

# Pesticide Safety in Organic Systems

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<http://ucanr.edu/TrainMe>



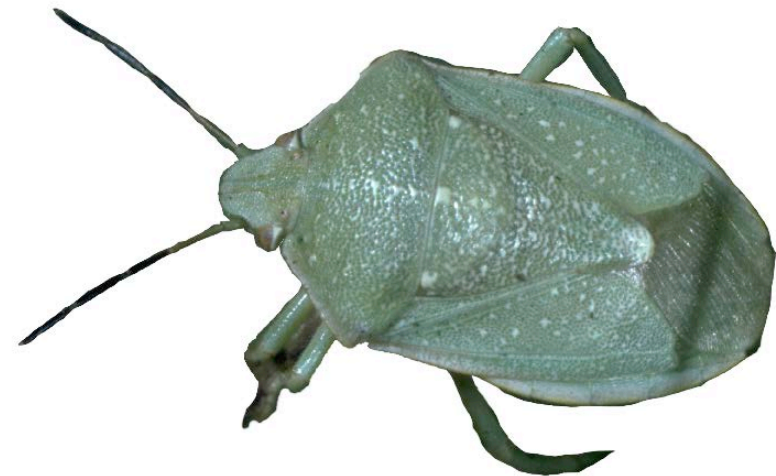
**University of California**  
Agriculture and Natural Resources

# Overview

- What is a pesticide in an organic system
- Basic principles for using pesticides safely
- Key elements of organic pesticide labels

# What is a pesticide

- Anything you apply with the intent to kill a pest to an area involved in commercial production
- Pesticides must be registered or exempt from the requirement of a registration.



# What is a pesticide

- Pesticides exempt from a registration
  - Castor oil
  - Cedarwood oil
  - Citronella oil
  - Clove oil
  - Corn gluten meal
  - Dried blood
  - Lemongrass oil

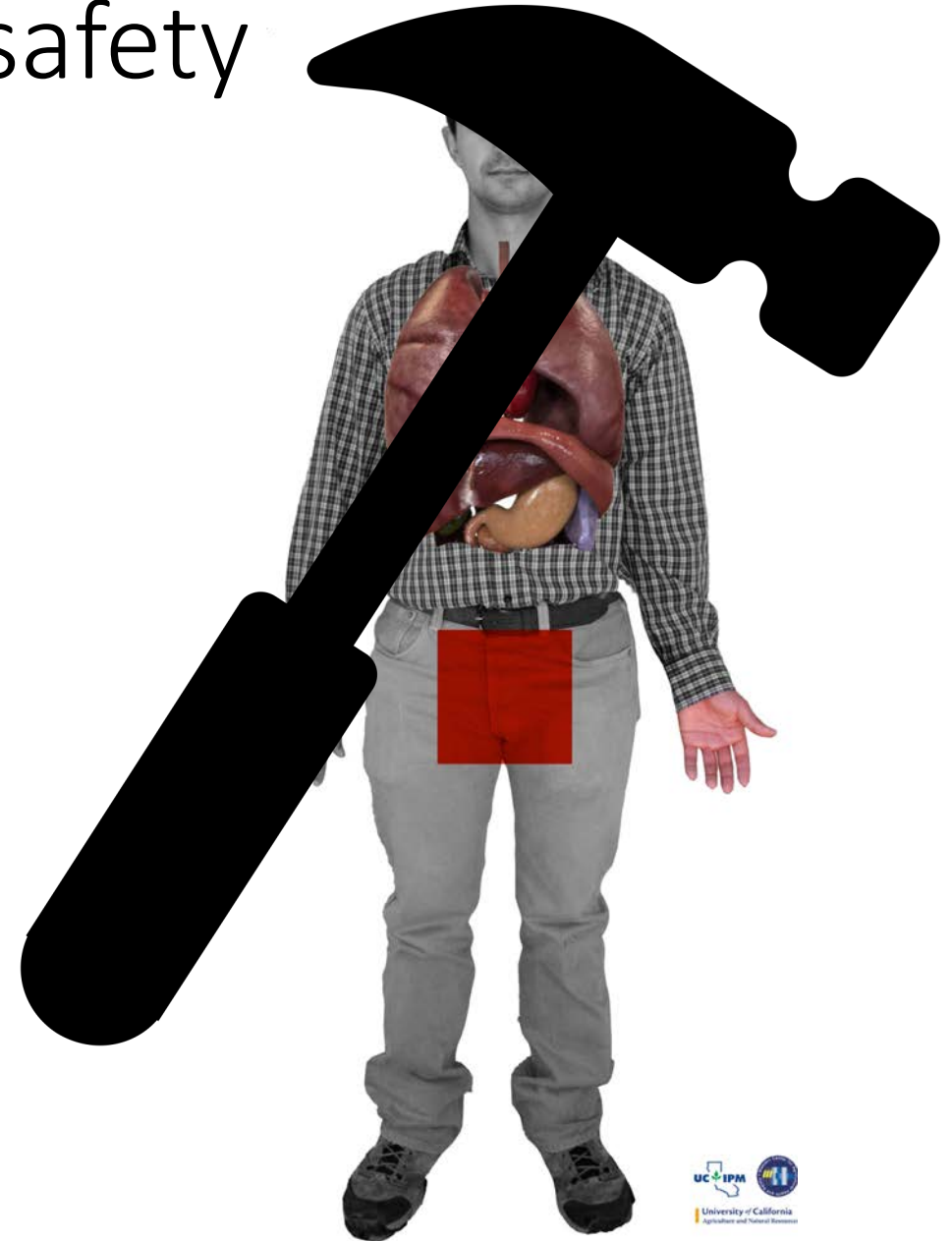


# Basic principles of pesticide safety

- Acute
  - One large exposure
- Chronic
  - Low levels of exposure
  - Build up over months or years

# Basic principles of pesticide safety

- Acute



# Basic principles of pesticide safety

- Chronic



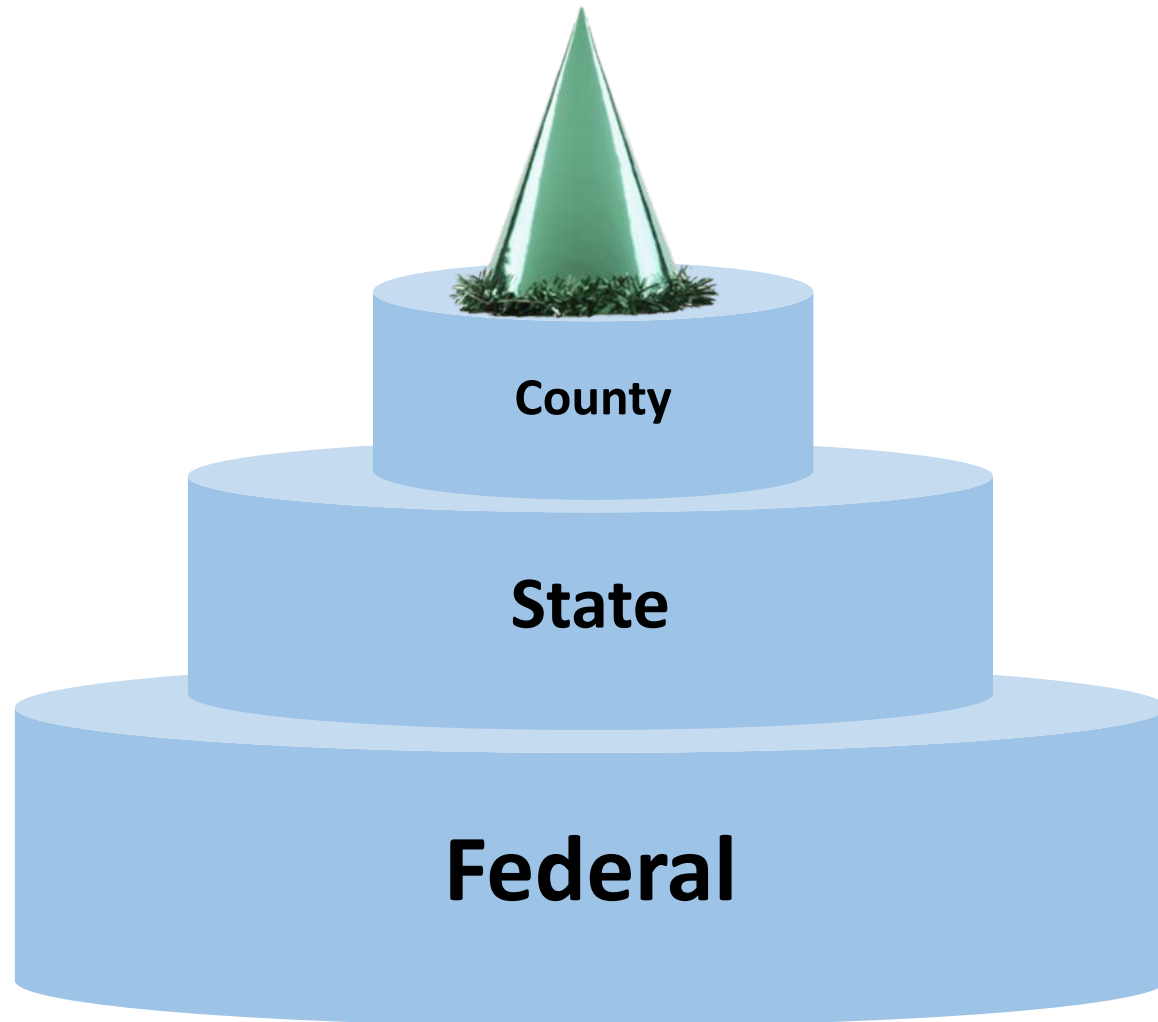
# Key elements from pesticide labels

- The label is the law
- But that's just the half of it





# Layers of laws and regulations

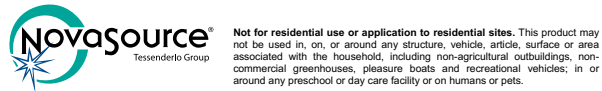


Local regulations  
**Ag Commissioners**

Title 3 of the California Code  
of Regulations (3 CCR)  
**CDPR**

Pesticide labels  
**U.S. EPA**

# Key elements from pesticide labels



## LIME-SULFUR SOLUTION

<b>ACTIVE INGREDIENTS:</b>	<b>BY WEIGHT</b>
Calcium Polysulfide .....	29.0%
<b>OTHER INGREDIENTS:</b> .....	<b>71.0%</b>
<b>TOTAL:</b> .....	<b>100.0%</b>

**DENSITY:**  
 Baume at 60° F .....31°  
 Lbs. per Gallon at 68° F ..... 10.6  
 Contains Calcium and Sulfur expressed as Gypsum – 3.0 lbs. per gallon. Other combined Sulfur – 1.9 lbs. per gallon.

EPA Reg. No. 61842-30 EPA Est. No.:

**KEEP OUT OF REACH OF CHILDREN  
 DANGER – PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
 (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eyes open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER:</b>	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-866-374-1975 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN</b>	
Probable mucosal damage may contraindicate gastric lavage.	

NET CONTENTS: \_\_\_\_\_ GALLONS

Product of U.S.A.  
**Manufactured by:**  
 Tessenderlo Kerley, Inc.  
 2255 North 44<sup>th</sup> Street, Suite 300  
 Phoenix, AZ 85008-3279  
 1-800-525-2803  
NS0513



- Active ingredients
- EPA Registration number
- Signal word
- Personal Protective Equipment (PPE)
- Use directions

# Active ingredients

**SUPPRESS<sup>®</sup>**  
**HERBICIDE EC**

**A Contact, Post-Emergent  
Non-Selective Herbicide  
for Use in Agricultural  
Food and Non-Food Crops**

**Active Ingredients:**  
Caprylic Acid..... 47%  
Capric Acid..... 32%  
**Other Ingredients:**..... 21%  
**Total**..... **100%**

**KEEP OUT OF REACH OF CHILDREN  
WARNING/AVISO**  
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

See inside booklet for First Aid and Precautionary Statements

**SHAKE WELL BEFORE USING • APPLY WITH CONTINUOUS AGITATION**

Manufactured by:  
**Westbridge**  
Agricultural Products  
1260 Avenida Chelsea  
Vista, CA 92081 USA  
(800) 876-2767

EPA Reg. No. 51517-9  
EPA Est. No. 51517-CA-1

**OMRI LISTED**  
For Organic Use

Active ingredients:

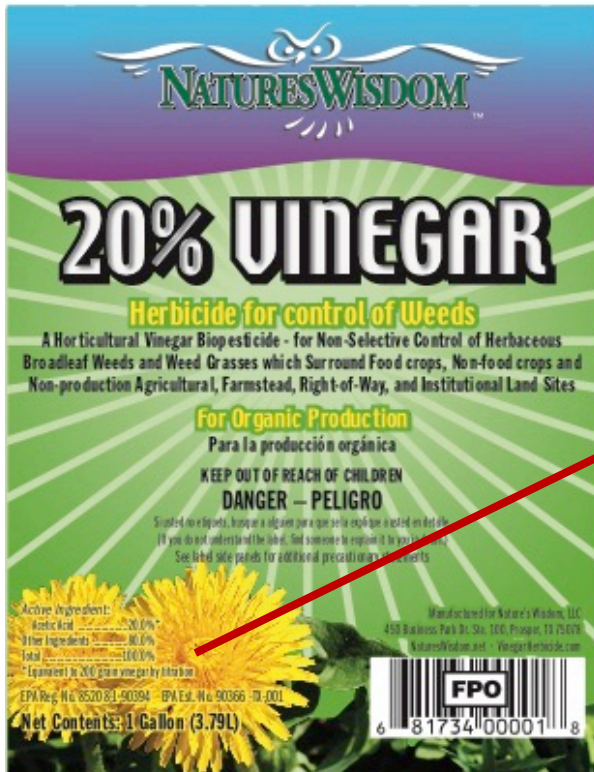
Caprylic acid.....47%

Capric acid.....32%

Other ingredients.....21%

Total.....100%

# Active ingredients



Active ingredients:	
Acetic acid.....	20%
Other ingredients.....	80%
Total.....	100%

# Brandt<sup>®</sup> Lime Sulfur

Fungicide



Not for residential use or application to residential sites. This product may not be used in, on, or around any structure, vehicle, article, surface or area associated with the household, including non-agricultural outbuildings, non-commercial greenhouses, pleasure boats and recreational vehicles; in or around any preschool or day care facility or on humans or pets.

**ACTIVE INGREDIENT:**

Calcium polysulfide .....29.0%

**OTHER INGREDIENTS:** .....71.0%

**TOTAL:** ..... 100.0%

Density: Baume at 60°F ..... 31°

Lbs Per Gallon at 68°F .....10.6

Contains Calcium and Sulfur expressed as Gypsum - 3.0 lbs. per gallon. Other combined Sulfur 1.9 lbs. per gallon.

EPA Reg. No. 61842-30-48813

EPA Est. No. 48498-CA-1

EPA Reg. No. 61842-30-48813

EPA Est. No. 48498-CA-1

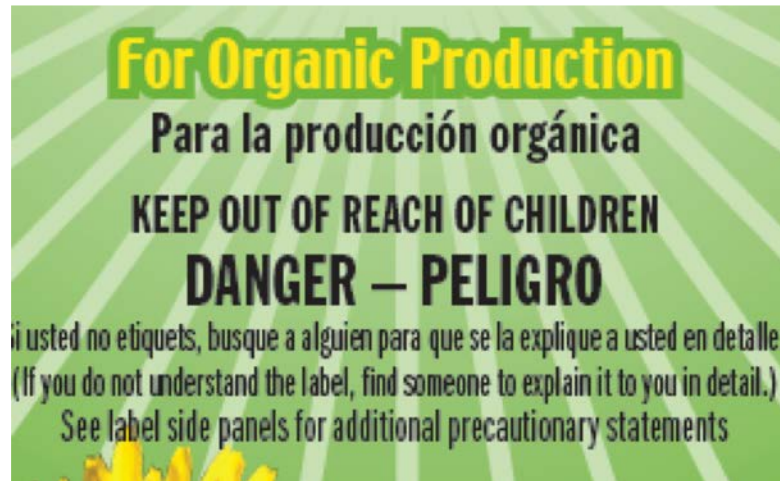
**KEEP OUT OF REACH OF CHILDREN**  
**DANGER – PELIGRO**

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# Signal word

## **KEEP OUT OF REACH OF CHILDREN WARNING "AVISO"**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)



**KEEP OUT OF REACH OF CHILDREN** MANTÉNGASE FUERA DEL ALCANCE DE LOS NIÑOS  
**CAUTION** See back panel for additional precautionary statements. **PRECAUCIÓN** Consulte el panel posterior para conocer las declaraciones preventivas adicionales.  
Net 32 fl oz (1 qt / 946 mL) \*For terms of guarantee, see side panel.

### **KEEP OUT OF REACH OF CHILDREN DANGER – PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### **KEEP OUT OF REACH OF CHILDREN WARNING/AVISO**

# Signal word

I



II

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING/AVISO**

III

**KEEP OUT OF REACH OF CHILDREN** **MANTÉNGASE FUERA DEL ALCANCE DE LOS NIÑOS**  
**CAUTION** See back panel for additional precautionary statements. **PRECAUCIÓN** Consulte el panel posterior para conocer las declaraciones preventivas adicionales.  
Net 32 fl oz (1 qt / 946 mL) \*For terms of guarantee, see side panel.

# Personal Protective Equipment (PPE)







## SPECIMEN LABEL

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Coveralls worn over short-sleeve shirt and short pants
- Socks and chemical resistant footwear
- Chemical resistant gloves
- Protective eyewear
- When mixing and loading wear a chemical resistant apron

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergents and hot water. Keep and wash PPE separately from other laundry.

## KEEP OUT OF REACH OF CHILDREN WARNING "AVISO"

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