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**University of California Agriculture and Natural Resources  
Cooperative Extension  
UC Davis Department of Agricultural and Resource Economics**

**2022**

**SAMPLE COSTS TO PRODUCE AND HARVEST  
ORGANIC STRAWBERRIES**

**FRESH MARKET**



**CENTRAL COAST REGION  
Santa Cruz, Monterey and San Benito Counties**

Mark Bolda	UC Cooperative Extension Farm Advisor, Santa Cruz, Monterey & San Benito Counties
Jeremy Murdock	Staff Research Associate, Department of Agricultural and Resource Economics, UC Davis
Brittney Goodrich	UC Cooperative Extension Specialist, Department of Agricultural and Resource Economics, UC Davis
Daniel A. Sumner	Frank H. Buck Jr. Distinguished Professor, Department of Agricultural and Resource Economics, UC Davis

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Central Coast Region - Santa Cruz, Monterey, and San Benito Counties 2022**

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**INTRODUCTION**

Organic production, as defined by the USDA’s Organic Foods Production Act of 1990, is a “production system that is managed in accordance with the Act and regulations in this part to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.”

Sample costs to produce and harvest organic strawberries in Santa Cruz, Monterey, and San Benito Counties are presented in this study. It 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 and harvest 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 titled "Your Cost" is provided to enter your actual costs in Tables 1 and 2.

The hypothetical farm operation, production and harvest practices, overhead, and calculations are described under assumptions. For additional information or explanation of calculations used in the study call the Department of Agricultural and Resource Economics, University of California, Davis, (530) 752-4651 or UC Cooperative Extension Santa Cruz County: Mark Bolda (831) 763-8025.

Sample Cost of Production studies for many commodities are available and can be downloaded from the website <https://coststudies.ucdavis.edu>. Archived studies are also available on the website.

## ASSUMPTIONS

The following assumptions refer to calculations in Tables 1 to 6 beginning on page 11 and pertain to sample costs to produce and harvest organic strawberries in the Central Coast Region - Santa Cruz, Monterey, and San Benito Counties. Cultural practices, materials, and organic strawberry production and harvest costs vary by grower and region, and differences can be significant. The practices and inputs used in the cost study serve as a guide only. Organic growers should be certain that any material inputs and applications meet the regulatory requirements of state and national programs, and their certifying agent(s). **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.**

Organic strawberries represent approximately 13% of strawberry acreage along the Central Coast, according to 2019 California Strawberry Commission survey data. Many of the practices that are used in organic production are also used in conventional production. Differences between the two production systems are found primarily, though not exclusively, in crop fertilization and pest management.

**Farm.** This study assumes a farm operation size of 30 contiguous acres of rented land. Organic strawberries are planted on 27 acres; roads, the irrigation system, and on-farm buildings account for the remaining three acres. In this area, arrangements are often made with other farmers and owners of organically certified land to rotate strawberries with vegetable and other berry crops. The grower rents the land, which includes a small shop, for \$3,000 per acre, per year, and owns the machinery and equipment used. Farming on sloped or hilly land may result in varying costs for land rent and cultural practices.

### **Production Cultural Practices and Material Inputs**

To gain certified organic status, growers must farm on land to which no synthetically formulated fertilizers and/or pesticides have been applied for a minimum of three years. Organic farmers generally use a “systems management” approach to farming by including a suite of production practices such as crop rotation, diversification, cover crops and organic matter additions to help build soil fertility and manage pests. Organic strawberries are rotated with other crops to assist with disease and weed control and for long-term improvements to soil fertility.

**Land Preparation, Pre-Plant Fertilization, and Irrigation.** This study assumes that a soil building cover crop is planted prior to a strawberry – vegetable two-crop rotation. Costs associated with the cover crop are therefore split between the two crops, with half the cost shown here. The cover crop is disked twice in September to incorporate plant residue. Two soil samples are then taken to help determine fertilization practices for the 27 acre planting. The field is then subsoiled five times, disked four times, leveled, and chiseled twice. The field is then sprinkler irrigated with two acre-inches of water to assist with soil preparation and weed management. Compost is applied at the rate of five tons per acre by a custom operator several days later and then sprinkler irrigated again with 0.5 acre-inches of water to assist with the incorporation of the compost. In October, the field is chiseled once and beds are listed. At the time of listing compost at 8 tons per acre, rice bran at 5 tons per acre and feather meal (13-0-0) are applied, along with the soil amendment gypsum, which is applied at the rate of 2 tons per acre. Beds (48-inches wide) are then shaped. Drip irrigation tape at two lines per bed is installed immediately after, and the beds are covered with black plastic mulch using a mulch laying implement.

**Plant Establishment.** Prior to planting, a slotting implement is used to open the plastic mulch at appropriate intervals to prepare for transplanting. Strawberry plants are delivered to the field edge and then transplanted into two rows, 12 inches apart, for a per acre plant density of 21,780. Planting takes approximately 50 hours per acre. Several strawberry varieties such as Albion, Chandler, Monterey, San Andreas, and Sweet Anne, and a number of proprietary varieties are suitable for organic production in the region, but no specific variety

is assumed in this study. Fields are sprinkler irrigated with roughly one acre-inch of water immediately after planting. In this study, seven percent of the field, or 1,525 plants per acre, is replanted in the weeks and months that follow because of poor establishment, gopher damage, and other possible field conditions.

**Post-Plant Fertilization.** From February to September (eight months), the grower applies a series of foliar sprays, including Biomin Calcium (2-0-0-7, a calcium supplement) and Maxi Crop Seaweed Extract, once per month at a rate of one gallon per acre and 2.5 pounds per acre, per application, respectively. These materials are used to ensure that a balance of N, P, K and micronutrients are supplied to the plants.

Beginning in March and continuing through the end of the season in September, liquid fertilizers are applied to the soil through the drip irrigation system. Agrothrive LF (4-1-1), a fish emulsion, and True Organics 4-2-2 are applied every week at a rate of 10 and 5 gallons per acre respectively, per application for a total of 16 applications. Fertilization materials and rates will vary dramatically by grower and year depending on soil tests and plant needs.

**Post-Plant Irrigation.** From March through September (seven months), strawberries are drip irrigated two to three times per week using a total of 24 acre-inches of water over the entire growing season. Including the 3.5 acre inches applied by sprinkler irrigation earlier in the season, a total of 27.5 acre inches is applied to the field. Effective rainfall is not taken into account. The amount of water needed to produce the crop can differ substantially in the area and depends upon factors such as weather, soil type, well depth, and field conditions. The cost of pumping water is estimated at \$270 per acre-foot or \$22.50 per acre-inch. Water costs can also vary considerably in the area depending upon the water district or agency, delivery, associated fees, and pumping variables.

**Pest Management.** The pesticides and rates mentioned in this cost study are listed in the *UC Integrated Pest Management Guidelines, Strawberries*. For more information on pesticides, pest identification, monitoring, and management visit the UC IPM website at <http://ipm.ucdavis.edu>, or contact your local UCCE farm advisor. Pesticide use permits and regulatory information are available through the local county agricultural commissioner's office. Pesticides mentioned in this study are used to calculate rates and costs; applications, timing, and materials vary according to pest pressure. The pesticide program in this report is considered typical, but organic practices vary considerably within the region; the effectiveness of practices depends upon field and environmental conditions.

*Pest Control Adviser (PCA).* To assist with pest management decisions in this study, the grower contracts with a PCA at an estimated cost of \$150 per acre per year. Pest Control Advisers write pest management recommendations and monitor the fields for production, nutrition, and pest problems.

*Weeds and Runners.* Weed management is especially challenging for organic strawberry production because soil fumigation and most herbicides are not allowed under organic regulations. For 10 months beginning in December and ending in September, weeds and runners are managed by hand. Hand weeding is estimated at 22 hours per acre per month for 10 months during the production season, and runner removal is estimated at 12.5 hours per acre per month for the same 10 months during the production season. Growers with different planting configurations and/or especially weedy fields may require a higher level of management and therefore higher costs.

*Vertebrates.* Rodents, such as pocket gophers (*Thomomys spp.*), cause damage in strawberry fields by feeding on the plant roots, digging tunnels into the beds and also gnawing holes in the drip irrigation tape. They may be controlled in organic strawberry fields by trapping and other means throughout the growing season. Labor cost is estimated at four hours per acre for the season.

*Insects and mites.* Pests common to strawberries in this area include lygus bug (*Lygus hesperus*), leafrollers including the regulated light brown apple moth (*LBAM [Epiphyas postvittana]*), twospotted spider mite

(*Tetranychus urticae*), Lewis mite (*Eotetranychus lewisi*), Western flower thrips (*Frankliniella occidentalis*), vinegar flies (*Drosophila* spp.) certain species of aphids and other Lepidopterous pest including fall armyworms.

Lygus bug is considered to be one of the most challenging pests to manage in strawberry production. To assist with management of lygus bugs, current grower practice is use of a bug vacuum twice per week beginning in April and ending in October (or end of the season).

To assist with the control of two-spotted spider mite, the predatory mite (*Phytoseiulus persimilis*), is released four times, twice in February and twice in March, for a total application rate of 100,000 mites per acre, per year. Application time is estimated at one hour per acre, per release. Since Lewis mite does not respond well to *P. persimilis*, growers instead use the wetting agent Vestis as a spray twice in the early part of the season. Lepidopterous pests (worms) are managed using four applications of Dipel (*Bacillus thuringiensis* [Bt]), applied at a rate of one pound per acre, per application in May and June. Entrust is used for management of vinegar flies, including the spotted wing drosophila, up to three times per season.

**Diseases.** Powdery mildew (*Podosphaera aphanis*) and Botrytis fruit rot (*Botrytis cinerea*) are the two foliar and fruit diseases most common to strawberries in this area. Micronized sulfur (Kumulus) is applied for powdery mildew control at the rate of five pounds per acre, per application, every three weeks, beginning in late March and ending in early October, totaling nine applications per year. Because no organically acceptable fungicide has proven consistently effective for Botrytis fruit rot, the associated disease pressure is minimized by culling diseased fruit by hand during harvest. It is assumed to be included in harvest costs.

**Harvest.** The crop is harvested twice per week from April through early October with peak harvest in June, July, and August. The percent of the total crop harvested each month is shown in Table A. Crew

Table A. Percent Crop Harvested by Month

	April	May	June	July	Aug	Sept	Oct
Harvest %	5	12	25	25	18	12	3

size and number of crews will vary through the season depending upon the yield and labor availability. Harvest rate per person ranges from three trays per hour early and late in the season to five to eight trays per hour during peak harvest. Fruit is harvested into a tray on a picking cart that contains eight one-pound-sized clamshells. Other container types and sizes are used but are not included in this study. During harvest practices, Botrytis infected or bronzed, overripe, and misshapen fruit is culled and discarded in the furrows. Additional field labor includes one person to check for proper harvest practices and one card puncher per crew to count the trays harvested by each picker. To load and haul the fruit, one truck loader stacks the trays on the vehicle and the driver delivers the strawberries to the cooler. The grower uses two one-ton flatbed trucks that each alternately hold two pallets at 120 trays per pallet for prompt delivery to the cooler. Trays per pallet will vary by container types. The truck driver takes about one hour per load to deliver the filled trays to the cooler and return to the farm.

**Yields.** Yields for organic strawberries vary depending on season and growing conditions. In this area, yields typically range from 6,000 to 8,000 eight-pound trays per acre. However, some varieties may produce higher yields. This study uses an average yield of 7,000 trays per acre.

**Returns.** For this study, the estimated unit price to growers for organic strawberries is \$15.00 per tray and is based on the 2022 Salinas-Watsonville shipping point prices from the USDA Agricultural Marketing Service. Early and late season fruit may be sold at prices that are higher than those sold during the peak harvest months. Estimated net returns to growers for a combination of yields and prices is shown on Table 4, Ranging Analysis. However, prices to growers can vary substantially depending upon market conditions and arrangements and may be even lower or higher than those shown on Table 4.

**California Strawberry Commission (CSC) Assessments.** The CSC assesses the grower \$0.045 per tray to support the commission's goals, which focuses on production and nutrition research, trade relations, public relations, and public policy.

**Sales/Marketing.** Selling costs for fresh market fruit are calculated as 8% of selling price or \$1.20 per tray.

**Cooling Costs.** Cooling costs vary by cooler and grower volume. Growers are responsible for these costs, which may be negotiable with a cooler. The estimated cost used in this study is \$0.85 per tray.

**Post-Harvest Cleanup.** After all harvest operations have been completed, the plants are mowed. The plastic mulch and drip tape are removed from the field by the grower and hauled to a disposal site. The field is then disked twice in preparation for the next crop.

### **Labor, Equipment, and Interest**

**Labor.** Labor rates are \$29.60 per hour for machine operators and \$22.94 for field labor includes payroll overhead of 48%. The basic hourly wages are \$20.00 for machine operators and \$15.50 for field labor. Harvest crews are often paid a base wage plus piecework rate, or straight piecework depending on the time of harvest. In this study, harvest wages are calculated using the field labor rate. 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 1, 2022. 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.

In 2016 new minimum wage and overtime laws were passed in California. Currently in 2022, the minimum wage increased to \$15.00 per hour which represents an increase of 7.1% over that of 2021. Many growers may already pay wages that are higher than the state's legal requirement.

The new overtime law will gradually decrease the number of hours employees can work on a daily and weekly basis before overtime wages are required. Prior to its passage field workers and equipment operators could work up to 10 hours per day or 60 hours per week without overtime wages; by 2022 the requirement will be lowered to 8 hours per day or 40 hours per week for employers with 26 or more employees. The new overtime law may change wages and scheduling of work in complicated ways as it is phased in.

Growers may also choose to use a farm labor contractor or the H-2A guestworker visa program to employ workers. When using either one of these two approaches, base rates, overhead and compliance with housing, meals, transportation, and other requirements will vary. Use of these services may result in labor costs that are higher than those shown in this study but may be necessary in order to assure a reliable supply of labor.

**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 percent 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 rate will vary depending upon various factors, but the rate in this study is considered a typical lending rate by a farm lending agency as of January 2022.

**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 and Biological Engineers (ASABE). Fuel and lubrication costs are also determined by ASABE equations based on maximum power takeoff (PTO) horsepower, and fuel type. Prices for on-farm delivery of red dye diesel and gasoline are \$5.65 (excludes excise taxes) and \$5.20 per gallon, respectively. The cost includes a 2 percent local sales tax on diesel fuel and 8 percent sales tax on gasoline. Gasoline costs also include federal and state excise taxes,

which are refundable for on-farm use when filing income taxes. 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 percent higher than implement time for a given operation to account for setup, travel, and down time.

**Pickup Truck/ATV.** This study includes a cost for the use of a pickup truck and ATV for business purposes.

**Risk.** The risks associated with producing and marketing organic strawberries are considered high. While this study makes every effort to model a production system based on typical, real world practices, it cannot fully represent all risks associated with agriculture, including financial, production, market, legal, and human resource risks that ultimately affect the profitability and economic viability of organic strawberries. In this area invasive pests pose particular regulatory and management challenges and increase production and marketing risks for growers. Price uncertainty and variability has also contributed to substantial market risk for growers, especially in recent years. In addition, labor availability and rising wages are noteworthy human resource risks for area growers. Labor constraints have resulted in challenges in hiring a sufficient number of workers to ensure timely and effective farm operations, especially during harvest. Growers report paying higher wages to attract and retain workers; others may pay overtime because of labor constraints. Farm profitability may be negatively impacted under any of these circumstances.

### 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. Because overhead costs are farm and ranch specific, costs will vary among growers.

**Property Taxes.** Counties charge a base property tax rate of 1 percent 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 percent of the average value of the property. Average value equals new cost plus salvage value divided by two, 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 0.886 percent of the average value of the assets over their useful life. Liability insurance covers accidents on the farm and costs \$621 for the entire farm.

**Office Expenses.** Annual office and business expenses are estimated at \$750 per acre. Costs include, but are not limited to, a variety of administration and office supplies, bookkeeping, accounting, road maintenance, utilities and other miscellaneous expenses.

**Land Rent.** For this study, land rent is assumed to be \$3,000 per acre per year. Land rent includes developed well(s) and irrigation system. In general, growers are responsible for the portion above ground such as the pump, and the landowner is responsible for what is below ground, such as the well running dry (please see irrigation section for more information).

**Organic Certification and Registration Fees.** Organic strawberry certification and registration fees are estimated at \$204 per acre. This includes fees associated with field inspection, certification, and inspection by a USDA accredited certification agent and the California Department of Food and Agriculture's Organic Program registration fee. Fees will vary from year to year depending upon inspection requirements and product sales.

**Food Safety and Regulatory Programs.** To ensure the safety of fresh products, accommodate buyer requests, and comply with regulatory programs such as those for water and air quality, growers now have in house departments and/or staff specially dedicated to supervision and management of these programs. Part of a food safety program is participation in third party (independent) audits. Costs associated with food safety programs vary depending upon the farm and inspection circumstances, administrative costs and personnel training and hygiene needs. Food safety costs are estimated at \$100 per acre per year. In addition, a cost of \$80 per acre per year is included for management and compliance with regulatory programs.

**Field Sanitation.** Sanitation services provide portable toilets and washing stations to the farm. The cost includes two sets of triple-portable toilets with washbasins, delivery and pickup, and 12 months of servicing. Costs include soap or other suitable cleaning agent, and single use towels. Separate potable water and single use drinking cups are also supplied.

**Farm Supervisor.** The grower hires a farm supervisor to oversee some of the cultural and harvest operations as well as fill in on some of the operations where temporary assistance is needed. The estimated cost for the supervisor is \$1,250 per acre. Larger operations may have multiple supervisory levels; associated costs will therefore differ.

### **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.

**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  $((\text{Purchase Price} - \text{Salvage Value}) \times (\text{Capital Recovery Factor})) + (\text{Salvage Value} \times \text{Interest Rate})$ .

*Salvage Value.* Salvage value is an estimate of the remaining value of an investment at the end of its useful life. For farm machinery (tractors and implements) 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 and Biological Engineers (ASABE) based on equipment type and years of life. The life in years is estimated by dividing the wear out life, as given by ASABE 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 for land is the purchase price 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 5.50 percent is used to calculate capital recovery. The rate will vary depending upon size of loan and other lending agency conditions, but is a suggested rate by a farm lending agency in January 2022.

**Buildings.** The grower maintains a 1,200 square foot metal building on a cement slab.



**Fuel Tanks.** Two 300-gallon fuel tanks set in containment are installed for equipment fuel.

**Tools.** This includes shop and field and harvest tools used on the farm. The value is estimated and does not represent any specific inventory.

**Irrigation System.** The irrigation system is maintained by the landowner and assumed to be included in the land rental cost. In some cases the grower may be responsible for maintenance. The grower invests in and owns sprinkler pipe and drip system materials sufficient for irrigation needs. The grower also owns a trailer and other equipment needed for moving pipe and irrigation supplies to and from the field. Main lines above ground are connected to the underground system to deliver water for the irrigations. Additional information about the drip system is located in the production section. The grower owns enough sprinkler pipes to cover 27 acres per setting.

**Equipment.** Farm equipment is purchased new or used, but the study shows the current purchase price for new equipment. The new purchase price is adjusted to 70 percent to indicate a mix of new and used equipment. Annual ownership costs for equipment and other investments are shown in Table 5 Whole Farm Equipment, Investment and Business Overhead. 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.

## REFERENCES

- American Society of Agricultural and Biological Engineers. (ASABE). March 2011 (R2015). *Agricultural Machinery Management Data. ASABE Standards*. ASAE D497.7. St. Joseph, Michigan.
- Boehlje, Michael D. and Vernon R. Eidman. 1984. *Farm management*. John Wiley & Sons, New York, NY.
- Bolda, Mark P, Laura Tourte, Jeremy Murdock, Daniel A. Sumner. 2018 Sample Costs to Produce and Harvest Organic Strawberries. Central Coast. University of California Cooperative Extension. <https://coststudies.ucdavis.edu>.
- Bolda, Mark P, Laura Tourte, Jeremy Murdock, Daniel A. Sumner 2016. Sample Costs to Produce and Harvest Strawberries. Central Coast Region. University of California Agriculture and Natural Resources – Cooperative Extension and Agricultural Issues Center and UC Davis Department of Agricultural and Resource Economics. <https://coststudies.ucdavis.edu>.
- California Department of Insurance. 2022 *California Workers' Compensation Rating Data for Selected Agricultural Classifications*. California Department of Insurance, Rate Regulation Branch.
- California State Board of Equalization. *Fuel Tax Division Tax Rates*. <http://www.boe.ca.gov/sptaxprog/spftdrates.htm>
- California Strawberry Commission. 2019 *Acreage Survey*. <http://www.calstrawberry.com>.
- Energy Information Administration. *Gasoline and Diesel Fuel Update*. <http://tonto.eia.doe.gov/oog/info/gdu/gasdiesel.asp>
- Santa Cruz County Agricultural Commissioner. Santa Cruz County 2020 Crop Report. Fruit Crops. Santa Cruz County, Watsonville, CA. <http://agdept.com>.
- University of California Statewide IPM Project. 2018. *UC Pest Management Guidelines, Strawberries*. University of California Agriculture and Natural Resources. <https://www2.ipm.ucanr.edu/agriculture/strawberry/>.
- United States Department of Agriculture, Agricultural Marketing Service. <https://www.ams.usda.gov/>.

UC COOPERATIVE EXTENSION  
 AGRICULTURAL AND RESOURCE ECONOMICS, UC DAVIS  
**TABLE 1. COSTS PER ACRE TO PRODUCE AND HARVEST ORGANIC STRAWBERRIES**  
 CENTRAL COAST REGION – 2022

Operation	Equipment		Cash and Labor Costs per Acre				Total Cost	Your Cost
	Time (Hrs/A)	Labor Cost	Fuel	Lube & Repairs	Material Cost	Custom/Rent		
Cultural:								
Cover Crop (1 per 2 crops)	0.00	0	0	0	0	75	75	
Soil Samples (2 per 27 acres)	0.00	0	0	0	0	11	11	
Subsoil 5X	2.08	74	57	22	0	0	153	
Disk 4X	0.93	33	26	9	0	0	68	
Level (Triplane)	1.00	36	27	10	0	0	73	
Chisel 2X	0.58	21	13	6	0	0	40	
Sprinklers: Setup and Removal	3.33	206	56	19	0	0	280	
Irrigate: Sprinkler	0.00	61	0	0	105	0	166	
Compost + Spread	0.00	0	0	0	440	80	520	
Beds Listed	1.00	36	27	8	0	0	71	
Pre-plant Fertilizer & Gypsum	0.00	0	0	0	2,462	30	2,492	
Beds Shaped	1.00	36	27	8	0	0	71	
Install Drip System, Tape, Laterals	3.00	132	50	22	1,525	0	1,729	
Plant: Lay Mulch	1.50	53	25	9	363	0	450	
Plant: Punch Planting Holes	0.75	27	13	5	0	0	44	
Plant: Strawberries (7% replants)	0.00	1,204	0	0	4,661	0	5,865	
Weed: Hand	0.00	5,047	0	0	0	0	5,047	
Runner Removal	0.00	2,868	0	0	0	0	2,868	
Insect: Mites (predatory)	0.00	115	0	0	650	0	765	
Insect: Mites (Vestis)	0.20	7	4	2	11	0	24	
Weed: Cultivate	0.75	27	17	7	0	0	51	
Fertilize: Foliar (Biomin)	0.78	28	18	6	152	0	204	
Fertilize: Foliar (Maxi)	0.78	28	18	6	226	0	278	
Vertebrate Trapping	0.00	92	0	0	0	0	92	
Pest Control Adviser (PCA)	0.00	0	0	0	0	150	150	
Irrigate: Drip	0.00	275	0	0	720	0	995	
Fertigate: Fish + 4-2-2	0.00	92	0	0	1,098	0	1,189	
Insect: Vacuum Lygus 8X/month	23.73	843	398	400	0	0	1,642	
Disease: Powdery Mildew (Sulfur)	0.88	31	20	7	91	0	149	
Worms: (Dipel)	0.20	7	4	2	84	0	97	
Post-Harvest Cleanup	3.00	668	28	12	18	0	727	
Pickup: Business Use	1.71	61	22	7	0	0	90	
ATV	0.59	21	2	1	0	0	24	
<b>TOTAL CULTURAL COSTS</b>	<b>47.79</b>	<b>12,124</b>	<b>856</b>	<b>568</b>	<b>12,605</b>	<b>346</b>	<b>26,499</b>	
Harvest:								
Harvest: Regular & Peak	0.00	36,268	0	0	11,760	0	48,028	
Harvest: Load & Haul	50.00	2,157	325	142	0	0	2,624	
Harvest: Cooler	0.00	0	0	0	0	5,950	5,950	
Assessment	0.00	0	0	0	315	0	315	
Sales	0.00	0	0	0	8,400	0	8,400	
<b>TOTAL HARVEST COSTS</b>	<b>50.00</b>	<b>38,425</b>	<b>325</b>	<b>142</b>	<b>20,475</b>	<b>5,950</b>	<b>65,317</b>	
Interest on Operating Capital at 5.75%							1,514	
<b>TOTAL OPERATING COSTS/ACRE</b>	<b>98</b>	<b>50,549</b>	<b>1,181</b>	<b>710</b>	<b>33,080</b>	<b>6,296</b>	<b>93,330</b>	

UC COOPERATIVE EXTENSION  
 AGRICULTURAL AND RESOURCE ECONOMICS, UC DAVIS  
**TABLE 1. CONTINUED**  
 CENTRAL COAST REGION – 2022

Operation	Operation		Cash and Labor Costs per Acre					Total Cost	Your Cost
	Time (Hrs/A)	Labor Cost	Fuel	Lube & Repairs	Material Cost	Custom/ Rent			
<b>CASH OVERHEAD:</b>									
Office Expense								750	
Food Safety								100	
Land Rent								3,000	
Liability Insurance								21	
Sanitation Fee								89	
Regulatory Programs								80	
Organic Certification								204	
Ranch Supervisor								1,250	
Property Taxes								68	
Property Insurance								6	
Investment Repairs								119	
<b>TOTAL CASH OVERHEAD COSTS/ACRE</b>								<b>5,687</b>	
<b>TOTAL CASH COSTS/ACRE</b>								<b>99,017</b>	
<b>NON-CASH OVERHEAD:</b>									
		<u>Per Producing Acre</u>		<u>Annual Cost Capital Recovery</u>					
Buildings 1200sqft		1,833		126				126	
Fuel Tanks 2-300gal		366		30				30	
Harvest Carts 70		52		12				12	
75hp Pump and Filter		1,333		109				109	
Sprinkler Pipe		1,481		115				115	
Lateral Lines		444		104				104	
Miscellaneous Tools		500		48				48	
Equipment		5,815		784				784	
<b>TOTAL NON-CASH OVERHEAD COSTS</b>		<b>11,825</b>		<b>1,327</b>				<b>1,327</b>	
<b>TOTAL COSTS/ACRE</b>								<b>100,343</b>	

TOTAL COST PER ACRE – HARVEST COST PER ACRE = GROWING COST PER ACRE

$$\text{\$100,343} - \text{\$65,317} = \text{\$35,026}$$

UC COOPERATIVE EXTENSION  
 AGRICULTURAL AND RESOURCE ECONOMICS, UC DAVIS  
**TABLE 2. COSTS and RETURNS PER ACRE TO PRODUCE AND HARVEST ORGANIC STRAWBERRIES**  
 CENTRAL COAST REGION - 2022

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
<b>GROSS RETURNS</b>					
Organic	7,000	tray	15.00	105,000	
<b>TOTAL GROSS RETURNS</b>				105,000	
<b>OPERATING COSTS</b>					
<b>Insecticide:</b>				<b>745</b>	
Persimilis (Mite)	100.00	thou	6.50	650	
Vestis	13.00	floz	0.83	11	
Dipel DF (Bt)	4.00	lb	20.95	84	
<b>Fungicide:</b>				<b>91</b>	
Kumulus DF	45.00	lb	2.02	91	
<b>Fertilizer:</b>				<b>4,378</b>	
Compost	8.00	ton	55.00	440	
Feather Meal (13-0-0)	0.50	ton	834.00	417	
Rice Bran	5.00	ton	385.00	1,925	
Gypsum	2.00	ton	60.00	120	
Biomin Calcium	8.00	gal	19.00	152	
Maxi-Crop	20.00	lb	11.32	226	
Agrothrive LF	160.00	gal	4.80	768	
True Organics 4-2-2	80.00	gal	4.12	330	
<b>Custom:</b>				<b>116</b>	
Cover Crop Seed and Planting	1.00	acre	75.00	75	
Soil Analysis	0.07	each	150.00	11	
Pre-plant Fertilizer Application	1.00	acre	30.00	30	
<b>Materials:</b>				<b>13,666</b>	
T-Tape	21,780.00	foot	0.07	1,525	
Black Plastic Mulch	2.75	roll	132.00	363	
8 Clamshell +Tray	7,000.00	each	1.68	11,760	
Dump Fee Monterey	600.00	lb	0.03	18	
<b>Water:</b>				<b>825</b>	
Water Pumped	27.50	acin	30.00	825	
<b>Plants:</b>				<b>4,661</b>	
Strawberry Plants	23,305.00	each	0.20	4,661	
<b>Contract:</b>				<b>6,180</b>	
Spread Compost	8.00	ton	10.00	80	
PCA fee	1.00	acre	150.00	150	
Cooler	7,000.00	tray	0.85	5,950	
<b>Assessment/Sales Commission:</b>				<b>8,715</b>	
Strawberry Commission	7,000.00	tray	0.05	315	
Sales Commission @ 8%	7,000.00	tray	1.20	8,400	
<b>Labor</b>				<b>50,549</b>	
Equipment Operator Labor	117.34	hrs	29.60	3,473	
Non-Machine Labor	454.62	hrs	22.94	10,429	
Irrigation Labor	16.52	hrs	22.94	379	
Harvest Labor	1,581.00	hrs	22.94	36,268	
<b>Machinery</b>				<b>1,890</b>	
Fuel-Gas	70.14	gal	5.20	365	
Fuel-Diesel	144.40	gal	5.65	816	
Lube				177	
Machinery Repair				532	
Interest on Operating Capital @ 5.75%				1,514	
<b>TOTAL OPERATING COSTS/ACRE</b>				93,330	
<b>TOTAL OPERATING COSTS/TRAY</b>				13	
<b>NET RETURNS ABOVE OPERATING COSTS</b>				11,670	

\* Peak Harvest Labor Hours/Acre are the equivalent of hourly wage plus piece rate.

UC COOPERATIVE EXTENSION  
 AGRICULTURAL AND RESOURCE ECONOMICS, UC DAVIS  
**TABLE 2. CONTINUED**  
 CENTRAL COAST REGION – 2022

	Quantity/ Acre	Unit	Price or Cost/Unit	Value or Cost/Acre	Your Cost
<b>CASH OVERHEAD COSTS</b>					
Office Expense				750	
Food Safety				100	
Land Rent				3,000	
Liability Insurance				21	
Sanitation Fee				89	
Regulatory Programs				80	
Organic Certification				204	
Ranch Supervisor				1,250	
Property Taxes				68	
Property Insurance				6	
Investment Repairs				119	
<b>TOTAL CASH OVERHEAD COSTS/ACRE</b>				<b>5,687</b>	
<b>TOTAL CASH OVERHEAD COSTS/TRAY</b>				<b>1</b>	
<b>TOTAL CASH COSTS/ACRE</b>				<b>99,017</b>	
<b>TOTAL CASH COSTS/TRAY</b>				<b>14</b>	
<b>NET RETURNS ABOVE CASH COSTS</b>				<b>5,983</b>	
<b>NON-CASH OVERHEAD COSTS (Capital Recovery)</b>					
Buildings 1200sqft				126	
Fuel Tanks 2-300gal				30	
Harvest Carts 70				12	
75hp Pump and Filter				109	
Sprinkler Pipe				115	
Lateral Lines				104	
Miscellaneous Tools				48	
Equipment				784	
<b>TOTAL NON-CASH OVERHEAD COSTS/ACRE</b>				<b>1,327</b>	
<b>TOTAL NON-CASH OVERHEAD COSTS/TRAY</b>				<b>0</b>	
<b>TOTAL COST/ACRE</b>				<b>100,343</b>	
<b>TOTAL COST/TRAY</b>				<b>14</b>	
<b>NET RETURNS ABOVE TOTAL COST</b>				<b>4,657</b>	

UC COOPERATIVE EXTENSION  
 AGRICULTURAL AND RESOURCE ECONOMICS, UC DAVIS  
**TABEL 3. MONTHLY CASH COSTS PER ACRE TO TPRODUCE AND HARVEST ORGANIC STRAWBERRIES**  
 CENTRAL COAST REGION - 2022

	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total
	21	21	21	21	22	22	22	22	22	22	22	22	22	22	
Cultural:															
Cover Crop (1 per 2 crops)	75														75
Soil Samples (2 per 27 acres)	11														11
Subsoil 5X	153														153
Disk 4X	68														68
Level (Triplane)	73														73
Chisel 2X	40														40
Sprinklers: Setup and Removal	140	140													280
Irrigate: Sprinkler	109	56													166
Compost + Spread	520														520
Beds Listed		71													71
Pre-plant Fertilizer & Gypsum		2,492													2,492
Beds Shaped		71													71
Install Drip System, Tape, Laterals		1,729													1,729
Plant: Lay Mulch		450													450
Plant: Punch Planting Holes		44													44
Plant: Strawberries (7% replants)		5,865													5,865
Weed: Hand				505	505	505	505	505	505	505	505	505	505		5,047
Runner Removal				287	287	287	287	287	287	287	287	287	287		2,868
Insect: Mites (predatory)						306	306	153							765
Insect: Mites (Vestis)						12	12								24
Weed: Cultivate						17	17	17							51
Fertilize: Foliar (Biomin)						26	26	26	26	26	26	26	26		204
Fertilize: Foliar (Maxi)						35	35	35	35	35	35	35	35		278
Vertebrate Trapping						18	18	18	18	18	18	18	18		92
Pest Control Adviser (PCA)	11	11	11	11	11	11	11	11	11	11	11	11	11	11	150
Irrigate: Drip							142	142	142	142	142	142	142		995
Fertigate: Fish + 4-2-2							149	149	223	149	149	223	149		1,189
Insect: Vacuum Lygus 8X/month								235	235	235	235	235	235	235	1,642
Disease: Powdery Mildew (Sulfur)							17	17	17	33	17	17	17	17	149
Worms: (Dipel)									48	48					97
Post-Harvest Cleanup														727	727
Pickup: Business Use														90	90
ATV														24	24
<b>TOTAL CULTURAL COSTS</b>	<b>1,200</b>	<b>10,929</b>	<b>11</b>	<b>802</b>	<b>802</b>	<b>1,216</b>	<b>1,523</b>	<b>1,593</b>	<b>1,545</b>	<b>1,488</b>	<b>1,404</b>	<b>1,479</b>	<b>1,404</b>	<b>1,103</b>	<b>26,499</b>
Harvest:															
Harvest: Regular & Peak								4,235	6,642	10,028	10,028	8,655	6,642	1,798	48,028
Harvest: Load & Haul								156	307	655	655	473	306	72	2,624
Harvest: Cooler								298	714	1,488	1,488	1,071	714	179	5,950
Assessment								16	38	79	79	57	38	9	315
Sales								420	1,008	2,100	2,100	1,512	1,008	252	8,400
<b>TOTAL HARVEST COSTS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,125</b>	<b>8,708</b>	<b>14,349</b>	<b>14,349</b>	<b>11,768</b>	<b>8,708</b>	<b>2,310</b>	<b>65,317</b>
Interest on Operating Capital @5.75%	6	58	58	62	66	72	79	111	160	236	312	375	-65	-16	1,514
<b>TOTAL OPERATING COSTS/ACRE</b>	<b>1,206</b>	<b>10,987</b>	<b>69</b>	<b>864</b>	<b>868</b>	<b>1,287</b>	<b>1,602</b>	<b>6,829</b>	<b>10,414</b>	<b>16,073</b>	<b>16,065</b>	<b>13,622</b>	<b>10,047</b>	<b>3,396</b>	<b>93,330</b>

UC COOPERATIVE EXTENSION  
 AGRICULTURAL AND RESOURCE ECONOMICS, UC DAVIS  
**TABLE 3. CONTINUED**  
 CENTRAL COAST REGION - 2022

	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	Total
	21	21	21	21	22	22	22	22	22	22	22	22	22	22	
CASH OVERHEAD															
Office Expense	54	54	54	54	54	54	54	54	54	54	54	54	54	54	750
Food Safety								100							100
Land Rent					3,000										3,000
Liability Insurance					21										21
Sanitation Fee					89										89
Regulatory Programs						80									80
Organic Certification														204	204
Ranch Supervisor	89	89	89	89	89	89	89	89	89	89	89	89	89	89	1,250
Property Taxes						34					34				68
Property Insurance						3					3				6
Investment Repairs	9	9	9	9	9	9	9	9	9	9	9	9	9	9	119
TOTAL CASH OVERHEAD COSTS	151	151	151	151	3,261	268	151	251	151	151	188	151	151	355	5,687
TOTAL CASH COSTS/ACRE	1,357	11,139	220	1,016	4,129	1,556	1,753	7,080	10,566	16,225	16,254	13,773	10,198	3,751	99,017



UC COOPERATIVE EXTENSION  
 AGRICULTURAL AND RESOURCE ECONOMICS, UC DAVIS  
**TABLE 4. RANGING ANALYSIS – ORGANIC STRAWBERRIES**  
 CENTRAL COAST REGION - 2022

COSTS PER ACRE AND PER TRAY AT VARYING YIELDS TO PRODUCE AND HARVEST ORGANIC STRAWBERRIES

	YIELD (TRAY)						
	5,500.00	6,000.00	6,500.00	7,000.00	7,500.00	8,000.00	8,500.00
<b>OPERATING COSTS/ACRE:</b>							
Cultural	26,499	26,499	26,499	26,499	26,499	26,499	26,499
Harvest	51,848	56,339	60,827	65,317	69,807	74,296	78,786
Interest on Operating Capital @ 5.75%	1,385	1,428	1,471	1,514	1,557	1,600	1,643
<b>TOTAL OPERATING COSTS/ACRE</b>	<b>79,732</b>	<b>84,265</b>	<b>88,797</b>	<b>93,330</b>	<b>97,862</b>	<b>102,394</b>	<b>106,928</b>
<b>TOTAL OPERATING COSTS/TRAY</b>	<b>14.50</b>	<b>14.04</b>	<b>13.66</b>	<b>13.33</b>	<b>13.05</b>	<b>12.80</b>	<b>12.58</b>
<b>CASH OVERHEAD COSTS/ACRE</b>							
CASH OVERHEAD COSTS/ACRE	5,687	5,687	5,687	5,687	5,687	5,687	5,687
<b>TOTAL CASH COSTS/ACRE</b>	<b>85,419</b>	<b>89,952</b>	<b>94,484</b>	<b>99,017</b>	<b>103,549</b>	<b>108,081</b>	<b>112,614</b>
<b>TOTAL CASH COSTS/TRAY</b>	<b>15.53</b>	<b>14.99</b>	<b>14.54</b>	<b>14.15</b>	<b>13.81</b>	<b>13.51</b>	<b>13.25</b>
<b>NON-CASH OVERHEAD COSTS/ACRE</b>							
NON-CASH OVERHEAD COSTS/ACRE	1,327	1,327	1,327	1,327	1,327	1,327	1,327
<b>TOTAL COSTS/ACRE</b>	<b>86,745</b>	<b>91,279</b>	<b>95,811</b>	<b>100,343</b>	<b>104,876</b>	<b>109,408</b>	<b>113,941</b>
<b>TOTAL COSTS/TRAY</b>	<b>16.00</b>	<b>15.00</b>	<b>15.00</b>	<b>14.00</b>	<b>14.00</b>	<b>14.00</b>	<b>13.00</b>

Net Return per Acre above Operating Costs for Organic Strawberries

PRICE (\$/tray)	YIELD (tray/acre)						
	5500.00	6000.00	6500.00	7000.00	7500.00	8000.00	8500.00
Organic Strawberry							
12.00	-13,732	-12,265	-10,797	-9,330	-7,862	-6,394	-4,928
13.00	-8,232	-6,265	-4,297	-2,330	-362	1,606	3,572
14.00	-2,732	-265	2,203	4,670	7,138	9,606	12,072
15.00	2,768	5,735	8,703	11,670	14,638	17,606	20,572
16.00	8,268	11,735	15,203	18,670	22,138	25,606	29,072
17.00	13,768	17,735	21,703	25,670	29,638	33,606	37,572
18.00	19,268	23,735	28,203	32,670	37,138	41,606	46,072

Net Return per Acre above Cash Costs for Organic Strawberries

PRICE (\$/tray)	YIELD (tray/acre)						
	5500.00	6000.00	6500.00	7000.00	7500.00	8000.00	8500.00
Organic Strawberry							
12.00	-19,419	-17,952	-16,484	-15,017	-13,549	-12,081	-10,614
13.00	-13,919	-11,952	-9,984	-8,017	-6,049	-4,081	-2,114
14.00	-8,419	-5,952	-3,484	-1,017	1,451	3,919	6,386
15.00	-2,919	48	3,016	5,983	8,951	11,919	14,886
16.00	2,581	6,048	9,516	12,983	16,451	19,919	23,386
17.00	8,081	12,048	16,016	19,983	23,951	27,919	31,886
18.00	13,581	18,048	22,516	26,983	31,451	35,919	40,386

Net Return per Acre above Total Costs for Organic Strawberries

PRICE (\$/tray)	YIELD (tray/acre)						
	5500.00	6000.00	6500.00	7000.00	7500.00	8000.00	8500.00
Organic Strawberry							
12.00	-20,745	-19,279	-17,811	-16,343	-14,876	-13,408	-11,941
13.00	-15,245	-13,279	-11,311	-9,343	-7,376	-5,408	-3,441
14.00	-9,745	-7,279	-4,811	-2,343	124	2,592	5,059
15.00	-4,245	-1,279	1,689	4,657	7,624	10,592	13,559
16.00	1,255	4,721	8,189	11,657	15,124	18,592	22,059
17.00	6,755	10,721	14,689	18,657	22,624	26,592	30,559
18.00	12,255	16,721	21,189	25,657	30,124	34,592	39,059

AGRICULTURAL ISSUES CENTER  
 AGRICULTURAL AND RESOURCE ECONOMICS, UC DAVIS  
**TABLE 5. WHOLE FARM ANNUAL EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS**  
 CENTRAL COAST REGION – 2022

ANNUAL EQUIPMENT COSTS							
Description	Price	Yrs. Life	Salvage Value	Capital Recovery	Cash Overhead		Total
					Insurance	Taxes	
55HP 2WD Tractor	52,000	10	15,360	5,706	30	337	6,072
75HP 4WD Tractor	68,000	20	8,725	5,440	34	384	5,858
90HP 4WD Tractor	84,000	20	10,778	6,720	42	474	7,236
ATV 4WD	9,400	7	3,566	1,223	6	65	1,293
Blade Rear 3 pt 8'	1,560	20	81	128	1	8	137
Cultivator 3R 12'	9,500	20	495	781	4	50	835
Disc-Offset 14'	16,000	20	834	1,315	7	84	1,407
Drip Machine 1-48"R	8,700	15	835	829	4	48	881
Lister/Shaper 3-48"R	5,000	15	480	477	2	27	507
Mulch Machine 1-48"R	3,000	20	156	247	1	16	264
Pickup Truck 1/2 T	28,000	5	12,549	4,308	18	203	4,529
Punch Machine 1-48"R	5,000	20	261	411	2	26	440
Ripper-5 Shank 18'	10,800	20	563	888	5	57	949
Sprayer w/20'Boom	3,700	5	1,205	651	2	25	677
Trailer-Pipe	1,950	20	102	160	1	10	171
Triplane 15'	22,200	20	1,157	1,824	10	117	1,952
Truck 1 Ton #1	60,000	8	20,939	7,318	36	405	7,758
Mower 4'	3,500	20	182	288	2	18	308
Bug Vacuum	35,000	2	16,448	10,953	23	257	11,233
Chisel 12'	12,000	20	625	986	6	63	1,055
Truck 1 Ton #2	60,000	8	20,939	7,318	36	405	7,758
<b>TOTAL</b>	<b>499,310</b>	<b>-</b>	<b>116,282</b>	<b>57,970</b>	<b>273</b>	<b>3,078</b>	<b>61,321</b>
70% of New Cost*	349,517	-	81,397	40,579	191	2,155	42,924

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

ANNUAL INVESTMENT COSTS

Description	Price	Yrs. Life	Salvage Value	Capital Recovery	Cash Overhead			Total
					Insurance	Taxes	Repairs	
<b>INVESTMENT</b>								
Buildings 1200sqft	55,000	30	0	3,784	24	275	1,100	5,184
Fuel Tanks 2-300gal	10,975	20	768	896	5	59	220	1,180
Harvest Carts 70	1,400	5	0	328	1	7	22	357
75hp Pump and Filter	40,000	20	2,800	3,267	19	214	800	4,300
Sprinkler Pipe	40,000	15	20,000	3,093	27	300	800	4,219
Lateral Lines	12,000	5	0	2,810	5	60	240	3,115
Miscellaneous Tools	15,000	15	1,500	1,427	7	83	300	1,817
<b>TOTAL INVESTMENT</b>	<b>174,375</b>	<b>-</b>	<b>25,068</b>	<b>15,605</b>	<b>88</b>	<b>997</b>	<b>3,482</b>	<b>20,173</b>

ANNUAL BUSINESS OVERHEAD COSTS

Description	Units/ Farm	Unit	Price/ Unit	Total Cost
Office Expense	30.00	acre	750.00	22,500
Food Safety	30.00	acre	100.00	3,000
Land Rent	30.00	acre	3,000.00	90,000
Liability Insurance	30.00	acre	20.70	621
Sanitation Fee	27.00	acre	88.89	2,400
Regulatory Programs	30.00	acre	80.00	2,400
Organic Certification	27.00	acre	203.70	5,500
Ranch Supervisor	30.00	acre	1,250.00	37,500

UC COOPERATIVE EXTENSION  
 AGRICULTURAL AND RESOURCE ECONOMICS, UC DAVIS  
**Table 6. HOURLY EQUIPMENT COSTS FOR ORGANIC STRAWBERRIES**  
 CENTRAL COAST REGION - 2022

Description	Strawberry	Total		Cash Overhead		Operating			Total Costs/Hr.
	Hours Used	Hours Used	Capital Recovery	Insurance	Taxes	Lube & Repairs	Fuel	Total Oper.	
55HP 2WD Tractor	971	1200	3.33	0.02	0.20	5.08	15.26	20.34	23.88
75HP 4WD Tractor	124	600	6.35	0.04	0.45	6.42	20.81	27.23	34.06
90HP 4WD Tractor	186	800	5.88	0.04	0.41	6.07	24.97	31.05	37.38
ATV 4WD	16	285	3.00	0.01	0.16	1.33	3.47	4.79	7.97
Blade Rear 3 pt 8'	28	100	0.90	0.01	0.06	0.00	0.00	0.00	0.96
Cultivator 3R 12'	20	100	5.47	0.03	0.35	2.16	0.00	2.16	8.00
Disc-Offset 14'	32	100	9.20	0.05	0.59	2.82	0.00	2.82	12.67
Drip Machine 1-48"R	55	100	5.81	0.03	0.33	2.62	0.00	2.62	8.79
Lister/Shaper 3-48"R	54	133	2.51	0.01	0.14	1.16	0.00	1.16	3.83
Mulch Machine 1-48"R	41	100	1.73	0.01	0.11	0.38	0.00	0.38	2.23
Pickup Truck 1/2 T	46	400	7.54	0.03	0.35	4.38	13.00	17.38	25.31
Punch Machine 1-48"R	20	100	2.88	0.02	0.18	0.64	0.00	0.64	3.72
Ripper-5 Shank 18'	56	125	4.97	0.03	0.32	3.87	0.00	3.87	9.19
Sprayer w/20'Boom	76	300	1.52	0.01	0.06	1.18	0.00	1.18	2.76
Trailer-Pipe	99	200	0.56	0.00	0.04	0.00	0.00	0.00	0.60
Triplane 15'	27	150	8.51	0.05	0.54	3.81	0.00	3.81	12.92
Truck 1 Ton #1	760	1000	5.12	0.03	0.28	2.84	6.50	9.34	14.77
Mower 4'	10	100	2.01	0.01	0.13	1.78	0.00	1.78	3.93
Bug Vacuum	641	750	10.22	0.02	0.24	11.29	0.00	11.29	21.77
Chisel 12'	16	75	9.20	0.05	0.59	2.52	0.00	2.52	12.36
Truck 1 Ton #2	654	1000	5.12	0.03	0.28	2.84	6.50	9.34	14.77