UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

2010

SAMPLE COSTS TO PRODUCE

STRAWBERRIES

CENTRAL COAST REGION

Santa Cruz & Monterey Counties

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Acknowledgements. Thank you to the strawberry growers, Pest Control Advisers, supervisors and various suppliers who provided cultural and cost information.

INTRODUCTION

The sample costs to produce strawberries in the Central Coast Region - Santa Cruz and Monterey counties are presented in this study. The study is intended as a guide only, and can be used to make production decisions, determine potential returns, prepare budgets and evaluate production loans. The practices described are based on production procedures considered typical for this crop and area, and will not apply to every farm. Sample costs for labor, materials, equipment and custom services are based on current figures. A blank column, "*Your Costs*", is provided to enter your actual costs on Tables 1 and 2.

The hypothetical farm operation, production practices, business overhead, and calculations are described under assumptions. For additional information or explanation of calculations in the study, call the Department of Agricultural and Resource Economics, University of California, Davis, (530) 752-3589, UC Cooperative Extension, Santa Cruz, (831) 763-8040 or the UC Cooperative Extension office in your county.

Current and archived Sample Cost of Production Studies for many commodities can be downloaded at http://coststudies.ucdavis.edu, requested through the Department of Agricultural and Resource Economics, UC Davis, (530) 752-6887 or obtained from the local county UC Cooperative Extension office.

ASSUMPTIONS

The following assumptions refer to Tables 1 to 7 and pertain to sample costs to produce strawberries in the Central Coast Region - Santa Cruz and Monterey counties. The cultural practices described and materials used are considered typical for a well-managed strawberry operation in the region. The costs, materials and practices will not apply to all situations every production year. Cultural practices and costs for the production of strawberries vary by grower and region, and can be significant. The study is intended as a guide only. **The use of trade names and cultural practices in this report does not constitute an endorsement or recommendation by the University of California nor is any criticism implied by omission of other similar products or cultural practices.**

Farm. The farm consists of 50 contiguous acres of rented land. Strawberries are being planted on 45 acres. The unplanted five acres are roads, open areas and irrigation system. The crop is farmed by the renter and is established on ground previously planted to vegetable and/or strawberry crops in a vegetable – strawberry rotation. For this study, the planted ground is assumed to be fairly flat. Some of the strawberry acres in the area are planted on rolling hills and will require erosion preventative measures, which is not included as a cost in this study.

Production Cultural Practices and Material Inputs

Land Preparation. The grower does a series of operations: discing, subsoiling, chiseling, leveling, and bed listing/shaping. The field is disced a total of 8X, chiseled 12 inches deep 4X, subsoiled or ripped 30 to 36 inches deep 3X. Beds 48-inches wide and 12-inches high are listed and shaped in one operation. In this study, it is assumed the grower owns the equipment; however, growers with this amount of acres will often rent a large tractor for land preparation or have the work done by a custom operator.

Plant Establishment. Several varieties are available for planting in the region, but no specific variety is assumed in this study. The strawberries are planted on 48-inch beds, two rows per bed at 12-inch plant spacing for a total of 21,780 plants per acre. Five percent of the plants (1,089) are replanted and included in the planting costs. Plastic mulch is laid on the bed prior to planting with a mulch-laying machine. Planting holes are punched in the plastic mulch with a mechanical punch machine. Plants are delivered to the edge of the blocks where planting labor gathers the plants in a bucket and then places the strawberry plants in the punched holes. It takes two people (thrower & planter) approximately 18 or more hours per acre to plant or a total of 36 manhours per acre. Typically, the grower would have a crew of 20 to 30 people. It is assumed that replanting takes approximately two additional manhours per acre and is included in the planting labor.

Fertilization. Slow release 18-8-13 fertilizer at 500 pounds per acre or another complete fertilizer such as 6-30-30, 15-13-30, and 20-20-20 is drilled preplant in the bed using a fertilizer drill with bed shaper. CAN 17 (liquid fertilizer) is applied March through September through the drip system. Grower fertilizer programs and timing vary widely, but most will use a complete or NPK fertilizer and nitrogen (N) fertilizers, depending upon seasonal nutrient requirements.

Irrigation. The grower rents sprinkler pipe for the two preplant and the establishment sprinkler irrigations. Six men including the tractor driver layout and pickup the pipe. The drip tape is buried in the bed at two lines per bed. Ditches are made at the field edge with a tractor and blade to lay and bury the lateral lines. The drip tape is trimmed and connected to the lateral lines and the lines are tested for leaks and may be considered a preirrigation. Beginning immediately after planting, the plants are sprinkled one-hour per day for one week, then one and one-half hours on alternate days the following week. From March through September,

the plants are irrigated two times per week through the drip lines. Effective rainfall is not taken into account; therefore a total of 36 acre-inches (including the preplant irrigations) are applied to the field.

Water. The water cost of $21.67 per acre-inch ($260/acre foot) is estimated based on growers who pump from their wells paying utility charges and those growers in the water management district that receive district water or who pump from their own wells, paying utility charges and a district assessment for groundwater use. Water cost will vary depending upon water district and well characteristics.

Pest Management. The pesticides and rates mentioned in this cost study are listed in the *UC IPM Pest Management Guidelines, Strawberries*. For more information on other pesticides available, pest identification, monitoring, and management visit the UC IPM website at www.ipm.ucdavis.edu. Pesticide applications, timing, and materials vary according to pest pressure. The pesticide program shown in Table A represents a typical program for the region. Written recommendations are required for many commercially applied pesticides and are made by licensed pest control advisers. For information and pesticide use permits, contact the local county Agricultural Commissioner's office. Adjuvants are recommended for many pesticides for effective control and are an added cost. The adjuvants in this study are not included as a cost in the applications. Pesticide costs may vary by location and grower volume. Pesticide costs in this study are taken from a single dealer and shown as full retail**.**

Scouting Service/PCA. Pest Control Advisers (PCAs) write pesticide recommendations and monitor the fields for agronomic, nutrition, and pest problems. The grower contracts with a scouting service at an estimated cost of $100 per acre per year.

Fumigation. Arthropods, soilborne fungi/diseases, nematodes, and weeds are controlled with preplant fumigation. Flat fumigation by a custom operator is the most likely method in this area. The custom operator furnishes the fumigant material (methyl bromide plus chloropicrin), plastic tarp, glue, and three men including the tractor driver. The grower furnishes two additional men to shovel and seal the plastic. The five men can do approximately 1.5 to 2 acres per hour. The grower can incur additional costs, which are not included in this study of $10 to $25 per acre to obtain the fumigation permit. These costs include field measuring, field maps and fumigation layout, obtaining permission from nearby residents, and meeting with county representatives.

Fumigation Alternatives. The phaseout of methyl bromide has prompted growers to try alternative methods. According to industry information, a common alternative used by a few growers is applying soil fungicide and nematicide materials such as Inline through the drip line. Research data has provided information on the alternative methods, although the long-term effects on disease and weed management are unknown. Research data is available on the California Strawberry Commission website at http://www.calstrawberry.com. Grower costs for the drip method using Inline fungicide/nematicide and a chloropicrin material with application will cost the growers $1,000 to $1,800 per acre. The effects on yield, weed, and pest control are variable and these variables may add to the production costs and/or reduce yield.

Weeds and Runner Removal. In addition to preplant fumigation and to optimize plant yield, weeds and runners are removed by hand weeding from December through September. Although weeding times vary by grower and month, the study assumes an average of 10.2 hours per acre per month over 10 months.

Diseases. Powdery mildew (*Sphaeotheca macularis*), Botrytis fruit rot (*Botrytis cinerea*), and Anthracnose (*Colletotrichum actatum)* are the diseases treated in this study. Treatments are combined (tank mixed) with the insect control applications. Fungicide treatments are made every 12 to 16 days through March and every 20 to 25 days thereafter ending in early September.

Insects. Two-spotted mite (*Tetranychus urticae*), lygus (*Lygus hesperus*) and various lepidopterous larvae are the insects controlled. To assist with the control of twospotted spider mite, the predatory mite, *Phytoseiulis persimilis,* is released two times, once in March and once in April, for a total rate of 30,000 mites per acre per year. Application time is estimated at 1.2 hours per acre per release. Insecticide treatments are combined with the fungicide treatments, which are shown in Table A.

TABLE A. DISEASE AND INSECT MATERIAL APPLICATIONS

MONTH	DISEASE			INSECTS		
	Botrytis	Mildew	Anthracnose	Mites	Worms	Lygus
March	Captan	Rally		Savey		
March				Persimillis		
April				Persimillis		
April	Switch	Thiolux				
April		Rally				
April		Quadris	Quadris		Dipel	
April	Elevate	Rally			Success	
May	Captan	Thiolux		Acramite	Dipel	Malathion
May		Quadris	Quadris			
June	Elevate	Rally		Acramite		Malathion
June	Captan	Thiolux				
June	Pristine					
July		Quadris				Dibrom
August		Thiolux		Danitol		Danitol
September		Thiolux				

RATES PER ACRE in study: (Not Recommendations - see label or your PCA)

Captan	4.0 lb	Dibrom	16.0 oz
Elevate	1.5 lb	Dipel	1.0 lb
Rally	5.0 oz	Malathion	2.0 pt
Thiolux	5.0 lb	Savey	6.0 oz
Quadris	12 floz	Success	5.0 floz
Acramite	1.0 lb	Persimillis	15,000 ea
Danitol	16.0 oz	Pristine	23.0 oz
Switch	14.0 oz		

Harvest. The crop is harvested from April through early October with peak harvest in June and July. Based on weight, the percent of the crop harvested each month in this study is shown in Table B. The grower hires a crew foreman to supervise a 35-man crew early and late in the season and two 35-man crews during the peak season. The picker pushes a picking cart that holds a tray with eight one-pound containers down the furrow. The ripe strawberries are picked by hand and placed in the containers/tray. Other container types and sizes are used, but are not included in this study. Picking rate per picker ranges from 3 trays per hour early and late in the season and 5 to 8 trays per hour during the peak harvest. Additional field labor includes one field checker to check for proper picking, and one picking card puncher per crew to count the trays picked by each picker. To load and haul the fruit, one truck loader stacks the trays on the truck and the truck driver delivers the strawberries to the cooler. The grower uses two one-ton flatbed trucks that hold two to three pallets at 110 trays per pallet or 330 trays per load for delivery to the cooler. Trays per pallet will vary by container types. The truck driver takes about an hour per load to deliver the filled trays. The grower will have at least one tractor, one trailer, and one toilet in the field. (See Labor for picking wage).

Table B. Percent Crop Harvested by Month

	April	May	June	July	Aug	Sept	Oct
Fresh %	5	12	25	26	18	12	2

Yields. Strawberry yields are measured in trays per acre. Average yields range from 4,000 to 9,000 trays per acre. The assumed crop yield in this study for fresh market production is 6,000 trays per acre. The standard consumer tray holds 8 x 1-pound containers and ranges from 9.5 to 10.5 pounds per tray. There are other tray arrangements with different size containers as well as the former standard tray containing 12 1-pint containers, which ranges from 11 to 12 pounds per tray. The weight used in this study is 10 pounds per tray.

Returns. Based on 2010 USDA Watsonville-Salinas Shipping Point returns, the average grower return is $9.50 per tray (8x1 lb clamshells). Strawberry prices are based on trays and not weight, therefore a $9.00 tray price less selling commission of $0.70 (net of $8.30) is used in this study to provide a basis for a range of yields and prices for a 10-pound tray as shown in Table 4.

Cooling. Cooling costs for fresh market strawberries varies by cooler and grower volume. Also, the grower may have the option to negotiate the price with the cooler. The cost used in this study is $0.50 per tray.

Sales/Marketing. Selling costs are calculated as 8% of selling price or $0.72 per tray ($9.00 x 8%). The grower receives the net proceeds of $8.28 per tray. For this study, the net proceeds are adjusted to $8.30. Therefore no selling costs are shown.

*Assessments***.** Current assessment for an 8 x 1 pound tray (9.5 – 10.5 pounds) is $0.035 per tray split equally between grower and shipper. The grower pays $0.0175 per tray to the Strawberry Commission for research and marketing. Fresh market assessment is per 6 – 12 pound tray and the freezer assessment is per 14-pound tray.

Year-end Cleanup. The plants are mowed. The plastic mulch and drip tape are pulled and rolled by hand and hauled to the dump. The field is then disked twice in preparation for the next crop. All operations are done by a custom operator.

Labor, Equipment, and Interest

Labor. Labor rates of $14.52 per hour for machine operators and $11.88 for general labor includes payroll overhead of 32%. The basic hourly wages are $11.00 for machine operators and $9.00 for general labor. Pickers are often paid a base pay plus piecework, or straight piecework depending on the time of harvest and if machine or non-machine harvest. In this study, picker pay is calculated using the field labor rate. An additional 4% is added to the picking to cover various picking costs such as contractor overhead and piece rate costs, not included in the general labor payroll overhead. The overhead includes the employers' share of federal and California state payroll taxes, workers' compensation insurance for strawberry crops (code 0079), and a percentage for other possible benefits. Workers' compensation costs will vary among growers, but for this study the cost is based upon the average industry final rate as of January, 2010 (California Department of Insurance, unreferenced). Labor for operations involving machinery are 20% higher than the operation time given in Table 1 to account for the extra labor involved in equipment set up, moving, maintenance, work breaks, and field repair.

Equipment Operating Costs. Repair costs are based on purchase price, annual hours of use, total hours of life, and repair coefficients formulated by American Society of Agricultural Engineers (ASAE). Fuel and lubrication costs are also determined by ASAE equations based on maximum power takeoff (PTO) horsepower, and fuel type. Prices for on-farm delivery of red dye diesel and gasoline are $2.60 (excludes excise taxes) and $3.10 per gallon, respectively. The cost includes a 2.5% local sales tax on diesel fuel, but does not include excise taxes. Gasoline costs include a 7.5% sales tax plus federal and state excise tax. Some federal excise tax can be refunded for on-farm use when filing your income tax. The costs are based on 2010 Department of Energy (DOE) monthly data. The fuel, lube, and repair cost per acre for each operation in Table 1 is determined by multiplying the total hourly operating cost in Table 6 for each piece of equipment used for the selected operation by the hours per acre. Tractor time is 10% higher than implement time for a given operation to account for setup, travel and down time.

Interest on Operating Capital. Interest on operating capital is based on cash operating costs and is calculated monthly until harvest at a nominal rate of 5.75% per year. A nominal interest rate is the typical market cost of borrowed funds. The interest cost of post harvest operations is discounted back to the last harvest month using a negative interest charge. The interest rate is the basic rate provided by a farm lending agency as of January 2010.

Risk. While this study makes every effort to model a production system based on typical, real world practices, it cannot fully represent financial, agronomic and market risks that affect the profitability and economic viability of strawberry production. The risks associated with producing and marketing strawberries should not be minimized.

Cash Overhead

Cash overhead consists of various cash expenses paid out during the year that are assigned to the whole farm and not to a particular operation. These costs include property taxes, office expense, liability and property insurance, sanitation services, and equipment repairs. Employee benefits, insurance, and payroll taxes are included in labor costs and not in overhead (see Labor).

Property Taxes. Counties charge a base property tax rate of 1% on the assessed value of the property. In some counties special assessment districts exist and charge additional taxes on property including equipment, buildings, and improvements. For this study, county taxes are calculated as 1% of the average value of the property. Average value equals new cost plus salvage value divided by 2 on a per acre basis.

Insurance. Insurance for farm investments varies depending on the assets included and the amount of coverage. Property insurance provides coverage for property loss and is charged at 0.775% of the average value of the assets over their useful life. Liability insurance covers accidents on the farm and costs $587 for the entire farm.

Office Expense. Office and business expenses are approximated at $750 per acre. These expenses include office supplies, telephones, bookkeeping, accounting, legal fees, office and shop utilities, and regulatory expenses.

Food Safety Program. Many growers of fresh market commodities incorporate and participate in food safety programs for their operations. Part of a food safety program is participation in third party (independent) audits that are done to ensure the safety of fresh products and accommodate buyer requests, and to enhance marketability of the crop. Farms may have their own program, work through the processor or a combination of the two. Costs will vary depending upon the farm or processor and inspection circumstances. For this study, costs are estimated at $100 per acre.

Sprinkler Pipe. Sprinklers are rented during land preparation through plant establishment. The typical grower cost is $266 per acre.

Land Rent. The 50 acres are rented for cash at $2,700 per acre or $3,000 per producing acre. The rented land includes the irrigation system that is maintained by the landlord.

Sanitation Services. Sanitation services provide portable toilets with washing equipment and cost the farm $9,000 annually or $200 per producing acre.

Supervisor/Management Salaries. Foreman/Supervisor salaries are estimated at $750 per acre. Wages for management are not included as cash cost. Returns above total costs are considered a return to management and risk.

Non-Cash Overhead

Non-cash overhead, shown on an annual per acre basis is calculated as the capital recovery cost for equipment and other farm investments. Farm equipment on strawberry farms in the Central Coast Region is purchased new or used; this study shows the current purchase price for new equipment. The new purchase price is adjusted to 40% to indicate a mix of new and used equipment. Annual ownership costs are shown in Table 5.

Capital Recovery Costs. Capital recovery cost is the annual depreciation and interest costs for a capital investment. It is the amount of money required each year to recover the difference between the purchase price and salvage value (unrecovered capital). It is equivalent to the annual payment on a loan for the investment with the down payment equal to the discounted salvage value. This is a more complex method of calculating ownership costs than straight-line depreciation and opportunity costs, but more accurately represents the annual costs of ownership because it takes the time value of money into account (Boehlje and Eidman). The formula for the calculation of the annual capital recovery costs is ((Purchase Price – Salvage Value) x Capital Recovery Factor) + (Salvage Value x Interest Rate).

Salvage Value. Salvage value is an estimate of the remaining value of an investment at the end of its useful life. For farm machinery the remaining value is a percentage of the new cost of the investment (Boehlje and Eidman). The percent remaining value is calculated from equations developed by the American Society of Agricultural Engineers (ASAE) based on equipment type and years of life. The life in years is estimated by dividing the wear out life, as given by ASAE by the annual hours of use in this operation. For other investments including irrigation systems, buildings, and miscellaneous equipment, the value at the end of its useful life is zero. The salvage value and purchase price for land are the same because land does not depreciate. The purchase price and salvage value for equipment and investments are shown in Table 5.

Capital Recovery Factor. Capital recovery factor is the amortization factor or annual payment whose present value at compound interest is 1. The amortization factor is a table value that corresponds to the interest rate used and the life of the machine.

Interest Rate. The interest rate of 4.75% used to calculate capital recovery cost is the effective long term interest rate effective January 1, 2010. The interest rate is provided by a local farm lending agency and will vary according to risk and amount of loan.

Land. Land values in the region range from $14,000 to $45,000 for row crop land. Being the land is rented, ownership costs are not shown.

Irrigation System. Water is pumped through a filtration station into main lines. Reusable lateral lines owned by the grower are buried each year at the edge of the strawberry field and are connected to the main and drip lines. Two drip lines are buried in each bed prior to planting. The lateral lines have a 5-year life and the drip lines are an annual expense. The system is based on one 75 horsepower electric pump lifting 36 acre-inches from a water level depth of 120 feet. The pump and 300-foot deep well already existed on the site and the irrigation system costs are charged to the landowner.

Equipment. Farm equipment is purchased new or used, but the study shows the current purchase price for new equipment. Strawberry production requires much specialized equipment including modifications to commercial tractors. Many of these modifications are made in machine shops and are not necessarily included in the equipment costs shown in the tables. Some of the other specialized equipment is also built in machine or

farmer shops and retail prices are not readily available. The new purchase price is adjusted to 40% to indicate a mix of new and used equipment. Annual ownership costs for equipment and other investments are shown in the Whole Farm Annual Equipment, Investment, and Business Overhead Costs table. Equipment costs are composed of three parts: non-cash overhead, cash overhead, and operating costs. Both of the overhead factors have been discussed in previous sections. The operating costs consist of repairs, fuel, and lubrication and are discussed under operating costs.

Table Values. Due to rounding, the totals may be slightly different from the sum of the components.

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Table 1. COSTS PER ACRE to PRODUCE STRAWBERRIES

CENTRAL COAST REGION- Santa Cruz & Monterey Counties 2010

	Operation	Cash and Labor Cost per acre					
Operation	Time (Hrs/A)	Labor Cost	Fuel, Lube & Repairs	Material Cost	Custom/ Rent	Total Cost	Your Cost
Cultural:							
Land Prep: Disc 8X	1.33	23	58	0	0	81	
Land Prep: Subsoil 2X	1.50	26	65	0	0	92	
Land Prep: Chisel 4X	0.60	10	26	0	0	36	
Land Prep: Level 2X (Triplane)	0.50	9	22	0	0	31	
Fumigate: Flat (tarped)	0.20	2	0	0	3,200	3,202	
Fumigate: Tarp Retrieval/Discard	0.00	0	0	0	100	100	
Irrigate: Layout/Pickup Sprinkler Pipe3X	3.00	88	22	0	0	110	
Irrigate: Sprinkle (preplant)	0.10	1	0	87	0	88	
Land Prep: List/Shape 48" beds	0.25	4	11	0	0	15	
Fertilize: Preplant	0.30	5	2	425	0	433	
Irrigate: Install Drip Tape 2/bed (tape & labor)	2.00	59	16	436	0	510	
Irrigate: Grade Field Roads 2X	0.01	0	0	0	0	0	
Irrigate: Open Trench for laterals/Connect drip	0.10	8	1	0	0	8	
Plant: Lay Mulch	2.00	130	18	452	0	600	
Plant: Punch Holes	1.50	26	12	0	0	38	
Irrigate: Drip (preirrigate)	0.06	1	0	22	0	22	
Plant: (includes replant labor & plants)	38.00	451	0	2,401	0	2,853	
Plant: Roll Plants to Pack	0.20	4	2	0	0	5	
Irrigate: Sprinkle (transplants)	0.25	3	0	43	0	46	
Weed: Hand Weed & Runner Removal	102.00	1,212	0	0	0	1,212	
Disease: Botrytis/Mildew. Insect: Mites	0.58	10	6	178	0	194	
Insect: Mites 2X (Persimillis) (beneficial insect)	2.40	29	0	195	0	224	
Irrigate: Drip (water & labor)	12.00	143	0	628	0	771	
Fertilize; through drip (CAN17)	0.00	0	0	63	0	63	
Disease: Botrytis/Mildew.	0.58	10	6	65	0	81	
Disease: Mildew	1.16	20	12	31	0	64	
Disease: Botrytis/Mildew/Anthracnose. Insect: Worms	1.17	20	12	192	0	224	
Disease: Botrytis/Mildew/Anthracnose. Insect: Worms/Lygus	1.17	20	12	172	0	205	
Disease: Botrytis/Mildew. Insect: Mite/Lygus	1.17	20	12	217	0	250	
Disease: Botrytis	0.58	10	6	86	0	103	
Disease: Mildew. Insect: Lygus	0.58	10	6	55	0	71	
Disease: Mildew. Insect; Mite/Lygus	0.58	10	6	34	0	50	
Year End: Cleanup and Crop Removal	0.00	0	0	0	400	400	
Pest Control Adviser (PCA)/Crop Consultant	0.00	0	0	0	100	100	
TOTAL CULTURAL COSTS	175.87	2,366	334	5,783	3,800	12,283	
Harvest							
Pick Strawberries	1,074.00	12,759	0	10,080	2,220	25,059	
Load/Haul	3.31	399	123	0	0	523	
Cooling	0.00	0	0	0	3,000	3,000	
Assessments	0.00	0	0	105	0	105	
TOTAL HARVEST COSTS	1,077.31	13,159	123	10,185	5,220	28,687	
Interest on operating capital @ 5.75%						1,219	
TOTAL OPERATING COSTS/ACRE		15,524	458	15,968	9,020	42,188	

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Table 1. CONTINUED

CENTRAL COAST REGION- Santa Cruz & Monterey Counties 2010

Operation	Operation Time (Hrs/A)	Cash and Labor Cost per acre					
		Labor Cost	Fuel, Lube & Repairs	Material Cost	Custom/ Rent	Total Cost	Your Cost
Cash Overhead:							
Liability Insurance						13	
Office Expense						750	
Sanitation Fee						200	
Land Rent (per producing acre)						3,000	
Pipe Rent						266	
Ranch Supervisor						750	
Food Safety						100	
Property Taxes						31	
Property Insurance						24	
Investment Repairs						36	
TOTAL CASH OVERHEAD COSTS						5,171	
TOTAL CASH COSTS/ACRE						47,359	
Non-Cash Overhead		Per Producing Acre		Annual Cost Capital Recovery			
Buildings		1,092		86		86	
Hand Tools		102		9		9	
Shop Tools		281		25		25	
Harvest Carts 70		23		5		5	
Fuel Tanks/Above Ground		78		6		6	
Lateral Lines		222		51		51	
Equipment		3,693		341		341	
TOTAL NON-CASH OVERHEAD COSTS		5,491		523		523	
TOTAL COSTS/ACRE						47,882	

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Table 2. COSTS and RETURNS PER ACRE to PRODUCE STRAWBERRIES

CENTRAL COAST REGION- Santa Cruz & Monterey Counties 2010

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
GROSS RETURNS					
Strawberry	6,000.00	tray	8.30	49,800	
OPERATING COSTS					
Water:					
Water	36.00	acin	21.67	780	
Fertilizer:					
18-8-13	500.00	lb	0.85	425	
CAN 17 (17-0-0-8Ca)	350.00	lb	0.18	63	
Materials:					
T-Tape	21,780.00	ft	0.02	436	
Mulch Pins	4,000.00	ea	0.02	60	
Mulch 1.25m	10,890.00	ft	0.04	392	
Tray w/8x1lb clamshells	6,000.00	ea	1.68	10,080	
Plants:					
Strawberry Plants	22,869.00	each	0.11	2,401	
Assessment:					
California Strawberry Commission ($0.0175)	6,000.00	tray	0.02	105	
Fungicide:					
Captan 50W	12.00	lb	6.92	83	
Rally 40W	20.00	oz	5.23	105	
Quadris	36.00	floz	3.25	117	
Elevate 50WDG	3.00	lb	49.12	147	
Thiolux	25.00	lb	1.04	26	
Pristine	23.00	oz	3.76	86	
Switch 62.5WG	14.00	oz	4.27	60	
Insecticide:					
Savey 50 DF	6.00	oz	20.69	124	
Dipel DF	2.00	lb	15.65	31	
Dibrom 8 Emulsive	16.00	floz	0.98	16	
Success	5.00	floz	7.43	37	
Acramite 50WS	2.00	lb	69.17	138	
Malathion 8	4.00	pt	7.76	31	
Danitol	16.00	floz	1.80	29	
Predatory Mites:					
Persimillis	30.00	thou	6.50	195	
Contract/Custom:					
Fumigate - Solid (tarped)	1.00	acre	3,200.00	3,200	
Plastic Retrieval for fumigation	1.00	acre	100.00	100	
Miscellaneous Picking Labor Costs	6,000.00	tray	0.37	2,220	
Cooler	6,000.00	tray	0.50	3,000	
Year End Crop Removal	1.00	acre	400.00	400	
Pest Control Adviser/Crop Consultant	1.00	acre	100.00	100	
Labor (machine)	32.97	hrs	14.52	479	
Labor (non-machine)	1,266.44	hrs	11.88	15,045	
Fuel - Gas	30.29	gal	3.10	94	
Fuel - Diesel	97.91	gal	2.60	255	
Lube				52	
Machinery repair				57	
Interest on operating capital @ 5.75%				1,219	
TOTAL OPERATING COSTS/ACRE				42,188	
NET RETURNS ABOVE OPERATING COSTS				7,612	

UC COOPERATIVE EXTENSION

Table 2. CONTINUED

CENTRAL COAST REGION- Santa Cruz & Monterey Counties 2010

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
CASH OVERHEAD COSTS:					
Liability Insurance				13	
Office Expense				750	
Sanitation Fee				200	
Land Rent (per producing acre)				3,000	
Pipe Rent				266	
Ranch Supervisor				750	
Food Safety				100	
Property Taxes				31	
Property Insurance				24	
Investment Repairs				36	
TOTAL CASH OVERHEAD COSTS/ACRE				5,171	
TOTAL CASH COSTS/ACRE				47,359	
NON-CASH OVERHEAD COSTS (Capital Recovery):					
Buildings				86	
Hand Tools				9	
Shop Tools				25	
Harvest Carts 70				5	
Fuel Tanks/Above Ground				6	
Lateral Lines				51	
Equipment				341	
TOTAL NON-CASH OVERHEAD COSTS/ACRE				523	
TOTAL COSTS/ACRE				47,882	
NET RETURNS ABOVE TOTAL COSTS				1,918	

UC COOPERATIVE EXTENSION

Table 3. MONTHLY CASH COSTS PER ACRE to PRODUCE STRAWBERRIES

CENTRAL COAST REGION- Santa Cruz & Monterey Counties 2010

Beginning AUG 09 Ending OCT 10	AUG 09	SEP 09	OCT 09	NOV 09	DEC 09	JAN 10	FEB 10	MAR 10	APR 10	MAY 10	JUN 10	JUL 10	AUG 10	SEP 10	OCT 10	TOTAL
Cultural:																
Land Prep: Disc 8X	31	51														81
Land Prep: Subsoil 2X		92														92
Land Prep: Chisel 4X		36														36
Land Prep: Level 2X (Triplane)		31														31
Fumigate: Flat (tarped)		3,202														3,202
Fumigate: Tarp Retrieval/Discard		100														100
Irrigate: Layout/Pickup Sprinkler Pipe3X		73		37												110
Irrigate: Sprinkle (preplant)		88														88
Land Prep: List/Shape 48" beds		15														15
Fertilize: Preplant		433														433
Irrigate: Install Drip Tape 2/bed (tape & labor)		510														510
Irrigate: Grade Field Roads 2X		0						0								0
Irrigate: Open Trench for laterals/Connect drip		8														8
Plant: Lay Mulch		600														600
Plant: Punch Holes			38													38
Irrigate: Drip (preirrigate)			22													22
Plant: (includes replant labor & plants)			2,853													2,853
Plant: Roll Plants to Pack			5													5
Irrigate: Sprinkle (transplants)				46												46
Weed: Hand Weed & Runner Removal					121	121	121	121	121	121	121	121	121	121		1,212
Disease: Botrytis/Mildew. Insect: Mites								194								194
Insect: Mites 2X (Persimillis) (beneficial insect)								112	112							224
Irrigate: Drip (water & labor)								63	108	108	108	108	108	108	63	771
Fertilize; through drip (CAN17)								9	9	9	9	9	9	9		63
Disease: Botrytis/Mildew.									81							81
Disease: Mildew									42					22		64
Disease: Botrytis/Mildew/Anthracnose. Insect: Worms									224							224
Disease: Botrytis/Mildew/Anthracnose. Insect: Worms/Lygus										205						205
Disease: Botrytis/Mildew. Insect: Mite/Lygus											250					250
Disease: Botrytis											103					103
Disease: Mildew. Insect: Lygus												71				71
Disease: Mildew. Insect; Mite/Lygus													50			50
Year End: Cleanup and Crop Removal															400	400
Pest Control Adviser (PCA)/Crop Consultant			8	8	8	8	8	8	8	8	8	8	8	8		100
TOTAL CULTURAL COSTS	31	5,239	2,926	91	130	130	130	508	706	451	599	317	296	268	463	12,283

UC COOPERATIVE EXTENSION

Table 3. CONTINUED

CENTRAL COAST REGION- Santa Cruz & Monterey Counties 2010

Beginning AUG 09 Ending OCT 10	AUG 09	SEP 09	OCT 09	NOV 09	DEC 09	JAN 10	FEB 10	MAR 10	APR 10	MAY 10	JUN 10	JUL 10	AUG 10	SEP 10	OCT 10	TOTAL
Harvest:																
Pick Strawberries									1,874	3,282	5,760	5,645	4,471	3,282	745	25,059
Load/Haul									38	67	116	113	90	67	31	523
Cooling									150	360	750	780	540	360	60	3,000
Assessments															105	105
TOTAL HARVEST COSTS									2,062	3,708	6,626	6,539	5,102	3,708	941	28,687
Interest on operating capital @ 5.75%	0	25	39	40	40	41	42	44	57	77	112	145	171	190	196	1,219
TOTAL OPERATING COSTS/ACRE	15	5,264	2,965	131	170	170	171	552	2,826	4,237	7,337	7,000	5,569	4,166	1,600	42,188
OVERHEAD:																
Liability Insurance			13													13
Office Expense	63	63	63	63	63	63	63	63	63	63	63	63				750
Sanitation Fee	17	17	17	17	17	17	17	17	17	17	17	17				200
Land Rent (per producing acre)													3,000			3,000
Pipe Rent				266												266
Ranch Supervisor	63	63	63	63	63	63	63	63	63	63	63	63				750
Food Safety	8	8	8	8	8	8	8	8	8	8	8	8				100
Property Taxes						31										31
Property Insurance						24										24
Investment Repairs	3	3	3	3	3	3	3	3	3	3	3	3				36
TOTAL CASH OVERHEAD COSTS	153	153	166	419	153	209	153	153	153	153	153	153	3,000	0	0	5,171
TOTAL CASH COSTS/ACRE	168	5,417	3,131	550	323	379	324	705	2,979	4,390	7,490	7,153	8,569	4,166	1,600	47,359

UC COOPERATIVE EXTENSION

Table 4. RANGING ANALYSIS

CENTRAL COAST REGION- Santa Cruz & Monterey Counties 2010

COSTS PER ACRE AT VARYING YIELDS TO PRODUCE STRAWBERRIES

	YIELD (trays/acre)						
	4,000	5,000	6,000	7,000	8,000	9,000	10,000
OPERATING COSTS/ACRE*:							
Cultural Cost	12,283	12,283	12,283	12,283	12,283	12,283	12,283
Harvest (pick, haul)	17,049	21,316	25,582	29,850	34,117	38,385	42,652
Cooling	2,000	2,500	3,000	3,500	4,000	4,500	5,000
Assessment	71	88	106	123	141	158	176
Interest on operating capital @ 5.75%	924	1,063	1,203	1,343	1,482	1,622	1,762
TOTAL OPERATING COSTS/ACRE	32,326	37,250	42,173	47,098	52,022	56,948	61,872
TOTAL OPERATING COSTS/Tray	8.08	7.45	7.03	6.73	6.50	6.33	6.19
CASH OVERHEAD COSTS/ACRE	5,171	5,171	5,171	5,171	5,171	5,171	5,171
TOTAL CASH COSTS/ACRE	37,496	42,421	47,344	52,269	57,193	62,118	67,042
TOTAL CASH COSTS/Tray	9.37	8.48	7.89	7.47	7.15	6.90	6.70
NON-CASH OVERHEAD COSTS/ACRE	523	523	523	523	523	523	523
TOTAL COSTS/ACRE	38,019	42,944	47,867	52,792	57,716	62,641	67,565
TOTAL COSTS/Tray	9.50	8.59	7.98	7.54	7.21	6.96	6.76

***Due to various rounding, numbers may not exactly match numbers in Tables 1 to 3.**

NET RETURNS PER ACRE ABOVE OPERATING COSTS

PRICE**	YIELD (trays/acre)						
$/TRAY	4,000	5,000	6,000	7,000	8,000	9,000	10,000
6.30	-7,126	-5,750	-4,373	-2,998	-1,622	-248	1,128
7.30	-3,126	-750	1,627	4,002	6,378	8,752	11,128
8.30	874	4,250	7,627	11,002	14,378	17,752	21,128
9.30	4,874	9,250	13,627	18,002	22,378	26,752	31,128
10.30	8,874	14,250	19,627	25,002	30,378	35,752	41,128
11.30	12,874	19,250	25,627	32,002	38,378	44,752	51,128
12.30	16,874	24,250	31,627	39,002	46,378	53,752	61,128

NET RETURNS PER ACRE ABOVE CASH COSTS

PRICE**	YIELD (trays/acre)						
$/TRAY	4,000	5,000	6,000	7,000	8,000	9,000	10,000
6.30	-12,296	-10,921	-9,544	-8,169	-6,793	-5,418	-4,042
7.30	-8,296	-5,921	-3,544	-1,169	1,207	3,582	5,958
8.30	-4,296	-921	2,456	5,831	9,207	12,582	15,958
9.30	-296	4,079	8,456	12,831	17,207	21,582	25,958
10.30	3,704	9,079	14,456	19,831	25,207	30,582	35,958
11.30	7,704	14,079	20,456	26,831	33,207	39,582	45,958
12.30	11,704	19,079	26,456	33,831	41,207	48,582	55,958

NET RETURNS PER ACRE ABOVE TOTAL COSTS

PRICE**	YIELD (trays/acre)						
$/TRAY	4,000	5,000	6,000	7,000	8,000	9,000	10,000
6.30	-12,819	-11,444	-10,067	-8,692	-7,316	-5,941	-4,565
7.30	-8,819	-6,444	-4,067	-1,692	684	3,059	5,435
8.30	-4,819	-1,444	1,933	5,308	8,684	12,059	15,435
9.30	-819	3,556	7,933	12,308	16,684	21,059	25,435
10.30	3,181	8,556	13,933	19,308	24,684	30,059	35,435
11.30	7,181	13,556	19,933	26,308	32,684	39,059	45,435
12.30	11,181	18,556	25,933	33,308	40,684	48,059	55,435

**Prices are assumed to be net to grower (FOB less sales commission)

UC COOPERATIVE EXTENSION

Table 5. WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT, and BUSINESS OVERHEAD COSTS

CENTRAL COAST REGION- Santa Cruz and Monterey Counties 2010

ANNUAL EQUIPMENT COSTS

						Cash Overhead		
Yr	Description	Price	Yrs Life	Salvage Value	Capital Recovery	Insur-ance	Taxes	Total
10	205HP Crawler	152,000	15	29,592	13,000	704	908	14,612
10	42HP 4WD Tractor #1	27,830	15	5,418	2,380	129	166	2,675
10	42HP 4WD Tractor #2	27,830	12	6,958	2,652	135	174	2,961
10	55HP 2WD Tractor	32,269	15	6,282	2,760	149	193	3,102
10	Blade Rear 3 pt 6'	1,012	15	97	91	4	6	101
10	Chisel - Spring 14'	6,163	15	592	556	26	34	616
10	Disk - Offset 14'	15,516	10	2,744	1,764	71	91	1,926
10	Drip Machine 1-48" Row, 4'	3,500	15	336	316	15	19	350
10	Fertilizer Drill 2-48" Rows, 8'	5,000	10	884	569	23	29	621
10	Fume/Mulch Machine 2-48" Rows, 8'	22,500	15	2,160	2,029	96	123	2,248
10	Lister/Shaper 2-48" Rows, 8'	5,000	15	480	451	21	27	500
10	Punch Machine 1-48" Row, 4'	5,000	15	480	451	21	27	500
10	Ripper-5 Shank 14'	10,800	10	1,910	1,228	49	64	1,341
10	Roller 8'	4,500	15	432	406	19	25	450
10	Sprayer 20' boom	3,630	15	349	327	15	20	363
10	Trailer-Pipe	2,150	20	112	165	9	11	185
10	Triplane 15'	18,750	15	1,800	1,691	80	103	1,873
10	Truck 1 Ton #1	36,000	10	10,634	3,750	181	233	4,164
10	Truck 1 Ton #2	36,000	10	10,634	3,750	181	233	4,164
TOTAL		415,450		81,894	38,338	1,927	2,486	42,751
40% of New Cost*		166,180		32,758	15,335	771	995	17,101

*Used to reflect a mix of new and used equipment.

ANNUAL INVESTMENT COSTS

					Cash Overhead			
Description	Price	Yrs Life	Salvage Value	Capital Recovery	Insur-ance	Taxes	Repairs	Total
INVESTMENT								
Buildings	49,162	20		3,862	191	246	983	5,281
Fuel Tanks/Above Ground	3,500	20	651	255	16	21	70	362
Hand Tools	4,595	15	460	414	20	25	92	550
Harvest Carts (70)	1,042	5		239	4	5	21	269
Lateral Lines Irrigation	10,000	5		2,294	39	50	200	2,583
Shop Tools	12,637	15	1,264	1,137	54	70	253	1,514
TOTAL INVESTMENT	80,936		2,375	8,200	323	417	1,619	10,558

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Food Safety	45	acre	100.00	4,500
Land Rent	50	acre	2700.00	135,000
Liability Insurance	45	acre	12.91	581
Office Expense	45	acre	750.00	33,750
Pipe Rent	45	acre	266.00	11,970
Ranch Supervisor	45	acre	750.00	33,750
Sanitation Fee	45	acre	200.00	9,000

UC COOPERATIVE EXTENSION

Table 6. HOURLY EQUIPMENT COSTS

CENTRAL COAST REGION- Santa Cruz & Monterey Counties 2010

			COSTS PER HOUR						
				Cash Overhead		Operating			
Yr	Description	Actual Hours Used	Capital Recovery	Insur-ance	Taxes	Repairs	Fuel & Lube	Total Oper.	Total Costs/Hr.
10	205HP Crawler	207.10	25.11	1.36	1.75	2.58	35.57	38.15	66.37
10	42HP 4WD Tractor #1	277.40	3.43	0.19	0.24	0.47	6.17	6.64	10.50
10	42HP 4WD Tractor #2	173.30	6.12	0.31	0.40	0.48	6.17	6.65	13.48
10	55HP 2WD Tractor	375.40	2.94	0.16	0.21	0.96	8.08	9.04	12.35
10	Blade Rear 3 pt 6'	4.80	7.58	0.36	0.46	0.00	0.00	0.00	8.40
10	Chisel - Spring 14'	27.00	8.23	0.39	0.50	0.86	0.00	0.86	9.98
10	Disk - Offset 14'	60.00	11.76	0.47	0.61	1.71	0.00	1.71	14.55
10	Drip Machine 1-48" Row, 4'	90.00	1.40	0.07	0.09	0.62	0.00	0.62	2.18
10	Fertilizer Drill 2-48" Rows, 8'	13.30	17.13	0.69	0.89	0.92	0.00	0.92	19.63
10	Fume/Mulch Machine 2-48" Rows, 8'	90.00	9.02	0.42	0.55	1.69	0.00	1.69	11.68
10	Lister/Shaper 2-48" Rows, 8'	11.30	16.03	0.76	0.97	0.67	0.00	0.67	18.43
10	Punch Machine 1-48" Row, 4'	67.50	2.67	0.13	0.16	0.38	0.00	0.38	3.34
10	Ripper-5 Shank 14'	67.50	7.28	0.29	0.38	1.64	0.00	1.64	9.59
10	Roller 8'	9.10	17.86	0.84	1.09	0.34	0.00	0.34	20.13
10	Sprayer 20' boom	341.20	0.38	0.02	0.02	0.64	0.00	0.64	1.06
10	Trailer-Pipe	135.00	0.49	0.03	0.03	0.02	0.00	0.02	0.57
10	Triplane 15'	22.50	30.06	1.42	1.83	1.89	0.00	1.89	35.20
10	Truck 1 Ton #1	148.70	10.09	0.49	0.63	2.32	16.34	18.66	29.87
10	Truck 1 Ton #2	148.70	10.09	0.49	0.63	2.32	16.34	18.66	29.87

UC COOPERATIVE EXTENSION

Table 7. OPERATIONS WITH EQUIPMENT and MATERIALS

CENTRAL COAST - Santa Cruz & Monterey Counties

Operation		Equipment		Non-Machine Labor		Rate/ Broadcast	
Cultural:	Month	Tractor	Implement	Hours/Acre	Material	Acre	Unit
Land Prep: Disk/Roll 8X	August	205 HP Crawler	Disk - Offset				
	September						
Land Prep: Subsoil 3X	September	205 HP Crawler	Ripper 5-Shank				
Land Prep: Chisel 4X	September	205 HP Crawler	Chisel - Spring				
Land Prep: Triplane 2X	September	205 HP Crawler	Triplane				
Land Prep: List/Shape Beds	September	205 HP Crawler	Lister/Shaper				
Irrigate: Layout/Pickup Pipe 3X	September	42 HP 4WD	Trailer - Pipe	2.00		3.00	acin
	November	42 HP 4WD	Trailer - Pipe	1.00			
Irrigate: Install Drip Tape	September	42 HP 4WD	Tape Machine	2.00	T-Tape	20,120.00	ft
Irrigate: Lay Laterals/Connect Drip	September	42 HP 4WD	Blade	0.50			
Irrigate: Sprinkle	September			0.10	Water	4.00	acin
	November			0.30	Water	2.00	acin
Irrigate: Drip	October			0.10	Water	1.00	acin
	March			1.50	Water	2.09	acin
	April			1.50	Water	4.14	acin
	May			1.50	Water	4.14	acin
	June			1.50	Water	4.14	acin
	July			1.50	Water	4.14	acin
	August			1.50	Water	4.14	acin
	September			1.50	Water	4.14	acin
	October			1.50	Water	2.07	acin
Irrigate: Grade Field Roads	March	42 HP 4WD	Blade				
Fertilize: Preplant	September	42 HP 4WD	Fertilizer Drill		18-8-13	500.00	lb
Fertilize: through drip	March				CAN 17	50.00	lb
	April				CAN 17	50.00	lb
	May				CAN 17	50.00	lb
	June				CAN 17	50.00	lb
	July				CAN 17	50.00	lb
	August				CAN 17	50.00	lb
	September				CAN 17	50.00	lb
Fumigate: Fumigate	September	Custom		0.20	Fumigate	1,650.00	acin
Fumigate: Discard Tarp	September	Custom				65.00	acre
Plant: Cut/Grade Roads	September	42 HP 4WD	Blade				
Plant: Lay Mulch	September	42 HP 4WD	Mulch Machine	8.00	Mulch	350.00	lb
					Mulch Pins	4,000.00	each
Plant: Punch Holes	October	42 HP 4WD	Punch Machine				
Plant: Transplant	October			38.00	Plants	22,869.00	each
Plant: Roll Plants	October	42 HP 4WD	Roller				
Pest: Botrytis/Mildew/Mites	March	55 HP 4WD	Sprayer		Captan	4.00	lb
					Rally	5.00	oz
					Savey	6.00	oz
Pest: Mites - Persimilis 2X	March			1.20	Persimilis	15,000.00	each
	April			1.20	Persimilis	15,000.00	each
Pest: Botrytis/Mildew	April	55 HP 4WD	Sprayer		Switch	14.00	oz
					Rally	5.00	oz
Pest: Botrytis/Mildew/Anthrac/Worms	April	55 HP 4WD	Sprayer		Quadris	12.00	floz
					Dipel	1.00	lb
	April	55 HP 4WD	Sprayer		Elevate	1.50	lb
					Rally	5.00	oz
					Success	5.00	floz
Pest: Botrytis/Mildew/Mites/Anthrac/ Worm/Lygus	May	55 HP 4WD	Sprayer		Captan	4.00	lb
					Thiolux	5.00	lb
					Acramite	1.00	lb
					Dipel	1.00	lb
					Malathion	2.00	pt
	May	55 HP 4WD	Sprayer		Quadris	12.00	floz

UC COOPERATIVE EXTENSION

Table 7. CONTINUED

CENTRAL COAST - Santa Cruz & Monterey Counties

Operation		Equipment		Non-Machine Labor		Rate/ Broadcast	
Cultural**:**	Month	Tractor	Implement	Hours/Acre	Material	Acre	Unit
Pest: Botrytis/Mildew/Mites/Lygus	June	55 HP 4WD	Sprayer		Elevate	1.50	lb
					Rally	5.00	oz
					Acramite	1.00	lb
					Malathion	2.00	pt
Pest: Botrytis	June	55 HP 4WD	Sprayer		Pristine	23.00	oz
	June	55 HP 4WD	Sprayer		Captan	4.00	lb
					Thiolux	5.00	lb
Pest: Mildew/Lygus	July	55 HP 4WD	Sprayer		Quadris	12.00	floz
					Dibrom	16.00	floz
Pest: Mildew/Mite/Lygus	August	55 HP 4WD	Sprayer		Thiolux	5.00	lb
					Danitol	16.00	floz
Pest: Mildew	April	55 HP 4WD	Sprayer		Rally	5.00	oz
	September	55 HP 4WD	Sprayer		Thiolux	5.00	lb
Weed: Hand	December			10.20			
	January			10.20			
	February			10.20			
	March			10.20			
	April			10.20			
	May			10.20			
	June			10.20			
	July			10.20			
	August			10.20			
	September			10.20			
Harvest: Pick Fresh/Record	April			106.00	Trays	300.00	each
	May			152.00	Trays	720.00	each
	June			226.00	Trays	1,500.00	each
	July			206.00	Trays	1,560.00	each
	August			190.00	Trays	1,080.00	each
	September			152.00	Trays	720.00	each
	October			42.00	Trays	120.00	each
Harvest: Load/Haul Fresh	April	Truck - 1 Ton #1 & #2		2.00			
	May	Truck - 1 Ton #1 & #2		2.90			
	June	Truck - 1 Ton #1 & #2		4.40			
	July	Truck - 1 Ton #1 & #2		4.00			
	August	Truck - 1 Ton #1 & #2		3.70			
	September	Truck - 1 Ton #1 & #2		2.90			
	October	Truck - 1 Ton #1 & #2		0.80			
Year End: Field Cleanup	October	Custom					
Cooling	April	Custom			Trays	300.00	each
	May	Custom			Trays	720.00	each
	June	Custom			Trays	1,500.00	each
	July	Custom			Trays	1,560.00	each
	August	Custom			Trays	1,080.00	each
	September	Custom			Trays	720.00	each
	October	Custom			Trays	120.00	each