# Central Valley Strawberries – Research and Education

Richard Molinar, Farm Advisor
UC Cooperative Extension
Fresno, CA

California Strawberry Commission,
Research Committee July 14, 1999

**PROGRAMMATIC SUMMARY**

Background: 400-500 acres annually in Fresno (± 1,000 acres in Central Valley)
70-80 growers (90% Hmong)
85% for processing (Chandler), 15% sales roadside
soils fumigated every 2-3 years

## 1. Education

1. Yearly February Strawberry Grower Seminar in Fresno -50-60 growers/industry reps, in English and Hmong. Additional seminars in Merced (Maxwell Norton), San Joaquin County (Benny Fouche), and Sacramento (Chuck Ingels).

2. Usually 1 additional summer seminar – "soil solarization".

3. Field visits and county publications. I employ a Hmong field assistant to help. Publications such as **Botrytis Rot** in English and Hmong are produced.

## 2. Research

### 1997-8 Research

**A**. Alternatives to Methyl Bromide – on farm research to evaluate methyl bromide/chloropicrin, solarization, metam sodium, mbc/solarization, metam/solarization, untreated check.

**Results:** Although there was no statistically significant difference between individual treatments, there was a 30-40% increase in yield with solarization over the check which would result in a good net return to the farmer.

**B.** Black Plastic for Weed Control in Chandler Strawberries. Evaluating black and clear plastic applied in February. Two trials.

**Results:** Black plastic can be applied in January/February in place of clear to provide excellent weed control, reducing significantly the time required to hand weed. Fruits resting on the black plastic were neither burned or adversely affected in quality. In one trial the yield with the black plastic was higher ($p > .05$) than with clear.

**C.** Effects of Planting Date on Yields of Chandler Strawberries. Four different planting dates were evaluated.

> **Results:** There was no statistical difference between planting dates, Aug 8, Aug 22, Sept 5, Sept 19, though the best dates in this trial were August 22 and Aug 8. The difference between the best (August 22) and the worst date (Sept 19) was 6.74 lbs per plot or 6,575 lbs/acre. At $.32 per pound this is an increase of $ 2,088.

**D.** Evaluation of Chandler, Camarosa, Gaviota and Strawberry Varieties in Fresno, CA. Strawberry processors prefer the Chandler variety, however growers are wanting to know if there are better, newer varieties.

> **Results:** Camarosa outyielded all other varieties for the second year in variety trials and some growers are planting some of their acreage to Camarosa, especially for roadside sales. Yields for Gaviota are about 50% that of Chandler and Camarosa.

**E.** Observational – Comparison of Green, Reflective, Black, and Clear Plastic Mulches.

> **Results:** The green mulch resulted in the highest marketable yield (46 lbs) followed by clear (45 lbs), Black (41 lbs) and reflective (40 lbs). Wed control was 100% with black and under green and reflective some weed growth was still evident though significantly stunted. Clear plastic mulches required 3 hand weedings.

## 1998-9 Research (to be analyzed)

**A.** Methyl bromide Alternatives Research (on farm research) evaluating methyl bromide/chloropicrin, solarization with plastic removal, solarization and planting into plastic, metam sodium and metam/solarization.

**B.** Evaluating 5 different varieties of Strawberries in Fresno, CA – Chandler, Camarosa, Gaviota, Seascape, Pajaro varieties.

**C.** A Comparison of Different Colors of Mulches for Strawberry Systems in Fresno, CA

| | | |
|---|---|---|
| Red on brown | Reflective on black | Brown |
| White on Black | Reflective | Green |
| Black | Clear | |

## Proposed 1999-2000 Research

**A.** Methyl Bromide Alternatives Research

**B.** Strawberry Variety Evaluations for Fresno Calif. – Chandler, Camarosa, Gaviota, Diamonte, Totem, Sweet Charlie.