UNIVERSITY OF CALIFORNIA AGRICULTURE AND NATURAL RESOURCES
COOPERATIVE EXTENSION
AGRICULTURAL ISSUES CENTER
UC DAVIS DEPARTMENT OF AGRICULTURAL AND RESOURCE ECONOMICS

2018

SAMPLE COSTS FOR BEEF CATTLE

COW – CALF PRODUCTION

300 Head Operation

CENTRAL COAST

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CONTENTS

INTRODUCTION

The cattle industry in California has undergone dramatic changes in the last few decades. Issues such as international competition and opportunities, new regulatory requirements, changing feed costs, changing consumer demand, economies of scale, and competing land uses all affect the economics of ranching. Rangeland and other pasture cover vast areas throughout California, including the Central Coast. Cattle grazing covers most of this area. Therefore, cattle operations must be economically viable and resilient to play their vital role in maintaining California's environment and landscape.

Sample costs to raise beef calves from a cow-calf operation are presented in this study. This study is intended as a guide only. It can be used to guide production decisions, estimate potential returns, prepare budgets and evaluate production loans. Sample costs for labor, materials, equipment, and custom services are based on January 2018 figures. A blank column titled Your Costs is provided in Table 1 to enter your estimated costs.

For an explanation of calculations used in the study refer to the section titled Assumptions. For more information contact Donald Stewart; University of California Agriculture and Natural Resources, Agricultural Issues Center, Department of Agricultural and Resource Economics, at 530-752-4651 or destewart@ucdavis.edu. The local extension office can be contacted through Devii Rao at 831-637-5346 x14 or drorao@ucanr.edu.

Cost of Production studies for many commodities are available and can be down loaded from the website, http://coststudies.ucdavis.edu. Archived studies are also available on the website.

Costs and Returns Study Program/Acknowledgements. A costs and returns study is a compilation of specific crop data collected from meetings with professionals working in production agriculture from the area the study is based. The authors thank rancher cooperators, UC Cooperative Extension, and other industry

representatives who provided information, assistance, and expert advice. **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.** *The University is an affirmative action/equal opportunity employer.*

ASSUMPTIONS

The assumptions refer to Tables 1 through 4 and pertain to sample costs to operate a beef cow–calf operation. Practices described represent production practices and materials considered typical of a well-managed ranch in the region.

This study explains the annual costs associated with an ongoing operation with the assumptions that the ranch was operated on this basis in prior years and will continue in subsequent years. The costs, materials, and practices shown will not apply to all situations. Production practices vary by rancher and the differences can be significant. The study does not represent any single ranch and is intended as a guide only.

Some of the costs associated with ranching can be shared between production alternatives and operations. This analysis includes multiple production alternatives in which a percentage of certain costs are shared accordingly and noted in the narrative sections and tables. It's important to note that some cow/calf operators on the Central Coast do not have multiple production alternatives and the costs will not be shared among production alternatives.

Overview. The cattle producer leases all rangeland. The "typical" ranch on the Central Coast is an owner-operated cow-calf ranch operation using private and/or public leases. Grazing requires 5 - 35 acres per cow-calf pair, depending upon the location, vegetation type and the amount of forage available. Actual herd numbers in California vary widely, ranging from part-time operations of less than 10 cows to operations running thousands. This cost study is based upon numbers from a herd of 300 cows.

Ranching operations in California can be generally classified into four types. The first type can be described as a part-time operation that runs a small number of animals (less than 50) in order to utilize existing forage resources, keep the grass down, or on a hobby-type basis. The second type includes medium-sized operations (75-200 cows) that are run as a business, but the ranch is supplemented with income from other enterprises or from off-ranch sources. The third type includes large operations (over 200 cows) where cattle production is the primary enterprise and source of income for the ranch. The final category applies to cattle ranches of varying sizes that are part of a larger diversified operation with farming and other businesses. Often the ranches in the first and second categories are not profitable as an individual enterprise, while in categories three and four, the ranches are generally a profitable business enterprise, although they generally do not return a profit every year as cattle prices and weather varies. In San Benito County, most ranches fall into the second type of operation with typical numbers ranging from 80 to 300 on the high end. Most cow-calf operations in Monterey County have around 200-250 head.

The cost calculations are based on economic principles that include all cash costs. This analysis uses the lease value of the Animal Unit Month (AUM). An AUM is defined as the amount of forage it takes to feed one cow and her suckling calf for one month. This study assumes a mature cow weight of 1,200 pounds consuming about 2 percent of her body weight on a daily basis. Forage production per acre varies throughout California based on precipitation, elevation, soil type, range and pasture management, slope, aspect and more. Because this analysis uses the AUM lease value as a cost of operation, land taxes, fence and building depreciation, and land value are not considered in the costs.

Production Operations

Land Lease. This includes the market value of all feed (purchased or raised) that was used in the cow-calf operation.

Rangeland in the Central Coast is under multi-year lease agreements with the land owner. The value is between $300 and $15,000 per acre. The prices are significantly different between counties and location of the land within each county. Smaller parcels (less than 1,500 acres) with costal views bought for residential and recreational use are priced higher. Larger parcels, with limited usability (1,500 to 15,000 acres) of dry-land pasture, without ocean views sells for considerably less.

The lease rate is assumed to be $23 per AUM, although the range is $6 - $28 per AUM. The quantity of forage for a cow-calf pair, bulls and yearling heifers is calculated at 1.2 AUM, 1.3 AUM & 0.7 AUM respectively. In practice, most lease arrangements in California charge the same fixed monthly fee for a cow, cow-calf pair and a bull. In the area this study is based that fee is $23 per month.

Alfalfa Hay/Mineral Supplements. Livestock are fed alfalfa hay over short periods of time when there is limited feed available on rangeland, especially when calves are young (December/January). Grazing on the ranch occurs year round. Mineral supplements (typically including copper, selenium, and other trace minerals) and salt are provided to the animals year-round. Protein supplements often in the form of molasses tubs are provided from May through October when the grass is dry.

Operations Calendar. The Operations Calendar is for a beef breeding herd which shows approximate dates for the operations. Operations will vary according to seasonal weather.

Table A. Operations Calendar

Date		Operation
15-Nov	29-Feb	Breeding – bulls turned in (stay in for 3 months)
1-Dec	31-Jan	Branding & vaccinating all calves, castrating bull calves
1-May	1-July	Preg check, vaccinate, and deworm heifers & cows
1-May	1-July	Bangs vaccinate heifers (when you preg check)
1-May	1-July	Sell open heifers, cows, and cull bulls
1-May	1-July	Ship/sell calves (some operations give booster vaccinations and deworm calves 2-10 weeks before shipping)
1-Aug	1-Nov	Pre-breeding vaccinations – cows & heifers (although some operations vaccinate cows & heifers only once at preg check)
1-Aug	1-Nov	Bulls: breeding soundness check, **Trich test, vaccinate, and deworm; sell any additional cull bulls after breeding soundness check (bulls may be vaccinated and dewormed a second time if they are brought in for for something else)
15-Aug	1-Nov	Calving
1-Sept		Yearling heifers sold, (if needed)
1-Sept	1-Nov	Bulls purchased

**Tritrichomonas foetus; "Trich," is a venereal disease of cattle.

Health, Veterinary Services, Medicine. This includes the cost of vaccines, medicines, veterinary services, breeding soundness exams, etc. Pre-breeding vaccinations are done in August, additional cow and bull vaccinations and deworming in May. Steer and heifer calves are branded and vaccinated in December/January. The bull calves are also castrated in December/January. Calves booster vaccinations are given March-June. The

majority of the costs occur three times throughout the year when: 1) preg checking/bangs vaccinating heifers, 2) branding/vaccinating calves, and 3) doing pre-breeding vaccinations for cows and testing/buying bulls. Vets are needed twice per year when: 1) Preg checking/bangs vaccinating heifers and 2) testing bulls.

Table B. Veterinary Services **Operating Inputs**	**Cost($)** **/Head**
Vet Service - Cows (Pregnancy checking)	5.00
Vet Service - Heifers (Bangs/Brucellosis)	3.00
Vet Service - Bulls (Semen & Tritrichomonas test)	93.00
Vaccine/Wormer - Cows (includes 2x/year vaccination, wormer & trich shot)	25.00
Vaccine/Wormer - Heifers (includes 2x/year vaccination & wormer)	8.00
Vaccine/Wormer - Bulls (includes 1x/year vaccine & 2x/year wormer)	17.00
Vaccine/Wormer - Calves (includes at branding & booster shots prior to selling)	16.00

Note: It is estimated to cost $55-$70/year to maintain a cow beyond rent and feed, including vaccinations, mineral supplements, and veterinary costs.

Horse Care and Feeding. Costs for replacement animals, shoeing horses, feed, and veterinary expenses are based on costs reported by participating producers.

Fencing Materials, Maintenance, and Repair of Infrastructure. This includes fencing wire, t-posts, and miscellaneous purchases of wood and other construction materials and supplies.

Freight/Trucking-Transportation of cattle. Trucking costs apply to commercial hauling of the cattle between ranches or to a livestock auction. Each semi load, for a large operation can haul 48,000 pounds (35-40 mature cows). The majority of operations in the area utilize a 4WD 1-ton Pickup-single rear axle and a 5th wheel stock trailer for the bulk of their cattle transportation needs. This setup can haul up to 10 mature cows or 12,000 lbs. per load.

Vehicles. 1-Ton 5th-Wheel 4WD Pickup/5th Wheel Stock Trailer/All-Terrain Vehicle (ATV). Business vehicle mileage for the 1-ton 5th wheel/4WD pickup truck is estimated at 25,000 miles per year and calculated at $0.535 per mile. The 5th wheel stock trailer is estimated at 10,000 miles per year at $0.20 per mile. Estimated mileage of the 3 - 4WD All-Terrain Vehicles (ATV's), is 3,500 miles each, per year and charged at $0.35 per mile. ATV's are used extensively on this ranch. The costs are based on information from the cooperators.

Lube/Repairs-Vehicle/Equipment. Repair and maintenance charges for the vehicles are included in the mileage charges. The equipment repair charges are listed as a separate line item in tables 1 & 2.

Ranch Labor. Most ranches use little or no hired labor. Some ranches use volunteer help, especially on weekends for gathering cattle, from individuals that supply their own horses. Some ranches hire cowboys to work the cows and some provide housing, tack, horse feeding and care. Based upon general producer information, the annual estimated hired ranch labor is one cowboy at $30/cow.

Employee Insurance. Health insurance is paid by the ranch and included in the production costs. This would be for the part-time cowboy. A percentage of the total costs are allocated across the different production operations.

Owner/Operator/Management. Returns to operator labor and management are included in net revenue. Assignment of ranch management costs differ by operation. Some ranches hire direct labor and some hire management that is paid a monthly salary. Owner/Operator labor for hauling, turnout, gathering, feeding, fence repair, salting, checking cows, and moving pastures is not included as an explicit cost, but the value of management time and effort must be considered in assessing ranch profits.

Risk. Production and marketing risks are significant in the cattle business. This study makes every effort to model a production system based on typical, real world practices. However, it cannot fully represent financial and market risks, which affect the profitability and economic viability of cattle operations. Because there are so many potential risk factors, effective risk management must combine specific tactics in a detailed manner and in various combinations for a sustainable operation.

Livestock/Marketing/Revenue

Livestock. Livestock includes 300 bred cows and heifers, 60 potential replacement heifers and 15 bulls. A 95 percent calf crop, (285 calves), with 2 percent mortality before weaning (6 calves). The assumption is that half of the remaining 279 calves are steers (140) and half are heifers (139), in which 60 are retained as candidates for replacements. A 10 percent cull rate is assumed for the cow herd. One percent of the cows (3 cows) die each year. Based on these assumptions, the rancher sells 30 cull cows, 219 calves; (79 heifer calves and 140 steer calves), 10 open yearling heifers, (keeping 50 bred yearling heifers for replacements).

There are 15 bulls included in inventory overhead, because it is assumed that the producer will cull 5 bulls per year and in turn purchase 5 bulls, which are included in the cash operations. The cow to bull ratio is assumed to be 20:1, with each bull lasting 3-6 years. Horses are purchased as needed and not included in inventory.

Marketing. Cull cows, cull bulls, steers and heifer calves (8 months old) are sold from May thru July and yearling heifers not used for replacements are sold in August or September. Marketing costs include auction/commission fees, brand inspection and an assessment for beef promotion (Checkoff).

Revenue/Sales. Estimates are based upon the average price differential between classes of livestock from 101 Livestock Market (Table 3). Revenue from animal sales are shown monthly in Table 2.

Pricing/Ranging Analysis. Cattle prices vary with age, size and quality. Price per head usually increases with size while price per pound decreases with size. Prices for livestock purchased or carried over from a cow-calf operation for resale are dependent on the expected value of the animal at resale and the expected costs of holding the animal until resale including the operating costs. Table 3 shows a range of returns using a range of prices.

Table C. **Animal Inventory per Month.** This table shows one year of a multi-year operation that starts with 300 cows and bred heifers for the beginning of the breeding season in November. September and October shows that some of the calves, heifers & steers are born during those months, (although some operations will have calves starting in mid-August). The heifer calves are called yearling heifers in May in which 60 are carried over as potential replacements. The following June 10 cull/open yearling heifers are sold, keeping 50 bred yearling heifers. The calendar for January - May, (297 cows) is showing the 1% loss of cows over winter. The pasture charges remain at 300 cows from September through May, (Tables 1 & 2).

Animals	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Cows	267	267	267	300	300	300	300	297	297	297	297	297
Steer Calves	0	0	0	45	60	140	140	140	140	140	140	140
Heifer Calves	0	0	0	45	60	139	139	139	139	139	139	139
**Yearling Heifers	60	60	60	60	60	60	60	60	0	0	0	0
*Bred Heifers	50	50	50	50	0	0	0	0	60	60	60	60
Bulls	10	10	10	10	15	15	15	15	15	15	15	15

*Open yearling heifers are sold after pregnancy checking in June (10). The bred yearling heifers (50) are kept as replacements.

** Yearling heifers are bred during the late-fall/early-winter (at 12-14 months old – bred heifers) and become cows after calving (at 21-23 months old). The 50 bred heifers would be carried over from the previous year to maintain 300 bred cows and heifers.

Cash Overhead

Cash overhead consists of various cash expenses paid out during the year that are assigned to the whole ranch and not to a particular operation. These costs can include property taxes, interest on operating capital, office expense, liability and property insurance, equipment repairs, sanitary services, and management.

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

Liability Insurance. A standard ranch liability insurance policy of $4,000 is charged to the entire ranch. This will cover the expenses for which you become legally obligated to pay for bodily injury claims on your property and damages to another person's property as a result of a covered accident. Common liability expenses covered under your policy include attorney fees and court costs, medical expenses for people injured on your property, and injury or damage to another's property caused by your animals. The cow-calf operation is charged at 67 percent of the total cost. A percentage of the remaining insurance costs are charged to the other production alternatives on this ranch.

Livestock Insurance. No amount of livestock insurance is specified as the most common way to cover livestock is to insure them as a herd. Livestock (cows, swine, goats, lambs and sheep) and poultry (chickens and turkeys) coverages can vary widely among farm insurance companies. It's important to understand what is covered in your ranch insurance policy and what is not. Insurance packages provide broad causes of loss protection for livestock, which includes the following: accidental shooting, attacks by dogs or wild animals (does not apply to sheep), earthquake loss, electrocution, flood loss, loading and unloading accidents, and sudden and accidental collision damage causing death. Individual policies and blanket policies are available to cover all of your ranch property (livestock, equipment, structures, etc.) in one lump sum amount.

Fire Insurance. No amount of fire insurance is specified. Some operations opt to purchase fire insurance for high-risk rangeland, such as areas near busy roads or areas prone to burn frequently.

USDA Insurance Programs. The USDA, through the Risk Management Agency and the Farm Services Agency, offers a number of insurance programs to livestock producers. Livestock Risk Protection (LRP) policy offers protection against a decline in feeder cattle prices during the term of the endorsement. Non-insured Crop Disaster Assistance Program (NAP) provides payments to producers based on percent forage loss over 50 percent and number of acres insured. Other insurance programs are offered through federal assistance programs. There are limitations to the number of head insured with application deadlines and endorsement ranges (length of contract) that apply to all programs. This study assumes no participation in government insurance programs.

Office Expense. Office and business expenses are estimated at $4,000 per year for the entire ranch and charged at 67 percent of the total to the cow-calf operation. The other 33 percent is charged to the other production alternatives on the ranch. These expenses include office supplies, telephones, bookkeeping, accounting, and miscellaneous administrative charges.

Interest on Operating Capital. Interest on operating capital is based on cash operating costs and is calculated monthly until sale months at a nominal rate of 5.5 percent per year.

Interest charge is the cost of your money that is tied up in the cattle production. It reflects the amount of money you pay on borrowed money (Line of Credit) or that amount you could have earned had you invested your own resources in alternative uses. The interest cost of post animal sales is discounted back to the last sale month using a negative interest charge. The interest rate will vary depending upon various factors, the rate in this study is considered a typical lending rate by a farm lending agency as of January 2018. As revenue is received from animal sales it is used to pay back the operating loan (See Table 2).

Non-Cash Overhead

Non-cash overhead is calculated as the capital recovery cost for equipment and other ranch investments.

Capital Recovery Costs. Capital recovery cost is the annual depreciation and interest costs for a capital investment. This includes equipment, machinery and livestock. It is the amount of money required each year to recover the difference between the purchase prices 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 1984). 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 1984). For other investments including 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 Table 4.

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 5.0 percent is used to calculate capital recovery cost and is the effective long-term interest rate effective January 2018. The lending rate is provided by a local farm lending business and will vary according risk and amount of the loan (Table 4).

Portable Cattle Working Facilities. Facilities consist of a hydraulic or manual squeeze that attaches to the permanent loading areas. Loading areas consist of permanent cemented poles and semi-permanent, steel post corrals. An estimated price for livestock handling equipment required by a typical 300 head operation is included in Table 4.

Water Tanks (3,000 gal)/Troughs. Water tanks and troughs are included to account for necessary range improvements on leased pasture.

Shop & Fencing Tools. Inventory would include hand tools, gloves, a chainsaw, and other miscellaneous tools.

Tack. This category includes saddles and related necessary equipment, (blanket, headgear, lariat, etc.) which the cowboys supply themselves.

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

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Table 1. COSTS AND RETURNS FOR BEEF COW – CALF PRODUCTION

300 Head Operation Central Coast 2018

PRODUCTION/REVENUE	Head	Cwt/ Head	Unit	Price/Unit	Total Value	*Value/Head	Your Costs
Steer Calves	140	6.50	cwt	$134.31	$122,222	$873.02	
Heifer Calves	79	5.50	cwt	$126.41	$54,925	$695.26	
Yearling Heifers	10	8.00	cwt	$115.44	$9,235	$923.52	
Cull Cows	30	12.00	cwt	$69.36	$24,970	$832.32	
Cull Bulls	5	18.00	cwt	$80.16	$7,214	$1,442.88	
TOTAL REVENUE					**$218,566**		

OPERATING INPUTS	Units		Amounts/Unit		Cost/Unit	Total Costs	**Cost/Cow	
Alfalfa Hay	50	tons	1	year	$180.00	$9,000	$30.00	
Supplements-(combined)	20	tons	1	year	$405.00	$8,100	$27.00	
Range-(cows@ 1.2/AUM)	297	cows	5	months	$23.00	$34,155	$113.85	
Range-(cows@ 1.2/AUM)	300	cows	7	months	$23.00	$48,300	$161.00	
Range-(yearling heifers@ 0.7/AUM)	60	heifers	8	months	$16.10	$7,728	$25.76	
Range-(bred heifers@ 0.7/AUM)	50	heifers	4	months	$16.10	$3,220	$10.73	
Range-(bred heifers@ 0.7/AUM)	60	heifers	4	months	$16.10	$3,864	$12.88	
Range (bulls@ 1.3/AUM)	10	bulls	4	months	$23.00	$920	$3.07	
Range (bulls@ 1.3/AUM)	15	bulls	8	months	$23.00	$2,760	$9.20	
Veterinary Service-cows	300	cows	1	each	$5.00	$1,500	$5.00	
Veterinary Service -heifers	60	heifers	1	each	$3.00	$180	$0.60	
Veterinary Service-bulls	15	bulls	1	each	$93.00	$1,395	$4.65	
Vaccine/Wormer/Etc.-cows	300	cows	1	each	$25.00	$7,500	$25.00	
Vaccine/Wormer/Etc.-heifers	60	heifers	1	each	$8.00	$480	$1.60	
Vaccine/Wormer/Etc.-calves	219	calves	1	each	$16.00	$3,504	$11.68	
Vaccine/Wormer/Etc.-bulls	15	bulls	1	each	$17.00	$255	$0.85	
Brand Inspection	264	head	1	inspection	$1.25	$330	$1.10	
Marketing Order Promo (checkoff)	264	head	1	checkoff	$1.00	$264	$0.88	
Freight/Trucking	300	head	1	each	$18.00	$5,400	$18.00	
Yearling Bulls Purchased	5	bulls	1	each	$6,000.00	$30,000	$100.00	
Pickup Truck 1-Ton 4WD-5th Wheel	1	pickup	25,000	miles	$0.535	$13,500	$45.00	
Stock Trailer-5th Wheel	1	trailer	10,000	miles	$0.20	$2,000	$6.67	
ATV's	3	ATV	3,500	miles	$0.35	$3,675	$12.25	
Fencing Materials (maintenance/repair)	n/a		n/a	$/year	$5,000.00	$5,000	$16.67	
Equipment (maintenance/repair)	n/a		n/a	$/year	$2,000.00	$2,000	$6.67	
Ranch Labor	1	cowboy	300	cows	$30.00	$9,000	$30.00	
OPERATING COSTS						**$194,905**	**$649.68**	
Interest on Operating Capital @ 5.5% (Table 2)						$3,575	$11.92	
TOTAL OPERATING COSTS						**$198,480**	**$661.60**	
CASH OVERHEAD								
Liability Insurance						$2,680	$8.93	
Labor/Employee Insurance						$5,025	$16.75	
Office Expenses						$2,680	$8.93	
TOTAL CASH OVERHEAD COSTS						**$10,385**	**$34.62**	
TOTAL CASH COSTS						**$208,865**	**$696.22**	
REVENUE ABOVE CASH COSTS						**$9,701**	**$32.34**	
***ANNUAL CAPITAL RECOVERY (Table 4)						$45,112	$150.37	
TOTAL COSTS						**$253,978**	**$846.59**	
REVENUE ABOVE TOTAL COSTS						**-$35,411**	**-$118.04**	

*Value/Head based on animals sold. **Cost/Cow column is based on 300 cows.

***Annual Capital Recovery shown at 67% of the total from Table 4.

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Table 2. MONTHLY SUMMARY OF COSTS AND RETURNS FOR BEEF COW – CALF PRODUCTION

300 Head Operation Central Coast 2018

Table 2. Operating costs and returns from Table 1 are listed monthly, by line item

	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Total
PRODUCTION/REVENUE													
Steer Calves	0	0	0	0	0	0	0	0	0	0	0	122,222	122,222
Heifer Calves	0	0	0	0	0	0	0	0	0	0	0	54,925	54,925
Yearling Heifers	0	0	0	9,235	0	0	0	0	0	0	0	0	9,235
Cull Cows	0	24,970	0	0	0	0	0	0	0	0	0	0	24,970
Cull Bulls	0	7,214	0	0	0	0	0	0	0	0	0	0	7,214
TOTAL REVENUE	**0**	**32,184**	**0**	**9,235**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**177,147**	**218,566**
OPERATING INPUTS													
Alfalfa Hay	0	0	1,500	1,500	1,500	1,500	1,500	1,500	0	0	0	0	9,000
Supplements-(combined)	905	905	905	905	905	446	446	446	446	446	446	905	8,100
Range (Cows@ 1.2/AUM)	6,831	6,831	6,831	6,831	6,831	6,900	6,900	6,900	6,900	6,900	6,900	6,900	82,455
Range (Heifers@ 0.7/AUM)	1,771	1,771	1,771	1,771	966	966	966	966	966	966	966	966	14,812
Range (Bulls@ 1.3/AUM)	299	299	299	299	345	345	345	345	345	345	345	345	3,956
Veterinary/Vaccines (all costs)	7,407	0	0	7,407	0	0	0	0	0	0	0	0	14,814
Brand Inspection	0	49	0	14	0	0	0	0	0	0	0	267	330
Marketing Order Promo (checkoff)	0	39	0	11	0	0	0	0	0	0	0	214	264
Freight/Trucking	0	0	0	0	1,350	1,350	0	0	0	0	1,350	1,350	5,400
Yearling Bulls Purchased (5)	0	0	0	0	30,000	0	0	0	0	0	0	0	30,000
Vehicles/Trailer (combined)	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	1,588	19,050
Fencing Materials (maintenance/repair)	417	417	417	417	417	417	417	417	417	417	417	417	5,000
Equipment (maintenance/repair)	167	167	167	167	167	167	167	167	167	167	167	167	2,000
Ranch Labor	750	750	750	750	750	750	750	750	750	750	750	750	9,000
OPERATING COSTS	**20,133**	**12,064**	**13,476**	**20,908**	**44,067**	**13,677**	**12,327**	**12,327**	**10,827**	**10,827**	**12,177**	**13,118**	**195,181**
Net Returns above Op. Costs (cumulative)	-20,133	-13	-13,489	-25,163	-69,230	-82,907	-95,235	-107,562	-118,389	-129,217	-141,394	22,635	23,385
Interest on Operating Capital @ 5.5%	92	0	62	115	317	380	436	493	543	592	648	-104	3,575
TOTAL OPERATING COSTS	**20,226**	**12,064**	**13,538**	**21,024**	**44,385**	**14,057**	**12,764**	**12,820**	**11,370**	**11,420**	**12,825**	**13,014**	**198,756**
NET REVENUE ABOVE OPERATING COSTS													**19,810**
NET REVENUE PER COW													**66.03**

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Table 3. RANGING ANALYSIS FOR BEEF COW - CALF PRODUCTION

300 Head Operation Central Coast – 2018

Production/Revenue	Total Head	Weight -cwt	*Market Prices ($/cwt)									
Steer Calves	140	6.50	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
Heifer Calves	79	5.50	111	121	131	141	152	162	172	182	192	202
Yearling Heifers	10	8.00	96	104	113	122	131	139	148	157	165	174
Cull Cows	30	12.00	52	56	61	66	71	75	80	85	89	94
Cull Bulls	5	18.00	60.50	66.00	71.50	77.00	82.50	88.00	93.50	99.00	104.50	110.00
Gross Revenue			**180,086**	**196,457**	**212,829**	**229,200**	**245,572**	**261,943**	**278,315**	**294,686**	**311,058**	**327,429**
†Total Operating Costs			198,756	198,756	198,756	198,756	198,756	198,756	198,756	198,756	198,756	198,756
Net Revenue			**-18,670**	**-2,299**	**14,072**	**30,444**	**46,815**	**63,187**	**79,558**	**95,930**	**112,301**	**128,673**
Net Revenue/Head	**300**		**-62**	**-8**	**47**	**101**	**156**	**211**	**265**	**320**	**374**	**429**

*Average Price Differentiation Between Classes of Livestock are from Hwy 101 Livestock Market.

†Total Operating Costs Based On 2018 Data.

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Table 4. EQUIPMENT, INVESTMENT AND BUSINESS OVERHEAD

300 Head Operation Central Coast– 2018

Overhead	Purchase Price	Salvage/Cull Value	Livestock Share (%)	Useful Life (yrs.)	Annual Taxes and Insurance	*Annual Capital Recovery
Equipment and Improvements						
Squeeze/Loading Chute	4,500	315	100	15	0	419
Water Tanks 3,000 gal, troughs (4)	8,800	616	100	20	0	687
Shop/Fencing Tools	3,850	270	100	20	0	301
Total Equipment and Improvements	**17,150**	**1,201**			**0**	**1,407**
Livestock Inventory						
Bulls (15)	90,000	21,642	100	4	0	20,359
Cows Bred (300)	360,000	249,700	100	8	0	29,548
Heifers (60)	85,500	90,400	100	0.7	0	4,379
Total Livestock Inventory	**535,500**	**361,742**			**0**	**54,286**
Machinery and Improvements						
ATV (3)	25,500	6,375	100	8	63	3,277
Stock Trailer 5th-Wheel (Hauling cattle)	16,000	1,120	100	10	93	1,983
Pickup 1-Ton 4WD	60,000	17,500	100	10	2,400	6,379
Total Machinery and Vehicles	**101,500**	**24,995**			**2,556**	**11,639**
Total Overhead Costs	**654,150**	**362,943**			**2,556**	**67,332**

*This table accounts for all equipment, investment, overhead, and depreciation costs. Total overhead costs from this table are shown as Annual Capital Recovery at 67% of the total in Table 1. The remaining 33% is allocated between the different operations on the ranch.

The interest rate for capital recovery is calculated at 5%.

The costs of insurance on the cattle is not included in this study.