

# Field Soil Fumigation Issues

Monterey County



Looking back

2010



# MeBr Fumigation Permit Conditions

- Revised August 2010
  - Shared Responsibilities between Pest Control Business & grower
    - Worksite plan, tarps, fumigation equipment
    - Notification
      - Initial Notification
      - NOI to CAC
      - Specific Notification
    - Buffer zone requirements
      - Posting inner buffer zone

# MeBr Fumigation Permit Conditions

- The permittee is responsible for notifying the Pest Control Business of any changes, amendments or corrections to the worksite plan
- Initial Notification
  - Phone with voice mail
  - Contact must be Spanish bilingual



# MeBr Fumigation Permit Conditions

- Weather
  - Weather forecast for the day of the fumigation and 48 hours following the fumigation
  - Should not commence if:
    - Air temperature in the vicinity of the fumigation will be above 85°F,
    - Wind speeds will drop below 3 mph
    - Wind speeds will rise above 20 mph.
    - One source to check could be National Weather Forecast Office: <http://www.wrh.noaa.gov/mtr/>

# MeBr Fumigation Permit Conditions

- Tarp Cutting & Removal
  - Shared responsibility between Tarp cutters & grower
    - Timing of tarp cutting
    - Timing of tarp removal
    - Posting signs must remain in place until aeration complete



# 100% Chloropicrin Conditions

- Single 100 foot buffer around all applications
- Weather condition same as MeBr
- Tarp repair response plan required
- Water seal required around tarp perimeter
  - After fume
  - Any time odors or effects felt
- Notification requirements same as MeBr

# 2010 Buffer Zone Violations

- Failure to post IBZ
  - Neighbor signed IBZ & OBZ agreements
- OBZ extended into residents yards without permission
  - “jagged fence line”
- Grower employees working in IBZ
  - Harvesting strawberries
  - Cultivating lettuce on tractor
- Posting signs not visible or knocked down



# Priority Investigation 54-MON-10

- September 27
  - PCB completed 9 acre MeBr fumigation
  - IBZ extended into neighbor's broccoli
    - Signed IBZ agreement
    - Received specific notification
    - IBZ posted in broccoli

# Priority Investigation 54-MON-10

- September 28
  - Crew of 24 broccoli harvesters
    - Parked cars on ranch road in IBZ
    - Started harvesting in IBZ
  - Tractor attempting to pass cars
    - Off road onto tarped field
    - Ripped tarp 120 ft down edge of field
  - Crew experienced symptoms
    - 10 employees transported to physician



# Priority Investigation 55-MON-10

- October 2
  - PCB completed 4<sup>th</sup> fume in series
  - 100 foot IBZ extended into neighbor's rapini
  - Four crews harvesting rapini
    - Entered IBZ several times while harvesting
  - Tarp from previous fume billowing
    - Tarp blew while crew of 36 working just outside IBZ, about 190 feet from blow out

# Priority Investigation 55-MON-10

- October 2
  - Harvesters experienced symptoms
    - Nausea
    - Burning eyes/nose, cough, dizziness, headache
    - Some developed itchiness/rashes from exposure
  - 10 employees transported to physician



# San Miguel Ranch Bonney Road



# San Miguel Ranch Bonney Road

- History of problems with neighbors
  - Not just fumigants --- noise, runoff, dust
- 2008
  - One angry resident called grower & CAC
    - Wrong phone number on initial notification
    - Threatened to rally neighbors to oppose fumigation
  - Grower spoke to residents
    - face-to-face / door to door
  - Residents were satisfied
  - Job completed



# San Miguel Ranch Bonney Road

- 2009
  - 6 acre 100% Chloropicrin job (Tri-Clor, 200 #/acre)
  - Grower voluntarily notified neighbors
  - 4<sup>th</sup> and final application over 9 days
  - Employee monitored tarp after fumigation
  - 9 persons from three households experienced symptoms
    - watery eyes, sore throat, metallic taste
  - Priority investigation
  - Civil penalty for noncontributory violations
  - Monterey County Weekly article

# San Miguel Ranch Bonney Road

- 2010
  - Grower proposes to fumigate with 1,3-D
    - Chemigation
  - Notified residents of proposal
  - Residents requested commissioner review permit
    - Water issues and potable water wells
  - Grower & packer decided too late to fume



# R&R Farms

## Dyer Road Prunedale



# R&R Farms

## Dyer Road Prunedale

- Grower proposed to fumigate with MeBr
- Had some problems with initial notification
  - Missed some residences -- delayed workplan
  - English/Spanish notification issues
  - Not notified in the past
- Neighbors concerned about adverse effects
  - Humans and pets with health problems



# R&R Farms

## Dyer Road Prunedale

- Neighbors requested permit be denied
  - Permit had not been issued yet
- PCB suggested changing to 1,3-D
  - Grower contacted concerned neighbor
    - Time considerations (Tuesday : Friday Fume)
    - Pressure on neighbor – anger frustration
  - Neighbor contacted CAC
    - Hours spent explaining pesticide registration
    - Grower agreed to pay for vacating
    - Job completed

# 1,3-D Township Cap

- 14S-3E (North Salinas)
  - June 2010 Dow AgroSciences
    - Requested temp increase from DPR from
      - 90,250 pounds to 180,000 pounds
      - Granted
  - Mid September Cap reached
    - Dow requested additional increase
      - 180,000 pounds to 270,000 pounds
      - Granted October 4



Looking forward

2011

# Methyl Bromide Township Cap

- Regulation change allows 171,625 lbs of actual methyl bromide allowed per township
  - At least two local townships affected
    - 12S 02E (Pajaro Valley)
    - 14S 02E (Salinas-Marina-Castroville-Espinosa)
  - Possibly more townships as well
- Our office will track the submitted NOIs and must deny any NOI that would cause the cap to be exceeded



# DPR's Revised MITC Conditions

- Dazomet, Metam Sodium, Metam Potassium
- Nine different application methods with different restrictions based on pesticide used and method of application, but in general:
  - “MITC Control Plan” or “CA Fumigant Management Plan” during and after fumigation
  - Post-application monitoring (site dependent)
  - Irrigation equipment/soil capping ability available for 24-48 hours at site
  - Acreage limits depending on application method

# DPR's Revised MITC Conditions

- Continued
  - Timing: One hr before sunrise to one hr after sunset, may be allowed at night depending on method
  - Distance to schools vary from  $\frac{1}{4}$  mile to  $\frac{1}{2}$  mile dependent on application method
  - Buffer zone duration 24-48 hours depending on application method and number of post-application water treatments made
  - Minimum 100' buffer (Dazomet, metam sodium) or 90' buffer (metam potassium), up to 2300'
    - Fumigation handling activities and transit
    - Cannot extend onto properties with occupied structures or onto adjoining agricultural properties without written permission



# New Fumigant Labels

- Chloropicrin, dazomet, metam sodium/metam potassium, methyl bromide
  - Posting requirements (corner & buffer zone)
  - Agricultural worker protections (handlers defined, supervised by qualified person, respirators, tarp removal)
  - Use of Good Agricultural Practices specified on label (soil prep, soil moisture, etc.)
  - Application method, practice, and rate restrictions
  - Site-specific fumigant management plans

# Methyl Iodide

- Registered by DPR 12/20/10, designated restricted material
- 4 products (3 shank, 1 drip)
- 14 day REI
- CAC's looking at permit conditions to address local conditions



# Methyl Iodide-Buffer zones

- Buffer zones vary by application rate/method, from 100-1400 ft
- Written permission required to extend buffer zones onto other properties
- Applicators must ensure that unprotected workers and bystanders do not enter buffer zone

# Soil Fumigant Issues

- New ball game-NOT business as usual
  - Public focus on pesticides
    - fumigants especially
    - Methyl Iodide most of all
  - Violations with ANY fumigation may be used by public
    - Be on best behavior, as always



# Questions?

