



WINTERING CALVES IN WYOMING

- A Guide for Partial-Cash Flow Budgeting -

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The attached example was developed and is intended for use by ranchers or livestock feeders as a guide in evaluating proposed calf wintering enterprises. The example is based on the following assumptions:

- 1) Steer or heifer calves could be wintered by a ranch operator or by others. The feeding period is from November 1 through April, a total of 180 days. The objective is to winter the calves to gain at 1.0 to 1.25 lb. per head per day. The calves would probably go back to grass as yearlings on or about May 1st. Wintering at 1.0 lb/head/day gain or slightly less might allow full advantages of compensatory gains if calves go back to grass.
- 2) The assumed feed supply for wintering calves is 240 tons of alfalfa hay (loose stacks) and 828 cwt (about 2,500 bu.) of oats. If feeds had to be purchased, there could be hauling costs in addition to the values or prices of feeds as used in the example.
- 3) A feedlot is on the ranch adequate for about 250 calves. It is assumed that the calves would be penned until fully weaned and on feed. After weaning they could be allowed some freedom in fields or creek bottoms.
- 4) Minor repairs for corrals will be needed plus electricity for tank heaters and pumping water. A tractor with front-loader, truck for hauling feeds, grain auger and a feed wagon (to auger feed into fence-line bunks) are also available. The only other added costs will be for fuel, repairs for feeding equipment, grinding hay, and veterinary items. Hay would be custom ground using a tub grinder. Whole oats and ground hay would be fed to the calves in fence line bunkers.
- 5) Ranch labor is available for feeding and animal care at no added cost.
- 6) Breakeven sale prices are calculated to cover only SPECIFIED costs. Return above specified costs would be to labor, management and to fixed costs.

Step 1. Estimated Feed Requirements

Feed requirements for specified daily gains are estimated in Table 1 for steer and heifer calves. Requirements as shown are intended to be somewhat liberal for obtaining specified gains. The feeder recognizes that: 1) There will be some feed wasted; 2) Weather conditions could affect feed requirements and gains; and 3) If calves are purchased at an auction or

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Table 1. Estimated feed requirements for proposed calf wintering enterprise, November 1 to April 30.

Weights In Out	Days on feed	Gain in pounds		Feed requirements (pounds)		
		Per day	Total	Alfalfa (ground)	Oats (whole)	Pounds as fed
				<u>Daily requirements</u>		
<u>Steer Calves:</u>						
340 to 400	60	1.00	60	10.0	2.0	12.0
400 to 475	60	1.25	75	12.0	2.0	14.0
475 to 550	60	1.25	75	13.0	2.0	15.0
340 550	180	1.17	210	11.7	2.0	13.7
				<u>Total requirements^{a/}</u>		
				600	120	720
				720	120	840
				780	120	900
				2,100	360	2,460
				<u>Daily requirements</u>		
<u>Heifer Calves:</u>						
310 to 380	60	1.17	70	9.0	2.0	11.0
380 to 450	60	1.17	70	11.0	2.0	13.0
450 to 525	60	1.25	75	12.0	2.5	14.5
310 525	180	1.19	215	10.7	2.2	12.9
				<u>Total requirements</u>		
				540	120	660
				660	120	780
				720	150	870
				1,920	390	2,310

^{a/} Other feeds could be substituted for those shown. Equal gains could be expected assuming adequate nutrients in proper proportions are provided and palatability is suitable.

elsewhere some distance from where they will be wintered, there could be shrinkage to be recovered to get calves back to purchase weight. Feed requirements can also vary depending on size of calves, feed quality and inherited ability of the calves to utilize feeds. It is estimated that about 10 to 12 lbs. of feed (as fed), including waste is required per pound of gain.

Step 2. Consider Nutrient and Mineral Content of Feeds

Nutrient and mineral content of feeds can vary widely between growing areas. Thus, a feed analysis can be helpful in evaluating proposed rations.

Shown in the top part of Table 2 are recommended daily feed requirements for 340 to 550 pound beef calves to gain 1.0 to 1.25 lbs/head/day. Shown next are test data from alfalfa and oat samples (DM = dry matter; TDN = total digestible nutrients; CP = crude protein; Ca = calcium; P = phosphorus; and K = potassium). Note that the proposed ration provides DM and TDN within the recommended standards while CP is more than adequate. This is a common observation in rations based mostly on alfalfa hay.

The mineral content of the feeds however may require further observation and study. Animal nutritionists at the University of Wyoming have been studying mineral supplementation of beef cattle in Wyoming.^{a/}

^{a/} Conversations with Dr. James Waggoner, Professor, Dr. Mark Peterson, Ruminant Nutrition Extension Specialist and Dr. Conrad Kercher, Professor, Division of Animal Science, University of Wyoming, Laramie.

Their observations show that Ca to P ratios in rations for young growing beef animals should not exceed 4 to 1; in fact a Ca to P ratio of near 2 to 1 might be considered ideal. Data in Table 2 show about 30.32 lbs of calcium and 5.59 lbs of phosphorus are contained in the hay and oats. This would be a Ca to P ratio of 5.4 to 1.0 (assuming that all of the Ca and P would be utilized which may not be the case). Thus, a phosphorus supplement is recommended to reduce the ratio below 4 to 1.

In this case about 8 total pounds of phosphorus is needed per calf to reduce the Ca to P ratio below 4 to 1 (30.32 lb Ca \div 4 equals 7.58 lb needed P). Since 5.59 lb of P is provided via alfalfa and oats about 3 lb of P is required from supplement.

Monoammonium phosphate supplement is 24% P. Thus, each calf would require 12.5 lbs of the supplement to get 3 lbs of actual P (3 lb P \div .24 = 12.5 lbs of supplement needed).

With 3 lb of P from supplement the Ca:P ratio for the total ration would be about 3.5 to 1.0 (30.32 lb Ca \div 8.59 lb P = 3.5 to 1).

Nutritionists have also observed that Wyoming cattle may show increased gains from supplemental potassium (conversations with Dr. Waggoner).

Table 2. Example nutrient and mineral contents of proposed ration for steer calves 340 to 550 pounds, 180 day wintering period, average gain 1.17 lb/head/day.

Item a/	As fed		DM		TDN		CP		Ca		P		K	
	%	lbs	%	lbs	%	lbs	%	lbs	%	lbs	%	lbs	%	lbs
Recommended daily requirements	--	12 to 15	--	9.0to 14.3	--	5.7to 8.6	--	1.00to 1.40	--	.03to .04	--	.026 .035	--	.072 .115
<u>Feed Analysis:</u>														
ALFALFA	100	2,100	90.6	1,903	50.1	1,052	15.2	319.2	1.43	30.00	.21	4.40	1.46	30.66
OATS	100	360	91.1	328	71.5	257	11.7	42.1	.09	.32	.33	1.19	.42	1.51
Other:														
SALT, trace minerals <u>b/</u>	--	5.63	--	--	--	--	--	--	--	--	--	--	--	--
MonoFos <u>c/</u>	--	12.50	--	--	--	--	--	--	--	--	24.0	3.00	--	--
Potassium chloride <u>d/</u>	--	5.63	--	--	--	--	--	--	--	--	--	--	50.0	2.81
Organic iodide <u>e/</u>	--	.20	--	--	--	--	--	--	--	--	--	--	--	--
Aureo-sulfa <u>f/</u>	--	9.00	--	9	--	--	--	--	--	--	--	--	--	--
TOTALS: Per calf		2,484	--	2,240	--	1,309	--	361.3	--	30.32	--	8.59	--	34.98
Per calf/day		13.80		12.44	--	7.27	--	2.00	--	.17	--	.048	--	.19

- a/ DM = dry matter; TDN = total digestible nutrients; CP = crude protein; Ca = calcium; P = phosphorus; K = potassium.
- b/ Trace mineral salt fed free choice; assumed intake is .5 ounce/head/day (or .031 lb/hd/day for 180 days = 5.6 lb).
- c/ MonoFos (monoammonium phosphate) fed free choice mixed with salt; assumed intake 1.1 ounce/head/day. In this example supplemental phosphorus is required to drop the Ca/P ratio below 4:1.
Calcium/phosphorus ratios: Alfalfa = 30/4.4 = 6.8:1.0; Oats = .32/1.19 = .27:1.0;
Alfalfa with oats = 30.32/5.59 = 5.4:1.0; Alf. & oats & monofos = 30.32/8.59 = 3.5:1.0.
- d/ Potassium chloride is fed to increase the amount of potassium in the ration. KCl substitutes for salt, it is fed at .5 oz/head/day.
- e/ Organic iodide to help control footrot and lumpy jaw. Can be mixed with the salt-monofos and potassium chloride.
- f/ Aureo-sulfa crumbles fed for first 30 days as recommended on feed tag. Approximately 9 to 10 lbs of crumbles/calf or other amounts depending on the medication contained in the specific mix.

Potassium chloride (KCl) is often used as a substitute for salt and can replace salt in calf rations. It is shown in Table 2 that each calf is provided with about 5.63 pounds of KCl for the 180 day period. This would be an intake of about .5 oz. per head/day. Since the cost of KCl is about the same as salt it does not increase the cost of the ration. Each calf would obtain about 2.8 lb of supplemental K (.5 X 5.63 = 2.8 lb K) from the KCl.

Nutritionists also recommend mixing a small amount of organic iodide into the salt-phosphorus-potassium mix. The organic iodide is to help prevent footrot and lumpy jaw in the calves.

Since the salt-monofos-KCl-Organic iodide mix is fed free choice one might expect the calves to consume what they need. Thus, consumption could be higher or lower than in this example. If consumption is too low, bran can be mixed with the mineral to improve palatability.

Assuming the salt-mineral feeder at the feedlot holds about 500 lbs of mix, how does the rancher-feeder determine the proper

amounts of salt and various mineral supplements to mix in each batch? The following example shows total requirements for 230 calves, and each ingredient, divided into 11 batches giving the amount of each ingredient per batch. In this example 500 lbs of the mixture would be expected to last 230 calves about 16 days (180 days ÷ 11 batches).

Some nutritionists also recommend feeding Aureo-sulfa crumbles (or some other medicated mix) for the first month to help prevent sickness in the calves. The medicated feeds should be fed as instructed on the feed tag. In this example about .3 lb/head/day for 30 days would provide the recommended daily and total dosages. Other mixes would require different amounts. Feeders should follow the instructions on the feed label and/or consult a veterinarian.

Example costs for the proposed ration are shown below. Unit prices for feeds will vary between areas. Those shown are estimates of Wyoming prices for September 1982. Feeders should use local prices delivered to the ranch or feedlot.

This example shows a feed cost/calf of

<u>Item</u>	<u>Pounds per calf</u>	<u>Pounds for 230 calves</u>	<u>Number of batches</u>	<u>Pounds/batch</u>
Salt, TM	5.63	1,295	11	118
Monofos	12.50	2,875	11	261
Potassium chloride	5.63	1,295	11	118
Organic iodide	.20	46	11	4.2
	<u>23.96</u>	<u>5,511</u>	<u>11</u>	<u>501</u>

\$76.73 for 180 days or 42.6 cents/head day. If the projected gain of 1.17 lb/head/day is reached (210 lb gain/calf) the feed cost would be about 36.6 cents/lb of gain; if gain is 1.0 lb/day (180 lb gain/calf) the feed cost would be 42.6 cents/lb of gain; and if gain is 1.25 lb/head/day (225 lb gain/calf) the feed cost would be 34.1 cents/lb of gain.

Step 3. Estimated Value of Calves

In Table 3 market values of calves on November 1 are estimated using three price levels. These values would represent: 1) What a rancher might receive for the calves net of marketing costs if he sold them; or, 2) What a feeder might pay for calves purchased at a ranch or auction. It is

Feed	Amount/calf		Price/unit	Cost/calf		Cost for 230 calves
				180 days	Per day	
ALFALFA	2,100	lbs	\$50/ton	\$52.50	\$.292	\$12,075
OATS	360	lbs	\$ 5/cwt	18.00	.100	4,140
SALT, trace-min.	5.63	lbs	.06/lb	.34	.002	78
MonoFos	12.50	lbs	.235/lb	2.94	.016	676
Potassium chloride	5.63	lbs	.05/lb	.28	.002	64
Organic iodide	.20	lbs	1.20/lb	.24	.001	55
Aureo-sulfa	9.0	lbs	.27/lb	2.43	.013	559
TOTALS	2,484	lbs	--	\$76.73	\$.426	\$17,647

Table 3. Estimated value or cost of calves, three price levels, proposed calf wintering enterprise, November 1 to April 30.

Item	Number of Calves	Weight Each (Pounds) ^{a/}	Total Weight (Cwt) ^{a/}	Price Per (Cwt) ^{b/}	Amount	
					Total	Per Calf
<u>Low Price:</u>						
Steer Calves	230	340	782	\$ 65	\$ 50,830	\$ 221
Heifer Calves	230	310	713	59	42,067	183
<u>Medium Price:</u>						
Steer Calves	230	340	782	70	54,740	238
Heifer Calves	230	310	713	64	45,632	198
<u>High Price:</u>						
Steer Calves	230	340	782	75	58,650	255
Heifer Calves	230	310	713	69	49,197	214

^{a/} Estimated pay weights if calves were sold or purchased.

^{b/} Assumed difference of \$6/cwt between prices for steers and heifers.

important to recognize that if a rancher sells calves, or a feeder buys calves, marketing costs will be incurred. Marketing costs could include: Trucking from a ranch to point of delivery or from a ranch or auction to a feedlot; and perhaps auction fees. These costs could be partially borne by the rancher (seller) or the buyer depending on terms of sale.

Step 4. Estimated Non-feed Cash Costs

Estimated cash costs for non-feed items are shown in Table 4. Included are charges for facility repairs and utilities, veterinary items, fuel, equipment repairs and custom grinding of hay. Obviously

these cost items will vary depending on the specific situation.

Step 5. Summary, Expected Costs and Breakeven Prices

Costs are summarized and breakeven prices shown in Table 5. The value of calves represents what a rancher might have received had he sold them November 1st or, what a feeder might have paid had he bought at that time. Interest is charged on the value of the calves at 16% for 6 months. Here it is assumed that a rancher would forgo use of the funds for 6 months. Or, a feeder purchasing calves would obligate funds for the feeding period.

Table 4. Estimated non-feed cash costs,^{a/} proposed calf wintering enterprise, November 1 to April 30.

Item and description	Amount		
	230 calves	Per calf	Month needed
Repairs for corrals & utilities	\$ 575	2.50	N
Veterinary services, drugs, insecticides, implants, etc., @ \$5 per calf ^{b/}	1,150	5.00	N,D,J,F,M
Fuel for feeding activities	845	3.67	N,J,M
Repairs for feeding equipment	690	3.00	N,J,M
Custom grind hay, 240 tons @ \$9	<u>2,160</u>	<u>9.39</u>	N,J,M
Total non-feed cash costs for 230 calves	\$ 5,420	23.56	

a/ Assumptions: 1) Ranch labor is utilized at no added cost. 2) Ranch machinery, equipment and facilities are used with only cash costs added as shown. 3) Straw from ranch produced grain is used for bedding at no cash cost.

b/ Might include Ralgro implant @ \$1.00, pour-on systemic for grubs and lice @ \$.25 and vaccines @ \$.80/calf (might include JBR for rednose, BVD for bovine virus diarrhea, Blackleg & malignant edema). Heifer calves should also be vaccinated for Brucellosis by a veterinarian @ \$1/calf. Miscellaneous veterinary costs estimated at \$3/calf.

Table 5. Summary of expected costs and breakeven sale prices (Steer calves), proposed calf wintering enterprise, November 1 to April 30.

Item	From	November 1 price assumptions for calves					
		Low \$65 cwt		Med. \$70 cwt		High \$75 cwt	
		230 calves	Per calf	230 calves	Per calf	230 calves	Per calf
Value of calves <u>a/</u>	Table 3	\$50,830	\$221.00	\$54,740	\$238.00	\$58,650	\$255.00
interest @ 16% for 6 mos <u>d/</u>		4,066	17.68	4,379	19.04	4,692	20.40
Cash non feed items	Table 4	5,420	23.56	5,420	23.56	5,420	23.56
interest @ 16% for 3 mos <u>d/</u>		217	.94	217	.94	217	.94
Feed:							
Cash feed items purchased <u>b/</u>	Table 2	1,432	6.23	1,432	6.23	1,432	6.23
interest @ 16% for 3 mo's <u>d/</u>		57	.25	57	.25	57	.25
Feed from production:							
Alfalfa	Table 2	12,075	52.50	12,075	52.50	12,075	52.50
Oats	Table 2	4,140	18.00	4,140	18.00	4,140	18.00
interest @ 16% for 6 mo's <u>d/</u>		1,297	5.64	1,297	5.64	1,297	5.64
TOTAL SPECIFIED COSTS <u>c/</u>		\$79,534	345.80	\$83,757	364.16	\$87,980	382.52
Estimated breakeven sale price for 224 yrl'gs @ 550 lb each (1,232 cwt)		\$64.56	/cwt	\$67.98	/cwt	\$71.41	/cwt

a/ Value of calves November 1 or cost if purchased.

b/ Salt, phosphorus and potassium supplement, aureo-sulfa crumbles and organic iodide.

c/ Excludes labor and fixed costs for feeding equipment and facilities.

d/ Interest is charged on value of calves and ranch produced feeds, at 16% for 6 months. The assumption is that a production loan might be extended for 6 months. Interest on cash non-feed and feed items is charged for 3 months as expenditures are made throughout the feeding period.

Cash non-feed and feed items, with interest, are also shown. Feeds are charged at market value plus interest. Assuming the calves go back to grass after wintering, marketing costs would not be incurred until yearlings are sold the next fall.

Total specified costs divided by net sale weight is the breakeven price. The breakeven price would cover only those costs

shown. Residual above specified costs would constitute return to labor, management, risk and facility-equipment fixed costs.

Step 6. Examples for Owner-Feeder and Contract Wintering

Table 6 shows summaries of estimated costs for owner-feeder and contract

wintering situations. Obviously, some assumptions are made which will not fit all wintering contracts. Therefore this example is provided and intended to be used as a guide.

Data shown for the owner-feeder are brought forward from Table 5 for the \$65 calf-price assumption. Here the breakeven price for 550 lb yearlings ready to go back to grass on May 1st is estimated at \$64.56/cwt (same as in Table 5).

The cost data are subsequently listed under appropriate columns to illustrate an owner having calves wintered by a contract feeder. It is assumed that a contract feeder would incur costs for alfalfa and oats, salt and minerals, non-feed cash items, except aureo-sulfa and veterinary, plus interest on items provided. In addition, the contract feeder is assumed to charge \$.10/head/day to help cover costs for labor and perhaps some fixed items. For this example, if non-feed items, interest and the yardage charges are combined the total yardage charge would be about \$.24/head/day $\left(\frac{\$4,270 + \$1,503 + \$4,140}{4,400 \text{ head days}} = \right.$ \$.24). Also, in this example the contract feeder would lose feed and some yardage put into calves that die (six calves). Since it is assumed that the owner stands death losses up to three percent, the in-weight of the 230 calves would be reduced by 2,040 pounds (six calves @ 340 lbs). The net gain added by the feeder would be outweigh 1,232 cwt minus 761.6 cwt in (782 in minus 20.4 cwt death loss) equals 470.4 cwt net gain. In this case the owner would lose his initial investment with interest, aureo-sulfa,

veterinary, trucking and some yardage charges associated with the dead calves. Death loss and other provisions should be negotiated between the two parties involved before the calves go on feed.

The breakeven data shows the owner-feeder would need about \$355/head or \$64.56/cwt for the calves on May 1st to cover specified costs. Specified costs for adding the winter gain is \$63.79/cwt including interest on the beginning value of the calves. Readers should remember that this cost of added gain is based on the average estimated gain of 1.17 lb/head/day. As pointed out earlier the calves could gain at lower or higher rates.

Data for the contract feeder shows a cost of \$57.40/cwt for gain added. It is important, in this example to note that feed costs plus interest on feed comes to \$39.16/cwt net gain added $\left(\frac{\$18,420}{470.4 \text{ cwt gain}} = \right.$ \$39.16/cwt). Here also, cost/cwt gain is based on the average gain of 1.17 lb/head/day which could be lower or higher.

Data for the owner having calves wintered shows breakeven prices of \$378/head or \$68.76/cwt to cover specified costs. Cost for gain added is higher than for the other two situations because charges for aureo-sulfa, veterinary, hauling and contract feeding are included.

It is important to remember that the wintering period is normally a high cost stage of the calf's life. The subsequent stage of four to six months on grass should

Table 6. Example costs for owner feeder and contract wintering of calves.

Item	From	Owner-feeder	Contract wintering	
			Contract feeder	Owner of calves
1) FEED: alfalfa & oats	Page 6	\$ 16,215	\$ 16,215	\$ --
salt & minerals	Page 6	873	873	--
aureo-sulfa <u>a/</u>	Page 6	559	--	559
2) NON-FEED cash items	Page 7	5,420	4,270	1,150
3) INTEREST on above	Table 6	1,571	1,503	68
4) Subtotals		24,638	22,861	1,777
5) Value of calves, \$65/cwt	Table 3	50,830	--	50,830
6) Trucking, ranch to feeder <u>b/</u>		--	--	391
7) Interest on calves <u>c/</u>	Table 3	4,066	--	4,098
8) Trucking, feedlot to ranch <u>d/</u>		--	--	616
9) Yardage <u>e/</u>		--	4,140	--
10) Wintering costs paid <u>f/</u>		--	--	27,001
11) TOTAL Specified Costs <u>g/</u>		\$ 79,534	\$ 27,001	\$ 84,713
12) BRFAKEVEN: per yearling (224 hd)		\$ 355.06	\$ 120.54	\$ 378.18
13) Per cwt @ 5.5 cwt/hd <u>h/</u>		\$ 64.56	--	\$ 68.76
14) Cost/cwt gain added <u>i/</u>		\$ 63.79	\$ 57.40	\$ 75.30

a/ Assumes the aureo-sulfa is fed at request of owner.

b/ Assumes 60 miles @ \$.50/cwt for 782 cwt.

c/ Interest on value of calves and trucking @ 16% for 6 months.

d/ Assumes 60 miles @ \$.50/cwt for 1232 cwt (224 yearlings @ 550 lb).

e/ Yardage charged at \$.10/hd/day (includes \$3,600 for labor plus \$540 fixed costs).

f/ Assumed wintering costs paid to contract feeder.

g/ For OWNER-FEEDER excludes costs for labor and facility-equipment fixed costs. For CONTRACT FEEDER includes \$.10/hd/day for yardage in addition to the non-feed and interest items 2 and 3 above.

Total yardage costs would be about 24c/head/day $\left(\frac{\$4,270 + \$1,503 + \$4,140}{41,400 \text{ calf days}} = \$.24/\text{hd/day} \right)$.

h/ This is estimated breakeven price to cover costs as shown for 550 lb yearlings on May 1st.

i/ Weight out 1,232 cwt minus weight in 782 cwt equals 450 cwt net gain for owner situations. Out weight 1,232 minus 761.6 in equals 470.4 cwt gain for contract.

be much more cost efficient than birth to weaning, wintering or finishing.

This example is provided and intended to be used by livestock feeders and owners as a guide. It is not intended to represent THE COST FOR WINTERING CALVES as wintering costs will vary widely depending on specific situations.

Step 7. Monthly Cash Outflows for Calf Wintering

In cash flow planning it is helpful to identify months that specific expenditures will be made. In Table 7 cash costs for an

owner-feeder situation are shown by months.

In this example the value of the calves on November 1st is shown as a cash item. Obviously, this is not the case for ranchers who normally sell yearlings in September. Interest on the value of the calves is also shown. This could be a cash cost for a rancher especially if he had to extend a production loan to retain the calves through the coming winter and summer months.

Non-feed and feed items would be purchased throughout the wintering period. The illustration shows interest charged on the accumulated outflows would total about

Table 7. Estimated monthly cash outflows for proposed calf wintering enterprise, November 1 to April 30.

Item	November	December	January	February	March	April	Total	Per year-ling
<u>Steer calves:</u>								(224 hd)
230 @ 340 lb @ \$65 cwt	50,830	--	--	--	--	--	50,830	226.92
Interest @ 16% for 6 mo's	--	--	--	--	--	--	4,066	18.15
<u>Cash items:</u>								
Feedlot repair & utilities	425	30	30	30	30	30	575	2.56
Veterinary and drugs	460	276	100	100	100	114	1,150	5.13
Cash feed items	1,023	--	--	409	--	--	1,432	6.39
Fuel & equipment repairs	512	--	512	--	511	--	1,535	6.85
Custom grind 240 T. hay	720	--	720	--	720	--	2,160	9.64
Cash items: monthly	3,140	306	1,362	539	1,361	144	6,852	30.59
accumulated	--	3,446	4,808	5,347	6,708	6,852	--	--
Interest on cash items @ 16%	42	46	64	72	90	92	406	1.81
<u>Raised feed:</u>								
alfalfa	--	--	--	--	--	--	12,075	53.91
oats	--	--	--	--	--	--	4,140	18.48
Interest on feed @ 16%, 6 mo's	--	--	--	--	--	--	1,297	5.79
TOTAL SPECIFIED COSTS							79,666	355.65
Breakeven price/cwt:								
\$65 calves to 224 yearlings at 550 lb on April 30							64.66	--
\$70 calves to 224 yearlings at 550 lb on April 30							68.09	--
\$75 calves to 224 yearlings at 550 lb on April 30							71.52	--

\$406 for the six month period.

The value of ranch grown feeds and interest on the value of feeds are shown in the total column. Costs for producing these feeds would be "sunken" (incurred the previous summer) and would not necessarily require cash outlay. Here again interest could be a cash item if it was necessary to extend a production loan until yearlings are sold.

Total specified costs in this example are \$79,666 or \$335.65/head with a breakeven price of \$64.66/cwt. This breakeven price is slightly higher than shown in Tables 5 and 6. Why? Because here interest on cash outlay is charged on a monthly basis which is more accurate than the method used in Tables 5 and 6.

It should be noted that a ranch

organized to sell yearlings in September and which produces most of the feed necessary to winter the breeding herd and all calves, could require only nominal cash outlays for wintering calves. The example in Table 7 shows cash outlay for non-feed and feed items with interest at about \$32/calf. If we added \$16/calf for labor (\$600/month for six months) the cash outlay for wintering would still be under \$50/calf. Critical items of course, are feed and interest costs. It is important that ranch grown feeds be efficiently produced at less than current market prices and borrowed capital costs kept to a minimum.

After wintering, 550 to 600 lb yearlings should be ready to go back to grass. If they gained about 200 lbs through the winter and another 200 to 250 lbs on grass they would have more than doubled their weaning weights in 10 to 11 months.

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