Tracking Fumigant Use in California

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Fresno, CA
Methyl Bromide Phase Out

MeBr Use (million lbs.)

Use
Limit

1991 1993 1995 1997 1999 2001 2003 2005
Methyl Bromide Use in California
from CDPR PUR database

![Graph showing the use of methyl bromide in California from 1991 to 2005, with data from the CDPR PUR database. The x-axis represents the years, while the y-axis represents the use of MeBr in million lbs. The graph includes lines for 'Use,' 'Limit,' 'CUE,' and '+QPS.' The data shows a decline in methyl bromide use over the years.]
# 2005 Calif. Pre-plant MeBr Use (lbs)

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Use</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Pre-plant MeBr Use</td>
<td>5,975,000</td>
<td></td>
</tr>
<tr>
<td>Use under CUE (CUE = 5,690,820)</td>
<td>4,160,000</td>
<td>70%</td>
</tr>
<tr>
<td>Use under QPS (Nurseries)</td>
<td>1,050,000</td>
<td>17%</td>
</tr>
<tr>
<td>Other Use</td>
<td>765,000</td>
<td>13%</td>
</tr>
</tbody>
</table>
Total Fumigant Use in California
from CDPR PUR database
MeBr Use in California by Commodity
from CDPR PUR database

MeBr Use (million lbs.)

- Strawberry
- Trees & Vines
- Ann Veg & Fruits
- Nursery & Orn.
- Post Harvest

Years: 1996 to 2005
Fumigant Use for Trees and Vines

- Total
- MeBr
- Telone
- Pic
- Metam

Fumigant Use (million lbs)
Fumigant Use for CA Strawberries

- Planted
- Total
- MeBr
- Telone
- Pic
- Metam

Fumigant Use (1000 Ac)

19% 30% 11% 50%
CA Telone Township Cap Limits

In 2005:
- 6 Townships hit 2X Cap limit
- 27 Townships exceeded 1X Cap
- 2 Townships had used up 2X allowance
- 5 Townships had less than 3 years of 2X remaining
- 12 Townships had less than 5 years of 2X remaining

Impacted Crops
- Strawberry, Sweet Potato, Nurseries, Carrots
“Cleaning” the data

- Classify into Soil, Commodity, Structural (“Type” field)
  - Record ID, Site Code, Unit Treated

- Example: Commodity:
  - Record ID = C; Site Code not = 30, 40
  - Site Code = 90, 99, 100, 43026 and Unit Treated = K, C, T, P
  - Unit Treated = U and Township = 00 or null
  - Unit Treated = U or S and Chem Code = 385 and ProductChem Pct = 100
Correct lbs chem used

- Appl Rate > 700 and lbs chem used ≥ 1000
- Appl Rate > 500 and lbs chem used > 10,000
- Contact DPR – check county for error
- Decide of Ac Treated or lbs is wrong
- Adjust to max label rate
- Check “Modified” field and describe “Modification” Field for any Lbs adjusted
- Since 2000, # Corrected records small (<20/yr) but LBS can be large
Correct Treated Acres

■ For Soil Fumigation
  - Unit Treated = S, convert to A
    » Convert square feet to acres
  - Unit Treated = U and Tree or Vine, and Appl. Rate: 0.5 – 5.0
    » Assume tree site fumigation – convert to acres
  - Appl Rate: 0.5 – 5.0 and Tree or Vine
    » Same as above
  - Appl Rate small
    » Assume Acre Treated is wrong and convert to avg. rate

■ All corrections in new field: Acres
  - Maintain original data
  - For A: -12%
  - For not S: -30%
Assign Crop to “Soil Fumigation”

- About 8% of Lbs Chem Used
  - Site Code = 40008, 66000, 67000

- Determine what crop was treated in same field following fumigation
  - Later in year, or next year, depending Appl Date and Crop

- Determine other crops of grower

- Determine predominate crops in township

- Store in new field “CROP”
Differentiate Strawberry Nurseries

- Create Strawberry Nursery Site Code = 157
- For high elevation locations
- Convert Strawberry or Nursery to Strawberry Nursery
Fumigant Data for VOC Estimates

- Amount applied by Chemical (AI)
- Month Applied (May – Oct)
- Application Method (Emission Factor)
Telone, Deep Shank, no tarp
Drip Fumigation
Application Method

- Not Recorded (Aerial/Ground)
- Can determine most drip – product
- Can estimate from crop and region
Drip Fumigation in California

- **Total**
- **InLine**
- **Strawberry**
- **Pepper**
- **Melon**

Fumigant Use (Ac)

Year:
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
Application Method

- Not Recorded (Aerial/Ground)
- Can determine most drip – product
- Can estimate from crop and region
Fumigant Database

- ACCESS
- 1996 –
- 13,000 records/year
- Use batch files and queries to clean