



# Current Report

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## Visicalc Program to Evaluate Profitability of Preconditioning Calves OSU PRECON

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OSU PRECON is designed to evaluate the economics of preconditioning programs for weaned calves. The user can input expenses for vaccines, feed, labor, etc. and compute the breakeven prices, sale weights and profit or loss based on expected sale weights. The program is written using Visicalc, an electronic spreadsheet. Use of this template requires the purchase of an electronic spreadsheet for the user's computer. This publication describes the program and explains output from it. Necessary equations for entering the program from the keyboard are shown.

Preconditioning programs usually involve a period of feeding between weaning and sale time. Certain vaccinations and health procedures are frequently a requirement to participate in preconditioned feeder calf sales. Requirements for type and amount of feed during the preconditioning period vary from sale to sale. It is critical, therefore, to be able to estimate the sale price and rate of gain needed to insure a profit. OSU PRECON allows rapid evaluation of different management strategies in order to find the most profitable combination of inputs.

Table 1 shows a printout from the program. Inputs are intended to be only those that are encountered as a result of the preconditioning program. Inputs are explained below. Note: Do not make entries in the TOTAL COST column or in the ANALYSIS portion of the program. These values are calculated by the program and any keyboard entry will erase the equation used in that slot.

1. Cattle interest rate (%). This assumes that interest will be charged for the value of the calf at weaning during the preconditioning period.
2. Vaccines, broken down to those required by the rules of the sale and any others that might be desirable but not required to meet sale rules. There are 4 slots for mandatory and 3 slots for optional vaccines.
3. Cost of deworming.
4. Cost of any grub treatments.
5. Expected death loss during the preconditioning period that would not have been encountered had the calves been sold at weaning.

6. Labor, (\$/head), for processing, feeding, etc during preconditioning.
7. Marketing costs. There may be no charge for marketing if the sales commission is not different from what would have been charged at weaning. Be sure to consider the heavier weight of preconditioned calves when commissions are charged on a weight basis.
8. Hay costs. Enter cost/ton, consumption/day and number of days the hay is fed. The program will calculate the total hay cost.
9. Preconditioning feed costs. Same procedure as for entering hay costs.
10. Miscellaneous costs/head. Enter any other costs not covered above.
11. Operating interest rate (%). The program will calculate operating interest based on this rate.
12. Estimated sale prices. This is a "lookup" table. Enter the expected sale prices for calves at each weight. Since prices usually fluctuate with cattle weights, increases in calf weight during the preconditioning period can greatly affect the value of added gain during preconditioning. You may change both weights and prices. When the program calculates final calf weights it will "lookup" the correct sale price in this table.

### ANALYSIS OF PROGRAM DEPENDING ON RATE OF GAIN

This part of the program calculates sale weights, breakeven prices, and profit or loss at projected sale prices set in the "lookup" table. These values are projected from rates of gain between 0.5 and 3.0 lb/day. Rate of gain is the only column that can be changed from the keyboard. Rate of gain (along with sale price) is the most important factor in determining profitability of preconditioning programs. If the user is unsure about which rate of gain to expect from his feeding system, he should consult his extension specialist or feed dealer who has had experience with this kind of feeding program.

This computer program, like all others, will generate answers from about any inputs. For the output to be meaningful, the inputs must be realistic and the interpretation must be correct.

Appendix I. Listing of program statements for OSU PRECON  
with heading statements deleted.

```

>F56: ((C56*E56/100)-(D8*D7/100)-E40      >D30:30
>E56:@LOOKUP(C56,G23...G31                >H29:67
>D56: ((D7*D8/100)+E40/(C56/100))        >G29:650
>C56: ((D8+(D9*A56))                      >D29:15
>A56:3                                       >H28:67.5
>F55: ((C55*E55/100)-(D8*D7/100)-E40      >G28:600
>E55:@LOOKUP(C55,G23...G31                >D28:50
>D55: ((D7*D8/100)+E40/(C55/100))        >H27:68
>C55: ((D8+(D9*A55))                      >G27:550
>A55:2.75                                       >E27:(D27)
>F54: ((C54*E54/100)-(D8*D7/100)-E40      >D27:0
>E54:@LOOKUP(C54,G23...G31                >H26:68.5
>D54: ((D7*D8/100)+E40/(C54/100))        >G26:500
>C54: ((D8+(D9*A54))                      >E26:+D5/1
>A54:2.5                                       >D26:1
>F53: ((C53*E53/100)-(D8*D7/100)-E40      >H25:69
>E53:@LOOKUP(C53,G23...G31                >G25:450
>D53: ((D7*D8/100)+E40/(C53/100))        >E25: ((D8/100*D7)*(D25/100))
>C53: ((D8+(D9*A53))                      >D25:.5
>A53:2.25                                       >H24:69.5
>F52: ((C52*E52/100)-(D8*D7/100)-E40      >G24:400
>E52:@LOOKUP(C52,G23...G31                >E24:+D24/1
>D52: ((D7*D8/100)+E40/(C52/100))        >D24:.65
>C52: ((D8+(D9*A52))                      >H23:71.5
>A52:2                                       >G23:350
>F51: ((C51*E51/100)-(D8*D7/100)-E40      >E23:+D23/1
>E51:@LOOKUP(C51,G23...G31                >D23:1.25
>D51: ((D7*D8/100)+E40/(C51/100))        >E22:+D22/1
>C51: ((D8+(D9*A51))                      >E21:+D21/1
>A51:1.75                                       >D21:0
>F50: ((C50*E50/100)-(D8*D7/100)-E40      >E20:+D20/1
>E50:@LOOKUP(C50,G23...G31                >D20:0
>D50: ((D7*D8/100)+E40/(C50/100))        >E18:+D18/1
>C50: ((D8+(D9*A50))                      >E17:+D17/1
>A50:1.5                                       >E16:+D16/1
>F49: ((C49*E49/100)-(D8*D7/100)-E40      >D16:.35
>E49:@LOOKUP(C49,G23...G31                >E15:+D15/1
>D49: ((D7*D8/100)+E40/(C49/100))        >D15:1.5
>C49: ((D8+(D9*A49))                      >E13: ((D7/100)*D8*(D13/100)*(D9/360))
>A49:1.25                                       >D13:13.5
>F48: ((C48*E48/100)-(D8*D7/100)-E40      >D9:30
>E48:@LOOKUP(C48,G23...G31                >D8:450
>D48: ((D7*D8/100)+E40/(C48/100))        >D7:64
>C48: ((D8+(D9*A48))                      /W1
>A48:1                                       /GOR
>F47: ((C47*E47/100)-(D8*D7/100)-E40      /GRM
>E47:@LOOKUP(C47,G23...G31                /GF$
>D47: ((D7*D8/100)+E40/(C47/100))        /GC9
>C47: ((D8+(D9*A47))                      /X>A1:>A1:
>A47:.75
>F46: ((C46*E46/100)-(D8*D7/100)-E40
>E46:@LOOKUP(C46,G23...G31
>D46: ((D7*D8/100)+E40/(C46/100))
>C46: ((D8+(D9*A46))
>A46:.5
>E40:@SUM(E15...E38)
>E38:@SUM(E15...E36)*(D37/100)*(D9/360)
>D38:"*****"
>D37:12.5
>E36:+D36/1
>D36:2
>E35: ((D32/2000)*D33*D34)
>D35:"*****"
>C35:" /HEAD *
>D34:30
>D33:1.5
>D32:220
>H31:66
>G31:750
>E31: ((D28/2000)*D29*D30)
>D31:"*****"
>H30:66.5
>G30:700

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Table 1.

	A	B	C	D	E	F	G	H
1>								
2>								
3>	LIST ONLY THOSE COSTS THAT WILL OCCUR AS A RESULT OF PRECONDITIONING.							
4>								
5>					INPUTS			
6>					(ENTER)			
7>					EST. VALUE/CWT AT WEANING	64.00		
8>					WEANING PAY WT.	450.00		
9>					DAYS OF PRECONDITIONING	30.00		
10>	-----							
11>					INPUTS	TOTAL COST		
12>					(ENTER)	(DO NOT ENTER)		
13>					CATTLE INTEREST (RATE) %	13.50	3.24	
14>					VACCINES, (MANDATORY (\$)/HD			
15>					IBR,PI-3,LEPTO	1.50	1.50	
16>					BLACKLEG-2 WAY	0.35	0.35	
17>					OTHER		0.00	
18>					OTHER		0.00	
19>					VACCINES, OPTIONAL (\$)/HEAD			ESTIMATED
20>					BVD	0.00	0.00	SALE PRICES
21>					HAEMOPHILUS SOMNUS	0.00	0.00	(ENTER)
22>					OTHER		0.00	-----
23>					DEWORMING, (\$)/HEAD	1.25	1.25	WT. \$/CWT.
24>					GRUBICIDE, (\$)/HEAD	0.65	0.65	350.00 71.50
25>					DEATH LOSS (%)	0.50	1.44	400.00 69.50
26>					LABOR, (\$)/HEAD	1.00	0.00	450.00 69.00
27>					MARKETING COST, \$/HEAD	0.00	0.00	500.00 68.50
28>					HAY COST (\$)/TON	50.00		550.00 68.00
29>					LB. HAY/HEAD/DAY	15.00		600.00 67.50
30>					NO. DAYS, HAY IS FED	30.00		650.00 67.00
31>					TOTAL HAY COST/HEAD *	*****	11.25	700.00 66.50
32>					PRECOND. FEED (\$)/TON	220.00		750.00 66.00
33>					LB. PRECOND. FEED/HEAD/DAY	1.50		
34>					NO. DAYS, PRECOND. FED	30.00		
35>					PRECOND. FEED COST /HEAD *	*****	4.95	
36>					MISCELLANEOUS (\$/HEAD)	2.00	2.00	
37>					OPERATING INTEREST RATE (%)	12.50		
38>					OPERATING INTEREST, TOTAL	*****	0.24	
39>								
40>					TOTAL \$		23.63	
41>								
42>	ANALYSIS OF PROGRAM DEPENDING ON ESTIMATED RATE OF GAIN.							
43>	-----							
44>					SALE		SALE	
45>					RATE OF GAIN (#)	PAY WT. BREAKEVEN	PRICE	PROFIT
46>					0.50	465.00 67.02	69.00	9.22
47>					0.75	472.50 65.95	69.00	14.39
48>					1.00	480.00 64.92	69.00	19.57
49>					1.25	487.50 63.92	69.00	24.74
50>					1.50	495.00 62.96	69.00	29.92
51>					1.75	502.50 62.02	68.50	32.58
52>					2.00	510.00 61.10	68.50	37.72
53>					2.25	517.50 60.22	68.50	42.85
54>					2.50	525.00 59.36	68.50	47.99
55>					2.75	532.50 58.52	68.50	53.13
56>					3.00	540.00 57.71	68.50	58.27
57>	file name is PRECON. Developed by Dr. Keith Lusby, Extension Beef							
58>	Cattle Specialist, Okla. St. Univ. and Kent Barnes, Area							
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