

Cow-Calf Production Budgets

Dr. Walt Prevatt
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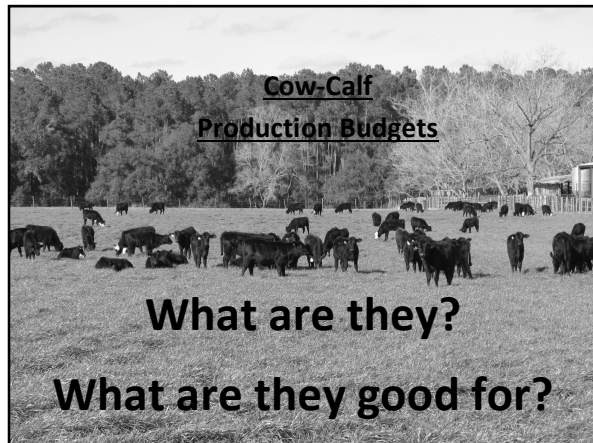
Florida Cattlemen's Institute and Allied Trade Show
January 26, 2012

Thank You For Inviting Me!

My goal today is to speak
the "economic truth" about
cow-calf production budgets.

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Cow-Calf Production Budgets



Pointers on Measuring Cow-Calf Costs & Returns

Measuring Cow-Calf Costs & Returns Budgets

Returns Over Cash Expenses (ROCE) =
(Gross Revenue – Cash Expenses)

Measuring Cow-Calf Costs & Returns Budgets

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Net Farm Income (NFI) =
(ROCE – Depreciation +/- Inventory Adj.)

Measuring Cow-Calf Costs & Returns Budgets

Returns Over Cash Expenses (ROCE) =
(Gross Revenue – Cash Expenses)

Net Farm Income (NFI) =
(ROCE – Depreciation +/- Inventory Adj.)

Net Income (NI) =
(NFI – Opport. Costs of Labor/Mgt. & Owned Assets)

Cow-Calf Production Budgets



"Net Farm Income" From The Cow-Calf Enterprise (AFBAA)

Cow-Calf Costs & Returns Budgets

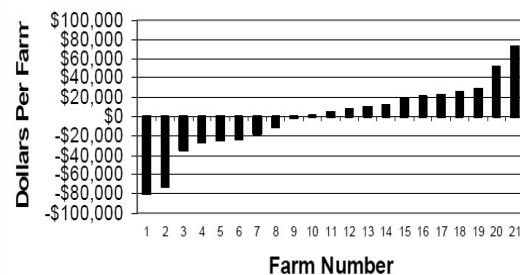
A Closer Look At "Net Farm Income" For 21 Alabama Cow-Calf Operations

Paper:

http://www.aces.edu/timelyinfo/Ag&NatResEcon/2004/November/TI_A_Closer_Look_At_Net_Farm_Income_10_29_04.pdf

[Alabama Farm Business Analysis Association]

Figure 1. Cow-Calf Net Farm Income, Alabama, 2003



Factor	Average Estimate	Level of Variation	Coefficient of Variation
Calf Price, \$/Cwt.	\$85	Low	0.14
Calf Weight, Pounds/Calf	560	Low	0.17
Calving Percent, %	82%	Low	0.25
Herd Size, Cows	147	Moderate	0.70
Other Operating Cost, \$/Cow	\$630	Moderate	0.70
Culling Percent, %	11%	Moderate	0.71
Hay Cost, \$/Cow	\$127	Moderate	0.76
Depreciation Cost, \$/Cow	\$85	High	1.19
Grazing Cost, \$/Cow	\$53	High	1.35
Other Feed Cost, \$/Cow	\$62	High	1.47

Item	Net Farm Income			Overall Average
	Lower One-Third	Middle One-Third	Upper One-Third	
Calf Price, \$/Cwt.	\$84	\$88	\$82	\$85
Calf Weight, Pounds/Calf	578	524	579	560
Calving Percent, %	78%	80%	87%	82%
Herd Size, Cows	103	107	230	147
Other Operating Cost, \$/Cow	\$982	\$527	\$381	\$630
Culling Percent, %	13%	7%	13%	11%
Hay Cost, \$/Cow	\$192	\$97	\$93	\$127
Depreciation, \$/Cow	\$143	\$40	\$71	\$85
Grazing Cost, \$/Cow	\$76	\$43	\$39	\$53
Other Feed Cost, \$/Cow	\$105	\$41	\$39	\$62
Net Farm Income, \$/Cow	-\$522	\$25	\$154	-\$114

Table 2. A Comparison Of The Factors Affecting Net Farm Income of 21 Cow-Calf Farms, 2003.

Item	Net Farm Income			Overall Average
	Lower One-Third	Middle One-Third	Upper One-Third	
Calf Price, \$/Cwt.	\$84	\$88	\$82	\$85
Calf Weight, Pounds/Calf	578	524	579	560
Calving Percent, %	78%	80%	87%	82%
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Cow-Calf Production Budgets



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IRS Form 1040, Schedule F (Costs & Returns Budget?)

Cow-Calf Costs & Returns Budgets

**IRS Form 1040 - Schedule F
is an example of a costs and
returns budget.**

SCHEDULE F (Form 1040)		Profit or Loss From Farming		OMB No. 1545-0074 2009 Attachment Sequence No. 14	
Department of the Treasury Internal Revenue Service (500)		▶ Attach to Form 1040, Form 1040NR, Form 1041, Form 1065, or Form 1065-B. ▶ See Instructions for Schedule F (Form 1040).		Social security number (SSN)	
Name of proprietor		Principal product. Describe in one or two words your principal crop or activity for the current tax year.		Enter code from Part IV	
C Accounting method: (1) <input type="checkbox"/> Cash (2) <input type="checkbox"/> Accrual		D Did you "materially participate" in the operation of this business during 2009? If "No," see page F-2 for limit on passive losses. Yes <input type="checkbox"/> No <input type="checkbox"/>		Employer ID number (EIN), if any	
Part I Farm Income—Cash Method. Complete Parts I and II (Accrual method. Complete Parts II and III, and Part I, line 11.) Do not include sales of livestock held for draft, breeding, sport, or dairy purposes. Report these sales on Form 4797.					
1	Sales of livestock and other items you bought for resale	1		3	
2	Cost or other basis of livestock and other items reported on line 1	2		4	
3	Subtract line 2 from line 1	3		5a	
4	Sales of livestock, products, grains, and other products you raised	4		5b	
5a	Cooperative distributions (Form 1099-PATR)	5a		5b	
5b	Agricultural program payments (see page F-3)	5b		6a	
6	Commodity Credit Corporation (CCC) loans (see page F-3):	6		7a	
a	CCC loans reported under election	7a		7b	
b	CCC loans forfeited	7b		7c	
8	Crop insurance proceeds and federal crop disaster payments (see page F-3):	8		8b	
a	Amount received in 2009	8a		8b	
c	If election to defer to 2010 is attached, check here	8c		8d	
9	Custom hire (machine work) income	9		10	
10	Other income, including federal and state gasoline or fuel tax credit or refund (see page F-3)	10		11	
11	Gross income. Add amounts in the right column for lines 3 through 10. If you use the accrual method to figure your income, enter the amount from Part III, line 51	11			
Part II Farm Expenses—Cash and Accrual Method. Do not include personal or living expenses such as taxes, insurance, or repairs on your home.					
12	Car and truck expenses (see page F-3). Also attach Form 4562	12		25	
13	Chemicals	13		26	
14	Conservation expenses (see page F-3)	14		27	
				28	
				29	

Cow-Calf Costs & Returns Budgets

**IRS Form 1040 - Schedule F
is an example of a costs and
returns budget.**

How many of you will have a positive number at the bottom of your 2011 Schedule F (line 36)?

Cow-Calf Costs & Returns Budgets

**IRS Form 1040 - Schedule F
is an example of a costs and
returns budget.**

How many of you will have a positive number at the bottom of your 2011 Schedule F (line 36)?

What does this mean?

Cow-Calf Costs & Returns Budgets

IRS Form 1040 - Schedule F is an example of a costs and returns budget.

How many years out of the last ten years have you had
a positive number at the bottom of your Schedule F ?

What does this mean?

Cow-Calf Production Budgets



Computer Spreadsheet Generated Cow-Calf Costs & Returns Budget

Cow-Calf Costs & Returns Budgets

Beef Cow-Calf Enterprise Budget DAERS 11-1, February 2011

Paper:

http://www.aces.edu/timelyinfo/Ag&NatResEcon/2011/February/feb_22_2011.pdf

Spreadsheet:

<http://www.ag.auburn.edu/agec/pubs/budgets/>

Cow-Calf Costs & Returns Budgets

Beef Cow-Calf Enterprise Budget DAERS 11-1, February 2011

- 1) Breeding information
- 2) Performance information
- 3) Market price information
- 4) Pasture information
- 5) Purchased feed information
- 6) Machinery & equipment information
- 7) Animal health information
- 8) Farm buildings/improvements information
- 9) Miscellaneous farm information

Beef Cow Enterprise Budget

Grass Valley Cattle Farm												
Cow-Calf Enterprise Sensitivity Budget,				Fall	Calving, Alabama,	2011						
A Returns Per Cow Per Year												
A 1 Weaning percent	70%	70%	70%	80%	80%	80%	90%	90%	90%			
A 2 Average calf weight, lbs./calf	460	575	690	460	575	690	460	575	690			
A 3 Total calf weight, lbs.	22,540	28,175	33,810	25,760	32,200	38,640	28,980	36,225	43,470			
A 4 Average calf weight, lbs./cow-unit	322	403	483	368	460	552	414	518	621			
A 5 Average calf price, \$/lb.	\$1.40	\$1.28	\$1.19	\$1.40	\$1.28	\$1.19	\$1.40	\$1.28	\$1.19			
A 6 Total cull cow weight, lbs.	10,780	10,780	10,780	10,780	10,780	10,780	10,780	10,780	10,780			
A 7 Average cull cow weight, lbs./cow	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100			
A 8 Average cull cow price, \$/lb.	154	154	154	154	154	154	154	154	154			
A 9 Average cull cow price, \$/lb.	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65			
A 10 Gross returns, total \$	\$38,563	\$42,930	\$47,072	\$43,071	\$48,062	\$52,795	\$47,579	\$53,194	\$58,519			
A 11 Average calf return, \$/cow-unit	\$450.80	\$513.19	\$572.36	\$515.20	\$566.50	\$624.12	\$579.60	\$639.81	\$735.89			
A 12 Average cull cow return, \$/cow-unit	\$100.10	\$100.10	\$100.10	\$100.10	\$100.10	\$100.10	\$100.10	\$100.10	\$100.10			
A 13 Gross returns, \$ per cow-unit	\$550.90	\$613.29	\$672.46	\$615.30	\$666.60	\$724.22	\$679.70	\$739.91	\$835.99			

Beef Cow Enterprise Budget

A Returns Per Cow Per Year												
A 1 Weaning percent				90%	90%	90%						
A 2 Average calf weight, lbs./calf				460	575	690						
A 3 Total calf weight, lbs.				28,980	36,225	43,470						
A 4 Average calf weight, lbs./cow-unit				414	518	621						
A 5 Average calf price, \$/lb.				\$1.40	\$1.28	\$1.19						
A 6 Total cull cow weight, lbs.				10,780	10,780	10,780						
A 7 Average cull cow weight, lbs./cow				1,100	1,100	1,100						
A 8 Average cull cow weight, lbs./cow-unit				154	154	154						
A 9 Average cull cow price, \$/lb.				\$0.65	\$0.65	\$0.65						
A 10 Gross returns, total \$				\$47,579	\$53,194	\$58,519						
A 11 Average calf return, \$/cow-unit				\$579.60	\$639.81	\$735.89						
A 12 Average cull cow return, \$/cow-unit				\$100.10	\$100.10	\$100.10						
A 13 Gross returns, \$ per cow-unit				\$679.70	\$739.91	\$835.99						

Beef Cow Enterprise Budget

B Costs Per Cow Per Year			
B 1	Pasture	\$77.14	\$77.14
B 2	Purchased feed	\$146.15	\$146.15
B 3	Machinery & equipment	\$71.93	\$71.93
B 4	Animal health	\$40.47	\$40.47
B 5	Buildings/Improvements/Facilities-DIRT	\$18.75	\$18.75
B 6	Buildings/Improvements/Facilities-Interest	\$10.71	\$10.71
B 7	Management	\$8.57	\$8.57
B 8	Labor	\$21.43	\$21.43
B 9	Custom hire	\$5.14	\$5.14
B 10	Farm records	\$3.86	\$3.86
B 11	Professional fees	\$5.71	\$5.71
B 12	Utilities	\$5.21	\$5.21
B 13	Marketing fees	\$27.19	\$30.40
B 14	Supplies	\$0.00	\$0.00
B 15	Replacement heifer capital cost	\$210.00	\$210.00
B 16	Annual bull cost depreciation	\$15.00	\$15.00
B 17	Interest on breeding stock capital	\$37.95	\$37.95
B 18	Insurance & Tax on breeding stock	\$3.16	\$3.16
B 19	Interest on operating cost ¹	\$19.48	\$19.57
B 20	Cost per cow per year	\$727.87	\$731.16

Beef Cow Enterprise Budget

C	Returns Over Total Costs Per Cow Per Year	-\$48.17	\$28.75	\$101.70
D	Average Feeder Calf Price Needed Per Cwt.			
D 1	To Cover Feed Costs, \$/cwt.	\$53.93	\$43.15	\$35.96
D 2	To Cover Total Costs, \$/cwt.	\$151.63	\$121.94	\$102.12
E	Asset Turnover Ratio (A/Investment) ²	44%	49%	54%
F	Net Return on Investment	1.3%	6.3%	11.0%
	((C + B17 + B28 + B30)/Investment) ³			

Cow-Calf Production Budgets



Computer Spreadsheet Breakeven Price and Profit Calculator

Cow-Calf Costs & Returns Budgets

**How Not To Go Broke In The Cow-Calf
Business: Lower Your Unit Cost of Production
(UCOP)**

DAERS 12-1, January 2012

Paper:

<http://www.aces.edu/timelyinfo/#AgEcon>

Unit Cost of Production - UCOP (Cost Per Pound of Calf Production)

$$\text{UCOP (\$/Lb.)} = \frac{\text{Total Production Expenses} - \text{Cull Cow/Bull Revenue}}{\text{Total Pounds of Calf Production}}$$

Table 1. Breakeven feeder calf prices for various weaning weights, weaning percentages, and production costs.*

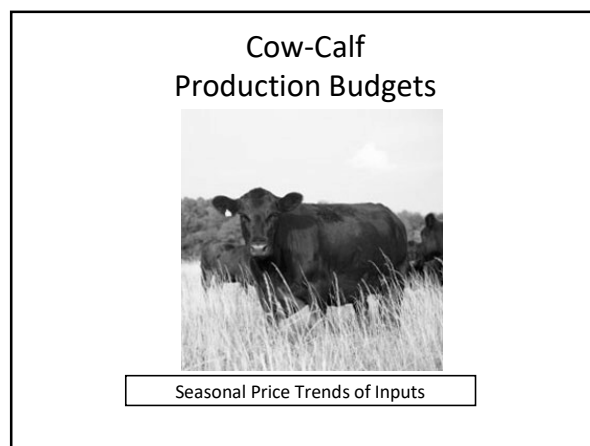
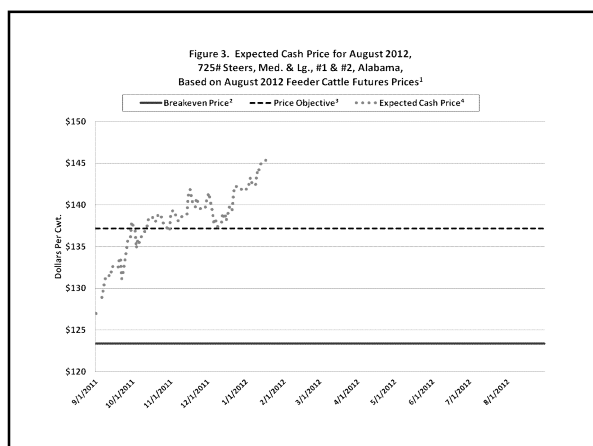
Weaning Weight	Weaning Percent	Calf Prod. /Brd. Cow
Lbs.	%	Lbs./Cow
450	75%	338
500	75%	375
550	75%	413
600	75%	450
450	80%	360
500	80%	400
550	80%	440
600	80%	480
450	85%	383
500	85%	425
550	85%	468
600	85%	510
450	90%	405
500	90%	450
550	90%	495
600	90%	540

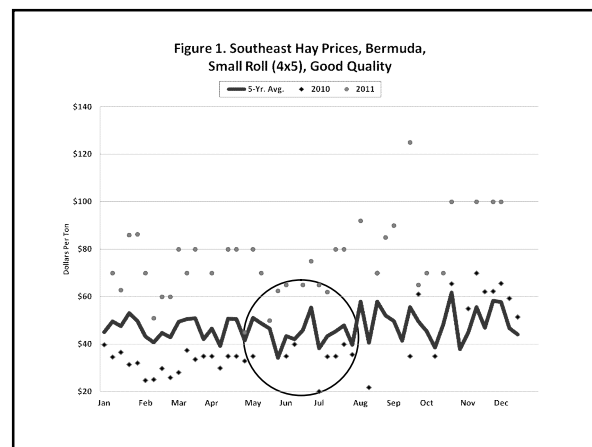
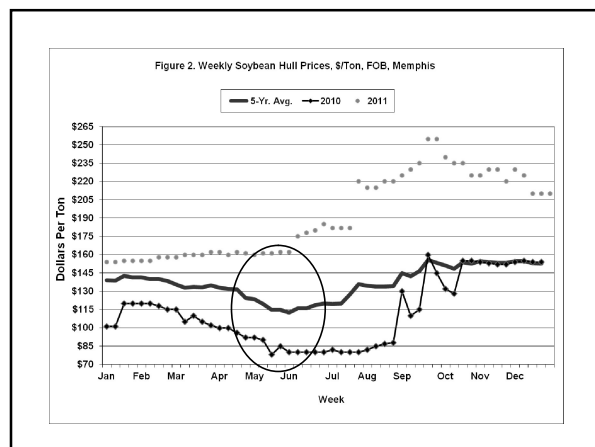
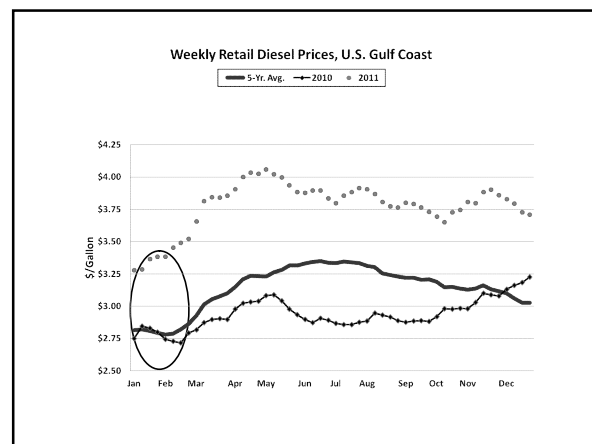
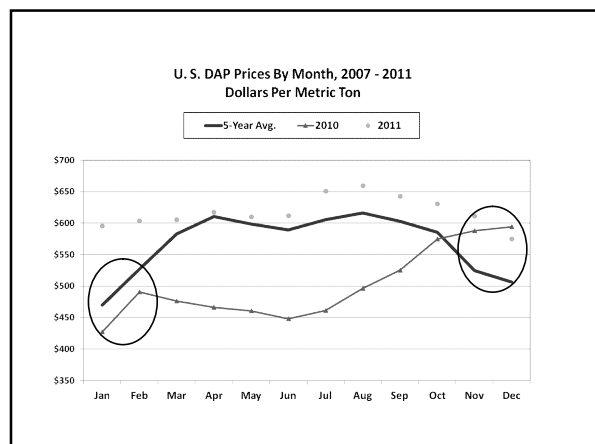
Weaning Weight	Weaning Percent	Calf Prod./Brd. Cow	Production Costs Per Brood Cow						
			\$400	\$500	\$600	\$700	\$800	\$900	\$1,000
Lbs.	%	Lbs./Cow	Breakeven Feeder Calf Price, \$/Lb.						
450	75%	338							
500	75%	375							
550	75%	413							
600	75%	450							
450	80%	360							
500	80%	400							
550	80%	440							
600	80%	480							
450	85%	383							
500	85%	425							
550	85%	468							
600	85%	510							
450	90%	405							
500	90%	450							
550	90%	495							
600	90%	540							

Weaning Weight	Weaning Percent	Calf Prod. /Brd. Cow	Production Costs Per Brood Cow*						
			\$400	\$500	\$600	\$700	\$800	\$900	\$1,000
Lbs.	%	Lbs./Cow	Breakeven Feeder Calf Price, \$/Lb.						
450	75%	338	\$1.19	\$1.48	\$1.78	\$2.07	\$2.37	\$2.67	\$2.96
500	75%	375	\$1.07	\$1.33	\$1.60	\$1.87	\$2.13	\$2.40	\$2.67
550	75%	413	\$0.97	\$1.21	\$1.45	\$1.70	\$1.94	\$2.18	\$2.42
600	75%	450	\$0.89	\$1.11	\$1.33	\$1.56	\$1.78	\$2.00	\$2.22
450	80%	360	\$1.11	\$1.39	\$1.67	\$1.94	\$2.22	\$2.50	\$2.78
500	80%	400	\$1.00	\$1.25	\$1.50	\$1.75	\$2.00	\$2.25	\$2.50
550	80%	440	\$0.91	\$1.14	\$1.36	\$1.59	\$1.82	\$2.05	\$2.27
600	80%	480	\$0.83	\$1.04	\$1.25	\$1.46	\$1.67	\$1.88	\$2.08
450	85%	383	\$1.05	\$1.31	\$1.57	\$1.83	\$2.09	\$2.35	\$2.61
500	85%	425	\$0.94	\$1.18	\$1.41	\$1.65	\$1.88	\$2.12	\$2.35
550	85%	468	\$0.86	\$1.07	\$1.28	\$1.50	\$1.71	\$1.93	\$2.14
600	85%	510	\$0.78	\$0.98	\$1.18	\$1.37	\$1.57	\$1.76	\$1.96
450	90%	405	\$0.99	\$1.23	\$1.48	\$1.73	\$1.98	\$2.22	\$2.47
500	90%	450	\$0.89	\$1.11	\$1.33	\$1.56	\$1.78	\$2.00	\$2.22
550	90%	495	\$0.81	\$1.01	\$1.21	\$1.41	\$1.62	\$1.82	\$2.02
600	90%	540	\$0.74	\$0.93	\$1.11	\$1.30	\$1.48	\$1.67	\$1.85

Weaning Weight	Weaning Percent	Calf Prod./Brd. Cow	Production Costs Per Brood Cow*							2012 Projected Average Price
			\$400	\$500	\$600	\$700	\$800	\$900	\$1,000	
Lbs.	%	Lbs./Cow	Breakeven Feeder Calf Price, \$/Lb.							\$/Lb.
450	75%	338	\$1.19	\$1.48	\$1.78	\$2.07	\$2.37	\$2.67	\$2.96	\$1.55
500	75%	375	\$1.07	\$1.33	\$1.60	\$1.87	\$2.13	\$2.40	\$2.67	\$1.46
550	75%	413	\$0.97	\$1.21	\$1.45	\$1.70	\$1.94	\$2.18	\$2.42	\$1.40
600	75%	450	\$0.89	\$1.11	\$1.33	\$1.56	\$1.78	\$2.00	\$2.22	\$1.35
450	80%	360	\$1.11	\$1.39	\$1.67	\$1.94	\$2.22	\$2.50	\$2.78	\$1.55
500	80%	400	\$1.00	\$1.25	\$1.50	\$1.75	\$2.00	\$2.25	\$2.50	\$1.46
550	80%	440	\$0.91	\$1.14	\$1.36	\$1.59	\$1.82	\$2.05	\$2.27	\$1.40
600	80%	480	\$0.83	\$1.04	\$1.25	\$1.46	\$1.67	\$1.88	\$2.08	\$1.35
450	85%	383	\$1.05	\$1.31	\$1.57	\$1.83	\$2.09	\$2.35	\$2.61	\$1.55
500	85%	425	\$0.94	\$1.18	\$1.41	\$1.65	\$1.88	\$2.12	\$2.35	\$1.46
550	85%	468	\$0.86	\$1.07	\$1.28	\$1.50	\$1.71	\$1.93	\$2.14	\$1.40
600	85%	510	\$0.78	\$0.98	\$1.18	\$1.37	\$1.57	\$1.76	\$1.96	\$1.35
450	90%	405	\$0.99	\$1.23	\$1.48	\$1.73	\$1.98	\$2.22	\$2.47	\$1.55
500	90%	450	\$0.89	\$1.11	\$1.33	\$1.56	\$1.78	\$2.00	\$2.22	\$1.46
550	90%	495	\$0.81	\$1.01	\$1.21	\$1.41	\$1.62	\$1.82	\$2.02	\$1.40
600	90%	540	\$0.74	\$0.93	\$1.11	\$1.30	\$1.48	\$1.67	\$1.85	\$1.35

Weaning Weight	Weaning Percent	Calf Prod. /Brd. Cow	Production Costs Per Brood Cow*							2012 Projected Average Price
			\$400	\$500	\$600	\$700	\$800	\$900	\$1,000	
Lbs.	%	Lbs./Cow	Estimated Profit Per Cow, \$/Hd.							\$/Lb.
450	75%	338	\$123	\$23	(\$77)	(\$177)	(\$277)	(\$377)	(\$477)	\$1.55
500	75%	375	\$148	\$48	(\$53)	(\$153)	(\$253)	(\$353)	(\$453)	\$1.46
550	75%	413	\$178	\$78	(\$23)	(\$123)	(\$223)	(\$323)	(\$423)	\$1.40
600	75%	450	\$208	\$108	\$8	(\$93)	(\$193)	(\$293)	(\$393)	\$1.35
450	80%	360	\$158	\$58	(\$42)	(\$142)	(\$242)	(\$342)	(\$442)	\$1.55
500	80%	400	\$184	\$84	(\$16)	(\$116)	(\$216)	(\$316)	(\$416)	\$1.46
550	80%	440	\$216	\$116	\$16	(\$84)	(\$184)	(\$284)	(\$384)	\$1.40
600	80%	480	\$248	\$148	\$48	(\$52)	(\$152)	(\$252)	(\$352)	\$1.35
450	85%	383	\$193	\$93	(\$7)	(\$107)	(\$207)	(\$307)	(\$407)	\$1.55
500	85%	425	\$221	\$121	\$21	(\$79)	(\$180)	(\$280)	(\$380)	\$1.46
550	85%	468	\$255	\$155	\$55	(\$45)	(\$146)	(\$246)	(\$346)	\$1.40
600	85%	510	\$289	\$189	\$89	(\$11)	(\$112)	(\$212)	(\$312)	\$1.35
450	90%	405	\$228	\$128	\$28	(\$72)	(\$172)	(\$272)	(\$372)	\$1.55
500	90%	450	\$257	\$157	\$57	(\$43)	(\$143)	(\$243)	(\$343)	\$1.46
550	90%	495	\$293	\$193	\$93	(\$7)	(\$107)	(\$207)	(\$307)	\$1.40
600	90%	540	\$329	\$229	\$129	\$29	(\$71)	(\$171)	(\$271)	\$1.35





Cow-Calf Production Budgets

Have you bought a ticket to be in the cow-calf business?

Walt's Top 21 Cow-Calf Profitability Axioms

1. Determine profitability goals and objectives of your cow-calf operation.
2. Assess whether your profitability goals and objectives are realistic.
3. Be a business manager – measure costs, cattle and forage production, profits, time, and taxes.
4. Get the grazing system right – maximize the number of grazing days.
5. Get the calving season right – make the best use of grass to produce a quality animal for an acceptable market.
6. Get the size of cow right –
7. Get hybrid vigor from animal selection –
8. Get the nutrition program and body condition of cows right -
9. Constantly seek out ways to increase your grazing days and grass quality.
10. Implement a rotational grazing program (one electric hi-tensil wire).
11. Sparingly use the 4 Fs (feed, fertilizer, fuel, & folks) unless they are free.
12. Minimize capital investments.

Walt's Top 21 Cow-Calf Profitability Axioms

13. Implement a herd health program.
14. Add value to feeder calves (castrate, dehorn, deworm, implant, etc.).
15. Market feeder calves in economic packages, 50,000 lbs. (cooperate with others if needed).
16. Be prepared to retain ownership after weaning the calf to benefit from profit opportunities.
17. Market cull animals to receive price premiums.
18. Monitor market prices daily and use market price protection when warranted.
19. Diversify cow-calf operation with other enterprises (broilers, crops, hunting, timber, off-farm job, etc.) to reduce risk.
20. Share labor, equipment, and knowledge with your friends.
21. Have an "Exit Plan" that describes how and when to exit the cow-calf business. (Do your family a favor!)

Thank You For
Your Attention
Do You Have
Any Questions?

Cow-Calf Production Budgets

Dr. Walt Prevatt
Agricultural Economist
Auburn University

Florida Cattlemen's Institute and Allied Trade Show
January 26, 2012

Cow-Calf Production Budgets



Pops said, "When you are self-employed,
you get paid what you are worth!"