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Specialty Crop Representative Farm Models: Forecasts, Policy Analysis and International Comparative Studies

**Final Report:
Representative Farm Model Specialty Crop
Policy Study
Project: CC#37508**

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To

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I. INTRODUCTION

Stochastic simulation models are used to generate a large random sample of outcomes for a dependent variable where that dependent variable is a function of some selected set of explanatory variables. A unique feature of these types of models is that there is an explicit recognition that the independent variables have some probability distribution around their mean values.

The forecast of the dependent variable is thus a function of the probability distributions of the explanatory variables as well as their mean value. The simulated distribution of the dependent variables thus captures the variability or risk associated with forecasting the dependent variable that can not be obtained by using simply the mean value of the explanatory variables. If the explanatory variables are uncorrelated an appropriate univariate probability distribution is chosen (e.g. normal, Poisson, empirical, etc).

It is also possible to capture the joint variability of two or more correlated explanatory variables on the dependent variable. The joint variability can be captured by determining the multivariate probability distribution (e.g. multivariate normal, multivariate empirical, etc. for the two or more correlated explanatory variables. The multivariate probability distribution is developed much the same as the univariate probability distribution but includes information in the correlation matrix to account for the correlation between the independent variables¹.

The simulated forecast of dependent variables using either univariate or multivariate probability distributions of the explanatory variables is very useful in informing decision makers of the variability or risk in the dependent variable forecast, the skewness of the forecast, and the probability of a specific outcome for the dependent variable. Most stochastic simulation models have more than one dependent variable. The dependent variables in a stochastic simulation models are often referred to as Key Output Variables (KOV's).

Specialty crop representative farm models² are stochastic simulation models that are used to analyze the impacts of current and changing market conditions and government policies on a number of KOV's. Examples of KOV's in a specialty crop representative farm models are yearly net income, cash flow position, financial ratios such as debt to equity or liquidity, and net present values of net income.

¹ A detailed discussion on modeling stochastic simulation models including determination of the appropriate probability distributions and its construction can be found in *Simulation for Applied Risk Management* by James Richardson, Texas A & M University.

² Specialty crops are defined as fresh fruit, fresh vegetable, dried fruit, tree nuts, and horticultural products (including floriculture). A representative farm is not the average farm size rather it is the farm size that is most likely to be in production in a specific region. For example, the average acres for four farms in a region may be 325 with 500, 500, 200, and 100 acre farms, while the representative acreage is 500.

The California Institute for the Study of Specialty Crops (CISSC) initially developed thirteen California specialty crop representative farm simulation models³. The models simulate a representative producer's income statement, statement of cash flows, and balance sheet for 2005 – 2014. These existing specialty crop representative farm models were updated from a base year of 2004 to a base year of 2006 and the models simulate a representative producer's income statement, statement of cash flows, and balance sheet for 2007 – 2016.

In addition to updating existing specialty crop representative farm models, seven new representative farm models for apricots, avocados, carrots, tomatoes, processing carrots, processing tomatoes, and wine grapes, were constructed. Furthermore three Chinese specialty crop representative farm models for apples, broccoli, and peaches, were constructed.

These models can be used for several purposes. They simulate the producer's income statement, statement of cash flows, and balance sheet as well as any financial indicator calculated from those three statements. From there we can analyze the impact a new policy may have on a producer's net income or net present value prior to implementation. They can also determine the impact a change in production practices may have on the producer's financial statements prior to actually changing practices. In other words, these models act as a decision making tools. The models are constructed in a way that allows for easy analysis of several variables.

In the next sections, this report provides examples of how the models may be used to generate quantitative estimates of use to agricultural decision makers. The first example is the models' capability to simulate future performance of individual farms. This is demonstrated by providing three year estimates of returns to cash expenses given stochastic values for prices and yields. Next, a comparison of the performance of Chinese farms under various labor cost scenarios is provided. Finally, an analysis of policy change is demonstrated with an example of analysis of possible changes to existing regulations governing waste disposal from food processors.

³ Models have been developed for almonds, apple, cantaloupe, cherry, mixed vegetables (head lettuce, leaf lettuce, broccoli, and fresh onion), Thompson seedless grapes, table grapes, nectarine, peach, pear, plum, strawberry, and walnut.

II. THREE YEAR AVERAGE RETURN ABOVE CASH COST

As indicated in the previous section, we have updated the 13 specialty crop representative farm models, created 10 new models; 7 models for California and 3 models for China (Table 1). The information used for the specialty crop representative farm models are the most recent Sample Cost of Production Studies from the University of California Cooperative Extension Service (UCCES), downloaded at <http://coststudies.ucdavis.edu>, or obtained from the local county UC Cooperative Extension offices, supplemented by other information from the U.S. Department of Agriculture, Growers Associations, and others, including producer surveys (Appendix Tables). Price and yield are forecasted for 2007 – 2016 for each model by appropriate methods. Three KOVs are simulated for each model, mean of net income after tax for 2007 - 2016, sum of income stream for 2007 – 2016, and the average return above cash cost for 2007 – 2009.

In this section we present the result of the simulation of one of the KOV's for the specialty crop representative farm models, the average return above cash costs for each crop for 2007 - 2009.

Results of model simulations for the return above cash cost indicate wine grapes will have the largest average per acre return for the period of 2007 to 2009, \$5,262, followed by apples \$4,252 (Table 2). The least profitable results were processing tomatoes, \$57 per acre; followed by cherry, at \$110 per acre. Apricot, table grapes, avocado, strawberry, almond, and pear have three year average per acre returns above cash cost results of over \$2,000 per acre.

Over the period of 2007 to 2009, simulated return above cash cost per acre for some crops decline relatively significantly; for example, decline in apples from \$4,842 in 2007 to \$3,606 in 2009, plums from \$312 in 2007 to \$6 in 2009, and processing tomatoes from \$74 in 2007 to \$47 in 2009 (Figure 1). Relatively large per acre increases are observed for table grapes from \$2,821 in 2007 to \$3,531 in 2009, nectarines from \$192 to \$509, and cherries -\$16 to \$292 for the same period.

For the China models, simulated returns above cash cost for peaches show relatively high returns compared to others, (apples and broccoli); however returns for all three crops decline slightly over the period of 2007 to 2009 (Figure 2).

By using a stoplight chart, one of the graphical capabilities of the model, we can compare target probabilities for one or more risky alternatives for the return above cash cost for the models. In order to generate the stoplight chart, two probability targets, lower and upper, are chosen subjectively. The stoplight function calculates the probabilities of : (a) exceeding the upper target (green), (b) being less than the lower target (red), and (c) observing values between the targets (yellow).

Table 1. Specialty Crop Representative Farm Model

| # | Crop | Grower Survey Form | Representative Farm | |
|-----------------------|--------------------------|--------------------|--------------------------|--|
| | | | 2005 | 2007 |
| Updated Models | | | | |
| 1 | Almond | y | Riverdale | San Joaquin Valley North (UCCES 2006) |
| 2 | Apple | y | San Joaquin Valley | San Joaquin Valley North - Granny Smith (UCCES 2001) |
| 3 | Cantaloupe | y | Bakersfield | Imperial County (UCCES 2004) |
| 4 | Cherry | y | Sweet Cherries | San Joaquin Valley - Sweet Cherries (UCCES 2005) |
| 5 | Citrus | y | California | San Joaquin Valley South (UCCES 2005) |
| 6 | Nectarine | y | California | San Joaquin Valley South (UCCES 2004) |
| 7 | Peach | y | South San Joaquin Valley | Sacramento & San Joaquin Valley (UCCES 2003) |
| 8 | Pear | y | Delta | Lake and Mendocino Counties - Green Bartlett Pear (UCCES 2006) |
| 9 | Plum | y | South San Joaquin Valley | Southern San Joaquin Valley (UCCES 2004) |
| 10 | Strawberry | y | Santa Maria Valley | Santa Maria Valley (UCCES 2006) |
| 11 | Table grapes | y | California | San Joaquin Valley (UCCES 2004) |
| 12 | Thompson Seedless grapes | y | California Raisins | Fresno (2007) |
| 13 | Walnut | y | Rio Oso | Sutter and Yuba Counties - English Walnuts (UCCES 2006) |
| New Models | | | | |
| 1 | Apricots | y | | San Joaquin Valley (UCCES 2003) |
| 2 | Avocado | y | | Ventura and Santa Barbara (UCCES 2001) |
| 3 | Carrot | y | | Imperial County (UCCES 2004) |
| 4 | Fresh market tomato | y | | San Joaquin Valley (UCCES 2000) |
| 5 | Processing carrot | y | | Imperial County (UCCES 2004) |
| 6 | Processing tomato | y | | Sacramento Valley (UCCES 2007) |
| 7 | Wine grape | y | | North Coast - Sonoma County - Chardonnay (UCCES 2004) |
| China Model | | | | |
| 1 | Apple | | | National Average |
| 2 | Broccoli | | | Jihetang Village Guocun Township, Feicheng, Shandong (2007) |
| 3 | Peach | | | Suigou San Cun, WuTai, Pingyi, Shandong (2007) |

Table 2. Return Above Cash Cost (\$/acre)

| Code | Crop | 3 Years Average (2007-2009) | 2007 | 2008 | 2009 |
|-----------------------|----------------------------|--------------------------------|---------|---------|---------|
| Updated Models | | | | | |
| 1 | Almond | \$2,239 | \$2,413 | \$2,052 | \$2,253 |
| 2 | Apple | \$4,252 | \$4,842 | \$4,308 | \$3,605 |
| 3 | Cantaloupe | \$130 | \$101 | \$115 | \$174 |
| 4 | Cherry | \$110 | -\$16 | \$53 | \$292 |
| 5 | Orange | \$501 | \$495 | \$493 | \$516 |
| 6 | Nectarine | \$331 | \$192 | \$293 | \$509 |
| 7 | Peach | \$1,557 | \$1,575 | \$1,552 | \$1,544 |
| 8 | Pear | \$2,024 | \$1,969 | \$2,015 | \$2,087 |
| 9 | Plum | \$211 | \$312 | \$314 | \$6 |
| 10 | Strawberry | \$2,838 | \$2,949 | \$2,854 | \$2,712 |
| 11 | Table Grape | \$3,183 | \$2,821 | \$3,198 | \$3,531 |
| 12 | Thompson Seedless Grape | \$567 | \$559 | \$566 | \$574 |
| 13 | Walnut | \$1,354 | \$1,316 | \$1,359 | \$1,388 |
| New Models | | | | | |
| 14 | Apricot | \$3,437 | \$3,400 | \$3,429 | \$3,482 |
| 15 | Avocado | \$3,046 | \$3,062 | \$2,960 | \$3,114 |
| 16 | Fresh Carrot | \$1,610 | \$1,510 | \$1,582 | \$1,738 |
| 17 | Fresh Tomato | \$694 | \$629 | \$680 | \$774 |
| 18 | Processing Carrot | \$384 | \$357 | \$392 | \$403 |
| 19 | Processing Tomato | \$57 | \$74 | \$49 | \$47 |
| 20 | Wine Grape | \$5,262 | \$5,381 | \$5,254 | \$5,150 |
| China Models | | | | | |
| 21 | Apple | \$1,085 | \$1,132 | \$1,087 | \$1,035 |
| 22 | Peach | \$2,831 | \$2,866 | \$2,832 | \$2,795 |
| 23 | Broccoli | \$852 | \$897 | \$852 | \$805 |

Figure 1. Simulated Return above Cash Cost: 2007 - 2009

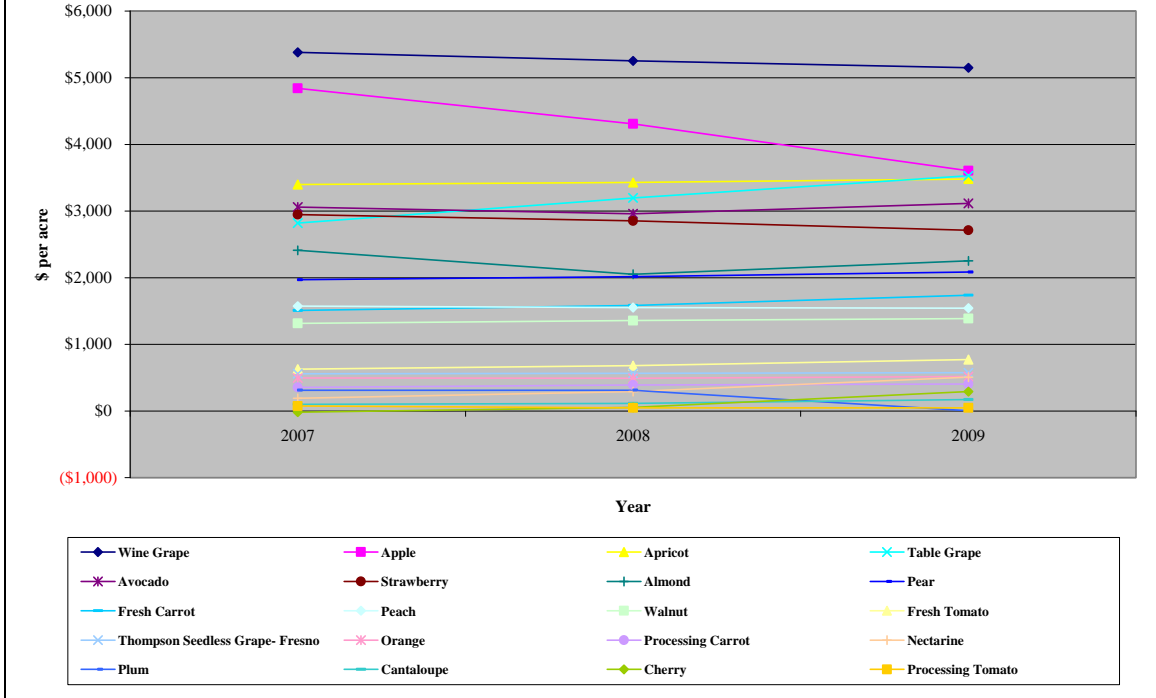
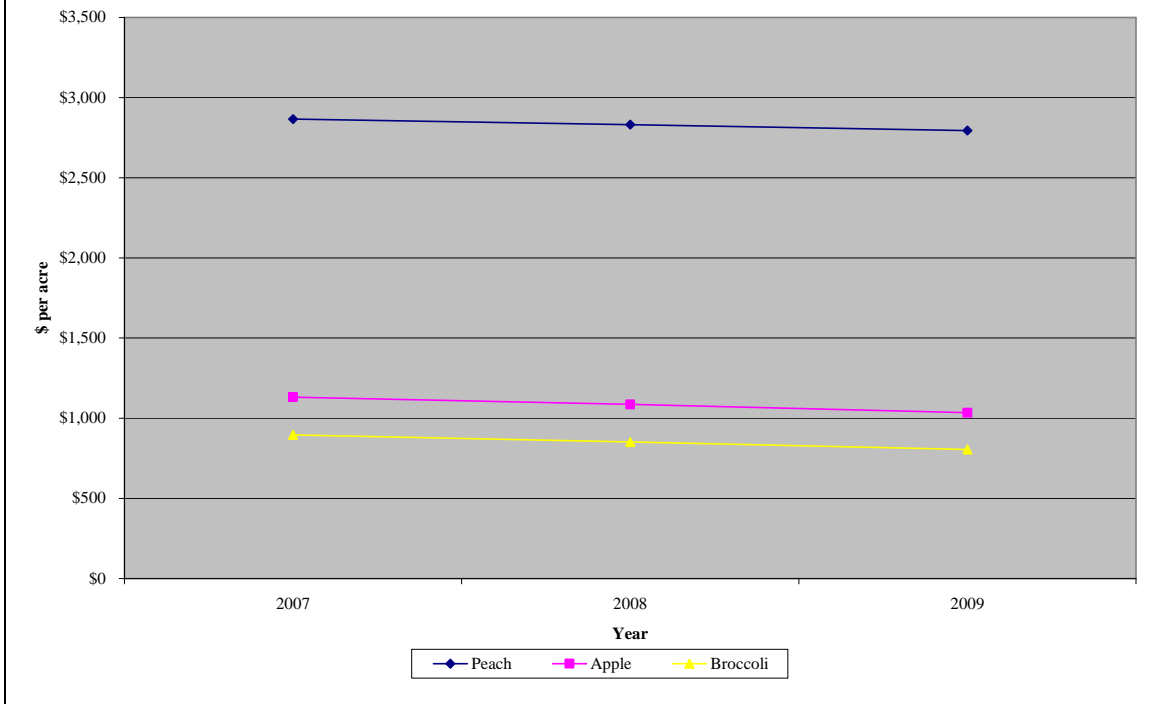
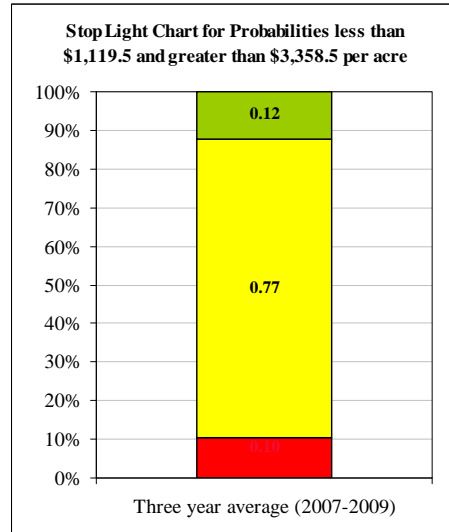
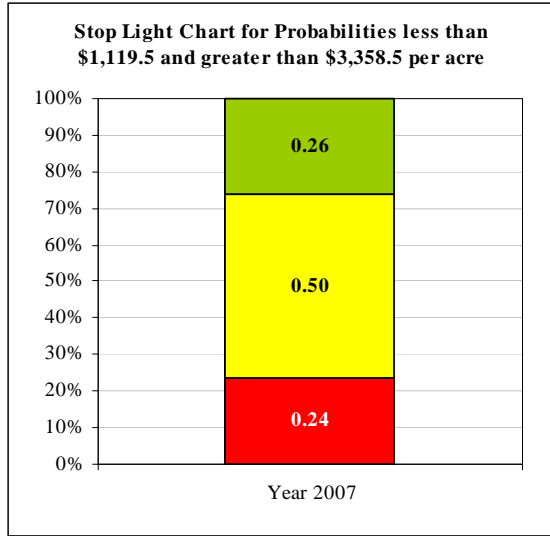


Figure 2. Simulated Return above Cash Cost for China Models: 2007 - 2009



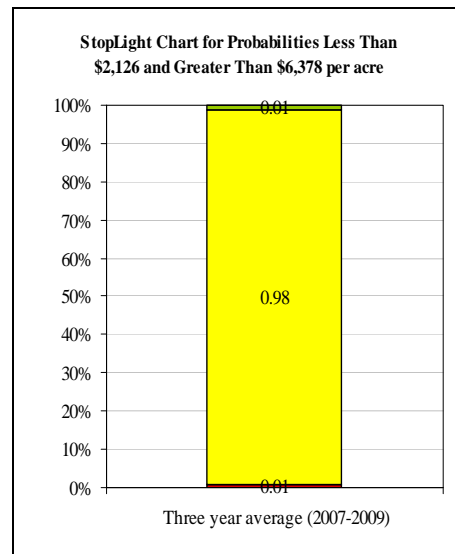
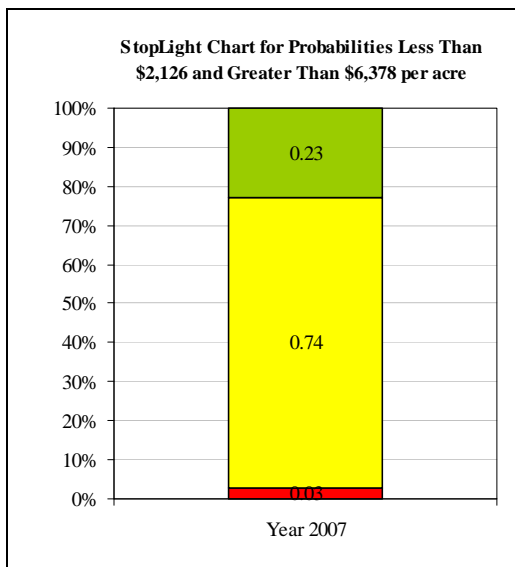
1. Almond Model

Stop light charts for the net return per acre above cash cost, high and low cut-off values are chosen based on the mean returns of the model. Simulated three year average return above cash cost for Almonds is \$2,239 per acre. For consistency of the analysis, we have chosen the higher cut-off value and low cut-off value as 50 percent above and 50 percent below the average of the simulated mean return above cash cost for 2007 – 2009. For almonds the model higher cut-off value of \$3,358.5/acre and lower cut-off value of \$1,119.5/acre were chosen.



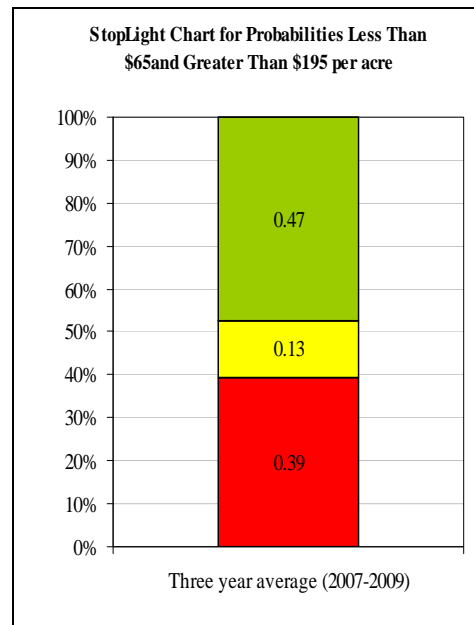
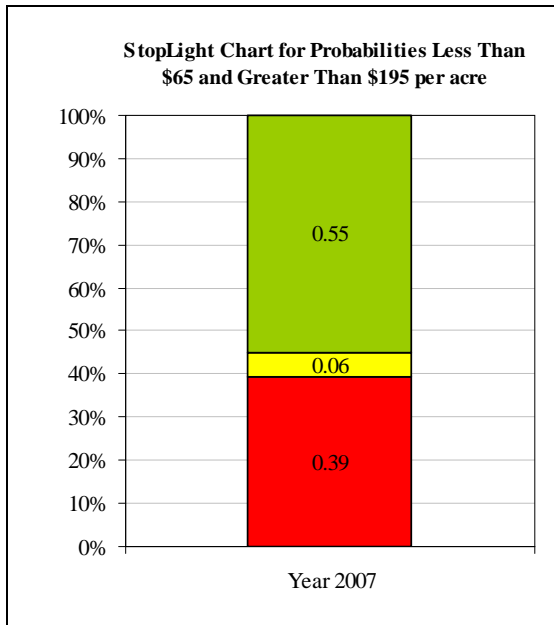
2. Apple Model

Higher cut-off value of \$6,378/acre and lower cut-off value of \$2,126/acre.



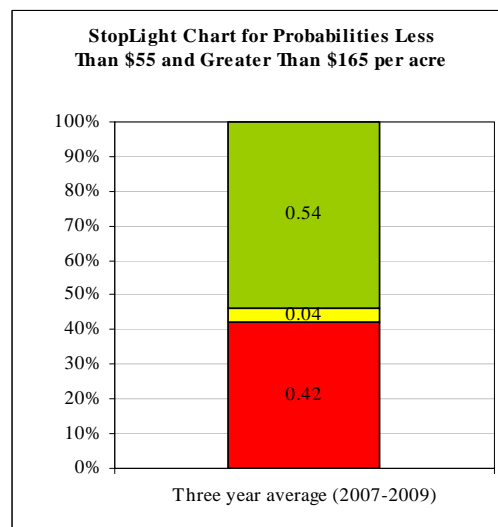
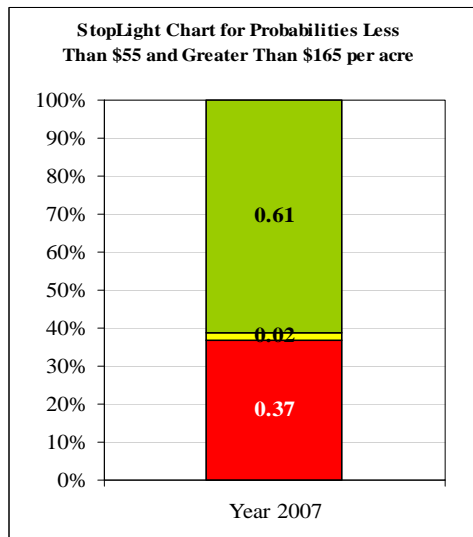
3. Cantaloupe Model

Higher cut-off value of \$195/acre and lower cut-off value of \$65/acre.



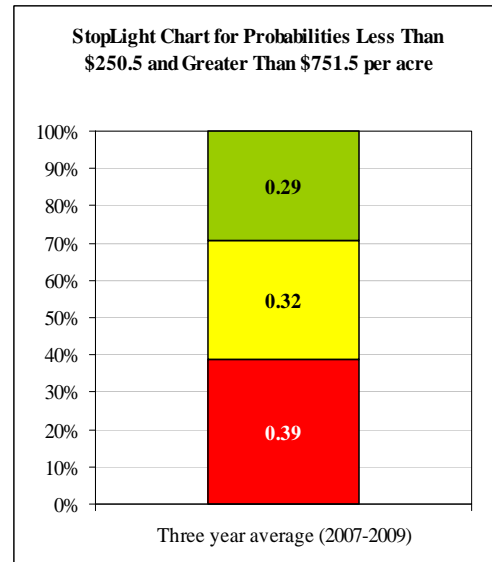
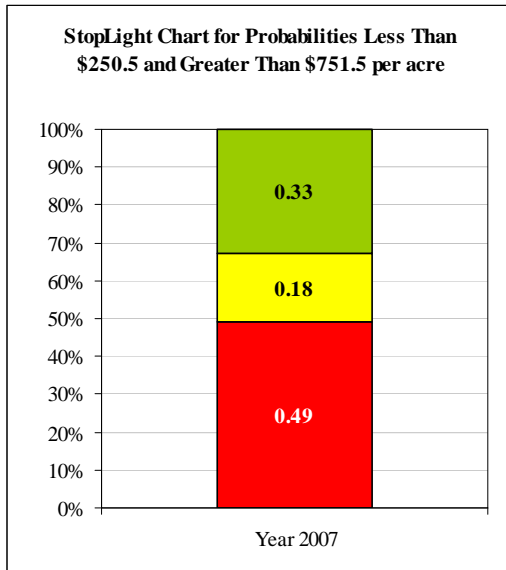
4. Cherry Model

Higher cut-off value of \$165/acre and lower cut-off value of \$55/acre.



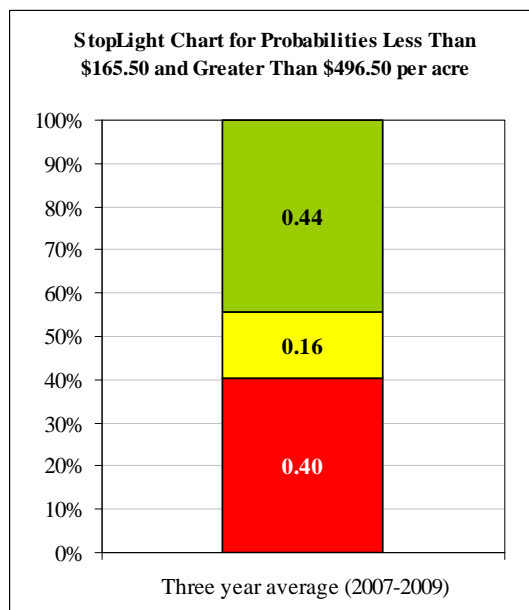
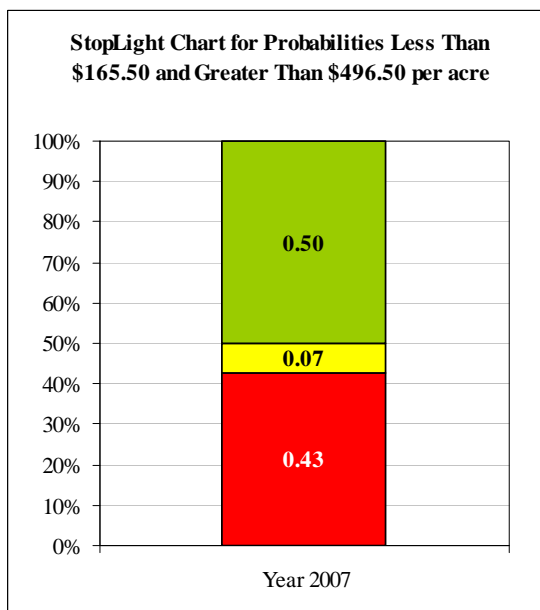
5. Orange Model

Higher cut-off value of \$751.5/acre and lower cut-off value of \$250.50/acre.



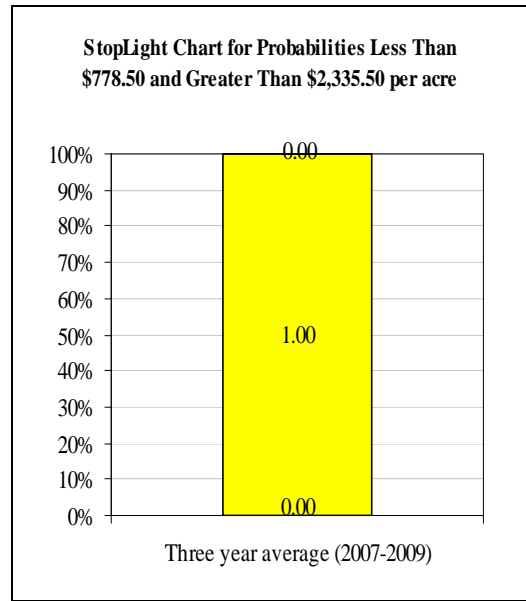
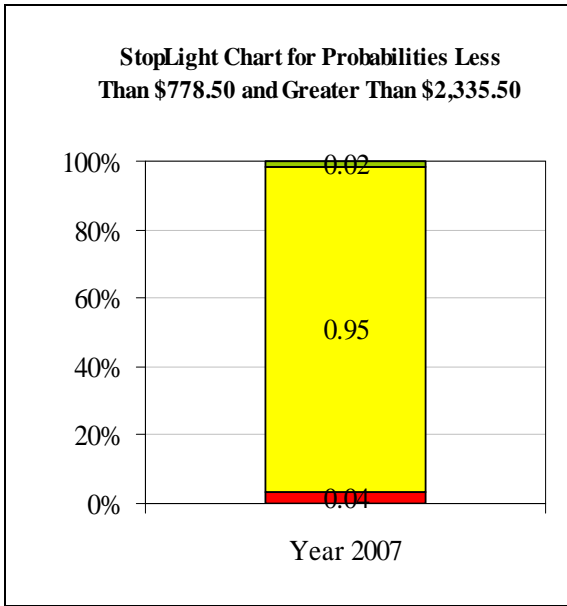
6. Nectarine Model

Higher cut-off value of \$496.50/acre and lower cut-off value of \$165.50/acre.



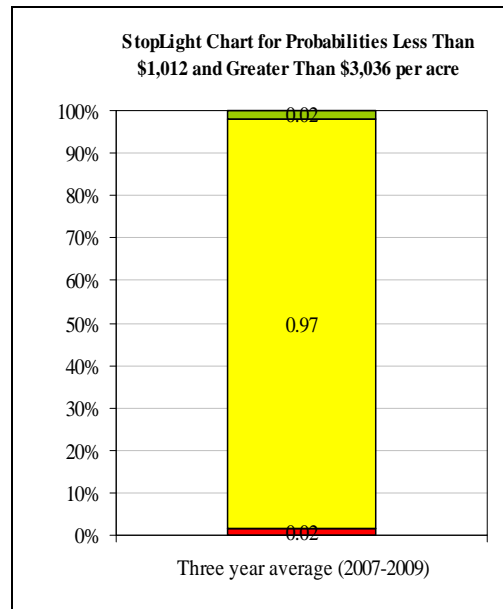
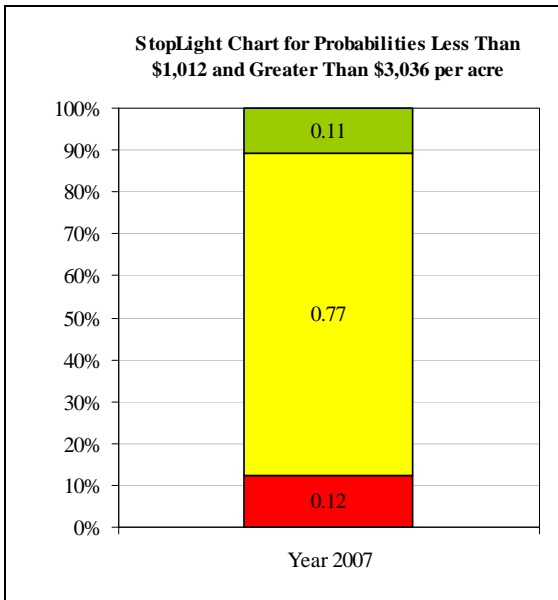
7. Peach Model

Higher cut-off value of \$2,335.50/acre and lower cut-off value of \$778.50/acre.



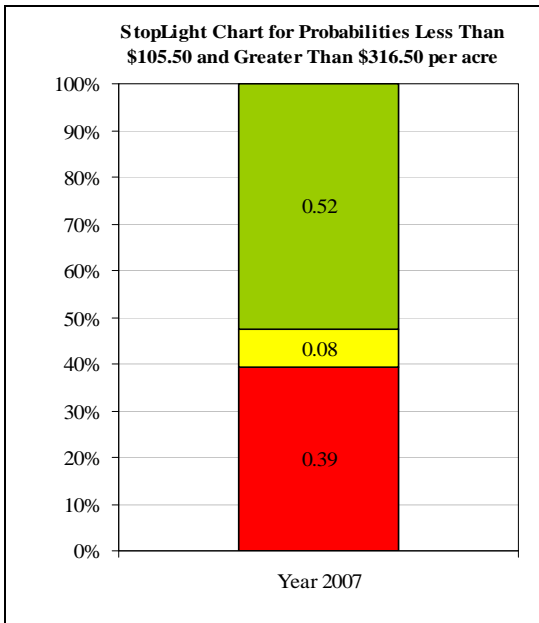
8. Pear Model

Higher cut-off value of \$3,036/acre and lower cut-off value of \$1,012/acre.



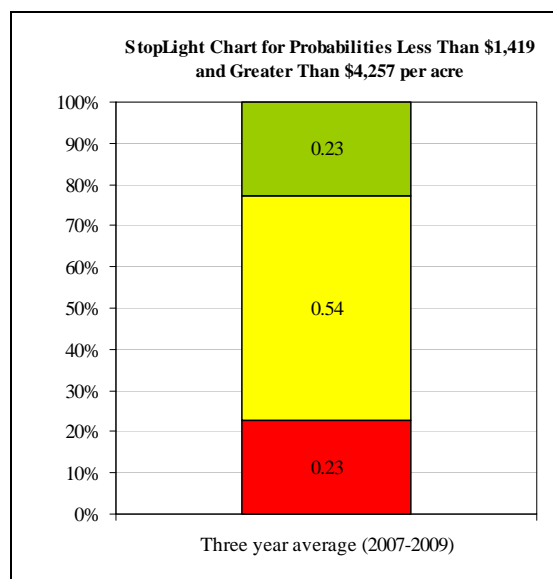
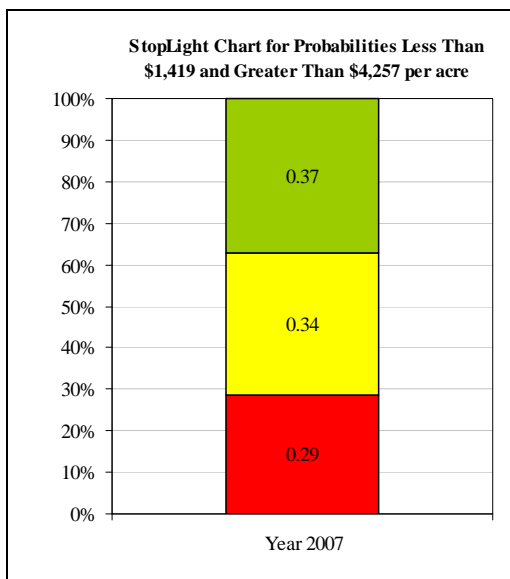
9. Plum Model

Higher cut-off value of \$316.50/acre and lower cut-off value of \$105.50/acre.



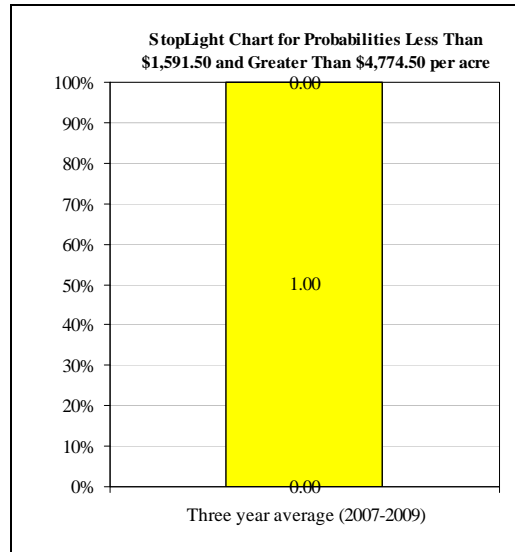
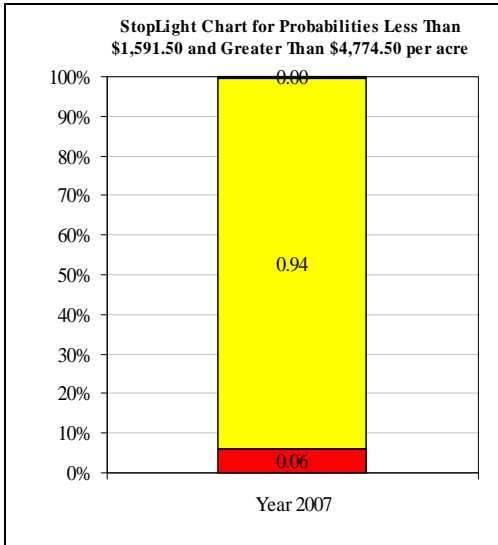
10. Strawberry Model

Higher cut-off value of \$4,257/acre and lower cut-off value of \$1,419/acre.



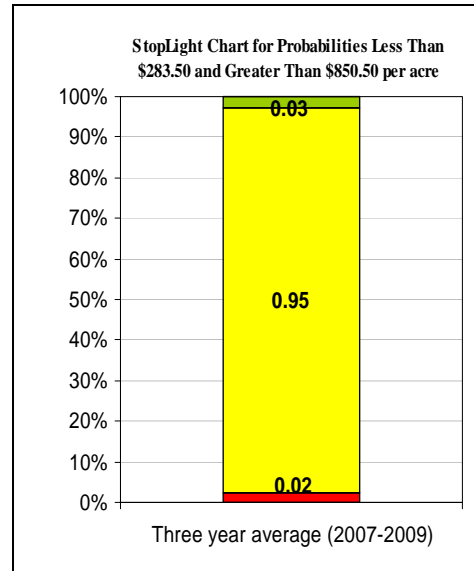
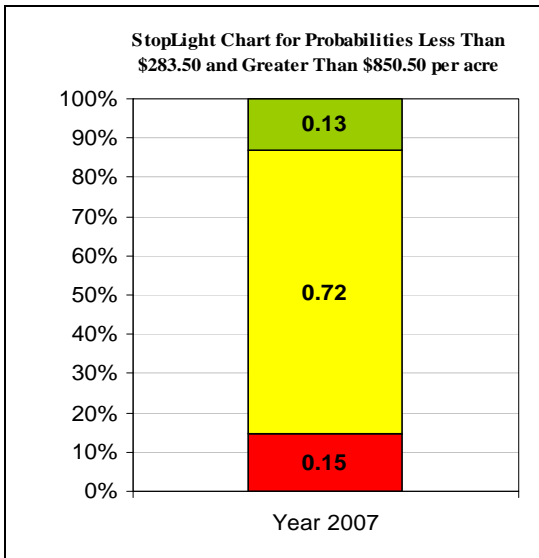
11. Table Grape Model

Higher cut-off value of \$4,774.50/acre and lower cut-off value of \$1,591.50/acre.



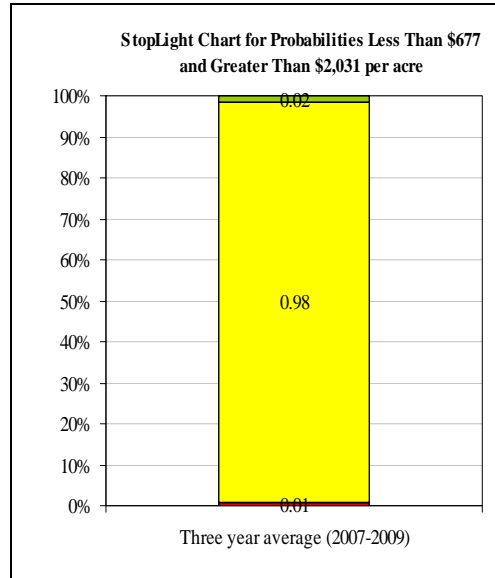
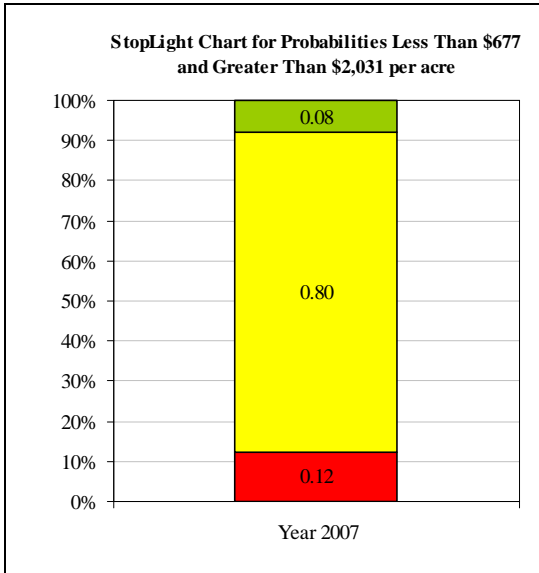
12. Thompson Seedless Grape Model

Higher cut-off value of \$850.50/acre and lower cut-off value of \$283.50/acre.



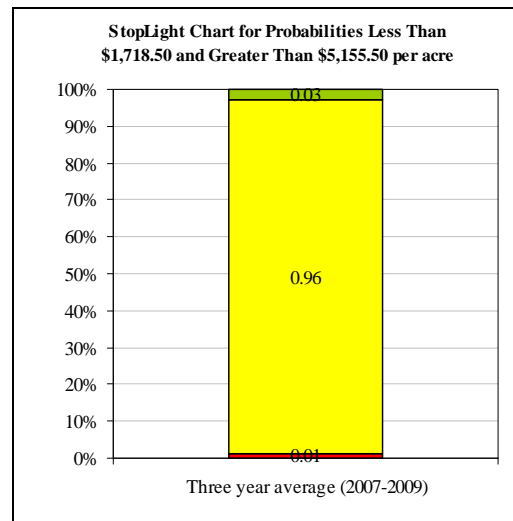
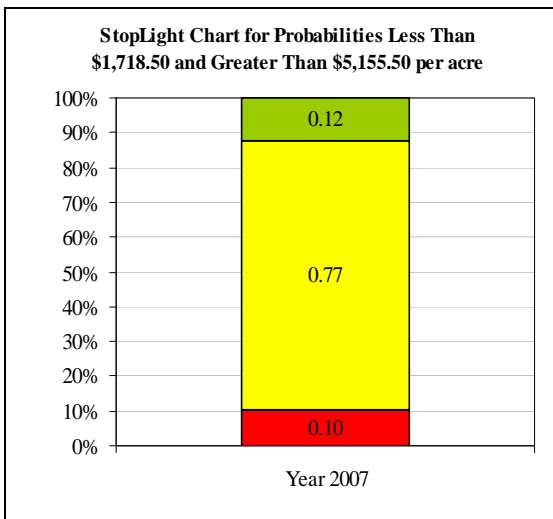
13. Walnut Model

Higher cut-off value of \$2,031/acre and lower cut-off value of \$677/acre.



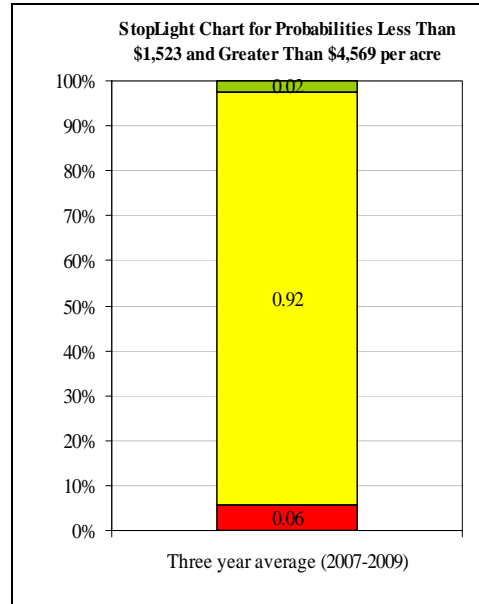
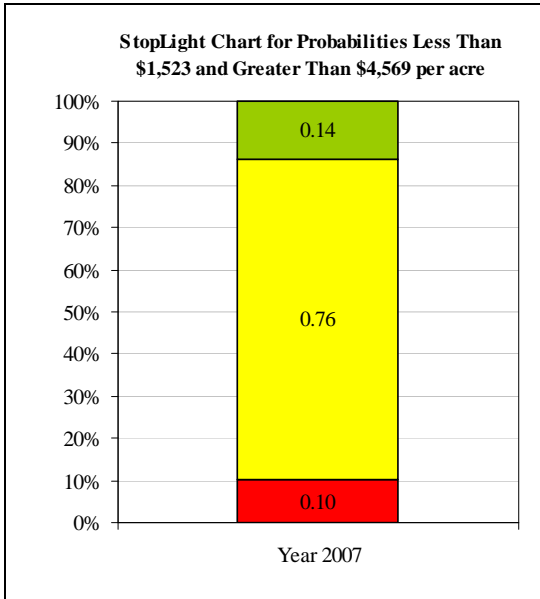
14. Apricot Model

Higher cut-off value of \$5,155.50/acre and lower cut-off value of \$1,718.50/acre.



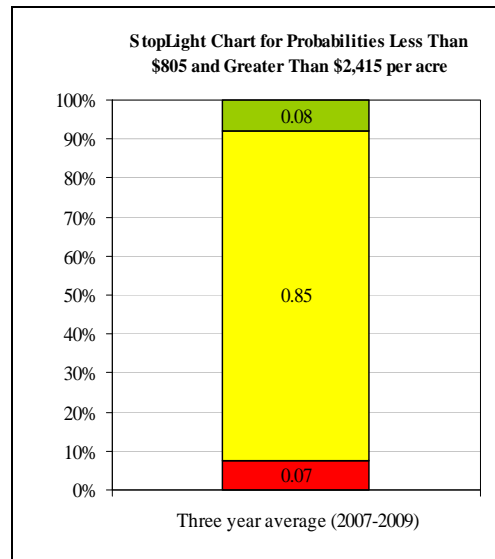
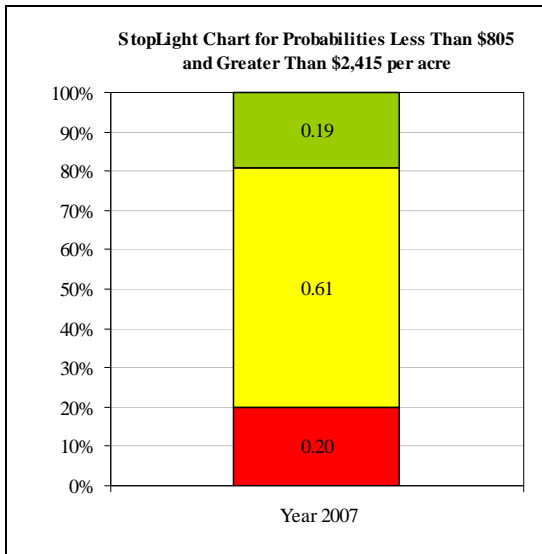
15. Avocado Model

Higher cut-off value of \$4,569/acre and lower cut-off value of \$1,523/acre.



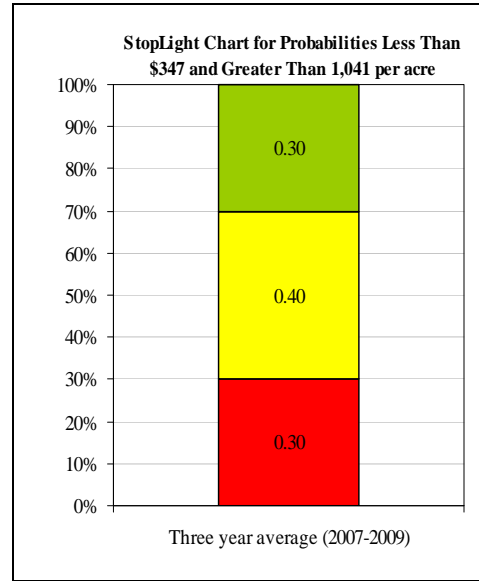
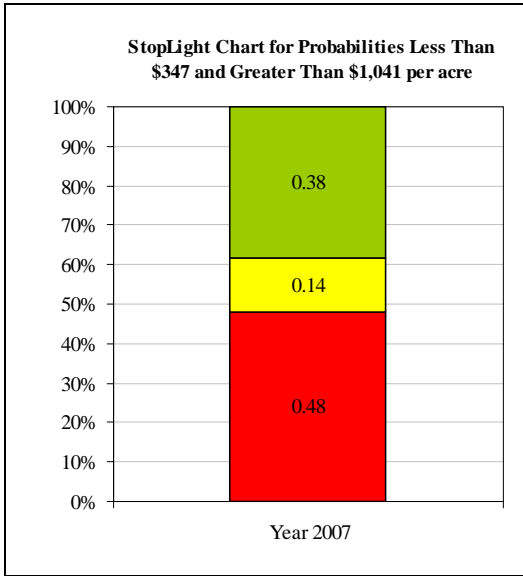
16. Fresh Carrot Model

Higher cut-off value of \$2,415/acre and lower cut-off value of \$805/acre.



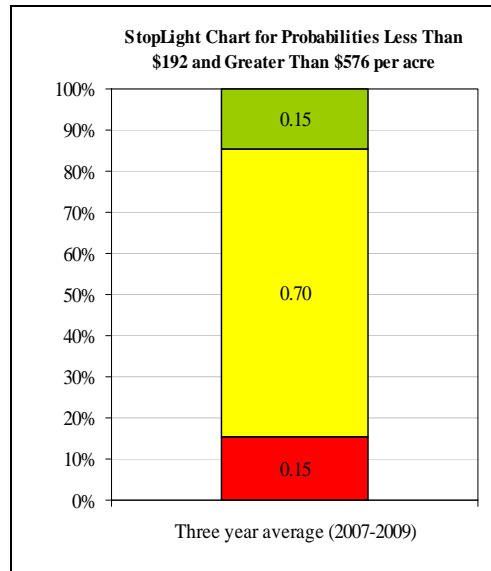
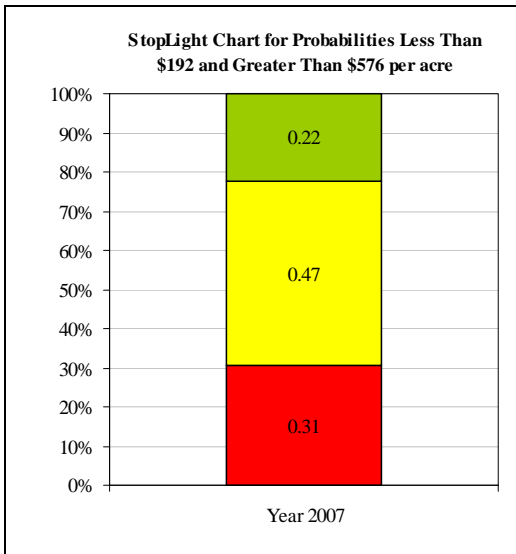
17. Fresh Tomato Model

Higher cut-off value of \$1,041/acre and lower cut-off value of \$347/acre.



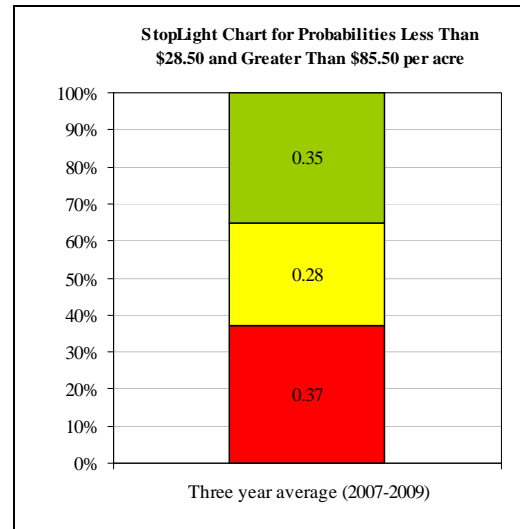
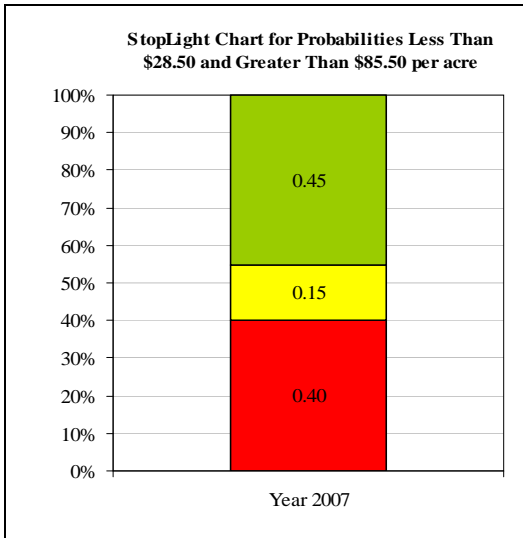
18. Processing Carrot Model

Higher cut-off value of \$576/acre and lower cut-off value of \$192/acre.



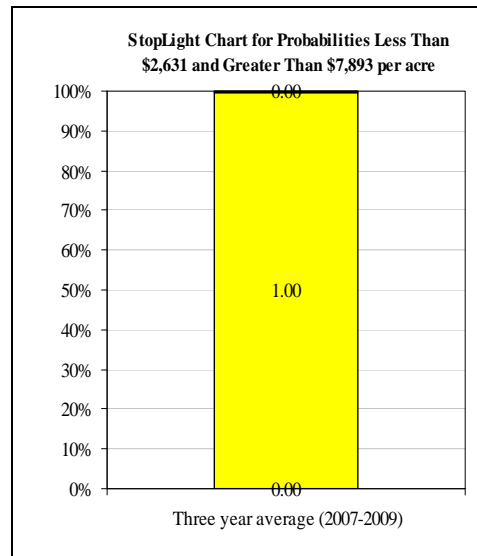
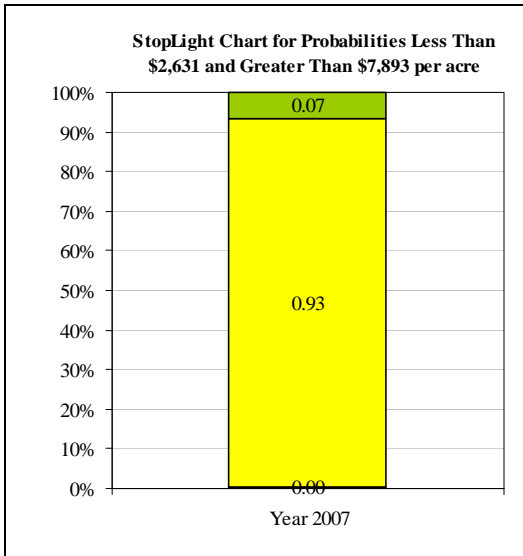
19. Processing Tomato Model

Higher cut-off value of \$85.50/acre and lower cut-off value of \$28.50/acre.



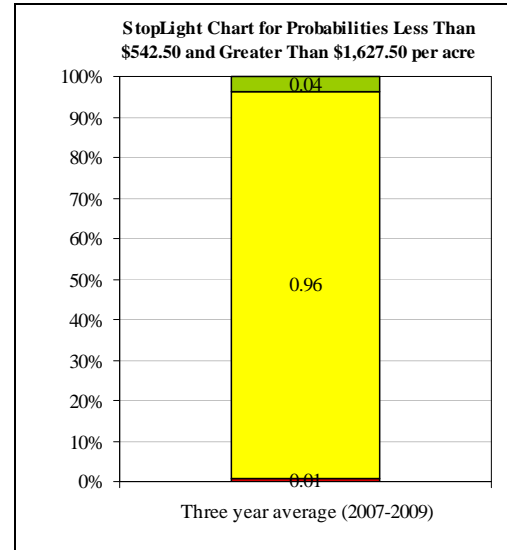
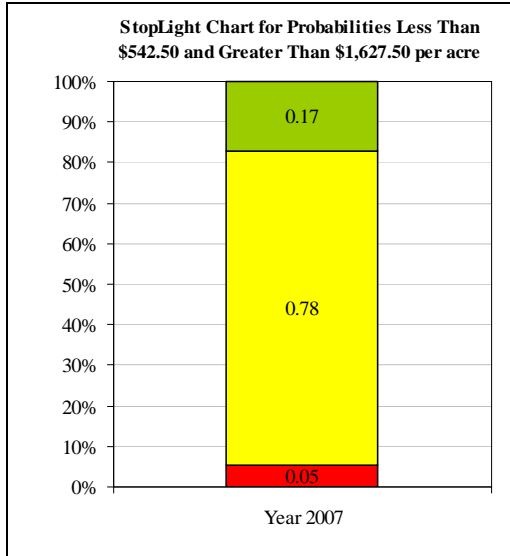
20. Wine Grape Model

Higher cut-off value of \$7,893/acre and lower cut-off value of \$2,631/acre.



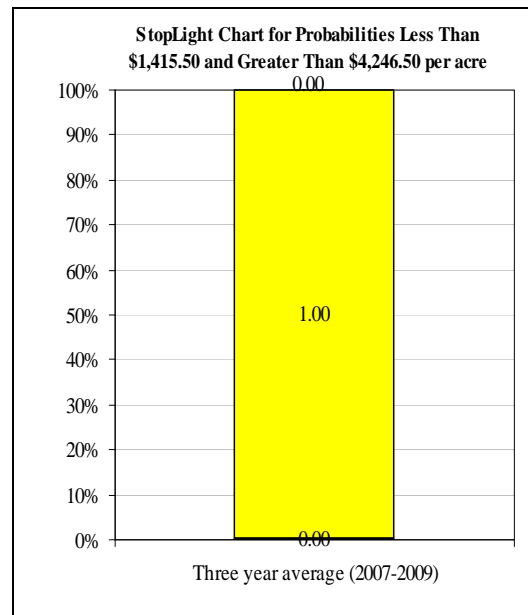
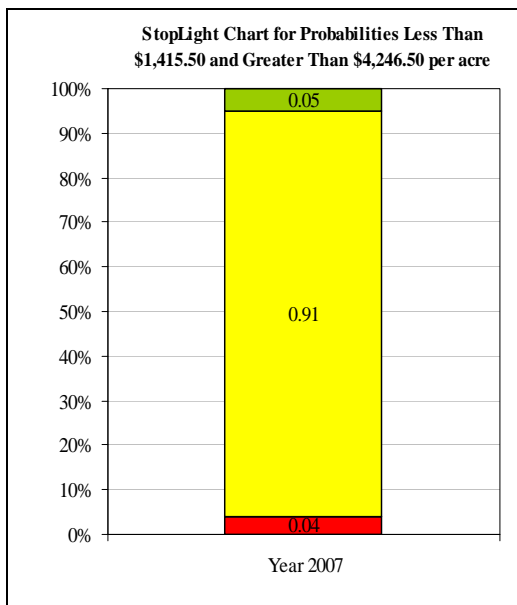
21. China - Apple Model

Data from China's Statistics Book of Cost and Benefit of Agricultural Products is used to construct the model. A higher cut-off value of \$1,627.50/acre and lower cut-off value of \$542.50/acre were chosen for China apple model.



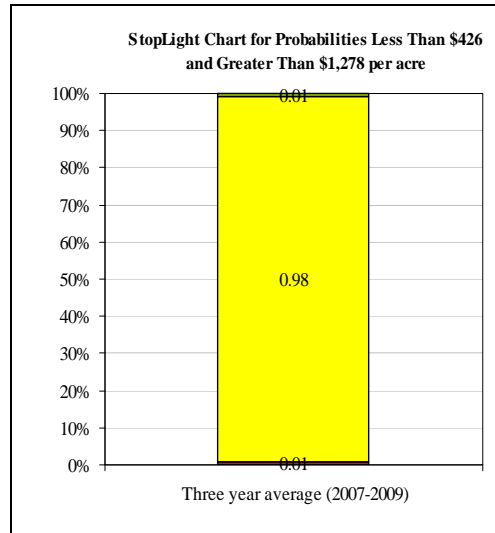
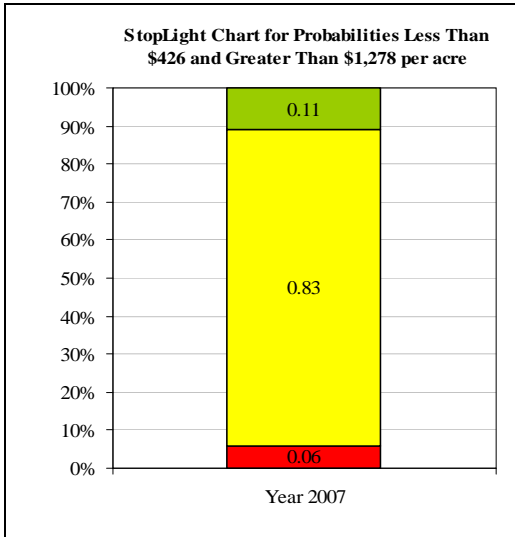
22. China – Peach Model

Data was obtained from author's field survey in Shandong Province in summer 2007. A higher cut-off value of \$4,246.50/acre and lower cut-off value of \$1,415.50/acre were chosen for China peach model.



23. China – Broccoli Model

Data was obtained from author's field survey in Shandong Province in summer 2007. Higher cut-off value of \$1,278/acre and lower cut-off value of \$426/acre were chosen for China broccoli model.



III. APPLE, PEACH AND BROCCOLI PRODUCTION IN CHINA AND CALIFORNIA

One of the significant differences in costs of agricultural production between China and California is the labor cost caused by differences in wage rate. For example, in California, labor cost is \$11.84 per hour (\$8 per hour plus Social Security, unemployment insurance, transportation, workman's compensation, supervision, and fringe benefits) based on the 2007 survey data. For the China models, labor is calculated at \$2 per day. Thus, if labor cost is underestimated then the total cost is underestimated which lead to overestimation in net return for the China models. In order to understand the sensitivity of labor cost on the net return in China models, we have considered three scenarios for the China models:

- Scenario 1: Wage rate equal to \$2 per day, which is used in the current China models as the baseline.
- Scenario 2: Increase wage rate to \$6/day which is the common off-farm wage rate.
- Scenario 3: Consider the wage rate as one third of the wage rate of California, \$32 /day (Wage rate in the US: $\$11.84 / \text{hour} * 8 \text{ hours/day} = \$95 / \text{day}$. One third of the wage rate in the US: $95/3 = \$32 / \text{day}$).

Table 3 shows the cost and net turn of apple, peach and broccoli production in China models and California models with above different scenarios. Mean of the simulated net return for the China model with different wage rate scenarios are shown in Table 4. And StopLight Charts are presented in Figure 3 with different scenarios.

Table 3 – 1. Cost and net return of production in China and California: Apple

(1US\$ = 7.5 RMB, 1 acre = 6 mu)

| | China* | California** |
|--|---------------|---------------------|
| Return and Net Return above Cash Cost | | |
| Total Return (\$/acre) | 2,116 | 15,300 |
| Yield (Tons/acre) | 11 | 30 |
| Price (\$/ton) | 189 | 510 |
| Net Return above Cash Cost (\$/acre) | 1,185 | 4,919 |
| Cash Cost | | |
| | | (\$/acre) |
| Fertilizer | 244 | 37 |
| Pesticides*** | 85 | 297 |
| Plastics | 16 | n.a |
| Irrigation | 37 | 113 |
| Pollination | n.a | 125 |
| Depreciation of fixed assets and others | 21 | 353 |
| Packing house cost | n.a | 6,915 |
| Cool, Sort, Pack, and Store | n.a | 6,825 |
| Handle, Store | n.a | 90 |
| Labor cost | 484 | 2,298 |
| Cultural labor cost | n.a | 658 |
| Harvest labor cost | n.a | 1,640 |
| Family labor | 401 | n.a |
| Hired labor | 83 | n.a |
| Others | 43 | 233 |
| Total cash cost per acre | 931 | 10,381 |
| Yield (tons/acre) | 11 | 30 |
| Total cash cost per ton | 83 | 346 |

Note: * The data is from China's Statistics Book of Cost and Benefit of Agricultural Products, 2006.

** The 2001 year data of Granny Smith apple in San Joaquin Valley North, study by the UCCES.

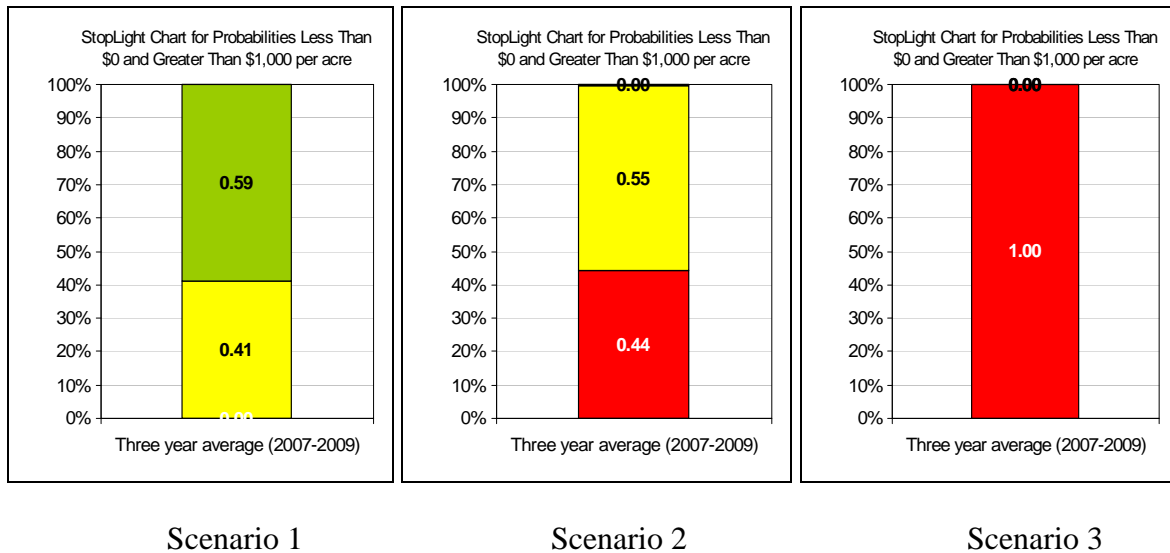
*** It includes the pesticide for pest, disease, and weed control.

Table 4 – 1. Mean of Simulated Net Return in China Apple Model (\$/acre)

| | Scenario 1* | Scenario 2** | Scenario 3*** |
|----------------------------|----------------|--------------|-----------------|
| Average (2007-2009) | \$1,085 | \$63 | -\$6,579 |
| 2007 | \$1,132 | \$164 | -\$6,124 |
| 2008 | \$1,087 | \$66 | -\$6,569 |
| 2009 | \$1,035 | -\$42 | -\$7,043 |

Note: * wage rate = \$2 /day
 ** wage rate = \$6 /day
 *** wage rate = \$32 /day

Figure 3 – 1. StopLight Chart for the China Apple Model with three Scenarios



Above table and figure indicate apple in China became unprofitable if labor cost is increased from the present wage rate. When the wage rate became one third of California wage, Chinese apple seems no longer competitive.

Table 3 – 2. Cost and net return of production in China and California: Peach

(1US\$ = 7.5 RMB, 1 acre = 6 mu)

| | China* | California** |
|--|---------------|---------------------|
| Return and Net Return above Cash Cost | | |
| Total Return (\$/acre) | 3,600 | 4,692 |
| Yield (Tons/acre) | 15 | 12 |
| Price (\$/ton) | 240 | 400 |
| Net Return above Cash Cost (\$/acre) | 2,912 | 1,593 |
| Cash Cost | | |
| | | (\$/acre) |
| Fertilizer | 208 | 11 |
| Pesticides*** | 240 | 226 |
| Irrigation | 80 | 42 |
| Depreciation of fixed assets and others | n.a | 251 |
| Labor cost | 160 | 1,122 |
| Cultural labor cost | n.a | 1,090 |
| Harvest labor cost | n.a | 17 |
| Post-harvest labor cost | n.a | 15 |
| Family labor | 160 | n.a |
| Hired labor | 0 | n.a |
| Harvest cost net labor cost | n.a | 1,258 |
| Hauling | n.a | 100 |
| Packing | n.a | 1,100 |
| Assessment | n.a | 58 |
| Other cost | n.a | 189 |
| Total cash cost per acre | 688 | 3,099 |
| Yield (tons/acre) | 15 | 20 |
| Total cash cost per ton | 46 | 155 |

Note: * The data is from the author's yellow peach field survey in China, summer 2007.

** The 2003 year data of cling peach (late harvested variety) in Sacramento and San Joaquin Valley, study by the UCCES.

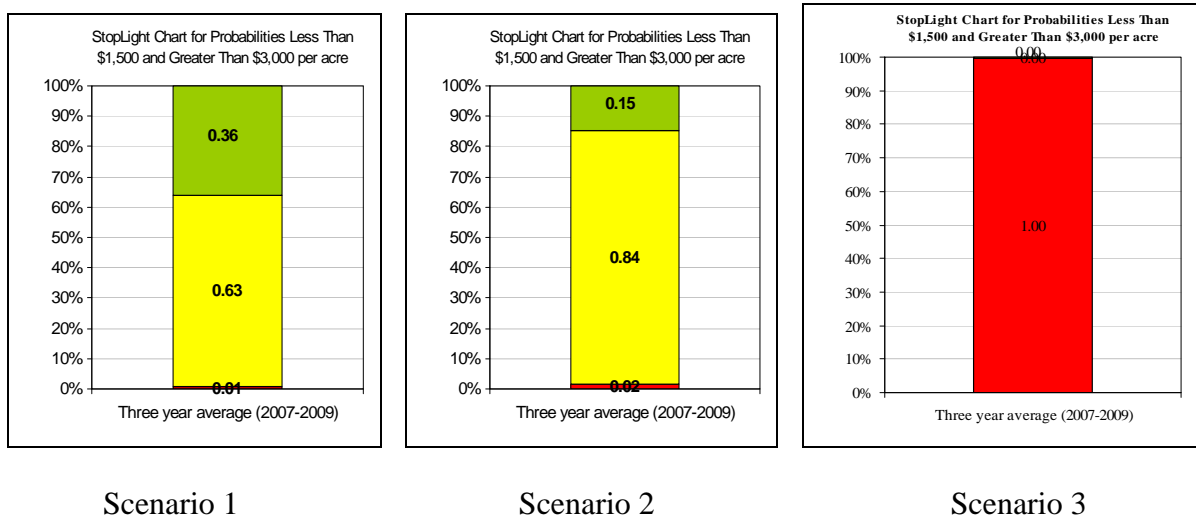
*** It includes the pesticide for pest, disease, and weed control.

Table 4 – 2. Mean of Simulated Net Return in China Peach Model (\$/acre)

| | Scenario 1* | Scenario 2** | Scenario 3*** |
|----------------------------|----------------|----------------|---------------|
| Average (2007-2009) | \$2,831 | \$2,493 | \$296 |
| 2007 | \$2,866 | \$2,546 | \$466 |
| 2008 | \$2,832 | \$2,494 | \$300 |
| 2009 | \$2,795 | \$2,439 | \$123 |

Note: * wage rate = \$2 /day
 ** wage rate = \$6 /day
 *** wage rate = \$32 /day

Figure 3 – 2. StopLight Chart for the China Peach Model with three Scenarios



Unlike apple, peach in China still have positive return for all scenarios. However, for the three year period net return will decline significantly for the scenario 3.

Table 3 – 3. Cost and net return of production in China and California: Broccoli

(1US\$ = 7.5 RMB, 1 acre = 6 mu)

| | China* | California ** |
|--|--------------|----------------|
| Return and Net Return above Cash Cost | | |
| Total Return (\$/acre) | 1,760 | 5,124 |
| Yield (Tons/acre) | 8.25 | 8.61 |
| Price (\$/ton) | 213 | 595 |
| Net Return above Cash Cost (\$/acre) | 936 | -160 |
| Cash Cost | | |
| | | (\$/acre) |
| Seed | \$120 | \$100 |
| Fertilizer | \$160 | \$200 |
| Irrigation | \$8 | \$140 |
| Pesticide *** | \$16 | \$120 |
| Fuel (Tractor, pumps, etc.) | n.a | \$140 |
| Others cultural costs**** | \$40 | \$426 |
| Labor cost | \$480 | \$400 |
| Cultural labor cost | n.a | \$400 |
| Harvest labor cost | n.a | \$0 |
| Post-harvest labor cost | n.a | \$0 |
| Family labor | \$480 | n.a |
| Hired labor | \$0 | n.a |
| Harvest cost net labor cost | n.a | \$3,447 |
| Cut, wrap & pack | n.a | \$1,498 |
| Carton | n.a | \$749 |
| Haul | n.a | \$38 |
| Cool, palletize | n.a | \$52 |
| Sellng/marketing | n.a | \$375 |
| Fuel/Energy | n.a | \$736 |
| Cash Overhead | n.a | \$311 |
| Total cash cost per acre | \$824 | \$5,284 |
| Yield (tons/acre) | 8.25 | 8.61 |
| Total cash cost per ton | \$100 | \$614 |

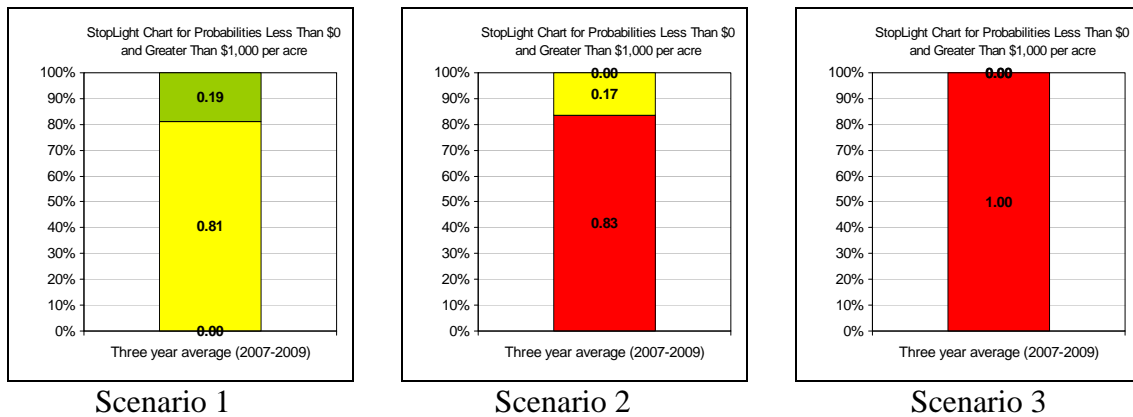
Note: * The data is from the author's broccoli field survey in China, summer 2007.
 ** The 2004 year data of broccoli in Salinas Valley is from the specialty crop representative farm simulation model created by the CISSC.
 *** It includes the pesticide for pest, disease, and weed control.
 **** Others cultural costs in California includes application/entomology, soil amendmets/compost/cover crop, lube & repair net of labor, equipment/pipe rental, Thinning/hoeing; Others cultural costs in China is the plastic cost.

Table 4 – 3. Mean of Simulated Net Return in China Broccoli Model (\$/acre)

| | Scenario 1* | Scenario 2** | Scenario 3*** |
|----------------------------|--------------------|---------------------|----------------------|
| Average (2007-2009) | \$852 | -\$162 | -\$6,753 |
| 2007 | \$897 | -\$63 | -\$6,303 |
| 2008 | \$852 | -\$161 | -\$6,745 |
| 2009 | \$805 | -\$264 | -\$7,211 |

Note: * wage rate = \$2 /day
 ** wage rate = \$6 /day
 *** wage rate = \$32 /day

Figure 3 – 3. StopLight Chart for the China Broccoli Model with three Scenarios



Chinese broccoli is more sensitive to changes in wage rate relative to other two crops. When wage rate changes to \$6 per day, the model indicates the simulated average net return became negative for this produce.

IV. AN ECONOMIC ASSESSMENT OF PRODUCER CHARGE BACK FEE FOR DISPOSAL OF FOOD PROCESSING WASTE IN STANISLAUS COUNTY, CALIFORNIA

Introduction

As background to the issues facing Stanislaus County producers the following information has been extracted and paraphrased from Central Valley Regional Water Control Board staff reports submitted or presented in public forum in 2005.

The food production and processing sector is a major component of the Central Valley Region's economy and employs up to 35 percent of the workforce in some counties. This sector generates about 20 billion dollars annually, most of it from the San Joaquin Valley. Due to its agricultural wealth, the Region contains some of the largest food processing plants in the nation. While some discharge to publicly owned treatment works, most discharge to "land application sites." The source water for many farms and food processing plants is the Region's groundwater.

In 1978 Stanislaus County, California established the Food Processing Residue Use Program. This program allowed for the diversion of food processing residue from landfills to permitted sites that use the residue as direct cattle feed; feed processing product, or soil supplements. The majority of food residue in the program originated from food processing plants such as Hunt-Wesson, Del Monte, Stanislaus Foods, Patterson Frozen Foods, and Eckert Cold Storage. Residue use sites include dairies and feedlots, which directly feed the material to livestock; land spreading operations; and animal feed processors. The program was originally sponsored by the food processing manufacturers. As the commodity users recognized the value of the program, the funding system was changed to bill the food residue use sites for their proportional costs of the program. During the first twenty years of the program, more than 52 million tons of food residues were diverted from landfill to permitted sites throughout the Central Valley region.

In 1985, State Water Resources Control Board adopted regulations in Title 27 for wastes discharged to land. Title 27 requires wastes that have significant potential to cause groundwater pollution be fully contained if they are discharged to land for treatment, storage or disposal. Title 27 establishes prescriptive standards for liners, collection systems, as well as requirements for monitoring and closure. In the Central Valley Region, discharges of food processing waste to land have historically been regulated under the Waste Discharge Requirement (WDR; formerly Non-Chapter 15) Program, and have been considered to be exempt from the full-containment, monitoring, financial assurance and corrective action requirements of the Title 27 regulations.⁴

⁴ Title 27, California Code of Regulations (CCR), Division 2, Subdivision 1, *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, §20005, *et seq.* Discharges of food processing waste to land must comply with the Title 27 regulatory requirements unless one of the following applies: (1) The discharge is specifically exempted pursuant to one of three subsections of §20090 (b) Discharges of nonhazardous wastewater to land under WDRs, reclamation requirements or a waiver and which comply with the applicable Basin Plan, (f) Use of nonhazardous decomposable waste as a soil amendment pursuant to best management practices, (i) Waste treatment in fully enclosed facilities, such as tanks, or in concrete-lined

In authorizing land application sites through issuance of WDRs, the Regional Board has historically exempted these sites from Title 27 because it was then assumed they conformed to the applicable basin plan. Where a discharge might degrade groundwater, it was assumed that best management practices would minimize degradation and prevent pollution.

According to the Regional Board staff report, prescriptive and performance standards of the Title 27 regulations (e.g., pond liner systems, monitoring), reverse osmosis salt removal technology, and U.S. Environmental Protection Agency (USEPA) technology-based effluent standards are typically not evaluated as alternatives in the WDR Program, even though they are usually practicable. Little or no monitoring has been required to demonstrate that groundwater pollution has not occurred (i.e., to demonstrate compliance with water quality objectives in the basin plans) or, if it has occurred, that the requirements of the Antidegradation Policy have been satisfied. Where significant groundwater impacts were found, dischargers have been required to modify their waste management practices to prevent future impacts. However, investigation and cleanup of groundwater, in accordance with State Water Board Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* (Cleanup Policy), has not often been required.

Historically, many of the smaller food processing waste discharges were regulated under conditional waivers of WDRs—where a waiver was viewed as not against the public interest—or, for the many larger operations, by individual WDRs. However, Section 13269 of the California Water Code, as amended in 1999 (SB390), caused all Regional Board waivers that were in effect as of 1 January 2000 to expire on 1 January 2003. Formal Regional Board action was required, including a public hearing, to continue any waiver after that date. Further, all renewed or newly adopted waivers now automatically expire every five years and must require monitoring to demonstrate compliance with waiver conditions. Section 13269, as amended, requires the Regional Boards to re-evaluate how food processing and other wastes are being managed under waivers.⁵

Policy Alternatives and Methodology

Given the dynamic policy environment surrounding the regulation of food processing waste disposal it is prudent for industry representatives to evaluate the possible outcomes that may result from alternatives to existing programs. One alternative to the existing regulation on the practice of land application of food processing waste in the region is to require processing firms to haul waste to an authorized disposal site. If such a policy was adopted it is likely

facilities of limited areal extent; (2) The waste is classified as “inert”, i.e., it does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and does not contain significant quantities of decomposable waste.

⁵ Most of the information provided in this review was taken directly from Staff Report for the 16/17 March 2006 meeting of the Central Valley Regional Water Quality Control Board WSW: 1 March 2006 and 28 January 2005 Board meeting of the Central Valley Regional Water Quality Control Board

that Stanislaus County producers would be assessed a fee by processors equivalent to the firm's cost of disposal or receive a lesser price for their product that reflects the added cost to the firm. The amount of such a fee or decrease in price growers may face is difficult to determine. The extent to which the entire cost would be shifted to the grower is also uncertain. The overall economic impact of a change in policy governing land based application of food processing waste will be determined by the degree to which firms, producers and related support industries are effected.

One component necessary to begin to assess the economic effects of any change in policy related to land application of food processing waste is a baseline estimate of the policy's potential effect on grower profitability. The purpose of this study is to apply a set of representative farm simulation models to determine the potential change in the returns to growers if processing firms assess a charge back fee to cover the increase in cost associated with a change in policy requiring disposal of waste products in approved sites.

The analysis compares existing returns above cash cost for processing tomato and cling peach growers before and after the imposition of a charge back fee equal to the estimated per unit cost for waste disposal. In addition a three year forecast of the possible change in net returns, above cash costs is provided.

The data used for the stochastic simulation models is based on University of California Extension, Cost and Returns survey information as amended by input from regional producers. The estimate of costs associated with the disposal of peach and tomato processing waste was supplied by representatives from regional food processing firms. The results provided are mean values for net returns derived from 500 runs of the models allowing for variability consistent with observed historical probability distribution functions associated with regional prices and yields for the individual commodities.

Results

The representative farm models for cling peaches and processing tomatoes were used to analyze the changes in returns to cash costs if Stanislaus County producers were assessed a fee equal to the estimated cost of disposal of processing waste at approved facilities rather than being allowed to incorporate that waste into their fields, the current practice.

The analysis indicates that while changes to existing disposal practices would have negative effects on the revenues of peach and tomato producers, tomato enterprises would not generate a positive net return. Under current cultural practices the Stanislaus County producers have an average net return above cash cost of \$57 and \$1,557 per acre for tomato and cling peach production respectively (Table 5). Over the three year forecast horizon, both enterprises continue to have positive, albeit declining net returns. Under the range of charge back fees provided by industry sources tomato returns decline to an average of -\$216 to -\$319 per acre. Over the same range of charge back fees net returns to cling peach producers decline to an average of \$1,401 to \$1,342 per acre.

Using the stoplight chart analysis described in Section II, the probabilities of producers generating various levels of net returns are analyzed for one year and on average over the 3

year forecast horizon. For tomatoes the probability of generating a net return of \$50 per acre and above was compared with that of zero or negative returns. For cling peaches the alternative returns considered were the low yield/high price and high yield/low price combinations provided in the University of California Cooperative Extension Service most recent Cost and Returns Survey, \$1,450 and \$1,728 per acre respectively. The analysis calculates the probability of generating returns at or above the higher range (green); between the high and low range (yellow) and at or below the lower range (red) (Figures 4 – 7).

Results from the representative farm model of Stanislaus processing tomato production under current cultural practices provides a 54 percent probability that producers would generate a return above \$50 per acre in 2007, 13 percent probability of returns between \$50 and \$0, and a 33 percent probability of negative returns (Figure 4). With the imposition of a charge back fee the probability of generating a positive net return for processing tomato production is reduced to a range of 6 to 11 percent. Over the three year forecast period the probability of generating a positive return from processed tomato production under current cultural practices increases to 70 percent, however when a charge back fee is applied the model results indicate there is virtually no likelihood of a positive return (Figure 5).

Results from the representative farm model of Stanislaus cling peach production under current cultural practices provides a 32 percent probability that producers would generate a return above \$1,728 per acre, 35 percent probability of returns between \$1,728 and \$1,450, and a 33 percent probability of returns below \$1,450 per acre in 2007 (Figure 6). With the imposition of a charge back fee the probability of generating a return above \$1,450 per acre declines from 67 percent to a range of 47 to 40 percent. Over the three year forecast period the probability of generating a return above \$1,450 increases to 71 percent under current cultural practices, but declines to a range of 39 to 30 percent under alternative fee levels (Figure 7).

Conclusions

The results of the analysis of potential change in regulations currently governing disposal of peach and tomato processing waste in Stanislaus County suggest significant negative effects on the producers of those commodities. While peach producers are able to maintain a positive net return per acre, few if any producers of processing tomatoes would likely be able, to remain in production if charge back fees were imposed. In addition the likelihood of tomato processors being about to remain in business without a local supply of product is questionable.

This analysis, while preliminary and in need of increased precision regarding the costs of alternative disposal methods, provides an example of how the projects representative models can be used to develop quantitative estimates of potential policy changes that can be useful to agricultural decision makers and government planners.

Stanislaus Representative Disposal Cost Charge

The cost of processing waste disposal if that waste had to be taken to the Bay Area or alternative waste disposal site has a range of \$800 to \$1,100 a truckload not accounting for labor and equipment costs

Each truck load is 25 tons of processing waste by-product.

Total amount of product processed is 125,000 tons.

Approximately 30,000 tons of the 125,000 tons is processing waste (peels, juice, pits, etc).

30,000 tons/25 tons per load = 1,200 loads of processing waste to be trucked and dumped.

Three cost scenarios:

1. \$800/load. $1,200 \text{ tons/load} \times \$800/\text{load} = \$960,000$. Waste disposal back charge to grower-suppliers is $\$960,000/125,000 \text{ tons} = \mathbf{\$7.68/\text{ton of processed product}}$.
2. \$950/load. $1,200 \text{ tons/load} \times \$950/\text{load} = \$1,140,000$. Waste disposal back charge to grower-suppliers is $\$1,140,000/125,000 \text{ tons} = \mathbf{\$9.12/ \text{ton of processed product}}$.
3. \$1,100/load. $1,200 \text{ tons/load} \times \$1,100/\text{load} = \$1,320,000$. Waste disposal back charge to grower-suppliers is $\$1,320,000/125,000 \text{ tons} = \mathbf{\$10.56/ \text{ton of processed product}}$.

Table 5. Impact of Waste disposal back charge on processing tomato grower's net return

Mean of simulated net return (\$/acre)

| | No back charge | Low back charge (\$7.68/ton) | Med back charge (\$9.12/ton) | High back charge (\$10.56/ton) |
|----------------|---------------------------|---|---|---|
| Average | \$57 | -\$216 | -\$268 | -\$319 |
| 2007 | \$74 | -\$195 | -\$246 | -\$296 |
| 2008 | \$49 | -\$225 | -\$276 | -\$327 |
| 2009 | \$47 | -\$229 | -\$281 | -\$333 |

Table 6. Impact of waste disposal back charge on processing peach grower's net return

| | No back charge | Low back charge (\$7.68/ton) | Med back charge (\$9.12/ton) | High back charge (\$10.56/ton) |
|----------------|---------------------------|---|---|---|
| Average | \$1,557 | \$1,401 | \$1,372 | \$1,342 |
| 2007 | \$1,575 | \$1,421 | \$1,392 | \$1,364 |
| 2008 | \$1,552 | \$1,396 | \$1,366 | \$1,337 |
| 2009 | \$1,544 | \$1,386 | \$1,356 | \$1,327 |

*Note: in order to understand the distribution of the net return, we allow both the yield and price to vary simultaneously 500 times, according to the historical distributions and correlation of price and yield. Each time, a net return is calculated. Data in the table are the mean of the simulated net return.

Figure 4. Impact of back charge on mean of simulated net return for processed tomatoes: year 2007

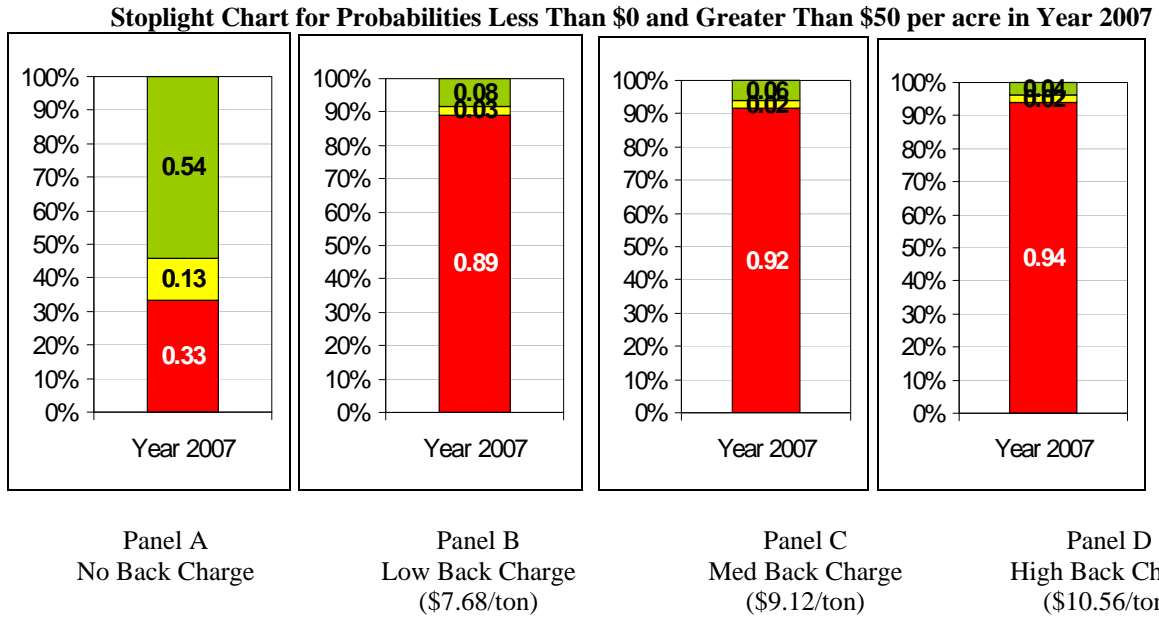


Figure 5. Impact of back charge on mean of simulated net return for processed tomatoes: 3 year average (2007-2009)

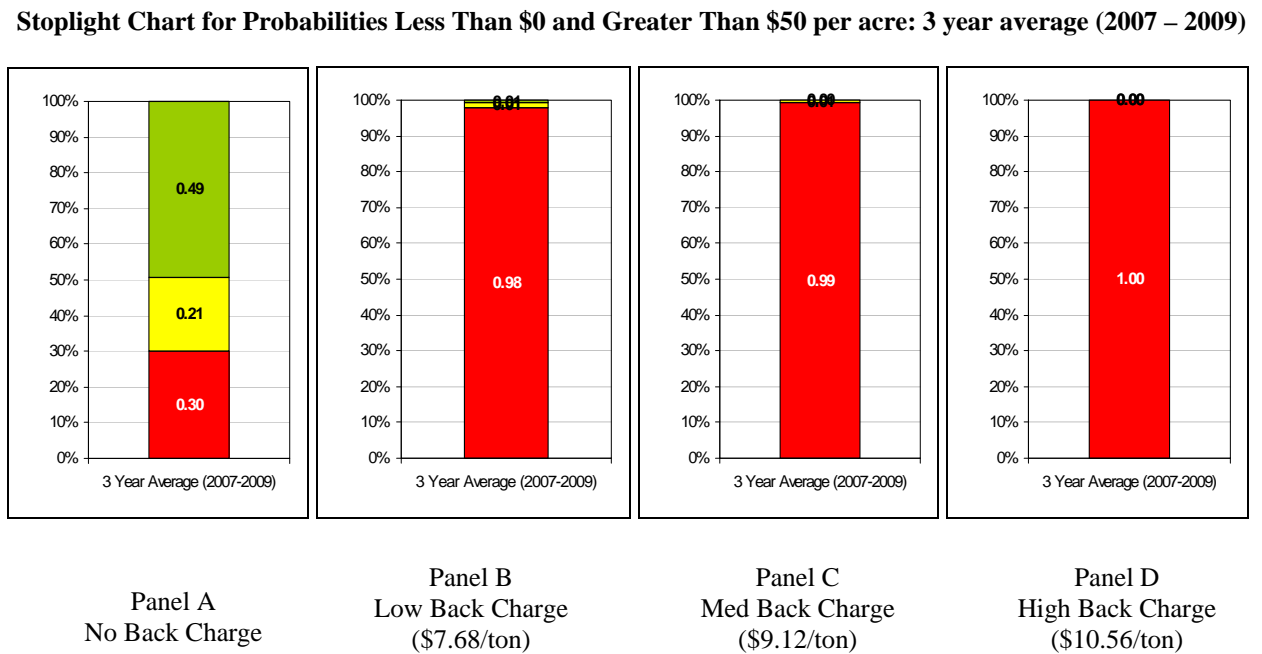


Figure 6. Impact of back charge on mean of simulated net return for cling peaches: year 2007

Stoplight Chart for Probabilities Less Than \$1,450 and Greater Than \$1,728 per acre: 2007

Note: \$1,450 /acre is the net return above cash costs for cling peach when the yield (18 ton/acre) is low but price (\$245/ton) is high and \$1,728/acre is the net return above cash costs when yield (22 ton/acre) is high but price (\$225/ton) is low, according to UCCES study.



Panel A
No Back Charge

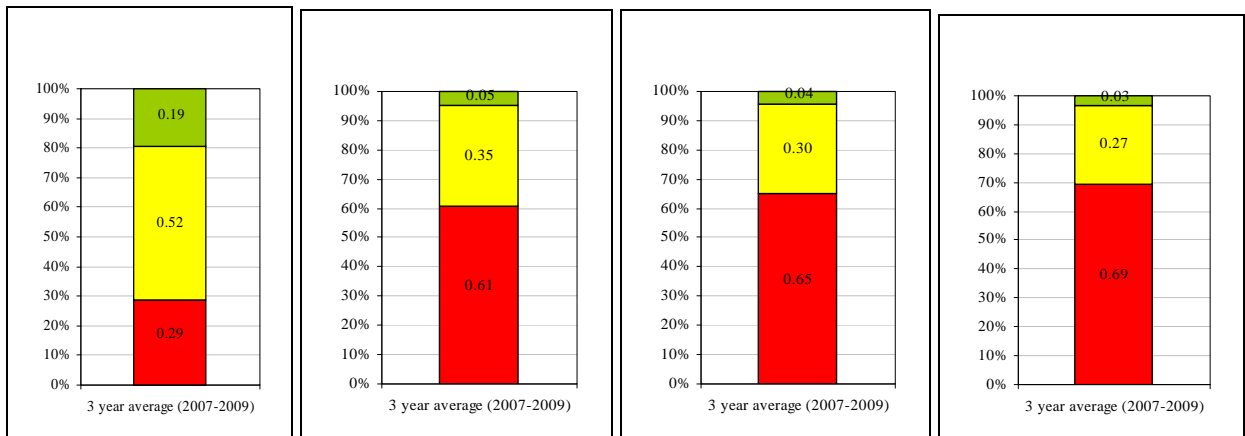
Panel B
Low Back Charge
(\$7.68/ton)

Panel C
Med Back Charge
(\$9.12/ton)

Panel D
High Back Charge
(\$10.56/ton)

Figure 7. Impact of back charge on mean of simulated net return for cling peaches: 3 year average (2007-2009)

Stoplight Chart for Probabilities Less Than \$1,450 and Greater Than \$1,728 per acre: 3 year average (2007 – 2009)



Panel A
No Back Charge

Panel B
Low Back Charge
(\$7.68/ton)

Panel C
Med Back Charge
(\$9.12/ton)

Panel D
High Back Charge
(\$10.56/ton)

V. APPENDIX: PRODUCER SURVEY

1. Almond
2. Apple
3. Cantaloupe
4. Cherry
5. Orange
6. Nectarine
7. Peach
8. Pear
9. Plum
10. Strawberry
11. Table Grape
12. Thompson Seedless Grape
13. Walnut
14. Apricot
15. Avocado
16. Fresh Carrot
17. Fresh Tomato
18. Processing Carrot
19. Processing Tomato
20. Wine Grape

California Almond Producer Survey

I. Farm Operation Information

| Items | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm (acre) | 55 | |
| Acres in Production (acre) | 55 | |
| Acres Owned (acre) | 55 | |
| Acres Leased (acre) | 0 | |
| Cash rent (\$/acre) | \$632 | |
| Value of Land (\$/acre) | \$12,632 | |
| Yield (pounds/acre) | 1,840 | |
| Market price (\$/pound) | \$2.21 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

*2006 year data of almond with flood irrigation in San Joaquin Valley North

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$277,904 | |
| Year of Loan | 2004 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural and Harvest Costs

| Items | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Total Cultural Costs (\$/acre) | \$1,405 | |
| Winter Sanitation | \$140 | |
| Planting/replacement | \$0 | |
| Weeding/Thining/Pruning | \$153 | |
| Irrigation | \$30 | |
| Materials/application/Fertilizer | \$0 | |
| PCA | \$0 | |
| Pollination | \$250 | |
| Disease control | \$65 | |
| Pest and animal control | \$154 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| <i>Sub total net fertilizer, fuel and labor</i> | \$792 | |
| Fertilizer | \$203 | |
| Fuel | \$86 | |
| Labor | \$324 | |
| Total Harvest Costs (\$/acre) | \$282 | |
| Shake | \$95 | |
| Sweep | \$45 | |
| Han Rake Nuts | \$1 | |
| Pick up and Hauling | \$81 | |
| Hull/Shell | \$60 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Total Post-Harvest Costs (\$/acre) | \$31 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Other (interest on operating capital at 9.25%) | \$31 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Total Operating Cost (\$/acre) | \$1,718 | |

V. Cash Overhead Expenses (\$/acre)

| Items | UCCES Data | Your Farm Data |
|-------------------------------------|--------------|----------------|
| Office Expense | \$50 | |
| Liability Insurance | \$6 | |
| Sanitation Fees | \$6 | |
| Environmental Fee | \$5 | |
| Property Taxes | \$159 | |
| Property Insurance | \$23 | |
| Investment Repairs | \$36 | |
| Land rent | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$285 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|-----------------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Fuel Tanks | \$0 | | \$0 | | | | 30 | | \$0 | |
| Shop Tools | \$0 | | \$0 | | | | 20 | | \$0 | |
| Irrigation System | \$30,000 | | \$0 | | | | 15 | | \$0 | |
| Equipment/Vehicle | \$150,000 | | \$0 | | | | 25 | | \$0 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$0 | | \$0 | | | | 30 | | \$0 | |
| Land | \$694,760 | | \$0 | | | | 100 | | \$0 | |
| Total | \$874,760 | | \$0 | | | | | | \$0 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did before when gasoline price is about \$1 per gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming almond if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming almond? _____.

California Apples Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm | 20 | |
| Acres in Production | 20 | |
| Acres Owned | 20 | |
| Acres Leased | 0 | |
| Cash rent (\$/acre) | \$250 | |
| Value of Land (\$/acre) | \$5,000 | |
| | | |
| Yield (tons/acre) | 30 | |
| % Fresh market | 70% | |
| Fresh market price (\$/ton) | \$700 | |
| Processing market price (\$/ton) | \$65 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2001 year data of Granny Smith apple in San Joaquin Valley North.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1970 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$1,373 | |
| Prune | \$0 | |
| Brush Disposal | \$0 | |
| Disease/Insect Dormant Spray | \$38 | |
| Pollination | \$125 | |
| Chemical Thin | \$13 | |
| Pest Control | \$5 | |
| Disease Control | \$82 | |
| Insect Control | \$210 | |
| Irrigate | \$113 | |
| Weed Control | \$19 | |
| Leaf Analysis | \$2 | |
| Lube and Repair | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub total Cultural Costs net Labor and Fuel | \$644 | |
| Fertilize | \$37 | |
| Fuel | \$41 | |
| Labor | \$658 | |
| Harvest Costs | | |
| Total Harvest Costs (\$/ton) | \$58 | |
| Labor (Harvest and Load Bins) | \$55.40 | |
| Fuel (Harvest and Loan Bins) | \$2.60 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Packing House Costs | | |
| Packing House Costs (\$/ton) | \$335 | |
| Cool, Sort, Pack, and Store (Fresh) | \$325 | |
| Handle, Store (Processing) | \$10 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|-------------------------------------|----------------|----------------|
| Office Expense | \$50 | |
| Liability Insurance | \$6 | |
| Sanitation Fee | \$9 | |
| Safety Training/Equipment | \$0 | |
| Property Taxes | \$91 | |
| Property Insurance | \$25 | |
| Investment Repairs | \$21 | |
| Interest on Operating Capital | \$151 | |
| Regulatory Costs | \$0 | |
| Other cost (please specify it) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$7,060 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$110 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$2,200 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|------------------|-------|------------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$15,000 | | \$0 | | | | 20 | | \$750 | |
| Fuel Tanks and Pumps | \$19,835 | | \$709 | | | | 20 | | \$956 | |
| Shop Tools | \$3,500 | | \$350 | | | | 15 | | \$210 | |
| Irrigation System | \$15,000 | | \$0 | | | | 20 | | \$750 | |
| Equipment/Vehicle | \$20,000 | | \$0 | | | | 15 | | \$1,333 | |
| Hand Tools | \$4,595 | | \$460 | | | | 15 | | \$276 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$88,720 | | \$0 | | | | 17 | | | |
| Land | \$100,000 | | \$100,000 | | | | 25 | | | |
| Total | \$266,650 | | \$101,519 | | | | | | \$9,494 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when gasoline price is about 1\$/gallon?_____. If yes, by how much?_____%
- 2). Similarly, did you use less of rented machines?_____. If yes, by how much?_____%
- 3). Will you give up farming apple if fuel price will increase in the future?_____.
If yes, you will give up farming when gasoline (#87) price is _____(\$/gallon)
- 4). What will you plant if you give up farming apple?_____.

California Cantaloupes Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm | 40 | |
| Acres in Production | 40 | |
| Acres Owned | 0 | |
| Acres Leased | 40 | |
| Cash rent (\$/acre) | \$200 | |
| Value of Land (\$/acre) | \$4,000 | |
| | | |
| Yield (cwts/acre) | 209 | |
| Market price (\$/cwt) | 18.97 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2004 year data of cantaloupes (mid-bed trenched) in Imperial county.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1970 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$1,278 | |
| Land Preparation | \$161 | |
| Operating cost during growing period | \$171 | |
| Planting | \$0 | |
| Seed | \$225 | |
| Plastics | \$90 | |
| Irrigate | \$80 | |
| Insect Control | \$80 | |
| Pollination | \$54 | |
| Disease Control | \$26 | |
| herbicide | \$21 | |
| Additional Tractor Work | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub total Cultural Costs net Labor and Fuel | \$908 | |
| Fuel | \$0 | |
| Labor | \$249 | |
| Fertilize | \$121 | |
| Harvest Costs | | |
| Total Harvest Costs \$/Carton | \$4.00 | |
| Pick and Haul | \$4.00 | |
| Pallet and Carton | \$0 | |
| Cool | \$0 | |
| Office Overhead | \$0 | |
| Assessments | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub-Total Harvest Costs net Labor and Fuel | \$4.00 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Post-Harvest Costs | | |
| Total Post-Harvest Costs (\$/acre) | \$0 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|-------------------------------------|--------------|----------------|
| Office Expense | \$0 | |
| Liability Insurance | \$0 | |
| Sanitation Fee | \$0 | |
| Assessment Board | \$0 | |
| Property Taxes | \$0 | |
| Property Insurance | \$0 | |
| Investment Repairs | \$0 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Land Rent | \$200 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| OR | | |
| Overhead as % Total Costs | 13% | |
| Total Cash Overhead Expenses | \$392 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$17,000 | | \$0 | | | | 30 | | \$567 | |
| Fuel Tanks and Pumps | \$0 | | \$0 | | | | 20 | | \$0 | |
| Shop Tools | \$0 | | \$0 | | | | 15 | | \$0 | |
| Irrigation System | \$0 | | \$0 | | | | 20 | | \$0 | |
| Equipment/Vehicle | \$0 | | \$0 | | | | 10 | | \$0 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$0 | | \$0 | | | | 17 | | | |
| Land | \$0 | | \$0 | | | | 25 | | | |
| Total | \$17,000 | | \$0 | | | | | | \$567 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2006 than you did in 2004? _____.
If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming cantaloupe if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming cantaloupe? _____.

California Cherry Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm | 40 | |
| Acres in Production | 40 | |
| Acres Owned | 40 | |
| Acres Leased | 0 | |
| Cash rent (\$/acre) | \$500 | |
| Value of Land (\$/acre) | \$10,000 | |
| | | |
| Yield (tons/acre) | 4.32 | |
| Market price (\$/ton) | \$2,949 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2005 year data of sweet cherries in San Joaquin Valley.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$150,000 | |
| Year of Loan | 2006 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 15 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$2,019 | |
| Weed Control | \$80 | |
| Pest Control | \$290 | |
| Disease | \$253 | |
| Fertilize | \$109 | |
| Growth Regulator | \$89 | |
| Giberellic Acid Spray | \$60 | |
| Pollination | \$100 | |
| Trees/Replant 3 tree/acre | \$69 | |
| Backhoe Rental: Plant and Paint | \$0 | |
| Irrigate | \$150 | |
| Lube & Repair | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub total Cultural Costs net Labor and Fuel | \$1200 | |
| Fuel | \$104 | |
| Labor | \$715 | |
| Harvest Costs | | |
| Total Harvest Costs \$/lb | \$1.08 | |
| Pick & haul | \$0.50 | |
| Load, Haul | \$0.00 | |
| Pack | \$0.57 | |
| Commission | \$0.01 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub-Total Harvest Costs net Labor and Fuel | \$1.08 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Post-Harvest Costs | | |
| Total Post-Harvest Costs (\$/acre) | \$0 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Other | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|-------------------------------------|-----------------|----------------|
| Office Expense | \$120 | |
| Liability Insurance | \$7 | |
| Sanitation Fee | \$23 | |
| Cherry Advisory Board | \$0 | |
| Property Taxes | \$160 | |
| Property Insurance | \$38 | |
| Investment Repairs | \$65 | |
| Interest on Operating Capital | \$0 | |
| Crop Insurance | \$168 | |
| Land rent | \$0 | |
| Other cost (please specify it) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$23,240 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | \$0 | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data* | Your Farm Data |
|---------------------------------|-------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|-----------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$80,000 | | \$0 | | | | 30 | | \$2,667 | |
| Shop Tools | \$15,000 | | \$0 | | | | 15 | | \$1,000 | |
| Hand Tools | | | \$0 | | | | | | | |
| Sprinkler/irrigation system | \$35,000 | | \$0 | | | | 25 | | \$1,400 | |
| Ladders | \$9,553 | | \$0 | | | | 10 | | \$955 | |
| Equipment | \$36,000 | | \$0 | | | | 25 | | \$1,440 | |
| Other 1 (pls specify) | | | | | | | | | | |
| Other 2 (pls specify) | | | | | | | | | | |
| Other 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$257,160 | | \$0 | | \$20 | | 21 | | \$12,246 | |
| Land | \$400,000 | | \$400,000 | | \$20 | | 100 | | \$0 | |
| Total | \$832,713 | | \$400,000 | | | | | | \$19,708 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when the price of gasoline is about 1\$/gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming cherry if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming cherry? _____.

California Navel Orange Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm | 65 | |
| Acres in Production | 60 | |
| Acres Owned | 65 | |
| Acres Leased | 0 | |
| Cash rent (\$/acre) | \$300 | |
| Value of Land (\$/acre) | \$6,000 | |
| | | |
| Yield (ton/acre) | 10.31 | |
| Fresh Market price (\$/ton) | \$466.67 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2005 year data of California navel orange in San Joaquin Valley South.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$156,000 | |
| Year of Loan | 1992 | |
| Interest Rate | 6.00% | |
| Life of Loan (years) | 20 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 0.01 | |
| Interest Rate on Operating Loan | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$1,762 | |
| Frost Protection | \$309 | |
| Nitrogen Fertilizer | \$35 | |
| Weed Control | \$39 | |
| Pest Management (Disease, Growth) | \$529 | |
| Prune | \$135 | |
| Irrigate | \$225 | |
| PCA Consultant | \$35 | |
| Soil Amendment | \$120 | |
| Leaf analysis | \$3 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| <i>Cultural Costs net Labor and Fuel</i> | \$1,430 | |
| Fuel | \$34 | |
| Labor | \$298 | |
| Harvest Costs | | |
| Total Harvest Costs - fresh (\$/Carton) | \$5.35 | |
| Yield (ton/acre) | 10.55 | |
| Utilization Factor | 78% | |
| Pick and Haul Fruit/carton | \$1.31 | |
| Pack Fruit | \$4.00 | |
| Assessments | \$0.04 | |
| Harvest Costs net Labor and Fuel per carton | \$5.35 | |
| Labor | \$0.00 | |
| Fuel | \$0.00 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Harvest Costs – juice (\$/carton) | \$0.00 | |
| Pick and Haul Fruit | \$0.00 | |
| Handling/carton | \$0.00 | |
| Post-Harvest Costs | | |
| Total Post-Harvest Costs (\$/acre) | \$0 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|-------------------------------------|-----------------|----------------|
| Office Expense | \$120 | |
| Liability Insurance | \$9 | |
| Sanitation Fee | \$0 | |
| Safety Training/Equipment | \$0 | |
| Property Taxes | \$122 | |
| Property Insurance | \$39 | |
| Investment repair | \$131 | |
| Interest on Operating Capital | \$140 | |
| Regulatory Costs | \$0 | |
| Land rent | \$0 | |
| Other cost 1 (Please specify it) | | |
| Other cost 2 (Please specify it) | | |
| Other cost 3 (Please specify it) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$33,660 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | \$0 | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|------------------|-------|------------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$60,000 | | \$0 | | | | 30 | | \$2,000 | |
| Fuel Tanks | \$3,500 | | \$0 | | | | 40 | | \$88 | |
| Shop Tools | \$12,879 | | \$0 | | | | 15 | | \$859 | |
| Irrigation System | \$12,500 | | \$0 | | | | 40 | | \$313 | |
| Equipment/Vehicle | \$1,000 | | \$0 | | | | 10 | | \$100 | |
| Gypsum Machine | \$5,500 | | \$0 | | | | 5 | | \$1,100 | |
| Wind Machine | \$124,170 | | \$0 | | | | 20 | | \$6,209 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$56,120 | | \$0 | | | | 36 | | \$1,559 | |
| Land | \$390,000 | | \$390,000 | | | | 100 | | \$0 | |
| Total | \$665,669 | | \$390,000 | | | | | | \$12,226 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did in when the price of gasoline is about 1\$/gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming citrus if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming citrus? _____.

California Nectarines Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|---|-------------|----------------|
| Acres on Farm | 10.5 | |
| Acres in Production | 10 | |
| Acres Owned | 10.5 | |
| Acres Leased | 0 | |
| Cash rent (\$/acre) | \$179 | |
| Value of Land (\$/acre) | \$3,571 | |
| Yield (tons/acre) | | |
| | 15 | |
| Market price (\$/ton) | \$640 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

*2004 year data of California Nectarines (July/August Harvested Varieties- Furrow Irrigation) in San Joaquin Valley South.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$22,500 | |
| Year of Loan | 2004 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$3,063 | |
| Weed | \$104 | |
| Prune | \$0 | |
| Insecticides | \$243 | |
| Tree Ropes and Prop | \$0 | |
| Disease | \$40 | |
| Irrigate | \$143 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub total Cultural Costs net Labor and Fuel | \$530 | |
| Fertilize | \$74 | |
| Fuel | \$76 | |
| Labor | \$2,383 | |
| Harvest Costs | | |
| Total Harvest Costs (\$/box) | \$4.95 | |
| Haul to Shed | \$0.17 | |
| Pack Fruit | \$3.25 | |
| Sell | \$0.80 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub-Total Harvest Costs net Labor and Fuel | \$4.22 | |
| Hand Picking Labor | \$0.68 | |
| Picking Fuel | \$0.05 | |
| Post-Harvest Costs | | |
| Total Post-Harvest Costs (\$/acre) | \$143 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Interest on operating capital | \$143 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|-------------------------------------|----------------|----------------|
| Office Expense | \$65 | |
| Liability Insurance | \$7 | |
| Sanitation Fee | \$8 | |
| CTFA Assessment Fee | \$234 | |
| Property Taxes | \$78 | |
| Property Insurance | \$26 | |
| Investment Repairs | \$22 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Land rent | \$0 | |
| Other cost (please specify it) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$4,400 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | \$0 | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|-----------------------|------------------|-------|-----------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$45,000 | | \$0 | | | | 20 | | \$2,250 | |
| Fuel Tanks | \$3,500 | | \$350 | | | | 20 | | \$158 | |
| Shop Tools | \$12,000 | | \$1,200 | | | | 15 | | \$720 | |
| Irrigation System | \$42,750 | | \$0 | | | | 30 | | \$1,425 | |
| Equipment/Vehicle | \$0 | | \$0 | | | | 20 | | \$2,250 | |
| Other 1 (pls specify) | | | | | | | | | | |
| Other 2 (pls specify) | | | | | | | | | | |
| Other 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$54,880 | | \$0 | | | | | | \$4,573 | |
| Land | \$37,500 | | \$37,500 | | | | | | \$0 | |
| Total | \$195,630 | | \$39,050 | | | | | | \$9,126 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when the gasoline price is about 1\$/gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming nectarine if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming nectarine? _____.

California Peach Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm | 40 | |
| Acres in Production | 40 | |
| Acres Owned | 40 | |
| Acres Leased | 0 | |
| Cash rent (\$/acre) | \$350 | |
| Value of Land (\$/acre) | \$7,000 | |
| | | |
| Yield (cwt/acre) | 400 | |
| Market price (\$/cwt) | 11.73 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2003 year data of cling peach (late harvested variety) in Sacramento and San Joaquin Valley.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$168,000 | |
| Year of Loan | 2004 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 5% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$1,497 | |
| Weed | \$3 | |
| Prune | \$0 | |
| Insecticides | \$223 | |
| Tree Ropes and Props | \$0 | |
| Disease | \$0 | |
| Irrigate | \$42 | |
| Thin | \$0 | |
| Lube and Repair | \$5 | |
| Miticides | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub total Cultural Costs net Labor and Fuel | \$284 | |
| Fertilize | \$11 | |
| Fuel | \$123 | |
| Labor | \$1,090 | |
| Harvest Costs | | |
| Total Harvest Costs (\$/box) | \$0.80 | |
| Hauling | \$0.06 | |
| Packing | \$0.69 | |
| Sell | \$0.00 | |
| Assessment | \$0.04 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub-Total Harvest Costs net Labor and Fuel | \$0.79 | |
| Picking Labor | \$0.01 | |
| Picking Fuel | \$0.00 | |
| Post-Harvest Costs | | |
| Total Post-Harvest Costs (\$/acre) | \$58 | |
| Labor | \$15 | |
| Fuel | \$6 | |
| Weed Control – Dormant Strip | \$37 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|----------------------------------|------------|----------------|
| Office Expense | \$42 | |
| Liability Insurance | \$5 | |
| Sanitation Fee | \$4 | |
| Property Taxes | \$106 | |
| Property Insurance | \$24 | |
| Investment Repairs | \$23 | |
| Interest on Operating Capital | \$47 | |
| Regulatory Costs | \$0 | |
| Land rent | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$100 | |
| Depreciation as % of Costs | \$0 | |
| Total Depreciation Expense | \$40,000 | |

VII. Miscellaneous Information

| | UCCES Data* | Your Farm Data |
|---------------------------------|-------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$41,000 | | \$0 | | | | 30 | | \$1,367 | |
| Fuel Tanks | \$3,650 | | \$350 | | | | 40 | | \$83 | |
| Shop Tools | \$12,879 | | \$1,288 | | | | 15 | | \$773 | |
| Irrigation System | \$0 | | \$0 | | | | | | | |
| Equipment/Vehicle | \$1,492 | | \$149 | | | | 10 | | \$134 | |
| Flood Irrigation | \$54,146 | | \$5,415 | | | | 40 | | \$1,218 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$171,920 | | \$0 | | | | 17 | | \$10,113 | |
| Land | \$280,000 | | \$280,000 | | | | 100 | | \$0 | |
| Total | \$565,087 | | \$287,202 | | | | | | \$13,687 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when the gasoline price is about 1 \$/gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming peach if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming peach? _____.

California Pear Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm | 45 | |
| Acres in Production | 45 | |
| Acres Owned | 45 | |
| Acres Leased | 0 | |
| Cash rent (% of revenues) | \$429 | |
| Value of Land (\$/acre) | \$8,571 | |
| | | |
| Yield (tonss/acre) | 20 | |
| Market price (\$/ton) | \$326.72 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2006 year data of Green Bartlett pear in Lake and Mendocino counties.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1970 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$2,536 | |
| Prune/Tie | \$847 | |
| Push, Stack, Burn Prunings | \$0 | |
| Irrigate (water & labor) (includes post harvest) | \$181 | |
| Chemicals | \$898 | |
| Electricity | \$0 | |
| Weed Control | \$81 | |
| Lube & Repair | \$0 | |
| Other cost 1 (Please specify it) | | |
| Other cost 2 (Please specify it) | | |
| Other cost 3 (Please specify it) | | |
| Sub total Cultural Costs net Labor and Fuel | \$2,084 | |
| Fertilize | \$77 | |
| Fuel | \$127 | |
| Labor | \$325 | |
| Harvest Costs | | |
| Total Harvest Costs (\$/ton) | \$1,283 | |
| Shake, Rake, Sweep, Haul | \$1,030 | |
| Hull/Shell | \$0 | |
| Commission | \$0 | |
| Tractor Rentals | \$0 | |
| Other cost 1 (Please specify it) | | |
| Other cost 2 (Please specify it) | | |
| Other cost 3 (Please specify it) | | |
| Sub-Total Harvest Costs net Labor and Fuel | \$1,030 | |
| Labor | \$131 | |
| Fuel | \$122 | |
| Post-Harvest Costs | | |
| Total Post-Harvest Costs (\$/acre) | \$188 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Assessment costs | \$188 | |
| Other cost 1 (Please specify it) | | |
| Other cost 2 (Please specify it) | | |
| Other cost 3 (Please specify it) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|----------------------------------|------------|----------------|
| Office Expense | \$50 | |
| Liability Insurance | \$8 | |
| Sanitation Fee | \$69 | |
| Safety Training/Equipment | \$0 | |
| Property Taxes | \$178 | |
| Property Insurance | \$65 | |
| Investment Repairs | \$132 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Land rent | \$0 | |
| Other cost 1 (Please specify it) | | |
| Other cost 2 (Please specify it) | | |
| Other cost 3 (Please specify it) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | \$0 | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Other Farm Income (Land Lord Cost Share) | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$60,000 | | \$0 | | | | 30 | | \$2,000 | |
| Fuel Tanks | \$3,500 | | \$350 | | | | 25 | | \$126 | |
| Shop Tools | \$15,000 | | \$1,500 | | | | 25 | | \$540 | |
| Irrigation System | \$136,500 | | \$0 | | | | 25 | | \$5,460 | |
| Equipment/Vehicle | \$3,057 | | \$0 | | | | 10 | | \$306 | |
| Worker Housing | \$8,217 | | \$0 | | | | 20 | | \$411 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$329,575 | | \$0 | | | | 25 | | \$13,183 | |
| Land | \$385,695 | | \$385,695 | | | | 100 | | \$0 | |
| Total | \$941,544 | | \$387,545 | | | | | | \$22,026 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when the gasoline price is about 1 \$/gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming pear if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming pear? _____.

California Plum Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm | 10.5 | |
| Acres in Production | 10 | |
| Acres Owned | 10.5 | |
| Acres Leased | 0 | |
| Cash rent (\$/acre) | \$179 | |
| Value of Land (\$/acre) | \$3,571 | |
| | | |
| Yield (tons/acre) | 12.60 | |
| Market price (\$/ton) | \$714.10 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2004 year data of plum (furrow irrigation) in San Joaquin Valley.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$22,500 | |
| Year of Loan | 2004 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 15 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$2,887 | |
| Weed | \$104 | |
| Prune | \$0 | |
| Insecticides | \$183 | |
| Tree Ropes and Props | \$0 | |
| Disease | \$19 | |
| Irrigate | \$143 | |
| Pollination | \$50 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub total Cultural Costs net Labor and Fuel | \$561 | |
| Fertilize | \$62 | |
| Fuel | \$64 | |
| Labor | \$2,262 | |
| Harvest Costs | | |
| Total Harvest Costs (\$/box) | \$5.43 | |
| Hauling | \$0.18 | |
| Packing | \$3.25 | |
| Sell | \$1.00 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| Sub-Total Harvest Costs net Labor and Fuel | \$4.43 | |
| Picking Labor | \$0.92 | |
| Picking Fuel | \$0.07 | |
| Post-Harvest Costs | | |
| Total Post-Harvest Costs (\$/acre) | \$278 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Interest on operating capital | \$103 | |
| CTFA assessment | \$175 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|----------------------------------|------------|----------------|
| Office Expense | \$65 | |
| Liability Insurance | \$7 | |
| Sanitation Fee | \$8 | |
| Safety Training/Equipment | \$0 | |
| Property Taxes | \$77 | |
| Property Insurance | \$26 | |
| Investment Repairs | \$22 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Land rent | \$0 | |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | \$0 | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|------------------|-------|-----------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$45,000 | | \$0 | | | | 20 | | \$2,250 | |
| Fuel Tanks | \$3,500 | | \$350 | | | | 20 | | \$158 | |
| Shop Tools | \$12,000 | | \$1,200 | | | | 15 | | \$720 | |
| Irrigation System | \$42,750 | | \$0 | | | | 30 | | \$1,425 | |
| Equipment/Vehicle | \$0 | | \$0 | | | | | | | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$54,160 | | \$0 | | | | 17 | | \$3,186 | |
| Land | \$37,500 | | \$37,500 | | | | 20 | | \$0 | |
| Total | \$194,910 | | \$39,050 | | | | | | \$7,738 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when the gasoline price is about 1 \$/gallon ? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming plum if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming plum? _____.

California Strawberry Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|-------------------------------------|-------------|----------------|
| Acres on Farm | 85 | |
| Acres in Production | 80 | |
| Acres Owned | 0 | |
| Acres Leased | 85 | |
| Cash rent (\$/acre) | \$2,019 | |
| Value of Land (\$/acre) | \$29,000 | |
| | | |
| Yield (cwt/acre) | 632 | |
| Percent Production Fresh Market (%) | 68% | |
| Fresh market price (\$/cwt) | \$78.94 | |
| Processing market price (\$/cwt) | \$27.78 | |

* 2006 year data of strawberries in South Coast region – Santa Barbara county, Santa Maria Valley.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1970 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$8,446 | |
| Fumigate | \$1,138 | |
| Irrigate | \$513 | |
| Plant | \$2,000 | |
| Pesticides/Fungicides | \$1,219 | |
| Year End Crop Removal | \$21 | |
| Lube and Repair | \$0 | |
| Land prep | \$0 | |
| Other cost 1 (Please specify it) | | |
| Other cost 2 (Please specify it) | | |
| Other cost 3 (Please specify it) | | |
| Sub total Cultural Costs net Labor and Fuel | \$5,718 | |
| Fertilize | \$827 | |
| Fuel | \$281 | |
| Labor | \$2,447 | |
| Harvest Costs | | |
| Total Fresh Market Harvest Costs (\$/box) | \$4.65 | |
| Box | \$1.62 | |
| Cooling | \$0.50 | |
| Assessment | 0.00 | |
| Other cost 1 (Please specify it) | | |
| Other cost 2 (Please specify it) | | |
| Other cost 3 (Please specify it) | | |
| Sub-Total Harvest Costs net Labor and Fuel | \$2.12 | |
| Labor | \$2.48 | |
| Fuel | \$0.05 | |
| Total Processing Harvest Costs (\$/Tray) | \$0.52 | |
| Labor | \$0.48 | |
| Assessment | \$0.04 | |
| Other cost 1 (Please specify it) | | |
| Other cost 2 (Please specify it) | | |
| Other cost 3 (Please specify it) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|---------------------------------------|------------|----------------|
| Office Salaries | \$500 | |
| Insurance (liability,property,health) | \$27 | |
| Sanitation Fee | \$120 | |
| Equipment Rental | \$215 | |
| Ranch Supervisor | \$500 | |
| Interest on Operating Capital | \$890 | |
| Property Taxes | \$27 | |
| Investment Repairs | \$32 | |
| Table Supplies | \$90 | |
| Land rent | \$2,019 | |
| Other cost 1 (Please specify it) | | |
| Other cost 2 (Please specify it) | | |
| Other cost 3 (Please specify it) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | \$0 | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|---------------------------|------------------|-------|----------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$80,000 | | \$0 | | | | 20 | | \$4,000 | |
| Shop Tools | \$13,000 | | \$1,264 | | | | 15 | | \$782 | |
| Harvest Carts 90 | \$1,200 | | \$0 | | | | 5 | | \$240 | |
| Lateral Lines | \$16,008 | | \$0 | | | | 3 | | \$5,336 | |
| Fuel tanks, harvest carts | \$3,500 | | \$651 | | | | 20 | | \$142 | |
| Hand tool | \$5,000 | | \$460 | | | | 15 | | \$303 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$0 | | \$0 | | | | 1 | | \$0 | |
| Land | \$0 | | \$0 | | | | 100 | | \$0 | |
| Total | \$118,708 | | \$2,375 | | | | | | \$10,804 | |

XI. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when the gasoline price is about 1 \$/gallon?_____. If yes, by how much?_____%
- 2). Similarly, did you use less of rented machines?_____. If yes, by how much?_____%
- 3). Will you give up farming strawberry if fuel price will increase in the future?_____.
If yes, you will give up farming when gasoline (#87) price is _____(\$/gallon)
- 4). What will you plant if you give up farming strawberry?_____.

California Table Grape Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|-------------------------|-------------|----------------|
| Acres on Farm | 800 | |
| Acres in Production | 740 | |
| Acres Owned | 800 | |
| Acres Leased | 0 | |
| Cash rent (\$/acre) | \$225 | |
| Value of Land (\$/acre) | \$4,500 | |

* 2004 year data of California Table Grapes in San Joaquin Valley.

II. Acres in production

| | UCCES Data | Your Farm Data |
|----------------------------------|------------|----------------|
| Red Globe | 200 | |
| Thompson | 200 | |
| Crimson | 150 | |
| Autumn Royale | 150 | |
| Flameless | 40 | |
| Other variety 1 (please specify) | | |
| Other variety 2 (please specify) | | |
| Other variety 3 (please specify) | | |

III. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$700,000 | |
| Year of Loan | 2002 | |
| Interest Rate | 7.0% | |
| Life of Loan (years) | 10 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

IV. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|-------------------------------------|--------------|----------------|
| Office Expense | \$75 | |
| Liability Insurance | \$6 | |
| Sanitation Fee | \$19 | |
| Property Taxes | \$105 | |
| Property Insurance | \$30 | |
| Investment Repairs | \$173 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Interest on Operating Capital | \$77 | |
| Land rent | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$485 | |

V. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | \$0 | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Cultural, Harvest and Post-harvest Costs

| | Flameless | | Red Globe | | Thompson | | Crimson | | Autumn Royale | |
|---------------------------------------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|
| Cultural Cost (\$/Acre) | | | | | | | | | | |
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Total Cultural Costs (\$/acre) | \$2,113 | | \$1,848 | | \$2,302 | | \$2,367 | | \$2,158 | |
| Prune Vines and Dispose | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Trellis Repair | \$10 | | \$10 | | \$21 | | \$21 | | \$16 | |
| Canopy Management | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Weed Control | \$50 | | \$50 | | \$50 | | \$51 | | \$50 | |
| Disease Control | \$372 | | \$201 | | \$457 | | \$251 | | \$320 | |
| Insect Control | \$27 | | \$27 | | \$27 | | \$27 | | \$27 | |
| Fertilize | \$16 | | \$16 | | \$16 | | \$16 | | \$16 | |
| Remove Trunk Suckers | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Irrigate | \$121 | | \$121 | | \$121 | | \$121 | | \$121 | |
| Fruit Management | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Fuel | \$97 | | \$92 | | \$92 | | \$111 | | \$98 | |
| Labor | \$1,408 | | \$1,331 | | \$1,518 | | \$1,762 | | \$1,505 | |
| Others | \$12 | | \$0 | | \$0 | | \$7 | | \$5 | |
| Others (please specify) | | | | | | | | | | |
| Harvest Cost (\$/Acre) | | | | | | | | | | |
| Total Harvest Costs | \$4,149 | | \$4,774 | | \$4,268 | | \$5,479 | | \$4,668 | |
| Boxes, spread, swamp \$ haul | \$1,134 | | \$1,539 | | \$1,296 | | \$1,620 | | \$1,397 | |
| Swamp | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Cool and palletize | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Assessment & Inspection Fees | \$90 | | \$125 | | \$103 | | \$128 | | \$112 | |
| Selling Commissions | \$770 | | \$900 | | \$880 | | \$1,300 | | \$963 | |
| Fuel | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Labor | \$2,155 | | \$2,210 | | \$1,989 | | \$2,431 | | \$2,196 | |
| Others (please specify) | | | | | | | | | | |
| Post – Harvest Cost (\$/Acre) | | | | | | | | | | |
| Total Post-Harvest Costs | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Labor | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Fuel | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Other (please specify it) | | | | | | | | | | |

X. Yield and price

| | Flameless | | Red Globe | | Thompson | | Crimson | | Autumn Royale | |
|--|------------------|--------------|------------------|--------------|-----------------|--------------|----------------|--------------|----------------------|--------------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| | | | | | | | | | | |
| Yield (ton/acre) | 10.23 | | 15.15 | | 9.56 | | 8.71 | | 12.78 | |
| % Contracted yield | 0% | | | | 0% | | | | 0% | |
| | | | | | | | | | | |
| Market price (\$/ton) | \$1,218 | | \$1,253 | | \$940 | | \$1,462 | | \$1,149 | |
| Contract price if contracted yield >0 (\$/ton) | | | | | | | | | | |

XI. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|-------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$60,000 | | \$0 | | | | 20 | | \$3,000 | |
| Irrigation System | \$92,000 | | \$0 | | | | 25 | | \$3,680 | |
| Equipment/Vehicle | \$3,500 | | \$350 | | | | 30 | | \$105 | |
| Pumps/Wells | \$12,000 | | \$1,133 | | | | 15 | | \$724 | |
| Fuel Tanks | \$0 | | \$0 | | | | | | | |
| Shop Tools | | | | | | | | | | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$245,080 | | | | | | 22 | | \$11,140 | |
| Land | \$3,600,000 | | \$3,600,000 | | | | 100 | | \$0 | |
| Total | \$4,012,580 | | \$3,601,483 | | | | | | \$18,649 | |

XII. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when the gasoline price is about 1 \$/gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming Table grape if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming Table grape? _____.

California Thompson Seedless Grape Producer Survey

I. Farm Operation Information

| | 2004* | Fresno Farmer Data** |
|---|----------|----------------------|
| Acres on Farm | 120 | 80 |
| Acres in Production | 115 | 80 |
| Acres Owned | 115 | 80 |
| Acres Leased | 0 | 0 |
| Cash rent (\$/acre) | \$0 | \$300 |
| Value of Land (\$/acre) | \$10,000 | \$6,000 |
| Yield (pounds/acre) | | |
| | 20,802 | 20,802 |
| Market price (\$/pound) | | |
| | \$0.14 | \$0.14 |
| % Contracted yield | | |
| | 0% | 0% |
| Contract price if contracted yield >0 | | |
| | | |

* Data are from the previous Thompson Seedless Grape Model.

** Data are from interview with farmers in Allied Grape Growers, Fresno 2007.

II. Loan Information

| | 2004 | Fresno Farmer Data |
|----------------------------|-----------|--------------------|
| Land Loan: | | |
| Principle | \$200,000 | \$0 |
| Year of Loan | 2005 | 2005 |
| Interest Rate | 7.5% | 7.5% |
| Life of Loan (years) | 15 | 15 |
| Establishment Loan: | | |
| Principle | \$0 | \$0 |
| Year of Loan | 1975 | 1975 |
| Interest Rate | 8% | 8% |
| Life of Loan (years) | 30 | 30 |

III. Financial Rates and Percentages

| | 2004 | Fresno Farmer Data |
|--|------|--------------------|
| Average Annual Change in CPI | 3% | 3% |
| Land Inflation Rate | 1.0% | 1.0% |
| Interest Rate | 6.5% | 6.5% |
| Interest Rate Earned for Cash reserves | 5% | 5% |
| Discount Rate for NPV | 5% | 10% |

IV. Cash Overhead Expenses (\$/acre)

| | 2004 | Fresno Farmer Data |
|-------------------------------------|------|--------------------|
| Office Expense | \$0 | \$0 |
| Liability Insurance | \$0 | \$0 |
| Sanitation Fee | \$0 | \$0 |
| Safety Training/Equipment | \$0 | \$0 |
| Property Taxes | \$0 | \$60 |
| Property Insurance | \$0 | \$0 |
| Crop insurance | \$0 | \$20 |
| Interest on Operating Capital | \$0 | \$40 |
| Others | \$0 | \$45 |
| Land rent | \$0 | \$0 |
| Other cost 1 (please specify it) | | |
| Other cost 2 (please specify it) | | |
| Other cost 3 (please specify it) | | |
| OR | | |
| Overhead as % Total Costs | \$0 | 0% |
| Total Cash Overhead Expenses | \$0 | \$165 |

V. Depreciation Expense

| | 2004 | Fresno Farmer Data |
|----------------------------|------|--------------------|
| Depreciation/Acre | \$0 | \$0 |
| Depreciation as % of Costs | \$0 | \$0 |
| Total Depreciation Expense | \$0 | \$0 |

VII. Miscellaneous Information

| | 2004 | Fresno Farmer Data |
|---------------------------------|-------------|--------------------|
| Other Farm Income from Services | \$1,150,000 | \$0 |
| Off-Farm Income | \$200,000 | \$0 |
| Annual Tax Deductions | \$950,000 | \$0 |

VIII. Family Withdrawals

| | 2004 | Fresno Farmer Data |
|-------------------------------------|------|--------------------|
| Minimum Family Living | \$0 | \$0 |
| Family Withdrawals as % of receipts | 0.0% | 0.0% |

IX. Cultural, Harvest and Post-harvest Costs

| Fresh Grapes | | |
|--|--------------|--------------------|
| | 2004 | Fresno Farmer Data |
| Total Cultural Costs (\$/acre) | \$748 | \$975 |
| Pruning and trimming, comm on labor & brush disposal | \$0 | \$275 |
| Irrigate/District Water | \$121 | \$165 |
| Fertilize | \$100 | \$45 |
| Weed Control | \$35 | \$65 |
| Insect/Disease Control | \$125 | \$170 |
| Growth Regulator | \$32 | \$20 |
| Others | \$0 | \$235 |
| Others 1 (please specify) | | |
| Others 2 (please specify) | | |
| Others 3 (please specify) | | |
| <i>Sub total Cultural Costs net Labor and Fuel</i> | \$413 | \$975 |
| Labor | \$300 | \$0 |
| Fuel and Gas | \$35 | \$0 |
| Harvest Costs (\$/ton) | | |
| Total | \$226 | \$345 |
| Picking | \$123 | \$345 |
| Rolling | \$28 | \$0 |
| Box | \$12 | \$0 |
| Paper | \$25 | \$0 |
| Hauling | \$10 | \$0 |
| Turning | \$28 | \$0 |
| Others 1 (please specify) | | |
| Others 2 (please specify) | | |
| Others 3 (please specify) | | |
| <i>Sub-Total Harvest Costs net Labor and Fuel</i> | \$226 | \$345 |
| Labor | \$0 | \$0 |
| Fuel | \$0 | \$0 |
| Total Post-Harvest Costs (\$/acre) | | |
| Total | \$0 | \$0 |
| Labor (Severed Cane Removal, Shred Canes) | \$0 | \$0 |
| Fuel | \$0 | \$0 |
| Irrigate | \$0 | \$0 |
| Others 1 (please specify) | | |
| Others 2 (please specify) | | |
| Others 3 (please specify) | | |

X. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|----------------------|-------------|-----------|---------------|-----------|---------------------------|-------|---------------------------|-------|-----------------------------|----------|
| | 2004 | FFD** | 2004 | FFD** | 2004 | FFD** | 2004 | FFD** | 2004 | FFD** |
| Buildings | \$0 | \$60,000 | \$0 | \$0 | 30 | | 30 | 20 | \$34 | \$3,000 |
| Drip Irrigation | \$0 | \$92,000 | \$0 | \$0 | 25 | | 25 | 25 | \$60 | \$3,680 |
| Fuel Tanks and Pumps | \$0 | \$3,500 | \$0 | \$350 | 25 | | 25 | 30 | \$2 | \$105 |
| Shop tools | \$0 | \$12,000 | \$0 | \$1,133 | 15 | | 15 | 15 | \$8 | \$724 |
| Equipment/Vehicles | \$0 | \$0 | \$0 | \$0 | 10 | | 10 | 20 | \$160 | \$3,000 |
| Establishment Costs | \$0 | \$163,387 | \$0 | \$0 | | | | 22 | \$0 | \$21,818 |
| Land | \$1,115,000 | \$480,000 | \$0 | \$480,000 | | | | 100 | \$0 | \$0 |
| Total | \$1,115,000 | \$810,887 | \$0 | \$481,483 | | | | | \$264 | |

**note: FFD = Fresno farmer data

XI. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when the gasoline price is about 1 \$/gallon?_____. If yes, by how much?_____%
- 2). Similarly, did you use less of rented machines?_____. If yes, by how much?_____%
- 3). Will you give up farming Thompson seedless grape if fuel price will increase in the future?_____.
If yes, you will give up farming when gasoline (#87) price is _____(\$/gallon)
- 4). What will you plant if you give up farming Thompson seedless grape?

California Walnuts Producer Survey

I. Farm Operation Information

| | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm | 100 | |
| Acres in Production | 100 | |
| Acres Owned | 100 | |
| Acres Leased | 0 | |
| Cash rent (\$/acre) | \$163 | |
| Value of Land (\$/acre) | \$3,250 | |
| Yield and Price | | |
| Yield (tons/acre) | 2.50 | |
| Market price (\$/ton) | \$1,220 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2006 year data of English Walnut in Sutter and Yuba counties.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$81,250 | |
| Year of Loan | 2000 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural, Harvest and Post-harvest Costs

| | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Cultural Costs | | |
| Total Cultural Costs (\$/acre) | \$1,001 | |
| Pre Harvest Chemical Treatment | \$0 | |
| Pruning | \$101 | |
| Brush Disposal | \$18 | |
| Weed Control | \$108 | |
| Disease Control | \$156 | |
| Irrigate | \$206 | |
| Pest Control | \$114 | |
| Rodent Control | \$3 | |
| Leaf Analysis | \$2 | |
| Harvest Aid and Application | \$25 | |
| PCA fee | \$30 | |
| Lube & Repair | \$0 | |
| ATV Use | \$56 | |
| Other cost (pickup business use) | \$82 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Sub total Cultural Costs net Labor and Fuel | \$901 | |
| Fertilize | \$100 | |
| Fuel | \$0 | |
| Labor | \$0 | |
| Harvest Costs | | |
| Total Harvest Costs (\$/ton) | \$225 | |
| Shake, Pick, Haul - 1st pick | \$208 | |
| CWC Assessment Cost | \$17 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Sub-Total Harvest Costs net Labor and Fuel | \$225 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Post-Harvest Costs | | |
| Total Post-Harvest Costs (\$/acre) | \$0 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |

V. Cash Overhead Expenses (\$/acre)

| | UCCES Data | Your Farm Data |
|-------------------------------------|--------------|----------------|
| Office Expense | \$50 | |
| Liability Insurance | \$5 | |
| Sanitation Fee | \$0 | |
| Management Service | \$0 | |
| Property Taxes | \$46 | |
| Property Insurance | \$9 | |
| Investment Repairs | \$61 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Land rent | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$171 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | \$0 | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$80,000 | | \$0 | | | | 20 | | \$4,000 | |
| Irrigation System | \$70,000 | | \$0 | | | | 25 | | \$2,800 | |
| Shop Tools | \$15,000 | | \$0 | | | | 15 | | \$1,000 | |
| Pruning Tools | \$0 | | \$0 | | | | | | | |
| Equipment/Vehicle | \$6,514 | | \$1,295 | | | | 35 | | \$149 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$0 | | \$0 | | | | 20 | | \$0 | |
| Land | \$325,000 | | \$325,000 | | | | 35 | | \$0 | |
| Total | \$496,514 | | \$326,295 | | | | | | \$7,949 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did when the gasoline price is about 1 \$/gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming walnut if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming walnut? _____.

California Apricots Producer Survey

I. Farm Operation Information

| Items | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm (acre) | 20 | |
| Acres in Production (acre) | 20 | |
| Acres Owned (acre) | 20 | |
| Acres Leased (acre) | 0 | |
| Cash rent (\$/acre) | \$311 | |
| Value of Land (\$/acre) | \$6,211 | |
| | | |
| Yield (tons/acre) | 7.75 | |
| Market price (\$/ton) | \$916 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

*2003 year data of apricots (fresh market) in San Joaquin Valley.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural and Harvest Costs

| Items | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Total Cultural Costs (\$/acre) | \$2,160 | |
| Fertilize | \$26 | |
| Fumigant | \$0 | |
| Herbicide | \$128 | |
| Fungicide | \$0 | |
| Insecticide | \$193 | |
| Crop Protectant | \$0 | |
| Irrigation | \$236 | |
| Prune | \$326 | |
| Thin fruit:hand | \$899 | |
| Girdle tree | \$145 | |
| Lube & Repair | \$0 | |
| Others | \$45 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| <i>Sub total net fertilizer, fuel and labor</i> | \$1998 | |
| Fuel | \$40 | |
| Labor | \$122 | |
| Total Harvest Costs (\$/acre) | \$1,185 | |
| Harvest | \$980 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| <i>Sub total net fertilizer, fuel and labor</i> | \$980 | |
| Fuel | \$47 | |
| Labor | \$158 | |
| Total Post-Harvest Costs (\$/acre) | \$40 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Assessment and interest | \$40 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |

V. Cash Overhead Expenses (\$/acre)

| Items | UCCES Data | Your Farm Data |
|-------------------------------------|--------------|----------------|
| Office Expense | \$105 | |
| Liability Insurance | \$5 | |
| Manager Salary | \$0 | |
| Crop Insurance | \$45 | |
| Property Taxes | \$96 | |
| Property Insurance | \$23 | |
| Investment Repairs | \$35 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Land rent | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$309 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|---------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Shop and Storage Building | \$52,000 | | \$0 | | | | 20 | | \$2,600 | |
| Fuel Tanks and Pumps | \$2,000 | | \$300 | | | | 35 | | \$49 | |
| Shop Tools | \$6,500 | | \$0 | | | | 10 | | \$650 | |
| Irrigation System | \$15,000 | | \$0 | | | | 20 | | \$750 | |
| Equipment | \$12,000 | | \$0 | | | | 20 | | \$600 | |
| Forklift-Field 2-Ton | \$21,000 | | \$0 | | | | 20 | | \$1,050 | |
| Bins (30) 1,000 lb | \$6,000 | | \$0 | | | | 10 | | \$600 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$61,120 | | \$0 | | | | 17 | | \$3,595 | |
| Land | \$124,220 | | \$124,220 | | | | 100 | | \$0 | |
| Total | \$299,840 | | \$124,520 | | | | | | \$9,894 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did before when gasoline price is about \$1 per gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming apricots if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming apricots? _____.

California Avocado Producer Survey

I. Farm Operation Information

| Items | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm (acre) | 11 | |
| Acres in Production (acre) | 10 | |
| Acres Owned (acre) | 0 | |
| Acres Leased (acre) | 11 | |
| Cash rent (\$/acre) | \$1,053 | |
| Value of Land (\$/acre) | \$21,060 | |
| | | |
| Yield (tons/acre) | 3.68 | |
| Market price (\$/ton) | \$1,964 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2001 year data of apricots (fresh market) in Ventura and Santa Barbara.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural and Harvest Costs

| Items | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Total Cultural Costs (\$/acre) | \$1,449 | |
| Fertilize | \$48 | |
| Fumigant | \$0 | |
| Herbicide | \$7 | |
| Fungicide | \$5 | |
| Insecticide | \$358 | |
| Crop Protectant | \$0 | |
| Irrigation | \$511 | |
| Pollination | \$70 | |
| Seed/Transplant | \$0 | |
| Air Application Spray | \$0 | |
| Assessment | \$0 | |
| Lube & Repair | \$0 | |
| Rent (bee hives) | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| <i>Sub total net fertilizer, fuel and labor</i> | \$999 | |
| Fuel | \$15 | |
| Labor | \$435 | |
| Total Harvest Costs (\$/acre) | \$901 | |
| pick | \$600 | |
| haul | \$30 | |
| CAC assessment | \$263 | |
| CDFA inspection | \$8 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| <i>Sub total net fertilizer, fuel and labor</i> | \$901 | |
| Fuel | \$0 | |
| Labor | \$0 | |
| Total Post-Harvest Costs (\$/acre) | \$40 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |

V. Cash Overhead Expenses (\$/acre)

| Items | UCCES Data | Your Farm Data |
|-------------------------------------|----------------|----------------|
| Office Expense | \$180 | |
| Liability Insurance | \$37 | |
| Root rot analysis | \$3 | |
| Leaf analysis | \$5 | |
| Soil analysis | \$5 | |
| Sanitation fee | \$44 | |
| Property taxes | \$247 | |
| Property insurance | \$61 | |
| Investment repairs | \$84 | |
| Interest on operating capital @8.5% | \$172 | |
| Land rent | \$1,053 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$1,891 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|---------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Shop and Storage Building | \$10,000 | | \$0 | | | | 26 | | \$385 | |
| Fuel Tanks and Pumps | \$0 | | \$0 | | | | | | | |
| Shop Tools | \$2,000 | | \$200 | | | | 15 | | \$120 | |
| Irrigation System | \$9,200 | | \$0 | | | | 36 | | \$256 | |
| Equipment | \$1,090 | | \$0 | | | | 34 | | \$32 | |
| Truck | \$0 | | \$0 | | | | | | | |
| Pipe Trailer | \$0 | | \$0 | | | | | | | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$147,510 | | \$11,296 | | | | 30 | | \$4,540 | |
| Land | \$0 | | \$0 | | | | 36 | | \$0 | |
| Total | \$169,800 | | \$11,496 | | | | | | \$5,333 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did before when gasoline price is about \$1 per gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming avocado if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming avocado? _____.

California Fresh Carrot Producer Survey

I. Farm Operation Information

| Items | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm (acre) | 40 | |
| Acres in Production (acre) | 40 | |
| Acres Owned (acre) | 0 | |
| Acres Leased (acre) | 40 | |
| Cash rent (\$/acre) | \$225 | |
| Value of Land (\$/acre) | \$4,500 | |
| | | |
| Yield (tons/acre) | 17.44 | |
| Market price (\$/ton) | \$347.20 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2004 year data of fresh carrot in Imperial county.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural and Harvest Costs

| Items | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Total cultural Cost | 1248 | |
| LAND PREPARATION | | |
| Stubble disc | \$23 | |
| Subsoil 2nd gear | \$45 | |
| Disc 2x / ring roller | \$30 | |
| Triplane 1x | \$12 | |
| Border, cross check, & break borders | \$24 | |
| Flood 1x | \$16 | |
| Chemigate | \$145 | |
| Flood 1x | \$8 | |
| Disc 1x | \$13 | |
| Triplane 1x | \$12 | |
| Fertilizer, spread | \$83 | |
| List | \$17 | |
| GROWING PERIOD | | |
| Plant | \$200 | |
| Sprinkler Irrigate | \$185 | |
| Weed Control/incorporation* | \$20 | |
| Weed Control/chemigation | \$5 | |
| Cultivate 2x | \$28 | |
| Spike 2x | \$22 | |
| Fertilize & Furrow out 2x | \$86 | |
| Weed control, post 3x | \$98 | |
| Water-run fertilizer | \$19 | |
| Irrigation 6x | \$40 | |
| Disease control 1x | \$16 | |
| Insect control 2x | \$48 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| <i>Sub total net fertilizer, fuel and labor</i> | \$1,193 | |
| Fuel | \$0 | |
| Labor | \$55 | |
| Total Harvest Costs (\$/acre) | \$4,000 | |
| Harvest | \$4,000 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| <i>Sub total net fertilizer, fuel and labor</i> | \$4,000 | |
| Fuel | \$0 | |
| Labor | \$0 | |
| Total Post-Harvest Costs (\$/acre) | \$0 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |

V. Cash Overhead Expenses (\$/acre)

| Items | UCCES Data | Your Farm Data |
|-------------------------------------|--------------|----------------|
| Office Expense | \$0 | |
| Liability Insurance | \$0 | |
| Manager Salary | \$0 | |
| Crop Insurance | \$0 | |
| Property Taxes | \$0 | |
| Property Insurance | \$0 | |
| Investment Repairs | \$0 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Land Rent | \$0 | |
| Office Expense | \$0 | |
| Other cost 1 (please specify) | | |
| Other cost 2 (please specify) | | |
| Other cost 3 (please specify) | | |
| OR | | |
| Overhead as % Total Costs | 13% | |
| Total Cash Overhead Expenses | \$191 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|---------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Shop and Storage Building | | | | | | | | | | |
| Fuel Tanks and Pumps | | | | | | | | | | |
| Shop Tools | | | | | | | | | | |
| Irrigation System | | | | | | | | | | |
| Equipment | | | | | | | | | | |
| Truck | | | | | | | | | | |
| Pipe Trailer | | | | | | | | | | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | | | | | | | | | | |
| Land | | | | | | | | | | |
| Total | | | | | | | | | | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did before when gasoline price is about \$1 per gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming fresh carrot if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming fresh carrot? _____.

California Fresh Tomato Producer Survey

I. Farm Operation Information

| Items | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm (acre) | 200 | |
| Acres in Production (acre) | 200 | |
| Acres Owned (acre) | 0 | |
| Acres Leased (acre) | 200 | |
| Cash rent (\$/acre) | \$200 | |
| Value of Land (\$/acre) | \$4,000 | |
| | | |
| Yield (tons/acre) | 11.20 | |
| Fresh Market price (\$/ton) | \$518 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2000 year data of fresh tomato (Furrow Irrigated) in San Joaquin Valley.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural and Harvest Costs

| Items | UCCES Data | Your Farm Data |
|---|----------------|----------------|
| Total Cultural Costs (\$/acre) | \$859 | |
| Fertilize | \$84 | |
| Herbicide | \$5 | |
| Transplant | \$261 | |
| Disease Control | \$45 | |
| Irrigation | \$124 | |
| Insect Control | \$103 | |
| Hoe Weeds | \$50 | |
| Lube & Repair | \$0 | |
| Assessment | \$0 | |
| Others | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Sub total net Labor and Fuel | \$671 | |
| Fuel | \$76 | |
| Labor | \$112 | |
| Total Harvest Costs (\$/acre) | \$3,896 | |
| Field Pick | \$1,116 | |
| Haul to shed | \$180 | |
| Box, Pack, and Sell | \$2,600 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Sub total net Labor and Fuel | \$3896 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Total Post-Harvest Costs (\$/acre) | \$34 | |
| Labor | \$4 | |
| Fuel | \$8 | |
| Assessment | \$22 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |

V. Cash Overhead Expenses (\$/acre)

| Items | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Office Expense | \$50 | |
| Liability Insurance | \$0 | |
| Manager Salary | \$0 | |
| Crop Insurance | \$0 | |
| Property Taxes | \$3 | |
| Property Insurance | \$2 | |
| Investment Repairs | \$2 | |
| Interest on Operating Capital | \$63 | |
| Regulatory Costs | \$0 | |
| Land rent | \$200 | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| | | |
| Total Cash Overhead Expenses | \$320 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|---------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Shop and Storage Building | \$65,216 | | \$6,522 | | | | 25 | | \$2,348 | |
| Fuel Tanks and Pumps | \$19,835 | | \$1,984 | | | | 20 | | \$893 | |
| Shop Tools | \$13,072 | | \$1,307 | | | | 20 | | \$588 | |
| Irrigation System | \$0 | | \$0 | | | | | | | |
| Fuel Wagon | \$1,975 | | \$198 | | | | 10 | | \$178 | |
| Tool Carrer | \$15,118 | | \$1,512 | | | | 15 | | \$907 | |
| Gated pipe | \$5,712 | | \$571 | | | | 20 | | \$257 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$0 | | \$0 | | | | 1 | | \$0 | |
| Land | \$0 | | \$0 | | | | 100 | | \$0 | |
| Total | \$120,928 | | \$12,094 | | | | | | \$5,170 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did before when gasoline price is about \$1 per gallon?_____. If yes, by how much?_____%
- 2). Similarly, did you use less of rented machines?_____. If yes, by how much?_____%
- 3). Will you give up farming fresh tomato if fuel price will increase in the future?_____.
If yes, you will give up farming when gasoline (#87) price is _____(\$/gallon)
- 4). What will you plant if you give up farming fresh tomato?_____.

California Processing Carrot Producer Survey

I. Farm Operation Information

| Items | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm (acre) | 40 | |
| Acres in Production (acre) | 40 | |
| Acres Owned (acre) | 0 | |
| Acres Leased (acre) | 40 | |
| Cash rent (\$/acre) | \$225 | |
| Value of Land (\$/acre) | \$4,500 | |
| | | |
| Yield (tons/acre) | 22.94 | |
| Market price (\$/ton) | \$85.20 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2004 year data of processing carrot in Imperial county.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural and Harvest Costs

| Items | UCCES Data | Your Farm Data |
|--|----------------|----------------|
| Total cultural cost (\$/acre) | 1428 | |
| LAND PREPARATION | | |
| Stubble disc | \$23 | |
| Subsoil 2nd gear | \$45 | |
| Disc 2x / ring roller | \$30 | |
| Triplane 1x | \$12 | |
| Border, cross check, & break borders | \$24 | |
| Flood 1x | \$16 | |
| Chemigate | \$145 | |
| Flood 1x | \$8 | |
| Disc 1x | \$13 | |
| Triplane 1x | \$12 | |
| Fertilizer, spread | \$83 | |
| List | \$17 | |
| GROWING PERIOD | | |
| Plant | \$380 | |
| Sprinkler Irrigate | \$185 | |
| Weed Control/incorporation* | \$20 | |
| Weed Control/chemigation | \$5 | |
| Cultivate 2x | \$28 | |
| Spike 2x | \$22 | |
| Fertilize & Furrow out 2x | \$86 | |
| Weed control, post 3x | \$98 | |
| Water-run fertilizer | \$19 | |
| Irrigation 6x | \$40 | |
| Disease control 1x | \$16 | |
| Insect control 2x | \$48 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| <i>Sub total net fertilizer, fuel and labor</i> | \$1,373 | |
| Fuel | \$0 | |
| Labor | \$55 | |
| Total Harvest Costs (\$/acre) | \$0 | |
| Harvest | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| <i>Sub total net fertilizer, fuel and labor</i> | \$0 | |
| Fuel | \$0 | |
| Labor | \$0 | |
| Total Post-Harvest Costs (\$/acre) | \$0 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |

V. Cash Overhead Expenses (\$/acre)

| Items | UCCES Data | Your Farm Data |
|-------------------------------------|--------------|----------------|
| Office Expense | \$0 | |
| Liability Insurance | \$0 | |
| Manager Salary | \$0 | |
| Crop Insurance | \$0 | |
| Property Taxes | \$0 | |
| Property Insurance | \$0 | |
| Investment Repairs | \$0 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Land Rent | \$0 | |
| Office Expense | \$0 | |
| Other cost 1 (please specify) | | |
| Other cost 2 (please specify) | | |
| Other cost 3 (please specify) | | |
| OR | | |
| Overhead as % Total Costs | 13% | |
| Total Cash Overhead Expenses | \$215 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|---------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Shop and Storage Building | | | | | | | | | | |
| Fuel Tanks and Pumps | | | | | | | | | | |
| Shop Tools | | | | | | | | | | |
| Irrigation System | | | | | | | | | | |
| Equipment | | | | | | | | | | |
| Truck | | | | | | | | | | |
| Pipe Trailer | | | | | | | | | | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | | | | | | | | | | |
| Land | | | | | | | | | | |
| Total | | | | | | | | | | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did before when gasoline price is about \$1 per gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming processing carrot if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming processing carrot? _____.

California Processing Tomato Producer Survey

I. Farm Operation Information

| Items | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm (acre) | 900 | |
| Acres in Production (acre) | 900 | |
| Acres Owned (acre) | 900 | |
| Acres Leased (acre) | 0 | |
| Cash rent (\$/acre) | \$265 | |
| Value of Land (\$/acre) | \$5,300 | |
| | | |
| Yield (tons/acre) | 35 | |
| Fresh Market price (\$/ton) | | |
| % Contracted yield | 100% | |
| Contract price if contracted yield >0 | \$63 | |

* 2007 year data of processing tomato (direct seeded) in Sacramento Valley.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural and Harvest Costs

| Items | UCCES Data | Your Farm Data |
|---|----------------|----------------|
| Total Cultural Costs (\$/acre) | \$1,367 | |
| Fertilize | \$67 | |
| Fumigant | \$19 | |
| Herbicide | \$258 | |
| Fungicide | \$9 | |
| Insecticide | \$45 | |
| Crop Protectant | \$0 | |
| Irrigation | \$135 | |
| Seed/Transplant | \$218 | |
| Air Application Spray | \$0 | |
| Assessment | \$0 | |
| Lube & Repair | \$0 | |
| Others | \$52 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Sub total net Labor and Fuel | \$803 | |
| Fuel | \$234 | |
| Labor | \$330 | |
| Total Harvest Costs (\$/acre) | \$279 | |
| Labor | \$184 | |
| Fuel | \$95 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Total Post-Harvest Costs (\$/acre) | \$14 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Other (assessment fee) | \$14 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Total Operating Cost (\$/acre) | \$1,660 | |

V. Cash Overhead Expenses (\$/acre)

| Items | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Office Expense | \$17 | |
| Liability Insurance | \$0 | |
| Manager Salary | \$70 | |
| Crop Insurance | \$25 | |
| Property Taxes | \$6 | |
| Property Insurance | \$5 | |
| Investment Repairs | \$5 | |
| Interest on Operating Capital | \$78 | |
| Regulatory Costs | \$0 | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| Total Cash Overhead Expenses | \$206 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|---------------------------|------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Shop and Storage Building | \$101,280 | | \$7,217 | | | | 24 | | \$3,992 | |
| Fuel Tanks and Pumps | \$21,949 | | \$2,195 | | | | 20 | | \$988 | |
| Shop Tools | \$14,465 | | \$1,447 | | | | 20 | | \$651 | |
| Irrigation System | \$113,233 | | \$11,324 | | | | 10 | | \$10,191 | |
| Equipment | \$191,725 | | \$19,173 | | | | 11 | | \$15,044 | |
| Truck | \$38,600 | | \$3,860 | | | | 5 | | \$6,948 | |
| Pipe Trailer | \$35,000 | | \$700 | | | | 10 | | \$3,430 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$0 | | \$0 | | 0 | | 1 | | \$0 | |
| Land | \$0 | | \$0 | | | | 100 | | \$0 | |
| Total | \$516,252 | | \$45,916 | | | | | | \$41,244 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did before when gasoline price is about \$1 per gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming processing tomato if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____ (\$/gallon)
- 4). What will you plant if you give up farming processing tomato? _____.

California Wine Grape Producer Survey

I. Farm Operation Information

| Items | UCCES Data* | Your Farm Data |
|---------------------------------------|-------------|----------------|
| Acres on Farm (acre) | 250 | |
| Acres in Production (acre) | 225 | |
| Acres Owned (acre) | 250 | |
| Acres Leased (acre) | 0 | |
| Cash rent (\$/acre) | \$3,250 | |
| Value of Land (\$/acre) | \$65,000 | |
| | | |
| Yield (tons/acre) | 6 | |
| Fresh Market price (\$/ton) | \$1,838 | |
| % Contracted yield | 0% | |
| Contract price if contracted yield >0 | | |

* 2004 year data of wine grape (Chardonnay) in North coast – Sonoma county.

II. Loan Information

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Land Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 40 | |
| Establishment Loan: | | |
| Principle | \$0 | |
| Year of Loan | 1975 | |
| Interest Rate | 7.5% | |
| Life of Loan (years) | 30 | |

III. Financial Rates and Percentages

| | UCCES Data | Your Farm Data |
|--|------------|----------------|
| Average Annual Change in CPI | 3% | |
| Land Inflation Rate | 1.0% | |
| Interest Rate | 6.5% | |
| Interest Rate Earned for Cash reserves | 5% | |
| Discount Rate for NPV | 10% | |

IV. Cultural and Harvest Costs

| Items | UCCES Data | Your Farm Data |
|---|----------------|----------------|
| Total Cultural Costs (\$/acre) | \$2,643 | |
| Pre Harvest Chemical Treatment | \$0 | |
| Pruning | \$0 | |
| Brush Disposal | \$0 | |
| Weed Control | \$24 | |
| Disease Control | \$255 | |
| Irrigate | \$48 | |
| Pest Control | \$45 | |
| Rodent Control | \$0 | |
| Leaf Analysis | \$0 | |
| Harvest Aid and Application | \$0 | |
| PCA fee | \$35 | |
| Lube & Repair | \$0 | |
| ATV Use | \$0 | |
| Fertilize | \$105 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Sub total net Labor and Fuel | \$512 | |
| Fuel | \$125 | |
| Labor | \$2,006 | |
| Total Harvest Costs (\$/acre) | \$840 | |
| Shake, Pick, Haul - 1st pick | \$840 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |
| Sub total net Labor and Fuel | \$840 | |
| Labor | \$0 | |
| Fuel | \$0 | |
| Total Post-Harvest Costs (\$/acre) | \$177 | |
| Labor | \$29 | |
| Fuel | \$2 | |
| Other cost net labor and fuel | \$146 | |
| Other cost 1(please specify) | | |
| Other cost 2(please specify) | | |
| Other cost 3(please specify) | | |

V. Cash Overhead Expenses (\$/acre)

| Items | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Office Expense | \$250 | |
| Liability Insurance | \$17 | |
| Sanitation Fee | \$15 | |
| Management Service | \$558 | |
| Property Taxes | \$891 | |
| Property Insurance | \$90 | |
| Investment Repairs | \$143 | |
| Interest on Operating Capital | \$0 | |
| Regulatory Costs | \$0 | |
| Land rent | \$0 | |
| OR | | |
| Overhead as % Total Costs | 0% | |
| | | |
| Total Cash Overhead Expenses | \$1,964 | |

VI. Depreciation Expense

| | UCCES Data | Your Farm Data |
|----------------------------|------------|----------------|
| Depreciation/Acre | \$0 | |
| Depreciation as % of Costs | 0% | |
| Total Depreciation Expense | \$0 | |

VII. Miscellaneous Information

| | UCCES Data | Your Farm Data |
|---------------------------------|------------|----------------|
| Other Farm Income from Services | \$0 | |
| Off-Farm Income | \$0 | |
| Annual Tax Deductions | \$0 | |

VIII. Family Withdrawals

| | UCCES Data | Your Farm Data |
|-------------------------------------|------------|----------------|
| Minimum Family Living | \$0 | |
| Family Withdrawals as % of receipts | 0.0% | |

IX. Asset

| | Book Value | | Salvage Value | | Years already depreciated | | Depreciable Life of Asset | | Annual Depreciation Expense | |
|------------------------|--------------|-------|---------------|-------|---------------------------|-------|---------------------------|-------|-----------------------------|-------|
| | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours | UCCES | Yours |
| Buildings | \$6,800 | | \$680 | | | | 20 | | \$306 | |
| Irrigation System | \$52,000 | | \$5,200 | | | | 25 | | \$1,872 | |
| Shop Tools | \$2,000 | | \$200 | | | | 10 | | \$180 | |
| Reservoir 12 AcFt | \$87,000 | | \$8,700 | | | | 25 | | \$3,132 | |
| Equipment/Vehicle | \$66,400 | | \$6,640 | | | | 20 | | \$2,988 | |
| Others | \$1,000 | | \$100 | | | | 25 | | \$36 | |
| Others 1 (pls specify) | | | | | | | | | | |
| Others 2 (pls specify) | | | | | | | | | | |
| Others 3 (pls specify) | | | | | | | | | | |
| | | | | | | | | | | |
| Establishment Costs | \$499,710 | | \$0 | | | | 22 | | \$22,714 | |
| Land | \$16,250,000 | | \$16,250,000 | | | | 100 | | \$0 | |
| Total | \$16,964,910 | | \$16,271,520 | | | | | | \$31,228 | |

X. Questions about Fuel

- 1). Because of fuel price increases, did you use less of your own machines in 2007 than you did before when gasoline price is about \$1 per gallon? _____. If yes, by how much? _____%
- 2). Similarly, did you use less of rented machines? _____. If yes, by how much? _____%
- 3). Will you give up farming wine grape if fuel price will increase in the future? _____.
If yes, you will give up farming when gasoline (#87) price is _____(\$/gallon)
- 4). What will you plant if you give up farming wine grape? _____.