Livestock Enterprise Budgets for Iowa – 2021

Ag Decision Maker

File B1-21

This publication contains estimates of production costs for common livestock enterprises in Iowa. Estimates are intended to reflect average or above-average levels of management using common types of technology. Input prices reflect expected average price levels during the year.

Data were drawn from farm record summaries, feed consumption research, and price projections and are intended to be used for planning purposes only. For individual farms, expected costs and input requirements based on past results should be substituted whenever possible.

Each budget contains estimates of the following types of costs:

Fixed Costs. Costs that will occur regardless of the level of production each year. They generally include such things as depreciation, interest, taxes, and insurance on facilities, breeding livestock, and livestock equipment and facilities. Depreciation is assumed to be 8% of the original value of facilities and equipment annually. Interest averages one-half of the original value of facilities over its lifetime, or 5% annually. Taxes and insurance add 1% for a total of 14% of the original investment annually for fixed costs.

Variable Costs. Costs that vary according to the level of production. Interest is calculated on feed and other variable costs for one-half of the production period.

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IOWA STATE UNIVERSITY
Extension and Outreach

Livestock Budget Price Assumptions

The budgets in this publication are based on the following price assumptions for inputs.

	Price	Units
Corn	$4.24	bushel
Corn silage	50.88	ton
Alfalfa hay	185.00	ton
Alfalfa-brome hay	135.00	ton
Haylage	45.00	ton
Unimproved pasture	56.00	acre
Improved pasture	77.00	acre
Soybean meal (48%)	0.20	pound
Dried distiller grain	0.10	pound
Modified distiller grain	0.05	pound
Lamb supplement/mineral	0.16	pound
Sow & pig vitamin/mineral	0.50	pound
Hog vitamin/mineral	0.32	pound
Beef supplement/mineral	0.23	pound
Feeder pig (40 pounds)	65.00	head
Weaned feeder pig (12 pounds)	45.00	head
Yearling steer (700-800 pounds)	1.50	pound
Steer calf (500-600 pounds)	1.70	pound
Heifer calf (400-500 pounds)	1.60	pound
Feeder lamb (70 pounds)	3.00	pound
Operating capital	5.00%	year

Dairy enterprise budgets can be found on the **Iowa State University Extension and Outreach Dairy Team website**, www.extension.iastate.edu/dairyteam/content/iowa-dairy-budgets

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Livestock Enterprise Summary

Page	Enterprise	Unit	Labor Hours	Bushels of Corn	Tons of Modified Distiller Grain	Tons of Dried Distiller Grain	Tons of Hay [a/]	Tons of Silage
	Swine							
6	Farrow-finish, pasture	litter	12	97	0	267	0	0
6	Farrow-finish, total confinement	litter	6	105	0	288	0	0
7	Finishing feeder pigs	head	0.2	9.0	0	32	0	0
8	Weaned pig prod., total confinement	litter	3	17.1	0	0	0	0
9	Finishing weaned pigs, confinement	head	0.4	9.8	0	32	0	0
	Beef							
11	Yearling steers, hay	head	2.5	60	1.14	0	0.30	0
11	Yearling steers, silage	head	2.5	49.25	1.14	0	0	1.32
12	Steer calves, hay	head	4	69	1.4	0	0.53	0
12	Steer calves, silage	head	3.5	50	1.4	0	0	2.26
13	Yearling heifers, hay	head	2	80	1.5	0	0.4	0
13	Yearling heifers, silage	head	2	66	1.5	0	0	1.90
14	Backgrounding steer calves, winter	head	1.25	27	0	0	0.50	0
14	Backgrounding steer calves, summer	head	1	0	0	0	0	0
15	Cow-calf, calves sold	cow unit	8	4	0	0	2.10	0
15	Cow-calf, calves fed	cow unit	10	56	1.05	0	2.50	0
	Sheep							
17	Ewe flock, early lambs	ewe unit	5	10	0	0	0.4	0
17	Ewe flock, late lambs	ewe unit	3	8	0	0	0.3	0
19	Feeder lamb	head	1	5.2	0	0	0.02	0

Dairy enterprise budgets can be found on the **Iowa State University Extension and Outreach Dairy Team website**, www.extension.iastate.edu/dairyteam/content/iowa-dairy-budgets

[a/] Does not include pasture.

Swine Production Investment

1. Breeding herd investment per litter	PASTURE		CONFINEMENT	
Sow in herd		$155		$155
Replacement gilts ($155 each)	0.50 head	78	0.28 head	43
Total investment per sow		$233		$198
Total investment per litter (1.9 and 2.2 litters per year per sow)		$122		$90

2. Cost estimates (Building and equipment replacement cost)	PASTURE		CONFINEMENT [a/]	
Use	**Structure type**	**Cost per space**	**Structure type**	**Cost per space**
Farrowing and Gestation	Pasture A-frame huts Portable on pasture	$300 $150	Enclosed confinement with crates	$1,000
Nursery	Barn with raised decks	$50	Raised deck with pit	$112
Finishing	Drylot or pasture	$30	Double curtain	$200

3. Facilities, equipment, and machinery investment for farrow to finish ($ per litter)	PASTURE		CONFINEMENT [a/]	
Farrowing	$300 / 2 litters/year/hut =	$150		
Gestation	$150 / 1.9 litters/sow =	79	$1,000 / 2.2 litters/sow =	$455
Nursery	$50 / 2 litters/year x 7.6 =	190	$112 / 6 litters/year x 8.8 =	164
Finishing	$30 / 2 litters/year x 7.1 =	107	$200 / 2.5 litters/year x 8.5 =	680
Feed storage		50		
Feed handling		25		
Manure handling		15		
Tractor	($18,000 x 25%) / 50 litters/year =	90		
Total Investment		$706		$1,299
Interest, depreciation, taxes, insurance	14% annually	$99	10% annually	$130

[a/] Farrowing and gestation are combined for confinement operations.

Swine Production Investment (continued)

4. Facilities, equipment, and machinery investment for feeder pigs

Feeder Pig Production

Farrowing and Gestation			Annually	Per litter	Per head
Building	$545 divided by 2.2 litters per year =	$248	8%	$20	$2.24
Equipment	$455 divided by 2.2 litters per year =	$207	14%	$29	$3.29
Nursery					
Building	$73 divided by 6 pigs per year =	$12	8%	$8	$0.96
Equipment	$39 divided by 6 pigs per year =	$7	14%	$8	$0.91
Total				$65	$7.40

Feeder Pig Finishing

Finishing			Annually	Per litter	Per head
Building	$140 divided by 2.5 head per year =	$56	8%	$38	$4.45
Equipment	$60 divided by 2.5 head per year =	$24	14%	$28	$3.30
Total				$66	$7.75

5. Estimated feed requirements for farrow-to-finish enterprise, including breeding herd

Pigs per Sow per Year	Bushels of Corn per Litter	Pounds of Soybean Meal per Litter	Pounds of DDG per Litter
14	159	1,814	204
16	179	2,052	233
18	199	2,290	262
20	219	2,528	291

6. Breakeven selling price for confinement farrow-to-finish if corn price is:

Corn $ per bushel	Soybean Meal $ per pound	DDG $ per pound	Total Costs $/cwt.	Variable Costs $/cwt.
$3.90	$0.17	$0.07	$54.44	$47.61
4.00	0.18	0.08	55.50	48.67
4.10	0.19	0.09	56.56	49.74
4.20	0.20	0.10	57.63	50.80
4.30	0.21	0.11	58.69	51.87
4.40	0.22	0.12	59.76	52.93
4.50	0.23	0.13	60.82	53.99

Swine Production — One Litter

	Farrow-to-Finish Pasture		Farrow-to-Finish Total Confinement		Your Farm
INCOME [a/]	**Quantity**		**Quantity**		
Market hogs (260 pounds x $_____/pound)	7.3 head	$	8.50 head	$	$
Cull sows (400 pounds x $_____/pound)	0.5 head	$	0.25 head	$	$
GROSS INCOME		$		$	$
VARIABLE COSTS					
Feed Costs					
Corn at $4.24 per bushel	97 bushels	$411.28	105 bushels	$445.20	$
Soybean meal at $0.20 per pound	943 pounds	188.60	1,013 pounds	202.60	
Dried distiller grain at $0.10 per pound	267 pounds	26.70	288 pounds	28.80	
Vitamin and minerals at $0.50 per pound	35 pounds	17.50	36 pounds	18.00	
Vitamin and minerals at $0.32 per pound	95 pounds	30.40	110 pounds	35.20	
Pasture at $56.00 per acre	0.20 acres	11.20			
Feed additives		22.00		25.00	
Total Feed Costs		$707.68		$754.80	$
Veterinary and health		$34.00		$25.00	$
Fuel, repairs, utilities		35.00		50.00	
Bedding, marketing, miscellaneous		45.00		30.00	
Interest on variable costs at 5%	5 months	17.12	5 months	17.91	
Labor at $15.20 per hour	12 hours	182.40	6 hours	91.20	
TOTAL VARIABLE COSTS		$1,021.20		$968.91	$
INCOME OVER VARIABLE COSTS		$		$	$
FIXED COSTS					
Machinery, facilities		$99.00		$130.00	$
Breeding costs, boar/semen		13.00		13.00	
Replacement gilts at $155 head	0.50 head	77.50	0.28 head	43.40	
Interest, insurance on breeding herd at 10%		12.24		9.02	
TOTAL FIXED COSTS		$201.74		$195.42	$
TOTAL OF ALL COSTS		$1,222.94		$1,164.33	$
INCOME OVER ALL COSTS		$		$	$
Break-even selling price for variable costs per cwt. [b/]		$50.12		$42.26	$
Break-even selling price for all costs per cwt. [b/]		$60.74		$51.10	$

[a/] For pasture, a weaning average of 8.3 pigs is assumed, minus 0.40 death loss and 0.60 for replacement. For confinement, a weaning average of 9 pigs is assumed, minus 0.5 death loss. Sow death loss is 5%.

[b/] Cull sow income of $70 per litter is assumed for pasture (sows sold after 2 litters) and $35 per litter for total confinement (sows sold after 4 litters).

Finishing Feeder Pigs — One Pig

INCOME	Quantity		Your Farm
Market hog (260 pounds x $_____/pound)	1 head	$	$
VARIABLE COSTS			
Feeder pig (40 pounds) at $65.00 per head	1 head	$65.00	$
Interest at 5%	5 months	1.35	
Feed Costs			
Corn at $4.24 per bushel	9 bushels	$38.16	$
Soybean meal at $0.20 per pound	82 pounds	16.40	
Dried distiller grain at $0.10 per pound [a/]	32 pounds	3.20	
Vitamin and minerals at $0.50 per pound	14.4 pounds	7.20	
Feed processing and delivery at $10 per ton	0.3 tons	3.00	
Feed additives		3.00	
Total Feed Costs		$70.96	$
Veterinary and medical		$4.00	$
Fuel, repairs, utilities		3.50	
Marketing, miscellaneous		4.00	
Manure application cost at $0.01 per gallon	190 gallons	1.90	
Interest on variable costs at 5%	2.5 months	0.86	
Death loss	0.02 head	1.30	
Labor at $15.20 per hour	0.2 hours	3.04	
TOTAL VARIABLE COSTS		$155.91	$
INCOME OVER VARIABLE COSTS		$	$
FIXED COSTS			
Machinery, facilities		$8.63	$
TOTAL OF ALL COSTS		$164.54	$
INCOME OVER ALL COSTS		$	$
Break-even selling price for variable costs per cwt.		$59.97	$
Break-even selling price for all costs per cwt.		$63.29	$

[a/] Dried distiller grain substitutes for 0.6 bushels of corn and 5 pounds of soybean meal.

Swine Production — One Litter Producing Weaned 12 Pound Pigs, Total Confinement

INCOME [a/]	**Quantity**			**Your Farm**
Weaned pigs ($_____/head)	9	head	$	$
Cull sows ($_____/head)	0.25	head/litter	$	$
GROSS INCOME			$	$
VARIABLE COSTS				
Feed Costs				
Corn at $4.24 per bushel	17.1	bushels	$72.50	$
Soybean meal at $0.20 per pound	149	pounds	29.80	
Vitamin and minerals at $0.50 per pound	23	pounds	11.50	
Feed processing and delivery at $10 per ton	0.6	tons	6.00	
Total Feed Costs			$119.80	$
Veterinary and medical			$17.00	$
Fuel, repairs, utilities			7.50	
Marketing, miscellaneous			10.00	
Manure application cost at $0.01 per gallon	300	gallons	3.00	
Interest on variable costs at 5%	3	months	1.97	
Labor at $15.20 per hour	3	hours	45.60	
TOTAL VARIABLE COSTS			$204.87	$
INCOME OVER VARIABLE COSTS			$	$
FIXED COSTS				
Facilities and equipment			$66.15	$
Breeding costs, boar/semen			13.00	
Replacement gilts at $155 head	0.28	head	43.40	
Interest, insurance on sows at 10%	5	months	6.46	
TOTAL FIXED COSTS			$129.01	$
TOTAL OF ALL COSTS			$333.88	$
INCOME OVER ALL COSTS			$	$
Break-even selling price for variable costs per head [b/]			$18.04	$
Break-even selling price for all costs per head [b/]			$32.38	$

[a/] Assuming an average of 9.0 weaned pigs per litter and all replacement gilts are purchased.
[b/] Cull sow income of $37.19 per litter is assumed (sows sold after 4 litters).

Swine Production — One Pig
Finishing 12 Pound Weaned Pig, Confinement

INCOME	**Quantity**		**Your Farm**
Market hog ($_____/pound)	260 pounds	$	$
VARIABLE COSTS	**Quantity**		
Weaned feeder pig (12 pound)		$45.00	$
Interest at 5%	150 days	0.92	
Feed Costs			
Corn at $4.24 per bushel	9.8 bushels	$41.55	$
Soybean meal at $0.20 per pound	119 pounds	23.80	
Dried distiller grain at $0.10 per pound [a/]	32 pounds	3.20	
Vitamin and minerals at $0.50 per pound	14.4 pounds	7.20	
Pre-nursery diet		3.00	
Feed additives		3.00	
Feed processing and delivery at $10 per ton	0.36 tons	3.60	
Total Feed Costs		$85.35	$
Veterinary and medical		$5.00	$
Fuel, repairs, utilities		4.20	
Marketing, miscellaneous		4.00	
Manure application cost		2.20	
Interest on variable costs at 5%	3 months	0.63	
Labor at $15.20 per hour	0.40 hours	6.08	
Death loss [b/]		4.98	
TOTAL VARIABLE COSTS		$158.37	$
INCOME OVER VARIABLE COSTS		$	$
FIXED COSTS			
Facilities and equipment		$11.28	$
TOTAL OF ALL COSTS		$169.65	$
INCOME OVER ALL COSTS		$	$
Break-even selling price for variable costs per cwt.		$60.91	$
Break-even selling price for all costs per cwt.		$65.25	$

[a/] Dried distiller grain substitutes for 0.6 bushels of corn and 5 pounds of soybean meal.
[b/] Death loss cost is assumed to be 5% of weaned feeder purchase costs and 2.5% of all other variable costs.

Feed Requirements and Conversion Rates to Carry Hogs from Various Purchased Weights to Various Market Weights [a/]

Purchase weight (lbs.)	Feed requirements	Unit	240 pounds	250 pounds	260 pounds	270 pounds	280 pounds	290 pounds	300 pounds
10	Corn	bushels	9.0	9.6	10.1	10.7	11.3	11.8	12.4
		pounds	506	536	567	599	630	661	697
	Soybean meal	pounds	113	116	119	122	125	129	133
	DDG	pounds	28	30	32	34	36	38	40
	Total	pounds	647	682	718	755	791	828	870
	Conversion	lbs./cwt.	281	284	287	290	293	296	300
20	Corn	bushels	8.7	9.2	9.8	10.3	10.9	11.4	12.1
		pounds	487	517	547	578	609	641	676
	Soybean meal	pounds	105	109	113	116	120	124	128
	DDG	pounds	28	30	32	34	36	38	40
	Total	pounds	620	656	692	728	765	803	844
	Conversion	lbs./cwt.	282	285	288	291	294	297	301
30	Corn	bushels	8.4	8.9	9.4	10.0	10.6	11.1	11.7
		pounds	470	500	528	560	591	621	657
	Soybean meal	pounds	98	102	106	110	114	118	122
	DDG	pounds	28	30	32	34	36	38	40
	Total	pounds	596	632	666	704	741	777	819
	Conversion	lbs./cwt.	284	287	290	293	296	299	303
40	Corn	bushels	8.1	8.6	9.1	9.7	10.2	10.8	11.4
		pounds	451	481	511	541	572	602	638
	Soybean meal	pounds	92	96	100	104	108	112	116
	DDG	pounds	28	30	32	34	36	38	40
	Total	pounds	571	607	643	679	716	752	794
	Conversion	lbs./cwt.	286	289	292	295	298	301	305
50	Corn	bushels	7.9	8.5	9.0	9.6	10.1	10.7	11.3
		pounds	444	474	503	535	565	597	631
	Soybean meal	pounds	75	78	82	85	89	93	97
	DDG	pounds	28	30	32	34	35	37	39
	Total	pounds	547	582	617	654	689	727	767
	Conversion	lbs./cwt.	288	291	294	297	300	303	307
60	Corn	bushels	7.6	8.1	8.6	9.2	9.7	10.3	10.9
		pounds	427	455	484	515	545	577	611
	Soybean meal	pounds	69	73	77	81	85	88	92
	DDG	pounds	26	28	30	32	34	36	38
	Total	pounds	522	556	591	628	664	701	741
	Conversion	lbs./cwt.	290	293	296	299	302	305	309
70	Corn	bushels	7.3	7.8	8.3	8.8	9.4	9.9	10.6
		pounds	408	436	465	495	526	557	591
	Soybean meal	pounds	64	68	72	76	80	84	88
	DDG	pounds	25	27	29	31	33	34	36
	Total	pounds	497	531	566	602	639	675	715
	Conversion	lbs./cwt.	292	295	298	301	304	307	311

[a/] Feed efficiency varies considerably depending on environmental temperatures, disease level, ration fed, quality of management, and death loss. The feed requirements here are for hogs with good performance under excellent management. These figures assume zero mortality; correction for mortality is made when you complete the worksheet on pages 7 or 9.

Finishing Yearling Steers — One Head

	Corn and Hay Ration			Corn and Silage Ration			Your Farm
INCOME	**Quantity**			**Quantity**			
Steer sales ($_____/pound)	1,350	pounds	$	1,350	pounds	$	$
VARIABLE COSTS							
Yearling feeder cost at $1.50 per pound	750	pounds	$1,125.00	750	pounds	$1,125.00	$
Interest at 5%	6.5	months	30.47	6.5	months	30.47	
Feed Costs							
Corn at $4.24 per bushel	60	bushels	$254.40	49.25	bushels	$208.82	$
Fair quality hay at $135.00 per ton	0.30	tons	40.50				
Modified distiller grain at $100.00 per ton	1.14	tons	114.00	1.14	tons	114.00	
Supplement and minerals at $0.23 per pound	95	pounds	21.85	95	pounds	21.85	
Corn silage at $50.88 per ton				1.32	tons	67.16	
Total Feed Costs			$430.75			$411.83	$
Veterinary and health			$8.00			$8.00	$
Machinery and equipment			7.00			7.00	
Marketing, transport, miscellaneous			16.00			16.00	
Interest on variable costs at 5%	2.75	months	5.29	2.75	months	5.07	
Labor at $15.20 per hour	2.5	hours	38.00	2.5	hours	38.00	
Death loss [a/]			14.08			13.98	
TOTAL VARIABLE COSTS			$1,674.59			$1,655.36	$
INCOME OVER VARIABLE COSTS			$			$	$
FIXED COSTS							
Machinery, equipment, housing			$14.00			$14.00	$
TOTAL OF ALL COSTS			$1,688.59			$1,669.36	$
INCOME OVER ALL COSTS			$			$	$
Break-even selling price for variable costs per pound			$1.24			$1.23	$
Break-even selling price for all costs per pound			$1.25			$1.24	$

[a/] Death loss cost is assumed to be 1% of feeder purchase costs and 0.5% of all other variable costs.

Note: One pound of modified distiller grain contains the energy of 0.5 pound of corn and the protein of 0.36 pound of soybean meal.

Finishing Steer Calves — One Head

	Corn and Hay Ration		Corn and Silage Ration		Your Farm
INCOME	**Quantity**		**Quantity**		
Fed steer sale ($_____/pound)	1,350 pounds	$ _____	1,350 pounds	$ _____	$ _____
VARIABLE COSTS					
Calf feeder cost at $1.70 per pound	550 pounds	$935.00	550 pounds	$935.00	$ _____
Interest at 5%	9 months	35.06	9 months	35.06	_____
Feed Costs					
Corn at $4.24 per bushel	69 bushels	$292.56	50 bushels	$212.00	$ _____
Fair quality hay at $135.00 per ton	0.53 tons	71.55			_____
Modified distiller grain at $100.00 per ton	1.40 tons	140.00	1.40 tons	140.00	_____
Supplement and minerals at $0.23 per pound	135 pounds	31.05	135 pounds	31.05	_____
Corn silage at $50.88 per ton			2.26 tons	114.99	_____
Total Feed Costs		$535.16		$498.04	$ _____
Veterinary and health		$10.00		$10.00	$ _____
Machinery and equipment		11.00		11.00	_____
Marketing and miscellaneous		14.00		14.00	_____
Interest on variable costs at 5%	3.5 months	8.31	3.5 months	7.77	_____
Labor at $15.20 per hour	4 hours	60.80	3.5 hours	53.20	_____
Death loss [a/]		25.79		25.34	_____
TOTAL VARIABLE COSTS		$1,635.13		$1,589.42	$ _____
INCOME OVER VARIABLE COSTS		$ _____		$ _____	$ _____
FIXED COSTS					
Machinery, equipment, housing		$21.00		$21.00	$ _____
TOTAL OF ALL COSTS		$1,656.13		$1,610.42	$ _____
INCOME OVER ALL COSTS		$ _____		$ _____	$ _____
Break-even selling price for variable costs per pound		$1.21		$1.18	$ _____
Break-even selling price for all costs per pound		$1.23		$1.19	$ _____

[a/] Death loss cost is assumed to be 2% of feeder purchase costs and 1% of all other variable costs.
Note: One pound of modified distiller grain contains the energy of 0.5 pound of corn and the protein of 0.36 pound of soybean meal.

Finishing Yearling Heifers — One Head

	Corn and Hay Ration			Corn and Silage Ration			Your Farm
INCOME	**Quantity**			**Quantity**			
Fed heifer sale ($_____/pound)	1,350	pounds	$	1,350	pounds	$	$
VARIABLE COSTS							
Yearling feeder cost at $1.50 per pound	700	pounds	$1,050.00	700	pounds	$1,050.00	$
Interest at 5%	270	days	38.84	270	days	38.84	
Feed Costs							
Corn at $4.24 per bushel	80	bushels	$339.20	66	bushels	$279.84	$
Fair quality hay at $135.00 per ton	0.40	tons	54.00				
Modified distiller grain at $100.00 per ton	1.5	tons	150.00	1.5	tons	150.00	
Corn silage at $50.88 per ton				1.9	tons	96.67	
Supplement and minerals at $0.23 per pound	160	pounds	36.80	160	pounds	36.80	
Total Feed Costs			$580.00			$563.31	$
Veterinary and health			$8.00			$8.00	$
Machinery and equipment			7.00			7.00	
Marketing, transport, miscellaneous			16.00			16.00	
Interest on variable costs at 5%	2.75	months	7.00	2.75	months	6.81	
Labor at $15.20 per hour	2	hours	30.40	2	hours	30.40	
Death loss [a/]			14.13			14.05	
TOTAL VARIABLE COSTS			$1,751.37			$1,734.40	$
INCOME OVER VARIABLE COSTS			$			$	$
FIXED COSTS							
Feedlot facilities and equipment			$16.00			$16.00	$
TOTAL OF ALL COSTS			$1,767.37			$1,750.40	$
INCOME OVER ALL COSTS			$			$	$
Break-even selling price for variable costs per pound			$1.30			$1.28	$
Break-even selling price for all costs per pound			$1.31			$1.30	$

[a/] Death loss cost is assumed to be 1% of feeder purchase costs and 0.5% of all other variable costs.

Note: One pound of modified distiller grain contains the energy of 0.5 pound of corn and the protein of 0.36 pound of soybean meal.

Backgrounding Steer Calves — One Head

	Winter Corn and Hay Ration		Summer Improved Pasture		Your Farm
INCOME	**Quantity**		**Quantity**		
Feeder cattle sales ($_____/pounds)	750 pounds	$	750 pounds	$	$
VARIABLE COSTS					
Calf purchase at $1.70 per pound	450 pounds	$765.00	525 pounds	$892.50	$
Interest at 5% annually	5 months	15.94	5 months	18.59	
Feed Costs					
Corn at $4.24 per bushel	27 bushels	$114.48			$
Alfalfa - brome hay at $135.00 per ton	0.5 tons	67.50			
Supplement and minerals at $0.23 per pound	80 pounds	18.40	35 pounds	$8.05	
Improved pasture at $77.00 per acre			0.7 acre	53.90	
Pasture fertilizer, miscellaneous costs at $20.00 per acre			0.7 acre	14.00	
Total Feed Costs		$200.38		$75.95	$
Veterinary and health		$5.00		$5.00	$
Machinery and equipment		4.50		4.25	
Marketing, transport, miscellaneous		12.00		12.00	
Interest on variable costs at 5%	2.5 months	2.31	2.5 months	1.01	
Labor at $15.20 per hour	1.25 hours	19.00	1 hour	15.20	
Death loss [a/]		9.03		9.68	
TOTAL VARIABLE COSTS		$1,033.15		$1,034.18	$
INCOME OVER VARIABLE COSTS		$		$	$
FIXED COSTS					
Machinery, equipment, housing		$14.00		$2.10	$
TOTAL OF ALL COSTS		$1,047.15		$1,036.28	$
INCOME OVER ALL COSTS		$		$	$
Break-even selling price for variable costs per pound		$1.38		$1.38	$
Break-even selling price for all costs per pound		$1.40		$1.38	$

[a/] Death loss cost is assumed to be 1% of feeder purchase costs and 0.5% of all other variable costs.

Beef Cow-Calf — One Cow Unit [a/]

	Hay and Pasture Calves Sold		Hay and Pasture Calves Fed		Your Farm
INCOME	**Quantity**		**Quantity**		
Heifer calf (0.26 head x $_____/pound)	500 pounds	$	1,000 pounds	$	$
Steer calf (0.46 head x $_____/pound)	550 pounds	$	1,100 pounds	$	$
Cull cow (0.18 head x $_____/pound)	1,350 pounds	$	1,150 pounds	$	$
GROSS INCOME		$		$	$
VARIABLE COSTS					
Feed Costs					
Pasture at $56.00 per acre	2.5 acres	$140.00	2.5 acres	$140.00	$
Pasture fertilizer, miscellaneous costs at $20.00 per acre	2.5 acres	50.00	2.5 acres	50.00	
Corn at $4.24 per bushel	4 bushels	16.96	56 bushels	237.44	
Modified distiller grain at $100.00 per ton			1.05 tons	105.00	
Salt and mineral at $0.09 per pound	60 pounds	5.40	60 pounds	5.40	
Supplement and minerals at $0.23 per pound			128 pounds	29.44	
Alfalfa - brome hay at $135.00 per ton	2.1 tons	283.50	2.5 tons	337.50	
Corn stalks at $3.00 per acre	4 acres	12.00	4 acres	12.00	
Total Feed Costs		$507.86		$916.78	$
Veterinary and health		$25.00		$35.00	$
Machinery, equipment, fuel and repairs		15.00		26.00	
Marketing and miscellaneous		20.00		25.00	
Interest on variable costs at 5%	6 months	14.20	9 months	37.60	
Labor at $15.20 per hour	8 hours	121.60	10 hours	152.00	
TOTAL VARIABLE COSTS		$703.66		$1,192.38	$
INCOME OVER VARIABLE COSTS		$		$	$
FIXED COSTS					
Machinery, equipment, fences		$65.10		$75.10	$
Interest, insurance on herd at 10%		108.20		108.20	
Bull depreciation/replacement		12.00		12.00	
TOTAL FIXED COSTS		$185.30		$195.30	$
TOTAL OF ALL COSTS		$888.96		$1,387.68	$
INCOME OVER ALL COSTS		$		$	$
Break-even selling price for variable costs per pound [b/]		$1.59		$1.44	$
Break-even selling price for all costs per pound [b/]		$2.08		$1.69	$

[a/] A cow-calf unit is 1 cow, 0.2 bred heifer, 0.9 calf, and 0.04 bull. Calf crop weaned of 92% of cows in herd, 20% replacement and 2% death rate on replacement heifers and cows are assumed.

[b/] Assumes yearly cull cow sales of $93.15.

Note: One pound of modified distiller grain contains the energy of 0.5 pound of corn and the protein of 0.36 pound of soybean meal.

Beef Cow-Calf Investment

1. Breeding herd investment per cow unit	
Beef cow	$850.00
Replacement heifer ($850 x 0.20 head per cow unit)	$160.00
Bull ($1,800 divided by 25 cows)	$72.00
Per cow unit	$1,082.00

2. Bull replacement cost per cow unit				
Bull cost,	minus cull value,	divided by cows,	divided by number of years	
$1,800	$900	25 cows	3 years	$12.00

3. Facilities and machinery investment (50-cow herd) (replacement cost)	
Utility tractor ($18,000 x 25% cow use)	$4,500
Hay moving equipment	$2,000
Handling facilities	$3,000
Fences ($94.00 per acre x 125 acres)	$11,750
Feeders and waterers	$2,000
Total	$23,250
Total investment per cow (50-cow herd)	$465
Depreciation, interest, taxes, insurance at 14% annually	$65

Ewe Flock — One Ewe [a/]

	Early Lambing (January-February)			Late Lambing (April-May)			Your Farm
INCOME	**Quantity**			**Quantity**			
Lambs (125 pounds x $_____/pound)	1.24	head	$	1.33	head	$	$
Cull ewes (150 pounds x $_____/pound)	0.15	head	$	0.15	head	$	$
Wool ($_____/pound)	9	pounds	$	11	pounds	$	$
GROSS INCOME			$			$	$
VARIABLE COSTS							
Feed Costs							
Corn at $4.24 per bushel	10	bushels	$42.40	8	bushels	$33.92	$
Supplement and minerals at $0.16 per pound	100	pounds	16.00	60	pounds	9.60	
Alfalfa - brome hay at $135.00 per ton	0.4	tons	54.00	0.3	tons	40.50	
Pasture at $56.00 per acre	0.2	acres	11.20	0.3	acres	16.80	
Pasture fertilizer, miscellaneous costs at $20.00 per acre	0.2	acres	4.00	0.3	acres	6.00	
Total Feed Costs			$127.60			$106.82	$
Veterinary, medical, shearing			$8.00			$9.00	$
Machinery and equipment operating			5.00			4.00	
Marketing and miscellaneous			5.00			5.00	
Interest on variable costs at 5%	6	months	3.64	6	months	3.12	
Labor at $15.20 per hour	5	hours	76.00	3	hours	45.60	
TOTAL VARIABLE COSTS			$225.24			$173.54	$
INCOME OVER VARIABLE COSTS			$			$	$
FIXED COSTS							
Machinery, equipment, housing, fencing			$15.40			$14.93	$
Interest, insurance on breeding flock at 10%			15.90			15.90	
Ram replacement			5.60			5.60	
TOTAL FIXED COSTS			$36.90			$36.43	$
TOTAL OF ALL COSTS			$262.14			$209.97	$
INCOME OVER ALL COSTS			$			$	$
Break-even selling price for variable costs per pound [b/]			$1.37			$0.97	$
Break-even selling price for all costs per pound [b/]			$1.61			$1.19	$

[a/] 160% (early) or 170% (late) lamb crop, 20% replacement rate. One unit includes one ewe, 0.2 replacement ewe, 1.6 lambs, and 0.04 ram.
Death loss of 10% for lambs weaned and 5% for ewes and ewe lambs assumed.
[b/] Assumes cull ewe income of $8.00 and wool income of $4.50 (early) or $5.50 (late) per unit.

Ewe Flock Investment

1. Breeding flock investment per ewe unit

Ewe	$125.00	
Replacement ewe lamb ($100.00 x 0.20 per ewe)	$20.00	
Ram ($350.00 divided by 25 ewes)	$14.00	
Total	$159.00	per unit

2. Ram replacement cost per ewe unit

Ram cost,	minus cull value,	divided by ewes,	divided by number of years		
$350.00	$70.00	25 ewes	2 years	$5.60	per unit

3. Facilities and machinery investment (150 ewes) (replacement cost)

	Early Lambing	Late Lambing
Utility tractor ($18,000 x 25% use for sheep)	$4,500	$4,500
Fences ($100.00 per acre x 30 acres (early) or 45 acres (late)	$3,000	$4,500
Feed storage	$2,000	$2,000
Barns, pens, feeders, etc.	$7,000	$5,000
Total	$16,500	$16,000
Total investment per ewe (150 ewe flock)	$110.00	$106.67
Depreciation, interest, taxes, insurance at 14% annually	$15.40	$14.93

Feeder Lamb — One Head

INCOME	**Quantity**		**Your Farm**
Lamb ($_____/pound)	125 pounds	$	$
Wool ($_____/pound)	3 pounds	$	$
GROSS INCOME		$	$
VARIABLE COSTS			
Feeder cost at $3.00 per pound	70 pounds	$210.00	$
Interest at 5%	100 days	2.88	
Feed Costs			
Corn at $4.24 per bushel	5.2 bushels	$21.96	$
Supplement and minerals at $0.16 per pound	32 pounds	5.12	
Alfalfa - brome hay at $135.00 per ton	35 pounds	2.36	
Total Feed Costs		$29.44	$
Veterinary, medical, shearing		$5.00	$
Machinery and equipment		1.00	
Marketing, miscellaneous		2.00	
Interest on variable costs at 5%	60 days	0.31	
Death loss [a/]		4.79	
Labor at $15.20 per hour	1 hour	15.20	
TOTAL VARIABLE COSTS		$270.61	$
INCOME OVER VARIABLE COSTS		$	$
FIXED COSTS			
Machinery, equipment, housing		$3.50	$
TOTAL OF ALL COSTS		$274.11	$
INCOME OVER ALL COSTS		$	$
Break-even selling price for variable costs per pound [a/]		$2.14	$
Break-even selling price for all costs per pound [a/]		$2.17	$

[a/] Assumes wool income of $3.00 per head and death loss of 2%.

Lamb Feed Requirements

Table 1. Feed Requirement and Portion of Year on Feed to Finish Lamb to 110 pounds

Beginning Weight of Feeder, pound	Corn		Supplement (32-36%), pound	Hay, pounds	Days on feed	Pounds of feed per pound of gain
	Bushels	Pounds				
60	3.60	202	39	35	100	5.50
65	3.37	189	34	30	90	5.65
70	3.12	175	29	25	80	5.70
75	2.81	157	24	22	70	5.85
80	2.50	140	19	18	60	5.90
85	2.16	121	15	14	50	6.05

Table 2. Approximate Feed Requirement When Feeding Complete Pelleted Rations

Beginning Weight of Feeder, pound	Pounds of feed per pound of gain	Complete Feed-pelleted (pounds)	Time on Feed	
			Days	Portion of year
60	5.70	285	90	0.25
65	5.80	261	82	0.22
70	5.90	236	73	0.20
75	6.00	210	64	0.18
80	6.10	183	55	0.15
85	6.20	155	45	0.12

Table 3. Approximate Feed Requirement When Feeding Low Roughage

Mainly Corn and Supplement Rations

Beginning Weight of Feeder, pound	Roughage	Grain	Supplement	Time on Feed	
				Days	Portion of year
75	15	158	24	67	0.18
80	13	139	19	58	0.16
85	10	120	15	48	0.13