, take specimens to an entomologist.

HOW TO PRESERVE SPECIMENS FOR IDENTIFICATION. If the mite or insect specimen is hard bodied (e.g., beetles, moths) carefully place it in a small pill vial and cushion with crumpled tissue paper. If your specimen isn't yet dead, put it in a jar and place in a freezer overnight. Do not wrap specimens in tissue and seal them in plastic bags or you'll end up with smashed bug parts.

Place soft-bodied specimens (e.g., mites, leafhoppers, aphids, caterpillars) in a jar filled with rubbing alcohol. Include written information such as where on the plant you found the specimen, the general location of the plant, and date captured. Note original color and texture, since these will change once you immerse the specimen in alcohol. Also helpful are photographs of the specimen in its original habitat.

IPM PRACTICES. Most of these are standard practices for pests on hosts other than marijuana. For more detailed explanations, see information compiled by the

¹ 40 CFR (Code of Federal Regulations)

² under FIFRA section 25(b) and 3 CCR section 6147

Guidance to the Bureau

Residue Risk Analyses (RRAs) and Action Levels

- All cannabis products will be tested by a third-party licensed lab prior to going to a dispensary
- All of the cannabis products tested will be processed products



Compliance with Pesticide Law

Enforcement letters

- [ENF 15-15](#)
 - Operator Identification Numbers
 - Pesticide Use Reporting
 - SLNs
- [ENF 16-19](#)
 - Clarifies ENF 15-15
- [ENF 17-03](#)
 - Discretion in outreach to cultivators
 - Compliance assistance
 - Agricultural commodity

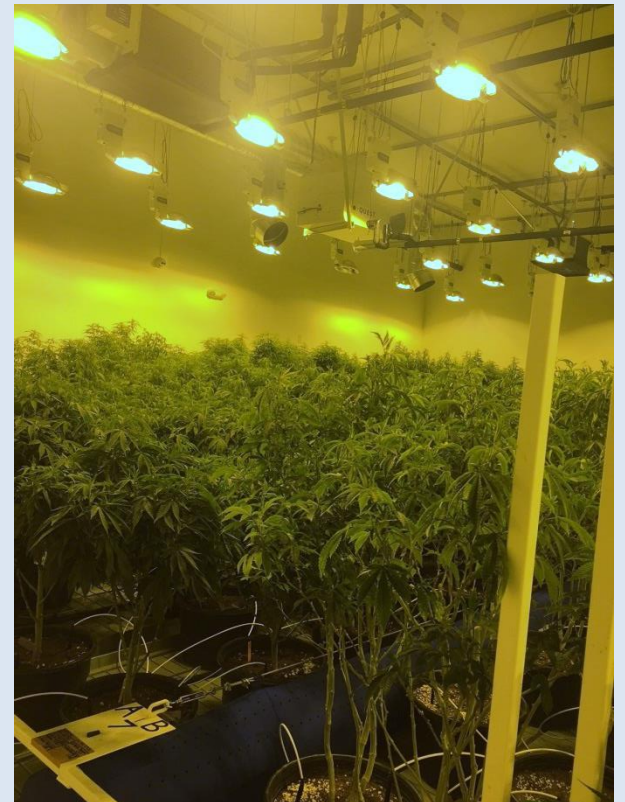
Education and Outreach

- Compliance assistance

Take Home Messages

Cannabis is not like other agricultural commodities.

The cannabis regulatory landscape is in flux and will be for the foreseeable future.



Questions and Calls

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