PUE Update

Santa Barbara County

Agricultural Commissioner’s Office

Visiting the CAC Office

- CAC offices are **closed to the public**.
- We are providing essential services by appointment
  - Permits
  - CPC amendments and renewals
  - Investigations
  - Phytos

Masks

- The CAC has a limited number of N-95 masks available to companies for **Agricultural Pesticide Handlers**.
- The CAC has surgical masks available for Agricultural **Fieldworkers.**
- The masks are FREE. Please call one of our offices for details and to schedule pick up.

Fumigant Condition Change

- DPR recently changed the code section regarding fumigation signage to hold the property operator responsible.
- The CAC has changed fumigant permit conditions to read, “Each day, prior to beginning the application, the property operator and the applicator must ensure field posting signs are posted on each block fumigated in a 24-hour period in accordance with the label and with regulations found in the California Code of Regulations section 6776.”

Carbaryl (Sevin)

- Carbaryl is toxic to bees! There is a label statement that says, **“BEE CAUTION: Do not apply this product to target crops or weeds in bloom.”**
- No not write recs for or apply carbaryl to strawberries in bloom! It is a violation.
- Beginning Aug 1, carbaryl will be expanded as restricted material and all home uses will be restricted.
- This means that only sales by licensed pesticide dealers and use by certified applicators is allowed; other sales and use would be in violation.

Paraquat Herbicide

- Paraquat is a California restricted material and requires a site and material specific permit and conditions.
- Paraquat use is restricted to certified pesticide applicators only. **Individuals working under the supervision of a certified applicator are prohibited from using paraquat.**
- Certified Applicators must complete a mandatory training program on paraquat use every 3 years when using products with the new label requirements. The training is available at the US EPA website.
- Closed-system packaging designed to prevent transfer or removal of the pesticide except directly into proper application equipment. This will prevent spills, mixing or pouring the pesticide into other containers or other actions that could lead to paraquat exposure.

Zinc Phosphide

- Federally and California restricted pesticide. For sale to and use only by Certified Applicators or persons under their **direct** supervision.
- Not for use in strawberry fields.
- May use only in non-crop rights of way or ditch banks only during spring or summer. **Do not apply** on roads, near residential areas or over water **or where plants are grown for food or feed. Do Not broadcast over crops.**
- Must pre-bait with non-treated cereal grain (oats) prior to baiting.
- Consult PRESCRIBE to determine endangered species habitat areas.

Captan Gold 80 WDG

- Label changed in 2017

  - Went from “Notify workers of the application by warning them orally **or** by posting warning signs…”

  - To “Double notification: Notify workers of the application by warning them orally **and** by posting warning signs…”

Dibrom 8 Emulsive

- Must use a closed mixing system capable of removing pesticide from container and transferring it into mixing tanks and/or application equipment .
- At any disconnect point, the system must be equipped with a dry disconnect or dry couple shut-off device.
- Applicators must use an enclosed cab that meets worker protection standards [40 CFR 170.240(d)(5)].
- Applicators must wear a respirator specified in the PPE section while inside the enclosed cab.

COVID Increases Complaints

- With more people staying home, there has been an uptick in complaints.
- Complaints about general farming practices (noise, dust, odor) have increased.
- Pesticide drift complaints have increased and the CAC has sampled numerous fields.
- Drift and illness complaints **require** CAC investigation!

Pesticide Drift Defined

- Pesticide drift is the airborne movement of pesticides from the application site to an unintended site
- Drift can occur during an application or after if the pesticide vaporizes and moves offsite

Why is Pesticide Drift a Hazard?

Health and Environmental Risk

- Nearby homes, schools, and playgrounds.
- Farm workers in adjacent fields.
- Wildlife, plants, and streams and other water bodies.

Economic Effects

- Crop Injury
- Pesticide Over-tolerance
- Loss of Organic status
- Legal Liability
- Regulatory Fines

Application Factors Under the Applicator's Control

- Applicator Training
- Pesticide Type and Formulation
- Label
- Method of Application
- Application Equipment
- Weather
- Application Site and Surrounding Area

Applicator Training

Applicator error is one of the most common reasons for drift.

Applicators must receive annual training by a certified person to insure:

- Use only pest control equipment in good repair and safe to operate.
- Perform all pest control in a careful and effective manner.
- Use only methods and equipment that insures proper application of pesticides.
- Perform all pest control under proper weather conditions
- Exercise reasonable precautions to avoid contamination of the environment.

Applicator Training & the Regulations

Before and during the application, the applicator must also

- evaluate the equipment to be used
- weather conditions
- the property to be treated
- surrounding properties

to determine the likelihood of harm or damage by drift.

No pesticide application shall be made or continued when there is a reasonable possibility of

- Contaminating people
- Contamination of non-target public or private property
- Damage to non-target crops, animals, or other public or private property

Applicator Training

Before the application use your training, experience, and common sense to determine if the conditions are right to make the application.

- Did you make sure you are using the correct pesticide? Did you read the label or have someone read the label? Does the label require you to do specific things to prevent drift? (Ex: Sulfur dust label and max wind speed, herbicides and smoke columns to see drift)
- Did you notice drift the last time you applied? Why do you think it occurred? Talk to your supervisor or the owner about it.
- Do you know how to calibrate the equipment, adjust the pressure, check and change the nozzles?
- Did you check the equipment? Is everything working right? Are the nozzles working right? Are there any leaks? Did you tell your supervisor about repairs that might need to be done?

Applicator Training

- Do you see anyone around—are you looking for people while you're spraying?
- Is the field next to you ready to harvest? Could you contaminate fieldworkers going in to harvest if you drifted?
- Did the field next to you just get planted with a new crop? Could it get damaged?
- What is the weather like? Do you have a way to measure the wind speed and direction? (Hint—it's not with your phone!) Is it going to rain soon? Will the pesticide get washed off and contaminate other areas?

Pesticide Type & Formulation

Formulation and Drift Prevention:

Fumigant – impossible to prevent drift of a gas

Fog – very difficult to prevent drift

Smoke – very difficult to prevent drift

Dust – difficult to prevent

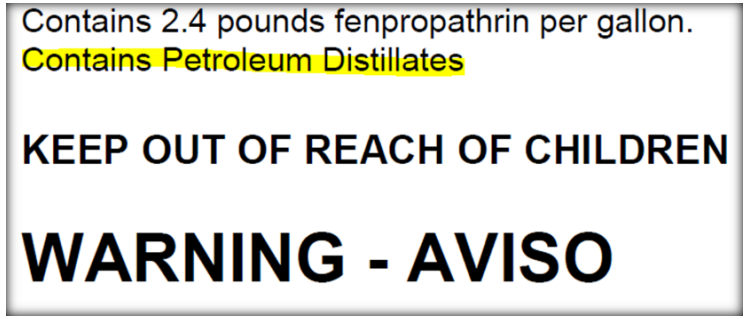
Mist – difficult to prevent

Liquid Spray – Drift prevention depends on pressure, nozzle type (hollow cone) and size (fine, medium or coarse particles)

It also depends on the chemical formulation (high VOC's & petroleum distillates drift more)

Pesticide Formulation & Volatility (VOCs)

A highly volatile pesticide will require more effort to keep it from drifting than a lower volatile pesticide.



Pesticide Label Statements

Reading the label is the first and most important way to minimize drift risk.

The label may prohibit applications:

- under certain weather conditions,
- using high-pressure sprays
- using certain nozzles
- near sensitive sites

FOR ALL CROP USES LISTED ON THE PRODUCT LABEL

Dusting sulfur can create situations where drift to non-target or sensitive areas can occur. To minimize the occurrence of drift incidents, in addition to specific instruction on the main label, the following conditions must also be met for use in California:

1. The operator of the property and the applicator must establish a buffer zone of enough distance to prevent drift onto non-target areas such as hospitals, clinics, residential areas, schools, and any other area designated by the county agricultural commissioner.
2. The operator of the property and the applicator must evaluate the method and equipment for each site to ensure proper and safe use. Evaluations shall include, but not be limited to the appropriateness of ground or air application.
3. Sulfur shall not be applied when the wind velocity exceeds 10 mph. Applicators should be aware that in some areas of California, "dead calm" conditions are often associated with an inversion situation. In these areas, applying sulfur when there is a minimum air movement of 2 mph will help ensure that an inversion situation does not develop.
4. All applicators, prior to use of dust formulations, should read and understand the Best Application Practices Manual.
5. Before using this product, read and follow all applicable directions, restrictions, and precautions on the EPA registered label.

Pesticide Label Statements

Label Statement

Spray Drift Management

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

Remedy Ultra Label Statement

Spray Drift Management
Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they mustbe observed.

The applicator should be familiar with and take into account the information covered in the following Aerial Drift Reduction Advisory. [This information is advisory in nature and does not supersede mandatory label requirements.]

Aerial Drift Reduction Advisory
Information on Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and

Pesticide Labels

USE PRECAUTIONS

IMPORTANT: Do not make applications within 2 weeks of an oil spray unless specified otherwise, for the individual crop, in the CROPS AND APPLICATION RATES section (see Citrus). Sulfur may burn foliage and fruit on sensitive varieties if applied when temperatures exceed 90° F or during periods when the temperatures within 3 days after application are expected to exceed 90° F in the treated area.

CALIFORNIA DRIFT RESTRICTIONS

The following conditions must be followed when using this product in the State of California for both ground and air applications.

1. The operator of the property and the applicator must establish a buffer zone of enough distance to prevent drift onto non-target areas such as hospitals, clinics, schools, residential areas and any other area designated by the county agricultural commissioner.

2. The operator of the property and the applicator must evaluate the method and equipment for each site to ensure proper and safe use. Evaluations shall include, but not be limited to the appropriateness of ground or air application.

CALIFORNIA DRIFT RESTRICTIONS (continue)

3. Sulfur shall not be applied when the wind velocity exceeds 10 miles per hour. Applicators should be aware that in some areas, "dead calm" conditions are often associated with an inversion situation. In these areas, applying sulfur when there is a minimum air movement of 2 miles per hour will ensure that an inversion situation does not exist.

4. When applying sulfur dust, best application practices should be utilized. Contact your local pest control advisor or county cooperative extension advisor to obtain information regarding best application practices.

Pesticide Label Statements

Pesticide Label Statement:

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control

Choose the Right Equipment & Application Method

- Method of application
- Sprayer mechanics
- Sprayer types
- Maintenance
- Nozzle type & size selection

Choose the Right Equipment

- Choose the best equipment to minimize drift. Consider low pressure-large droplet delivery systems for spraying near sensitive sites.
- Can you turn off some of the nozzles if they aren't needed? Turn off pressure at ends of the rows.
- Make sure nozzles are in good condition.
- Use the least amount of pressure needed to achieve uniform, accurate coverage.

Equipment Operation & Calibration

Applicators can control:

- Droplet size
- Tractor Speed
- Boom length
- Number of nozzles emitting pesticides

Equipment Operation & Calibration

- Controlling Droplet Size
  - Volume
  - Pressure
  - Number of nozzles
  - Nozzle orientation
  - Nozzle type

Equipment Operation & Calibration

Tip Color and Flow Rate - Nozzle flow rates are mainly a function of orifice size & spray pressure

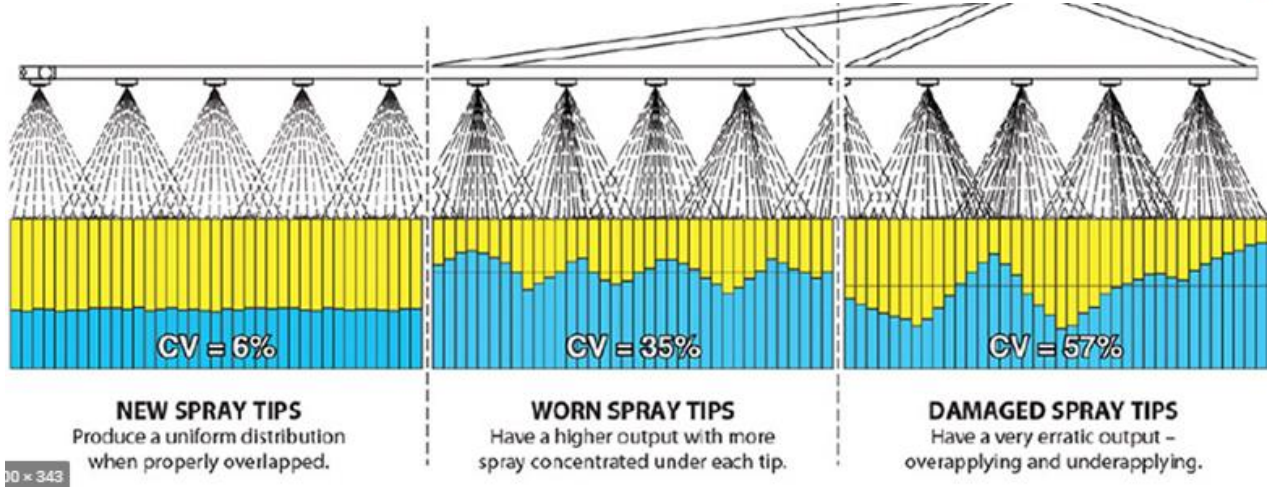
Table 1. Nozzle tip colors & corresponding flow rates at 40psi

Nozzle Color	Flow Rate (GPM) at 40psi
Orange	0.10
Green	0.15
Yellow	0.20
Purple	0.25
Blue	0.30
Red	0.40
Brown	0.50
Grey	0.60
White	0.80

Equipment Cleaning & Maintenance

- Inspect all equipment before use
- Clean equipment after use
- Replace worn nozzles

Replace Your Spray Nozzles ...



Weather- Meteorological Conditions

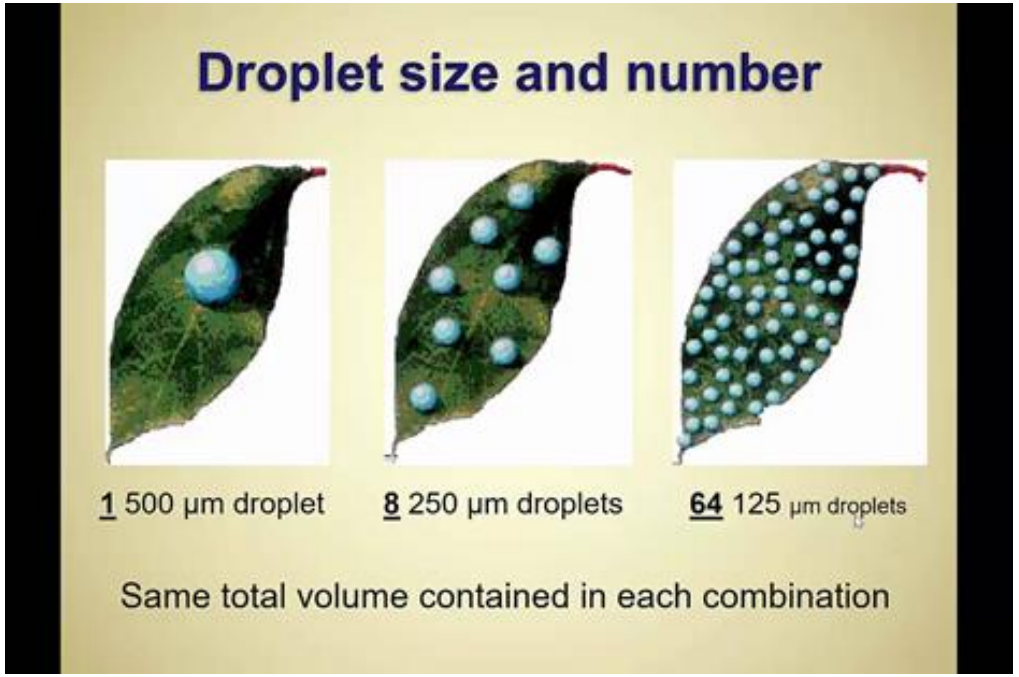
- Wind speed
- Wind direction
- Local wind patterns & topography
- Inversion layers
  - Fog
  - “dead calm” conditions
- Temperature & Humidity

Evaluate Areas Around Application

- Aquatic areas
- Susceptible plants
- Wildlife
- Residential & Commercial areas
- Fieldworkers
- Schools, daycares
- Other crops, Organic crops

Applicator Mitigation Measures

- Get a wind gauge & thermometer & use it often
- Communicate with foreman and other applicators
- Use spray Drift Cards
- Use different equipement like shielded, hooded & covered boom sprayers



Applicator Mitigation Measures

- Adjust your nozzle(s) and pressure to make bigger droplets
- Apply pesticides during calm weather conditions
- Avoid applications when there is fog hanging in the air
- Apply herbicides before hot weather to avoid vapor drift.
- Use drift retardants
- Select low VOC products if possible
- Avoid high temperature applications

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR