

# University of California Farm Cost and Return Studies

Presented to: American AgCredit  
Turlock  
7/12/2017

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# Insight Into Farm Cost & Return Studies

- The Past and Present
- Contents and Commodities Range
- How We Compile a Cost Study and Why we do it that way
- Cost Study Uses and Users
- Future Improvements and Value Adding



# Cost Studies- Past and Present

- ▶ Earliest Archived Cost Study goes back to 1931- Walnuts grown in Stanislaus County
- ▶ Over 3500 Cost Studies are maintained and archived on the Cost Studies Website
- ▶ Cost Studies Website had 1.3 Million downloads in 2016
- ▶ New Practices (i.e. GPS/GIS, Conservation Tillage, Sub-Surface Drip Irrigation)

Table I.

## General Summary of 1931 Walnut Study

	High Profit Group	Low Profit Group	Average All Records	Your Record No.
Number of records	7	7	14	
Total acres covered by reports	227.25	188.6	415.85	
Average age of trees in each group	12.3	10.9	11.7	
Average number trees per acre	16.1	20.1	17.9	
Yield--merchantable nuts per acre, lbs.	1029.2	666.8	864.8	
Total yield--pounds per acre	1188.1	787.8	1006.5	
Per cent of nuts merchantable	86.6	84.7	85.9	
Average net price per cwt. all nuts	\$ 14.69	\$ 11.55	\$ 13.58	
Cost of production per cwt.	7.76	9.81	8.49	
Net profit per cwt.	6.93	1.74	5.09	
Cultural labor' cost per acre	12.78	9.94	11.49	
Harvesting cost per acre	18.93	11.40	15.52	
Total labor cost per acre	31.71	21.34	27.01	
Material cost per acre	3.06	2.71	2.90	
Cash overhead cost per acre	5.94	5.52	5.75	
Total cash and labor cost per acre	40.71	29.57	35.66	
Depreciation per acre	10.52	7.13	8.99	
Sub-total	51.23	36.70	44.65	
Interest on investment	40.97	40.64	40.81	
Total all costs	92.20	77.34	85.46	
Income per acre	174.52	91.02	136.65	
Income above cash costs per acre	133.81	61.45	100.99	
Capital and management income per acre	123.29	54.32	92.00	
Net profit above all costs per acre	82.32	13.68	51.19	
Investment per acre	682.83	677.29	680.31	
Per cent earned on investment	18.0	9.0	13.5	

# Cost Studies Website: <http://coststudies.ucdavis.edu/>

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## Current Cost and Return Studies

Cost and return studies for fruit, vegetable, field, tree and vine crops, and animal commodities are available. To view the studies you may need to [download Adobe Reader](#) for free.



Join our mailing list to receive notice of new cost study releases. To subscribe, send email to [cost\\_studies-subscribe@primal.ucdavis.edu](mailto:cost_studies-subscribe@primal.ucdavis.edu). To unsubscribe, send email to [cost\\_studies-unsubscribe@primal.ucdavis.edu](mailto:cost_studies-unsubscribe@primal.ucdavis.edu).

### Filter Current Studies by Commodity, Location, or Year:

Commodity:  |  | Region:  | County:  | Year:



[Filter current studies using the map of California](#)

### Current Studies

Commodity	Region	County	Year	Production Conditions
<a href="#">Alfalfa [pdf]</a>	San Joaquin Valley South	Tulare	2016	50 acre study; Small #125 bales, custom harvested
<a href="#">Alfalfa [pdf]</a>	San Joaquin Valley South	Tulare	2016	300 acre study; #1300 bales, custom & grower harvested
<a href="#">Alfalfa [pdf]</a>	Sacramento Valley, San Joaquin Valley North	<a href="#">see map</a>	2015	Establish and produce; flood irrigation





# Range of Cost Studies

- ▶ Focus on Important California Crops
- ▶ Commodities Leading Producing Counties
- ▶ Livestock Production – Beef
- ▶ No Dairy (CDFA provides detailed data)
- ▶ Complications with Crops with very few Producers

# Contents of Cost Studies

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# Contributors

- Growers and Processors
- UC Cooperative Extension Advisors and Specialists
- Industry Representatives
  - Agricultural Lenders
  - Chemical Companies
  - Equipment Manufacturers
  - Labor Contractors, Farm Management Companies
  - Custom Services Providers (i.e. Harvesting Companies)





# How Cost Studies are Compiled

- Meetings with UC Farm Advisors, Growers, and UC AIC Research Staff to discuss production operations
- Interest Rates, Fuel Costs, Material Costs, Hourly Wages, Payroll Overhead, & Land Price are updated
- Data is Entered into Budget Planner Computer Program
- Narrative Section is Written in Collaboration with Farm Advisors
- Drafts are Sent Out to Farm Advisors and Selected Growers for Review

2017

**SAMPLE COSTS TO PRODUCE AND HARVEST  
BROCCOLI**



**CENTRAL COAST REGION**

Monterey, Santa Cruz, and San Benito Counties

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Example:  
Broccoli

# Compiling the Broccoli Cost & Return Study

- Broccoli Study from 2004 needed to be updated.
- Farm Advisor Laura Tourte was contacted in May of 2016 and agreed to prioritizing a broccoli cost study.
- Laura Tourte collected data from grower contacts and emailed a list of production operation updates. We determined a common “generic” pest management material cost.
- The changes were applied to the Budget Planner software and updated tables were generated to produce draft #1.
- Laura Tourte reviewed the draft with Growers and changes were made to the narrative. The corresponding changes were then made to the budget files and updated tables were generated (Draft #2). Many operation costs were increased due to slower equipment speeds in Salinas
- Interest rates, yield, price, and ranging analysis were updated in 2017 prior to posting on Cost Studies Website.

# Example: Processing Peaches

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## SAMPLE COSTS FOR PROCESSING PEACHES



**ESTABLISH AND PRODUCE PROCESSING PEACHES**  
Cling and Freestone Late Harvested Varieties  
SACRAMENTO and SAN JOAQUIN VALLEY 2017

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# Compiling the Processing Peach Cost & Return Study

- Farm Advisors worked with Grower contacts to collect production information.
- Two Meeting with Farm Advisors were held (June and July of 2016) to discuss production data and decide which regions data will be used in the Tables.
- Due to busy schedules the study timeline was shifted into 2017.
- Study was updated to reflect 2017 interest rates, labor rates, fuel cost, etc.
- Study was reviewed by Farm Advisors and updates were made.
- A Crop Association and Growers were eager for the study to be available, so the completion of the study was expedited.
- Another draft was completed before posting on the Cost Studies Website.



## SAMPLE COSTS FOR BEEF CATTLE



### **COW – CALF PRODUCTION**

300 Head

### **SACRAMENTO VALLEY**

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Example:  
Beef

# Example: SAMPLE COSTS FOR BEEF CATTLE

► Table 1. General ranch operating costs and returns estimates are listed in this table

<b>Production/Sales:</b>	<b>Head</b>	<b>Units/Head</b>	<b>Unit</b>	<b>Price/Unit</b>	<b>Total Value</b>	<b>*Value/Head</b>
Steer Calves	130	7.00	cwt	146.97	133,743	445.81
Heifer Calves	69	6.40	cwt	137.00	60,499	201.66
Yearling Heifers	24	8.60	cwt	127.45	26,306	87.69
Cull Cows	33	12.50	cwt	69.36	28,611	95.37
Cull Bulls	4	18.00	cwt	80.16	5,772	19.24
<b>GROSS Revenue:</b>					<b>254,930</b>	<b>849.77</b>

<b>Total Operating Costs:</b>					<b>216,036</b>	<b>720.12</b>
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Cash Overhead Costs:

Liability Insurance

2,680

8.93

Office Expenses

2,680

8.93

**Total Cash Overhead:**

**5,360**

**17.87**

**Total Cash Costs:**

**221,396**

**737.99**

**Revenue Above Cash Costs:**

**33,534**

**111.78**

\*\*Annual Capital Recovery

(Table 4)

45,234

150.78

**Total Costs:**

**266,630**

**888.77**

**Revenue Above Total Costs:**

**-11,700**

**-39.00**



# Why We Do It This Way

- ▶ Studies are Based on Best Management Practices for that Region
- ▶ Studies Depict Well managed Operations, Not Average Operations for that Region.
- ▶ Not Necessarily the Most Cutting Edge—Focus on Practices that are Commercially Viable.
- ▶ Maximize the Value of the Cost Studies to our Users
- ▶ Maintain a Neutral Third Party Status



# Users of Cost Studies

- Growers, Farm Management Companies
- Crop Commissions/Associations/Cooperatives
- Industry Representatives (Chemical Companies, Manufacturers)
- Lending Agencies
- University Researchers and Students
- Government Agencies
- Insurance Companies, Lawyers, Advocacy Groups, Water Agencies, Assessors, Consultants, and Auditors
- Some Users Outside of California



# Issues and Improvements

- New Hourly and Overtime Labor Wage Laws
- New Water Pricing and Groundwater Regulations
- Listen to the Changing Needs of the Agricultural Industry
- Incorporate New Technologies into Cost Studies When Widely Adopted by Industry (i.e. Drones)
- Quantifying Amount of Labor in Custom Operations to Better Reflect Total Labor
- Make Studies Available in Electronic Formats
- Help Users Adapt Studies to Their Situations
- Your thoughts?