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Pesticides ...

*things to consider*

Susan Bryant

Deputy, Agricultural Commissioner's Office

# DRIFT

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- definition(s)
- incidents & issues in Santa Barbara County
- inversion
- air monitoring
- future issues

# DRIFT definitions

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- California regulations
- US EPA
- Environmental Health Perspectives report

# Incidents and issues

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- Bonita School
- fumigating in fog
- helicopters
- homeowners
- residue sampling
- children / sensitive sites
- fumigant off-gassing
- drift
- odor & dust
- inversion and drift

# Issues *continued*

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- children
- public perception and fear
- communication
- knowing you as a person

# Study on pesticide “drift”

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National Institute of Occupational Safety and Health

Period of 1998-2006

- 11 states

- California, Texas, Washington, Louisiana, Oregon, Florida, Michigan, New York, New Mexico, Iowa, Ohio

- agencies involved

- CA DPR, public health, health services, department of health, CA EPA

# Study *continued*

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## drift included

- spray, mist, odor
- volatilization
- migration of contaminated dust
- residue left by offsite movement
- wind speed & temperature inversion
- fumigations and helicopter applications

# Inversion

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- Central Coast Conditions
  - temperature and marine layer
  - cold air trapped below layer of warmer air
  - hot day / clear, calm, cool night
  - fog / overcast





# DPR's air monitoring

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- Parlier 2009 (San Joaquin Valley)
  - 12 months at Parlier schools
  - Environmental Justice Action Plan
    - focus on environmental risk factors that impact children's health and communities adjacent to production ag
  - motor vehicles and industrial emissions
  - pesticides detected (low level)
    - chlorpyrifos and diazinon insecticides
    - MITC from fumigants

# DPR's air monitoring *continued*

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- potential health risks of long-term exposure
- new study began 2011
  - Shafter (Kern County)
  - Salinas (Monterey County)
  - Ripon (San Joaquin County)
- monitor 24 hours a day
- **fumigants and organophosphates**

# Applicator's responsibility

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- CCR 660 General Standards of Care
- aware of sensitive sites
- aware of neighborhood issues
- aware of weather conditions
- authority to make decision to stop

# Future ...

*with off-target movement of pesticides*

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- expanding definition of drift
- ag/urban interface
- better measuring methods
- new standards set with DPR's studies
- need for increased awareness
- need for open communication *with*
  - other growers
  - residents
  - field workers