



# Peaches

## Effect of SoilStart® on the Yield of Late Ross Processing Peaches

California grows over 76% of the peaches in the United States, representing approximately 950,000 tons and covering 68,000 acres. The annual revenue for this market is valued at \$250 million in sales, according to the 2003 California Department of Food and Agriculture statistics. Growers are constantly looking for ways to improve harvest yields, crop quality and plant uniformity, in addition to reducing fertilizer and pesticide usage plus protecting the largest investment of all – their soil.

### BACKGROUND

Trials were conducted on Late Ross processing peaches to compare the effect of the addition of *SoilStart*® against the Growers' Standard Program. *SoilStart*® is an organically registered, liquid compost product used extensively in conventional and organic agriculture. The test field comprised of a 5 acre section containing 3 year old Late Ross peach trees. Approximately 115 days prior to harvest, one half of the orchard had 12.8 gallons per acre (gpa) of *SoilStart*® added to the irrigation water along with 37.6 gpa of 5-2-12-2. The other half of the orchard received only 37.6 gpa of the 5-2-12-2 fertilizer. Other trial conditions, including irrigation schedule, followed the Grower's Standard Program (see Table 1).

**Table 1: Late Ross Processing Peaches Trial Conditions**

Product Tested	SoilStart®
Crop	Processing Peaches (Late Ross)
Soil Type	Sandy Loam
Irrigation Schedule	Every other row every week
Planting Date	Spring 2001
Application Date	04/04/04
Application Schedule	12.8 gpa
Application Method	Dripped into flood water
Growers Standard Program	Fall 2003 – 221# ammonium sulfate and 315# of 0-0-62. Spring 2004 – 342# of 0-0-62, 04/04/04 – 37.6 gallons of 5-2-12-2
Treatment Location	2.5 acres treated, 2.5 acres control. Harvest data taken on <i>SoilStart</i> ® area was 1.32 acres. Harvest data on control area was 1.26 acres.
Field Location	Keyes Road, approximately 2-1/2 miles west of Hwy 99 (California)
Harvest Date	08/03/04, 08/04/04 and 8/10/04

### DATA COLLECTION and ANALYSIS

Four weeks before harvest visual observations indicated there was more top growth on the *SoilStart*® treated area. During harvest the treated and control lots were kept

separate, and bin weights were calculated. Actual harvest information was collected and recorded by the grower (see Table 2).

**Table 2: Harvest Data for Late Ross Processing Peaches**

Treatment	Harvest Date	Total Bins	Avg Bin wt (#)	Total lb/day	Total wt
<i>SoilStart</i> ® <sup>1</sup>	08/03/04	34	1,038	35,292	49,637
	08/04/04	3	1,049	3,147	
	08/10/04	11	1,018	11,198	
Control <sup>2</sup>	08/03/04	26	1,049	27,274	45,598
	08/04/04	0	0	0	
	08/10/04	18	1,018	18,324	
Gain(Loss)		<b>4</b>			<b>4,039</b>

<sup>1</sup> *SoilStart*® data taken from 199 trees

<sup>2</sup> Control data taken from 191 trees

**Table 3: Effect of *SoilStart*® on the Yield**

Method	Harvest wt. (#)	No. trees	Avg wt/tree (#)	trees/ acre	lb/ acre
Treated ( <i>SoilStart</i> ®)	49,637	199	249.42	151	37,663
Untreated (Control <sup>2</sup> )	45,598	191	238.73	151	35,938
Gain(Loss)					<b>1,725</b>

### CONCLUSION

Indications at harvest showed the *SoilStart*® treatment area sized (matured) earlier, with 77.1% of the fruit being harvested during the first pick. By comparison, the Growers' Standard Program area realized only 59.1% of the fruit being harvested on the first pick. Furthermore, bin weights in the *SoilStart*® area were slightly less which coincides with visual observations of larger fruit diameter in the treated area. In summary, the *SoilStart*® area had a net gain of 1,725 lbs. of peaches per acre (see Table 3), at a market value of \$250 per ton, this correlates to a **\$215.63 per acre increase (4.58% increase in yield) in gross return to the grower.**