## UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

# 2005

# SAMPLE COSTS FOR BEEF CATTLE YEARLING/STOCKER PRODUCTION

300 Head



SACRAMENTO VALLEY

(Northern Sacramento Valley)

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## UC COOPERATIVE EXTENSION SAMPLE COSTS FOR BEEF CATTLE YEARLING/STOCKER PRODUCTION 300 Head Sacramento Valley – 2005

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#### **INTRODUCTION**

The cattle industry in California has undergone dramatic changes in the last few decades. Ranchers have experienced increasing costs of production with a lack of corresponding increase in income. Issues such as international competition, new regulatory requirements, changing consumer demand, economies of scale, and competing land uses affect the economics of ranching. Rangeland makes up the largest percentage of acreage in the state. Cattle operations play an important part on California's environment and landscape. They need to be economically viable to maintain the current landscape.

Sample costs to raise beef cattle are presented in this study. This study is intended as a guide only, and can be used to make production decisions, determine potential returns, prepare budgets and evaluate production loans. Practices described are based on production practices considered typical for a beef cattle yearling/stocker operation, but will not apply to every situation. Sample costs for materials, equipment and custom services are based on current figures.

The hypothetical cattle operation, production practices, overhead, and calculations are described under the assumptions. For additional information or an explanation of the calculations used in the study call the Department of Agricultural and Resource Economics, University of California, Davis, (530) 752-3589 or your local UC Cooperative Extension office.

Sample Cost of Production Studies for many commodities can be downloaded at <u>http://coststudies.ucdavis.edu</u>, requested through the Department of Agricultural and Resource Economics, UC Davis, (530) 752-4424 or obtained from the local county UC Cooperative Extension offices. Some archived studies are also available on the website.

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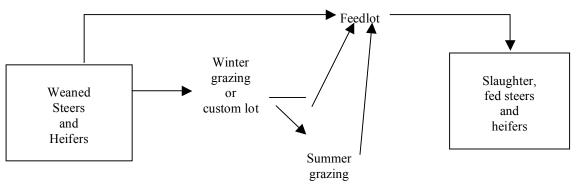
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### ASSUMPTIONS

The assumptions refer to Tables 1 to 6 and pertain to sample costs to operate a beef cattle yearling/stocker operation. Practices described represent production practices and materials considered typical of a well-managed ranch in the northern Sacramento Valley. The costs, materials, and practices shown in this study will not apply to all situations. Production practices vary by grower and the differences can be significant. The use of trade names and ranching 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.

**Cattle Operation.** In California, cattle will typically pass through three phases while reaching market weight. These include the cow-calf operation, yearling/stocker phase and finishing or feedlot phase.

Figure 1.



- This cow-calf phase is from birth to weaning (cattle are typically weaned at 8 to 9 months weighing around 600 pounds.
- The yearling/stocker phase will take these weaned cattle and grow them out on grass to about 800 to 900 pounds (14 to 20 months).
- The feeding phase takes these yearlings off grass and places them in a feedlot for 90 to120 days (or until they reach a desired finish weight).

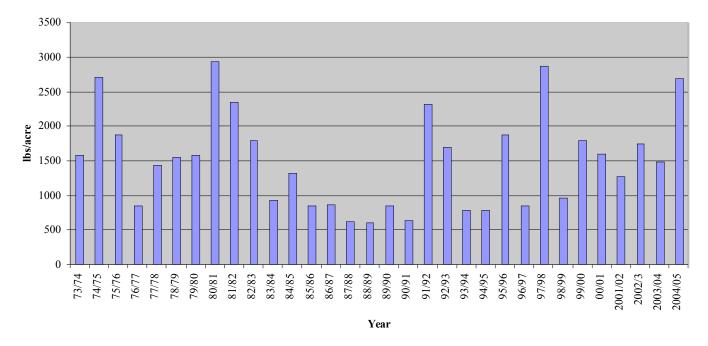
This study will focus on the yearling/stocker operation. For the purposes of this study, 530 pound steer calves will be discussed. Across California, cattle production techniques and management vary.

Yearling/stocker cattle can come from several sources. A cattle producer can keep the weaned calves or they can be purchased. Different time periods through out the calendar year can affect the availability of stocker cattle and may change the cost of purchase or income from sales.

This study focuses on yearling/stocker cattle that are retained or bought at weaning. It assumes that pasture is leased. The grazing lease is based on a \$120 per cow price for a six month season. A cow is calculated as one Animal Unit (AU). Stockers weighing 530 pounds are calculated as 0.5 AU and cost \$60 per animal for a six month contract. It also assumes cattle will be sold or moved into a feedlot once they reach 800 pounds. The herd size is 300. The fixed costs will vary with the number of head involved or size of the operation.

Yearling/stocker operations are typically seasonal in California and primarily occur on rangeland where forage production is solely dependant upon seasonal rainfall. Figure 2 outlines the annual variability in forage production at a site in the northern Sacramento Valley - Shasta County. Producers must cope with stocking the ranches appropriately to manage this variation in forage production.

#### Figure 2. Average Forage Production on Annual Range Near Redding, CA across 31 Years



In the Central and Sacramento Valleys, and the Coast Range of California, cattle are typically grazed from late autumn through late spring. Irrigated pasture and mountain ranges are generally grazed from late spring through mid autumn.

The goal of yearling/stocker cattle operations is to reduce the cost per pound of gain on heifers and steers. Average daily gain varies across the state. Depending upon location, producers might expect gains from 250 to 325 pounds per head for the season. Forage quality and quantity are the primary drivers in seasonal cattle gain. Secondarily, rate of gain may also be affected by health, body condition, mineral nutrition and the quality of the cattle.

## **Production Options**

#### **Producer Purchases Yearling/Stockers or Retains Owned Yearling/Stockers** (Table 1)

These two options can be treated the same in this cost study. If producers retain their own calves after weaning, they have forgone the opportunity to market them as calves and have effectively transferred them to a yearling/stocker enterprise. The fair market value of those calves must be assigned to the yearling/stocker enterprise to evaluate the profitability of the enterprise.

Most yearling/stocker operations turn out purchased weaned cattle on grass at the onset of the grazing season.

The market fluctuation during the grazing season represents significant risk for producers purchasing or retaining calves. Risk management may be facilitated through the use of options and futures. Consult qualified professionals when considering which risk management technique is the most appropriate for you. Many operations have done a great job on calf performance only to have the market move against them during the period that they own the calves. The feeder margin is the price per pound difference between the lighter weight calves at purchase and the heavier weight calves at sale time. Receiving 15 cents less per pound is expected,

based upon Western Video Auction sale averages from 1997 to 2003; if the market drops during the ownership period, all or any profit is quickly lost. Table A shows the

price spread for six years on the Western Video

Market price average for 500 to 600 pound steers compared to the price average of 800 pound steers during a six month ownership for both a winter rangeland and summer irrigated pasture operation. Winter (October to May) operations had an average feeder margin of minus 17 cents per pound, while cattle pastured over the summer (May to October), averaged a minus 12 cents.

Table A. Pric	Table A. Price Spread for Winter & Summer Operation										
YEAR	FEEDER	YEAR	FEEDER								
Winter	MARGIN	Summer	MARGIN								
Oct to May	cents/lb	May to Oct	cents/lb								
1997-1998	-24.80	1997	-15.30								
1998-1999	-9.80		-14.52								
1999-2000	-8.48	1999	-7.02								
2000-2001	-17.15	2000	-10.46								
2001-2002	-35.30	2001	-18.82								
2002-2003	-8.75	2002	-8.31								
Average	-17.38	Average	-12.41								
Average	-17.38	Average	-1								

One third of the time the market moved down below the

normal feeder margins (resulting in margins of more than 15 cents) and price insurance would have been helpful. For example, the winter feeder margin in 2001-02 (Table 6) grew to 35.30 cents, resulting in an operating loss of \$45,615 for the year. Table 6 illustrates the impact of market price shifts for winter grazing of purchased yearlings over the same period on the operation profitability.

Feeder options can be used as a method to provide price insurance. Purchase of an option can be secured though a commodities broker and producers can choose the level of risk that they want to insure against. Some choose to buy the lowest cost option to provide cheap insurance against a large price swing. Others determine their breakeven costs and insure a price at or above that amount. Option prices generally cost from 1 to 5 cents per pound. Contracts are sold on a truckload or 44,000 pound lot. Larger operations use multiple purchases of calves over time (similar to dollar cost averaging in stocks) as a strategy to limit risk. Using a video auction to forward contract calves can also be used to reduce price risk. The fact that using yearly market price averages from 1997 to 2003, the budget estimated a cash loss in four of the six years for the operation (Table 6), which clearly points out that this, is an important management area that should not be overlooked to assure profitability or at least avert a financial disaster. The option of \$0.02 per pound purchased based on the out weight of the 300 head purchased is a minimal price protection used only to insure against extreme price swings.

## Producer Custom Grazes Yearling/Stockers for Payment on Gain or Per Head

(Table 2)

In this scenario, a ranch lease holder grazes non-owned yearling/stockers and is paid on the body weight gain. Stockers usually will weigh between 500 to 600 pounds upon arrival.

In most contracts a 2% death loss is acceptable to the cattle owner. Missing cattle, not verified as dead, may be the responsibility of the lease holder. Any amount above that is the responsibility of the lease holder providing the pasture. Payment is based on a per pound of gain basis. Generally, the owner of the cattle provides medication and processing vaccine, and the lease holder provides the labor. The value for medication and vaccine ranges from 30 to 34 cents per pound of gain. This study assumes the producer will receive 30 cents per pound of gain. The shrink weight can be an important item of consideration. In most gain payment contracts, calves' weights are determined at the time of purchase and are generally shrunk. Cattle are gathered, weighed and shipped at the end of the grazing season. Shrink is generally figured at 3%. Net gain is calculated by subtracting the shrunk weight from the in weight. The quality of calves that are received can greatly vary the pounds of gain. Some producers have a contract clause allowing loads to be rejected on quality or health. We assume that the cattle will gain 270 pounds (or 1.5 pounds per day) during the grazing period. In this cost study, it was found that the net returns above operating costs for gain cattle (at 30 cents per pound) was \$0.73 less than straight cash pasture rent.

# Natural Production Costs

(Table 3)

There has been much interest to determine if there is a financial advantage to natural production (no implants, hormones, or antibiotics used in production) of stocker or yearling cattle. Previous studies showed that from 1997 to 2003, the average premium for natural calves weighing 500 to 625 pounds was 1.6 cents. We assumed that the 764 pound natural steers would sell at a two cent premium (Blank et. al 2006). Additional costs of operation are identifying any sick animals that require antibiotic treatment and selling them separately at an auction yard in a smaller lot that will bring a nine cent reduction in price per pound (Western Video Auction). It is estimated that not using implants and ionophores will reduce the animal gain by 0.084 to 0.30 and 0.11 to 0.18 pound of gain per day respectively (Fields and Taylor). Because the "natural" calves gained 36 pounds less than the conventional cattle, a three cent price differential was used. This price differential (generated by the lighter sale weight) coupled with the premium paid resulted in a five cent higher price per pound for the natural cattle (Western Video Auction 2000 data). Using these data inputs, this study found yearling/stocker cattle pastured under a "natural" regime had per calf net income of \$12.44 less than the standard operation that used conventional production tools (implants, antibiotics, ionophores, etc.). If you presently do not use implants or ionophores, your income may be greater with natural production.

## **Production Operating Costs**

**Operations.** The Operations Calendar for a yearling/stocker operation is shown in Table B. The operations are affected by several factors such as weather and available feed. Therefore, depending upon the season, the operations will vary each year.

**Pasture, Hay and Supplements.** This includes the market value of all feed (purchased or raised) that was used in the stocker operation. The assumption used in this study is that pasture is rented for \$20/AUM (an AUM [animal unit month] is the equivalent to 1,000 pounds of forage on an air dry basis) over a six-month period. Some operations feed small amounts of hay when they receive or ship cattle. Hay may also be fed when weather conditions are not conducive to production of forage.

Some areas of California are deficient in micro and macro-nutrients. Consult your local veterinarian to learn about what might be deficient in your area. For Se, Cu, Zn and P a good reference by county is the UC Website http://animalscience.ucdavis.edu/Projects/Mineral Project/. Table B. \*Operations Calendar for Beef Weaned calves -

Based on range	Based on range & pasture (300 head, 2% calf mortality)											
Month			Operation									
November 1	to	May 30	Winter Range									
November	to	December	Vaccination/Deworming									
March			Deworming									
May			Calves Sold									
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\*Calendar will vary each year according to the season

**Health, Veterinary, Medicine.** Since the cattle have been in different environments, they potentially have been exposed to a variety of diseases. Because of the higher risk of stress occurring, the most critical period of managing yearling/stockers is when the producer receives a new shipment of cattle at a new location. Good health and nutrition management during this critical period can greatly impact profitability. Cattle being received should be treated to reduce risk from parasites (external and internal) and disease. Consult your local veterinarian on the best program for your cattle. Cattle should be appropriately identified. Cattle will be gathered and processed again mid season. This study assumes a death loss of 2%.

**Vehicle/Freight.** Pickup business vehicle mileage is estimated at 3,000 miles per year and includes mileage while pulling the stock trailer. Estimated mileage for the stock trailer is 350 miles and the All Terrain Vehicle (ATV) 4-wheeler is 1,530 miles per year. Freight or trucking costs are commercial costs for hauling the cattle. The purchase of the calves requires transportation to the ranch, which costs \$500 per load or \$5 per head. The 800 pound stockers are sold by video auction and the terms require no transportation costs at the time of sale.

**Repairs.** Vehicle and equipment repairs are accounted for in the mileage rate allocated to each vehicle.

**Labor.** Most ranchers can no longer afford hired labor, but may use volunteer weekend help. Owner labor for hauling, turnout, gathering, feeding, fence repair, irrigation (when applicable), salting, checking calves, and moving pastures is also not included as a cost.

**Marketing/Returns**. The animals are marketed through a video market auction. This study uses the average price received from a six year (1997 to 2003) study of prices (Blank et. al 2006) to place a value at the beginning and end of the six month grazing season. To arrive at the feeder margin (difference in price of the calves at purchase and then at sale), the averages of 500 to 600 pound calves were subtracted from the following year's 800 pound steers to determine the average feeder margin during the period. Table 5 (Ranging Analysis) shows a range of returns for each of the operations – Purchased Yearlings, Gain, Natural - using a range of prices.

**Interest on Operating Costs**. Interest on operating costs is calculated on cash costs (calves purchased and operating costs) and is calculated at 2% annual interest (savings account rate) over a 6-month period.

**Risk.** Production risks should not be minimized. While this study makes every effort to model a production system based on typical, real world practices, it cannot fully represent financial and market risks, which affect profitability and economic viability.

## **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, interest on operating capital, office expense, liability and property insurance, equipment repairs, and management.

**Insurance.** Insurance for farm investments varies depending on the assets included and the amount of coverage.

**Office Expense.** Office and business expenses are estimated at \$1,000 per year or \$3.33 per head. These expenses include office supplies, telephones, bookkeeping, accounting, legal fees, utilities, and miscellaneous administrative charges.

## **Non-Cash Overhead**

(Table 4)

Non-cash overhead is calculated as the capital recovery cost for equipment and other farm investments. Values in the table are for information only. The equipment capital recovery costs are included in the mileage costs shown in Tables 1 to 3.

**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 (tractors and implements) the remaining value is a percentage of the new cost of the investment (Boehlje and Eidman). For other investments including irrigation systems, buildings, and miscellaneous equipment, the value at the end of its useful life is zero. The purchase price and salvage value for equipment and investments are shown in the tables.

*Interest Rate.* The interest rate of 6.01% used to calculate capital recovery cost is the USDA-ERSs ten-year average of California's agricultural sector long-run rate of return to production assets from current income. It is used to reflect the long-term realized rate of return to these specialized resources.

Tack. Includes two saddles and related equipment (blanket, headgear, etc.).

**Portable Cattle Working Facilities.** Consists of portable loading chutes and portable corral panels. Depending upon the type and number of squeeze chutes and corral panels, the price will vary. An estimated price for livestock handling equipment required by a typical 300-stocker operation is used in this study.

**Equipment.** Farm equipment is purchased new or used, but the study shows the current purchase price for new equipment. Annual ownership costs for equipment and other investments are shown in the Equipment, Investment, and Business Overhead Costs table.

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

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- Fields, Thomas G., Robert W. Taylor. *Beef Production and Management Decisions*. 4<sup>th</sup> Edition. 2003. ISBN: 0130888796.
- USDA-ERS. 2004. *Farm Sector: Farm Financial Ratios*. Agriculture and Rural Economics Division, ERS. USDA. Washington, DC <u>http://www.ers.usda.gov/data/farmbalancesheet/fbsdmu.htm;</u> Internet; accessed January 5, 2005.
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## University of California Cooperative Extension Table 1. 300 HEAD OF PURCHASED YEARLING/STOCKERS

Sacramento Valley - 2005

Gross Income			Dollar	Gross	
	Number	Weight	Value	Value	<sup>1</sup> Per Cal
Calves Purchased	300	530	1.23	195,570	651.90
Calves Sold <sup>2</sup>	294	800	1.08	254,016	846.72
Gross Income (Calves Sold less Calves Purchased)				58,446	194.82
Operating_Costs					
Pasture (leased-based upon seasonal \$120/cow or 1AU) <sup>3</sup>				18,000.00	60.00
Purchased Feed :	Tons	Cost/unit			
Salt	3.00	230.00		690.00	2.30
Supplement	3.00	550.00		1,650.00	5.50
Hay	13.00	120.00		1,560.00	5.20
Veterinary/Medical			5,100.00	5,100.00	17.00
Transportation of cattle			1,500.00	1,500.00	5.00
Truck Mileage	3000.00	0.49	1,455.00	1,455.00	4.85
Stock trailer mileage	350.00	0.18	63.00	63.00	0.21
4 Wheeler mileage	1530.00	0.20	306.00	306.00	1.02
Brand inspection			300.00	300.00	1.00
Checkoff (Marketing Order Promotion)			300.00	300.00	1.00
Marketing Costs Video or Auction fees			1,461.15	1,461.15	4.87
Horse costs - shoes, vet, & feed			309.00	309.00	1.03
Options (based on out weight of 800 lbs.) <sup>4</sup>		0.02	4,800.00	4,800.00	16.00
Total Cash Operating Costs				37,494.15	124.98
Income Above Cash Operating Costs				20,951.85	69.84
Ownership Costs					
Interest on Operating Costs (calves + operating cash)				2,330.64	7.77
Insurance (Vehicle, liability, etc.)			1,500.00	1,500.00	5.00
Overhead (utilities, office costs, legal and accounting)			1,000.00	1,000.00	3.33
Total Overhead (Cash & Non-Cash Overhead)			· · · ·	4,830.64	16.10
Total Costs				42,324.79	141.08
Net Returns Above Total Costs (Returns to Land and Management)				16,121.21	53.74
<sup>1</sup> Per Calf based on 300 head purchased <sup>2</sup> Assumes a 2% death loss or 6 had of 300 calves = 294 calves				10,121.21	3

 $^{3}$  Assumes calves at 0.5 AU for the 300 head purchased and does not account for death loss

<sup>4</sup> Based on 300 head purchased

Note: The cost of labor and health insurance is not included

#### University of California Cooperative Extension **Table 2. 300 HEAD OF YEARLINGS/STOCKERS ON THE GAIN** Sacramento Valley - 2005

		Weight	Dollar	Gross	
Gross Income	Number	Gain	Value	Value	<sup>2</sup> Per Calf
Calf gain/pound <sup>1</sup>	294.00	270.00	0.30	23,814.00	79.38
Operating Costs					
Pasture (leased-based upon seasonal \$120/cow or 1 AU) <sup>3</sup>				18,000.00	60.00
Purchased Feed :	Tons	Cost/unit			
Salt	3.00	230.00		690.00	2.30
Supplement	3.00	550.00		1,650.00	5.50
Нау	13.00	120.00		1,560.00	5.20
Veterinary/Medical (provided by owner)		0.00		0.00	0.00
Transportation of cattle		0.00		0.00	0.00
Truck Mileage	3,000.00	0.49	1,455.00	1,455.00	4.85
Stock trailer mileage	350.00	0.18	63.00	63.00	0.21
4 Wheeler	1,530.00	0.20	306.00	306.00	1.02
Horse costs - shoes, vet, & feed			309.00	309.00	1.03
Total Cash Operating Costs				\$24,033.00	\$80.11
Income Above Operating Costs				-\$219.00	-\$0.73
Ownership Costs					
Insurance (Vehicle, liability, etc.)				1,500.00	5.00
Overhead (utilities, office costs, legal and accounting)				1,000.00	3.33
Total Overhead (Cash & Non-Cash Overhead)				2,500.00	8.33
Total Costs				26,533.00	88.44
Net Returns Above Total Costs (Returns to Land and Manageme	nt)			-2.719.00	-9.06

<sup>2</sup> Based on the 300 head received

<sup>3</sup> Assumes calves at 0.5 AU for the 300 head received and does not account for death loss

Note: The cost of labor and health insurance is not included.

#### University of California Cooperative Extension Table 3. 300 HEAD OF PURCHASED YEARLINGS/STOCKERS - NATURAL Sacramento Valley 2005

Gross Income			Dollar	Gross	
	Number	Weight	Value	Value	<sup>1</sup> Per Calf
Calves Purchased	300.00	530.00	1.25	198,750.00	662.50
Natural Calves Sold <sup>2</sup>	289.00	764.00	1.13	249,499.48	831.66
Non Program Calves <sup>3</sup>	5.00	764.00	0.99	3,781.80	12.61
Gross Income (Natural + Non Program less Purchased)				54,531.28	181.77
Operating_Costs					
Pasture (leased-based upon seasonal \$120/cow) <sup>4</sup>				18,000.00	60.00
Purchased Feed :	Tons	Cost/unit			
Salt	3.00	230.00		690.00	2.30
Supplement	3.00	550.00		1,650.00	5.50
Hay	13.00	120.00		1,560.00	5.20
Veterinary/Medical			5,200.00	5,200.00	17.33
Transportation of cattle			1,500.00	1,500.00	5.00
Truck Mileage	3,000.00	0.49	1,455.00	1,455.00	4.85
Stock trailer mileage	350.00	0.18	63.00	63.00	0.21
4 Wheeler	1,530.00	0.20	306.00	306.00	1.02
Brand inspection			300.00	300.00	1.00
Checkoff (Marketing Order Promotion)			300.00	300.00	1.00
Marketing Costs Video or Auction fees			1,364.24	1,364.24	4.55
Horse costs - shoes, vet, & feed			309.00	309.00	1.03
Options (based on out weight of 764 lbs.) <sup>5</sup>		0.02	4,584.00	4,584.00	15.28
Total Cash Operating Costs				37,280.28	124.27
Income Above Cash Operating Costs				17,251.00	57.50
Ownership Costs					
Interest on Operating Costs (calves + operating cash)				2,360.30	7.87
Insurance (Vehicle, liability, etc.)			1,500	1,500.00	5.00
Overhead (utilities, office costs, legal and accounting)			1,000	1,000.00	3.33
Total Ownership Costs (Cash & Non-Cash Overhead)				4,860.30	16.20
Total Costs				42,140.58	140.47

<sup>1</sup> Based on 300 head purchased

<sup>2</sup> Assumes price for calves sold on Table 1 (\$1.08) plus Natural premium (\$0.02) and higher price due to lighter weight (\$0.03) = \$1.13

<sup>3</sup> Assumes a 2% death loss or 6 head of 300 calves = (289 + 5) or 294 calves

 $^{\rm 4}$  Assumes calves at 0.5 AU for the 300 head purchased and does not account for death loss

<sup>5</sup> Based on 300 head purchased

Note: The cost of labor and health insurance is not included.

#### UC COOPERATIVE EXTENSION \*Table 4. EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD 300 Head, Yearling/Stocker Operation

Sacramento Valley – 2005

	Purchase	Salvage/Cull	Livestock	Useful	Annual Taxes	Annual Capital
	Price	Value	Share (%)	Life (yr)	and	Recovery
BUILDINGS, IMPROVEMENTS AND EQUIPMENT						
Gooseneck trailer	10,000.00	1,000.00	100	20	51.70	845.40
Saddles/Tack (2)	3,800.00	0.00	100	10	17.86	516.54
Portable Corals, Chutes, Panels	15,000.00	0.00	100	20	70.50	1,308.83
Total BUILDINGS, IMPROVEMENTS AND EQUIPMENT	28,800.00				140.06	2,670.77
PURCHASED LIVESTOCK						
Horses (2)	3400.00	1200.00	100	10		414.51
Total PURCHASED LIVESTOCK	<b>3400.0</b> 0					414.51
MACHINERY AND VEHICLES						
ATV	6,000.00	600.00	76.5	12	114.37	520.59
Pickup 4x4 3/4 ton	36,000.00	3,600.00	15	6	434.13	1,021.11
Total MACHINERY AND VEHICLES	42,001.00				548.49	1,541.70

\*Information Only -Costs show in Tables 1-3 as cash costs

# UC COOPERATIVE EXTENSION Table 5. RETURNS ANALYSIS FOR 300 HEAD YEARLING/STOCKER PRODUCTION

Sacramento Valley - 2005

#### PURCHASED YEARLINGS/STOCKERS

Operation	Number	Pounds				\$/lb			
CALVES SOLD	294	800	0.78	0.88	0.98	1.08	1.18	1.28	1.38
Less Calves Purchased	300	530	0.93	1.03	1.13	1.23	1.33	1.43	1.53
GROSS INCOME (Sold minus Purchased)			35,586	43,206	50,826	58,446	66,066	73,686	81,306
Total Cash Operating Costs (Table 1)			37,494	37,494	37,494	37,494	37,494	37,494	37,494
Total Cash Operating Costs/Calf	300		125	125	125	125	125	125	125
Total Income Above Cash Costs			-1,908	5,712	13,332	20,952	28,572	36,192	43,812
Total Income Above Cash Costs/Calf	300		-6	19	44	70	95	121	146
Total Overhead Costs (Table 1)			4,831	4,831	4,831	4,831	4,831	4,831	4,831
Total Overhead Costs/Calf	300		16	16	16	16	16	16	16
Total Costs			42,325	42,325	42,325	42,325	42,325	42,325	42,325
Total Costs/Calf	300		141	141	141	141	141	141	141
Total Net Income			-6,739	881	8,501	16,121	23,741	31,361	38,981
Total Net Income/Calf	300		-22	3	28	54	79	105	130

#### YEARLINGS/STOCKERS ON THE GAIN

CALF Gain/Pound GROSS INCOME	294	270	0.15	0.20	0.05				
GROSS INCOME			0.000	0.20	0.25	0.30	0.35	0.40	0.45
			11,907	15,876	19,845	23,814	27,783	31,752	35,721
Total Cash Operating Costs (Table 2)			24,033	24,033	24,033	24,033	24,033	24,033	24,033
Total Cash Operating Costs/Calf	300		80	80	80	80	80	80	80
Total Income Above Cash Costs			-12,126	-8,157	-4,188	-219	3,750	7,719	11,688
Total Income Above Cash Costs/Calf	300		-40	-27	-14	-1	13	26	39
Total Overhead Costs (Table 2)			2,500	2,500	2,500	2,500	2,500	2,500	2,500
Total Overhead Costs/Calf	300		8	8	8	8	8	8	8
Total Costs			26,533	26,533	26,533	26,533	26,533	26,533	26,533
Total Costs/Calf	300		88	88	88	88	88	88	88
Total Net Income			-14,626	-10,657	-6,688	-2,719	1,250	5,219	9,188
Total Net Income/Calf	300		-49	-36	-22	-9	4	17	31

#### PURCHASED YEARLINGS/STOCKERS - NATURAL

NATURAL CALVES SOLD	289	764	0.83	0.93	1.03	1.13	1.23	1.33	1.43
NON PROGRAM CALVES SOLD	5	764	0.69	0.79	0.89	0.99	1.09	1.19	1.29
Less Calves Purchased	300	530	1.00	1.05	1.15	1.25	1.35	1.45	1.55
GROSS INCOME (Sold minus Purchased)			26,896	41,408	47,970	54,531	61,093	67,654	74,216
Total Cash Operating Costs (Table 3)			37,280	37,280	37,280	37,280	37,280	37,280	37,280
Total Cash Operating Costs/Calf	300		124	124	124	124	124	124	124
Total Income Above Cash Costs			-10,384	4,128	10,689	17,251	23,813	30,374	36,936
Total Income Above Cash Costs/Calf	300		-35	14	36	58	79	101	123
Total Overhead Costs (Table 3)			4,860	4,860	4,860	4,860	4,860	4,860	4,860
Total Overhead Costs/Calf	300		16	16	16	16	16	16	16
Total Costs			42,141	42,141	42,141	42,141	42,141	42,141	42,141
Total Costs/Calf	300		140	140	140	140	140	140	140
Total Net Income			-15,244	-733	5,829	12,391	18,952	25,514	32,075
Total Net Income/Calf	300		-51	-2	19	41	63	85	107

#### UC COOPERATIVE EXTENSION Table 6. IMPACT OF FEEDER MARGIN ON PROFITABILITY

SIX YEAR PRICE SPREAD COMPARISON 1997-98 THROUGH 2002-03 SEASONS

300 Head Operation

Sacramento Valley - 2005

#### PURCHASED YEARLINGS – WINTER RANGELAND STOCKERS

Operation	Number	Pounds	1998	1999	2000	2001	2002	2003
					\$/Un	it		
CALVES SOLD <sup>1</sup>	294	800	0.7019	0.6721	0.8201	0.8222	0.6934	0.7723
Less Calves Purchased	300	530	0.9499	0.7701	0.9049	0.9937	1.0464	0.8595
GROSS INCOME (Sold-Purchased)			14,053	35,632	49,008	35,383	-3,290	44,984
Total Cash Operating Costs (Table 1)			37,494	37,494	37,494	37,494	37,494	37,494
Total Cash Operating Costs/Calf	300		125	125	125	125	125	125
Total Income Above Cash Costs			-23,441	-1,862	11,514	-2,111	-40,784	7,490
Total Income Above Cash Costs/Calf	300		-78	-6	38	-7	-136	25
Total Overhead Costs (Table 1)			4,831	4,831	4,831	4,831	4,831	4,831
Total Overhead Costs/Calf	300		16	16	16	16	16	16
Total Costs			42,325	42,325	42,325	42,325	42,325	42,325
Total Costs/Calf	300		141	141	141	141	141	141
Total Net Income (loss)			-28,272	-6,693	6,684	-6,942	-45,615	2,660
Total Net Income (loss)/Calf	300		-94	-22	22	-23	-152	9

<sup>1</sup> Assumes a 2% death loss or 6 head of 300 calves = 294