


USDA
Natural Resources Conservation Service

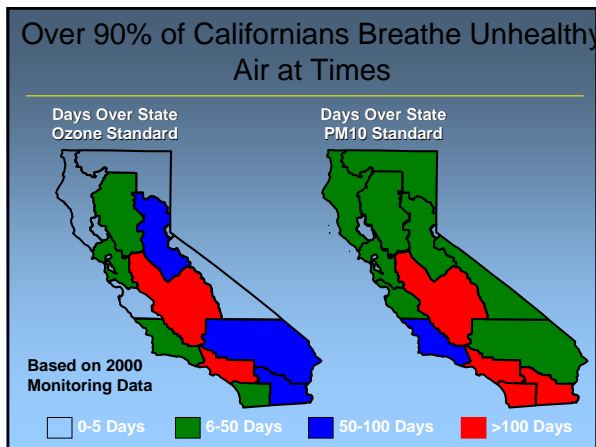
**Agricultural Air Quality in the
San Joaquin Valley**
“A SUCCESS STORY”

November 1, 2007
Johnnie Silznoff



Clean Air Act Amendment 1990

- Established Ambient Air Quality Standards
 - Particulate Matter (PM-10)
 - Ozone
 - CO
 - Nitrogen Dioxide
 - Sulfur Dioxide
 - Lead



Particulate Matter: What is It?

A complex mixture of extremely small particles and liquid droplets

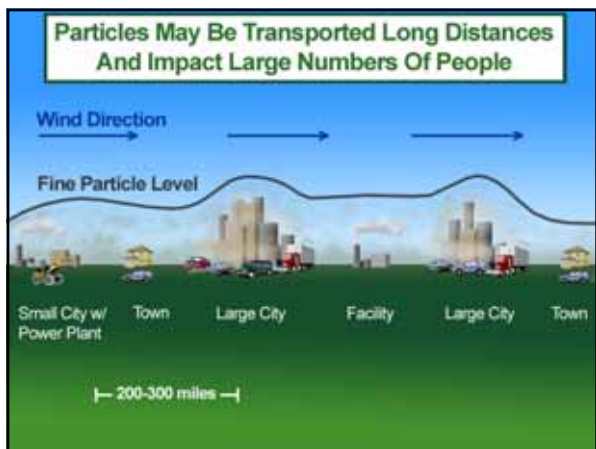
Hair cross section (70 μm)

Human Hair (70 μm diameter)

PM₁₀ (10 μm)

PM_{2.5} (2.5 μm)

M. Lippert, California Office of Environmental Health Hazard Assessment



Why is the San Joaquin Valley Prone to Air Pollution?



• Topography and weather create ideal conditions for serious air pollution

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San Joaquin Valley Air Basin Boundaries



Agricultural Production in the San Joaquin Valley

- Irrigated Acres: 6.4 million +
- Value of Crops: \$15 billion +
- Number of Farms: 27,000 +
- Number of Crops Grown: 250 +

PROPOSED

2003 PM10 Plan

San Joaquin Valley
Plan to Attain Federal Standards
For Particulate Matter 10 Microns
and Smaller

San Joaquin Valley
Air Pollution
Control District

Agriculture Improving Resources (AIR) Partners*

- Almond Hullers and Processors Association
- California Air Resources Board
- California Apple Commission
- California Association of Resource Conservation Districts
- California Citrus Mutual
- California Farm Bureau Federation
- California Grape & Tree Fruit League
- California Cotton Ginners & Growers Association
- California Plant Health Association
- Fresno County Farm Bureau
- Kern County Farm Bureau
- Kings County Farm Bureau
- Madera County Farm Bureau
- Merced County Farm Bureau
- Nisei Farmers League
- Raisin Bargaining Association
- San Joaquin Valley Unified Air Pollution Control District
- Stanislaus County Farm Bureau
- Tulare County Farm Bureau
- USDA Natural Resources Conservation Service

A partnership formed to aid agriculture in promoting the voluntary improvement of air quality through scientifically proven and cost effective measures.

Conservation Management Practice Planning will be required by July 2004

Goal- 33.8 tons/day of PM-10 reduced

CMP Plan

July 2004

Conservation Management Practice (CMP)

Each Grower Will Be Required To Complete A Plan To Control Fugitive Dust On:

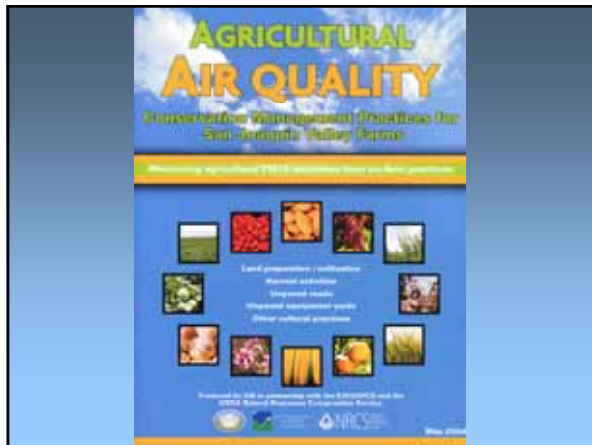
- Unpaved Roads
- Parking and Equipment Storage Areas
- Land Preparation
- Harvest
- Other



Conservation Management Practice

Dairies, Feedlots, Poultry

- ✓ Unpaved roads
- ✓ Unpaved parking and equipment storage areas
- ✓ Entrained dust from animal movement



Dust Control on Roads



Unpaved Road/Traffic Areas

- Paving
- Restrict Access
- Post Speed limits
- Track out Control
- Water
- Washed Gavel
- Dust Suppressants



Combined Operations

- Combination of equipment to perform several operations during one pass
- Benefits
 - Reduces # of passes necessary to **cultivate** the land
- Examples
 - Combining cane cutting, discing, and flat-furrowing in a single pass for vineyards
 - Use of one-pass till equipment in ground preparation or crop tillage, cultivation & fertilization of field crop in a single pass



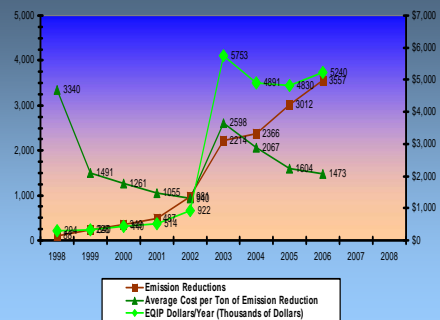
Reduction of Agricultural Burning



Conservation Tillage



Diesel Engine Replacement



CMP
Overall Results !!!!!

- Approximately 4000 Participants at 40 Public Workshops
- 6,400+ Conservation Management Plans Received
- Many Completed at Workshops
- Practices Covering 3.2 Million Acres

CMP
Overall Results !!!!!

- PM10 Reductions that are Quantifiable and Enforceable
- CMP program achieved 35.3 tons/day (Goal- 33.8 tons/day of PM-10 reductions)

CMP Program Received US-EPA
Region IX's
"2005 Environmental Award for
Outstanding Achievement"



Questions or Comments ?

Thank you for your time and attention