
THE PESTICIDE REVIEW

Volume 2, Issue 8

Santa Clara County Division of Agriculture

October 2003



Restricted Pesticides



What makes a pesticide a restricted material?

The topic of restricted materials can be a confusing subject. There are several groups of restricted materials, some require a permit and some only require an applicator license. Further, some people are under the assumption that all category 1 pesticides are restricted. In fact, there are some restricted materials with caution labels!

While it is true many pesticides are restricted due to their toxicity, there are many factors that can cause a pesticide to be designated as a restricted material. Some of the factors are the pesticide's toxicity to either the handler, the environment, or to bees, their ability to move off site and affect non-target crops, or the potential of the material to persist in the soil and move into the water table.

California Code of Regulations Section 6400 designates the following as restricted pesticides:

- Federally Restricted
- California Restricted
- Pesticides designated under an "Emergency Exemption" (Section 18 materials)

INSIDE THIS ISSUE

- 1 Restricted Pesticides
- 2 Pesticide Adjuvants
- 3 From the Question File
- 4 Continuing Education Seminar - IPM Workshop

- Pesticides formulated as a dust, labeled to permit outdoor use, and packaged in containers of more than 25 pounds. (There are some exceptions to this rule)
- Pesticides that have the potential to pollute groundwater

California Code of Regulations Section 6400 lists California Restricted Materials by active ingredient and their common trade names. DPR has a list of California restricted materials on their website. You can download this list by going to this web link:

<http://www.cdpr.ca.gov/docs/enfcmpli/pml013a.pdf>

Restricted materials categories:

- Federally Restricted

Federally Restricted Pesticides are designated as "restricted" by the U.S. EPA. The label for these products are required to have the verbiage "Restricted Use Pesticide" on the top of their label. In order to purchase these materials, the buyer must be a certified private applicator or a pesticide licensee. A California pesticide permit is not required to purchase or use these materials.

- California Restricted

California Restricted Materials are pesticides that are restricted in the State of California. If a qualified person or licensee wants to purchase, use, or store a California Restricted Material, they must obtain a pesticide permit from their Agricultural Commissioner's office.

Several California restricted materials have a unique distinction. In addition to their California restricted status, they can also be found on the federal restricted list. Why are some pesticides listed on both lists? The only condition to use a federally restricted material is the person purchasing and using the pesticide must be a certified applicator. For several federal restricted materials, that condition was

Continued on page 3

Pesticide Adjuvants

What is an adjuvant?

An adjuvant is a substance that is added to a pesticide formulation or tank mix to increase its efficacy or safety. Adjuvants can help keep a pesticide from foaming, help the stability, solubility, or the suspension of pesticide in the tank, or even help with characteristics that might not be as noticeable to an applicator such as evaporation or degradation of a product. Most pesticides already contain adjuvants within their formulation, but there are many adjuvants on the market that are designed to be added to the tank mix by the applicator.

It's important to note that even though most adjuvants do not have any pesticidal properties by themselves, they are included in the definition of the term "pesticide". California Food and Agricultural Code Section 12753(a) states:

"Pesticide" includes any of the following: (a) Any spray adjuvant".

Because adjuvants are included in the definition of a pesticide, training and safety requirements are the same as all other pesticides.

Surfactants

The author of the old saying, "water and oil don't mix", probably never heard of the word "surfactant". Today, with the help of surfactants, water and oil can mix, and pesticide applicators do it on a regular basis. It's because of this and other helpful properties that make surfactants the most common adjuvant.

Surfactants are **surface-active** ingredients that affect the surface tension of spray droplets to improve the mixing or dispersal of pesticides. Surfactants can control the size of pesticide droplets, increase the bond between pesticides and their targets, or change the surface tension of pesticides to allow them to mix. By controlling the physical properties of pesticides, it is possible to mix water and oil, or multiple pesticides that would not otherwise bond together.

One of the common uses of surfactants is to increase the coverage onto a target. One example would be to use a surfactant to change the size of a pesticide spray droplet to cover plants with hairy leaves. Decreasing the size of pesticide droplets can help the spray cover the surface of the leaf instead of just rolling off.

Other surfactants such as "spreader stickers" will help create a bond between the pesticide and its target and in some cases will also help improve a pesticide's weather-ability.

Wetting agents are another type of surfactant that works by reducing the surface tension of both materials in a tank mix. For example, reducing the surface tension of a powder and a liquid allows the two previously incompatible materials to mix thoroughly.

Which adjuvant should you use?

Pesticide products will sometimes suggest the use of an adjuvant for certain applications. In many cases there are adjuvants specifically designed for certain pesticides and these will be listed on a pesticide label, or on the adjuvant's label. Like all pesticides, it is important that adjuvants are mixed according to label directions. It is equally important to use the proper adjuvant for the job on hand. Using the wrong adjuvant could not only be a waste of money, but it could create a pesticide mixture that is ineffective or cause runoff problems.

Your pesticide dealer or pest control advisor should be able to answer many of your questions regarding adjuvants. The following website also has some good information:

<http://scarab.msu.montana.edu/extension/Agadjtoc.htm>

Contact Corner

If you have questions, comments, or would like to suggest a subject for an article, please write to:

Santa Clara County Division of Agriculture

The Pesticide Review

1553 Berger Drive, San Jose, CA 95112

Or e-mail us: sccagriculture@era.co.scl.ca.us

- California Restricted continued:

acceptable to the State of California. However, there were many other federally restricted pesticides the California EPA believed warranted further restrictions. California has many crops and use situations that require certain materials be used under strict guidelines or conditions. For this reason, California added these federally restricted materials to the California Restricted List so these materials can be strictly controlled.

- Pesticides designated under an "Emergency Exemption"

Emergency Exemption Pesticides are also called "Section 18 materials". The Section 18 refers to a section in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). This section allows the U.S. EPA to give a pesticide product an emergency exemption from the usual Federal and State registration. This special exemption only lasts a year and there are strict controls on the use of these pesticides.

In order to use these materials, a permit must be issued for the product and a copy of the pesticide's Section 18 must be kept with the label and available at the pesticide use site.

- Pesticides formulated as a dust

The State of California has a special designation for pesticide dusts when packaged in containers weighing 25 pounds or more. In order to purchase certain products in a large quantity, a permit is required. There are a few exceptions to this rule such as sulfur dusts, BT, etc. For details, see 3CCR Section 6402 for a list of exemptions.

- Pesticides that have the potential to pollute groundwater

There are a number of pesticides that are of special concern due to their ability to persist in the soil and make their way into groundwater aquifers. If a pesticide product has an active ingredient listed in Section 6800 and it's labeled for agriculture, outdoor institutional, or outdoor industrial use, a restricted materials permit is required.

Certain portions of the State have soils that are susceptible to groundwater contamination and their locations are listed in 3CCR Section 6802. Before a groundwater material is purchased with the intent to be used in one of these areas, a statement prescribed in Section 6570 must be signed at the time of purchase. The permittee must also obtain a written groundwater recommendation from a ground water accredited pest control advisor (Section 6557).

From the Question File:

Recent questions received from pest control companies...

Can I attach service tags to my pump instead of my spray tank? I find if I place my service tags on the pump of my rig, they last longer.

Yes. As long as your service tags are visible and are attached in some way to your service equipment, it is acceptable.

I use surfactants with my pesticide sprays. Do I have to report those on my monthly summary use reports? What number do I use?

Yes, you do need to report your adjuvant use. As the article on page two of this newsletter points out, adjuvants are pesticides. So, all registered adjuvants will have an EPA registration number assigned to them. (Most adjuvants will have a California EPA Number)

What is the difference between a California EPA Registration number and a U.S. EPA Registration number?

The U.S. EPA and State EPA have the authority to assign pesticides a registration number. A pesticide will either have a U.S. EPA number or a State EPA number. California Registration Numbers are given to pesticides that are registered through the California EPA. These pesticides are registered only in the State of California.

Putting Integrated Pest Management Into Practice Workshop

When: November 4, 2003
Where: Room H-1, Cubberly Community Center
4000 Middlefield Road
Palo Alto, CA 94303
Time: 11:30 a.m. - 4:45 p.m.
CEU's: Structural:4 hrs Rules & Regs Branch 2& 3
DPR: C.E. units are pending
Fee: FREE and you get a lunch!

To register, you can download a flier and registration form from our website, or you can call Shannon Herndon at (800) 794-2482, or send an email to Shannon@eoainc.com