

EVALUATING MANAGEMENT DECISIONS

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INTRODUCTION

One of the main reasons for entering ranch information in a spreadsheet template is to easily evaluate management decisions. A few numbers related to different management decisions can be changed and the computer can instantly provide answers about economic consequences that would most likely take hours to do by hand. This article presents a couple examples on how the ranch financial analysis spreadsheet can be used to evaluate the economic returns of different management decisions. We illustrate how the computer can be used as a tool to answer "what if" questions. An evaluation of decisions before they are actually made allows producers to avoid costly mistakes and hopefully capitalize on the best economic decision. Although the computer can do computations efficiently, quantifying all components of a management decision can be difficult. This is particularly true when dynamics are involved or when a management decision made today impacts future productivity relationships. For these reasons, results from the ranch spreadsheet template need to be interpreted within the context of the management decision under consideration.

Economic returns are calculated for the ranch on a calendar year basis for total and per unit (i.e., exposed cow) returns. Both cash and accrual profits are calculated. An accrual profit measure that accounts for changes in livestock inventories and depreciation of fixed assets is reported in the spreadsheet template. If a management decision

does not involve a change in herd composition or animal numbers, the profit per exposed cow should be focused on. An example of this analysis would be supplemental feed to improve weaning weights and possibly herd fertility. Total ranch profit should be analyzed if a management decision involves any change in herd composition or numbers. An example of this type of analysis would be running fewer cows to increase fertility and weaning weights.

In order to compare how much of an impact any management decision will have on ranch profitability, a "base line" of current ranch practices needs to be entered into the ranch financial analysis spreadsheet template. This "base line" of current or normal practices provides a reference point from which alternative management strategies can be evaluated. If one is solely concerned with cash profits, a comparison can be made between alternatives by appropriately modifying cash expenses and revenues in the *Control Sheet*. However, the planning sheets will generally be the easiest and most relevant tool for evaluating alternative management decisions. Expenses and revenues are built from biological relationships and per unit inputs in the planning sheets so that the impact of a change in grazing fee or health expense can be readily evaluated. An example of using the planning sheet for supplemental feeding follows. Please note that to enable the planning sheet, a value of 1 must be entered in cell H4 of the *Control Sheet* (see article entitled, *Overview of Ranch Financial Analysis Spreadsheet*).

SUPPLEMENTAL FEEDING EXAMPLE

The following example assumes that a "base line" has been established or all planning sheets have been filled out to reflect normal practices. Please note that "green shaded" areas of the worksheet indicate areas for the user to

provide input, and numbers that are not shaded are determined from formulas that key off entered data. The following example uses data obtained from the University of Arizona, V bar V Ranch for the 1998 calendar year.

Supplemental Feeding Scenario: The proposed management change involves feeding 2 lbs. of protein supplement for 60 days to cows and 80 days to “bred heifers/2-year-olds.” These bred heifers at the beginning of the calendar year turn 2 years old and have a calf before the end of the calendar year. Protein supplement will cost \$180/ton and we expect to see an increase in weaning weights of 20 lbs. per calf.

Steps for evaluation of the proposed change:

- 1) Verify that the planning sheets are in use or that cell H4 of the *Control Sheet* equals 1. Then print the sheet of *Diagnostic Tree Per Exposed Cow* or write down the resulting cash and accrual profit values per exposed cow. For the V bar V “base line” example, -\$42.37/exposed cow for cash profit (cell B21) and \$44.76/exposed cow for accrual profit (cell B23) is calculated.
- 2) The cost of supplemental feed is entered in the *Feed Expense Planning Sheet*. Under the column heading Supplement (Column G), go to shaded cell G18 (bred heifers/2-year-olds) and enter 2 for 2 lbs. of supplement per day. Now enter 2 in cells G19 through G27. This will feed the entire herd 2 lbs. per day. Next, under Column H (Day), go to cell H18 and enter 80 to feed the bred heifers/2-year-olds for 80 days. Now enter 60 in cells H18 through H28 to feed supplement to the rest of the herd for 60 days. Finally, enter or check that 180 is entered in cell J5 to reflect the cost of supplement at \$180/ton. This will calculate the cost of feed

for each age group of cows and transfer totals to the rest of the spreadsheet template. Your before and after screens in the *Feed Planning Expense Sheet* should look as depicted in Figure 1.

- 3) Next, go to the *Herd Production Planning Sheet* and in the shaded cells (L8 through L12) under the column Sale Weight increase each of the sale weights by 20. This will increase the weaning weights for steers and heifers for both the spring born calves and the fall born calves. Figure 2 illustrates these changes to the *Herd Production Planning Sheet*.
- 4) Finally, go back to the *Diagnostic Tree Per Exposed Cow* and compare the new values in cells B21 and B23 with the original values you wrote down earlier. How have they changed?

As shown in Figure 3, cash and accrual profits both decreased by \$1.66 (drop from -42.37 to -44.03 for cash and 44.76 to 43.10 for accrual) per equivalent exposed cow. Equivalent exposed cow is from the *Biological Cow Data* worksheet and accounts for cows exposed to the bull last year and any yearlings that were on the ranch. Because this supplemental feeding example did not affect livestock inventories or depreciation adjusted overheads, the change is the same for both cash and accrual profits.

This example could be further extended by inquiring about additional issues. For example, what is the economic impact if calf prices change due to the 20 lb. increase in calf weights? What is the impact on next year’s profit level if the fertility for the herd improves? Although the spreadsheet template is not dynamic (i.e., one-year snapshot) in nature, the template can be used to gain insights into multi-period decisions such as herd fertility. First, determine the difference in economic return generated by the

spreadsheet template from increasing fertility. Then multiply a discount rate (i.e., $1/[1 + \text{interest rate}]$) to any increase in return from fertility improving. If market prices remain basically the same for the following year, this approximation is fairly accurate.

**EXAMPLE THAT EVALUATES
OPTIONS AFTER A RANGE FIRE**

Range Fire Scenario: A fire recently swept through your USFS allotment, eliminating the ability to use a 7,000-acre pasture you had planned on grazing for 3 months. At the time of the fire, you had 489 cows and 37 bulls. Because of poor precipitation the previous year, other USFS allotments in the vicinity are currently stocked and unavailable for grazing. The USFS range conservation officer says you can use a 5,300-acre pasture on your allotment that was scheduled to be rested this year, but it will only accommodate 369 cows, 120 less than you have, and 37 bulls for the same 3-month period. You have recently culled some open cows and do not wish to sell any more cows at this time. Most of the cows are already bred. You have three different options you wish to evaluate: (1) Leasing Pasture for Extra Cows, (2) Early Weaning Calves, and (3) Drylot Cows on Ranch.

Steps for Leasing Pasture Option evaluation:

1a) A contact you have in Nevada has informed you that irrigated pasture is available for 3 months for 120 cows at a price of \$15 per month for each cow/calf unit. You would not haul any bulls since cows should already be bred. You will take only cows that have a spring born calf as side to Nevada. Go to the *Grazing Expense Planning* sheet (see Figure 4), and enter the number of cows by age that you expect to take to Nevada (cells K16 to K24). Then enter 3 in cells L16 through L24 for 3 months of

grazing. The pasture price of \$15/month is entered in cell M4.

1b) The pasture is 500 miles away and trucking costs \$2.00 per loaded mile for each semi-load of cattle. It will take 4 semi-loads going to Nevada (30 cows + calves per load) and 3 semi-loads coming back from Nevada (sell calves in Nevada; 40 cows per load return trip). Go to the *Herd Production Planning Sheet* (see Figure 5) under column Q (Paid/Contract Trucking Costs Without Selling) and enter 500 in cell Q8 for the total miles per trip, 7 in cell Q11 for total number of trips, and 2 in cell Q13 for the cost per mile. Total trucking expense of \$7,000 is automatically calculated and shown in cell Q6. Calves shipped to Nevada are expected to weigh 20 lbs./head more than those kept on the ranch. This increases the average sale weight of all spring born calves by 7 lbs./head ($[120/341] \cdot 20 = 7.0$). Increase the sale weight of calves by 7 lbs. in cells L8 and L9.

1c) Finally, go to the *Diagnostic Tree Per Exposed Cow* and record what the cash and accrual profit is for this leasing pasture option.

Cash Profit (Cell B21) _____

Accrual Profit (Cell B23) _____

As another alternative, you may wish to save the entire file with a different name that associates these numbers with the leased pasture option after the fire. This is especially helpful if you also want to study how the financial ratios and cost and return measures compare under different scenarios.

Early Weaning Calves Option. Since a nonlactating cow will eat only about 70% of a cow/calf unit, by early weaning calves you will be able to

maintain all your cows on the 5,300 acre pasture for the next 3 months. The USFS range conservation officer is familiar with the concept of reduced forage intake for nonlactating cows and has allowed similar things to be done on other grazing allotments during drought. You will not have to truck cows to Nevada or rent additional pasture, but calves will weigh about 150 lbs. less when you sell them. Because the calves are 150 lbs. lighter and corn prices are relatively low, you also think that you can sell your calves for \$20/cwt. more.

Steps for Early Weaning Calves:

2a) Reverse the steps and entries that were made above in the *Grazing Expense Planning* and *Herd Production Planning Sheets* for the leased pasture option so that “after screens” look like “before screens.” If you saved the changes made in the leased pasture option under a new file, just open the original file without any of the leased pasture option changes. Before (i.e., base line) and after values in the *Herd Production Planning Sheet* for reducing calf weight by 150 lbs. and increasing the price per lb. received by \$.20 are depicted in Figure 6.

2b) Go to the *Diagnostic Tree Per Exposed Cow* and record what the cash and accrual profit is for this early weaning option.

Cash Profit (Cell B21) _____

Accrual Profit (Cell B23) _____

Figure 7 compares cash and accrual profit values in the *Diagnostic Tree Per Exposed Cow* for the leasing pasture and early weaning options. The leasing pasture option is \$12.30 (difference of -59.84 and -72.14 for cash or 27.32 and 15.02 accrual profit) per unit more profitable than the early weaning option.

In addition to looking at changes in total profit, financial ratios, and cost and return measures, the spreadsheet template can be used to get an idea of what you could actually afford to pay for pasture. Simply go to the lease pasture scenario and increase cell M4 in the *Grazing Expense Planning Sheet* until profitability is the same from the leasing pasture or early weaning scenarios. The cost of pasture has to exceed \$32.53/month before it is more profitable to do early weaning than lease pasture.

Drylot Option. Another option is to put the 120 additional lactating cows and their calves into a drylot and feed them purchased hay for 90 days rather than lease pasture or early wean calves. Hay can be shipped in for \$95 per ton and each pair is expected to consume 25 lbs. per day for the 90-day feeding period. Weaning weights are expected to be the same as if they were shipped to Nevada and put on the leased pasture. But there will be some additional health costs for calves under the drylot option due to crowded conditions and dusty corrals. Health costs are expected to be \$.80/head more for calves placed in the drylot.

Steps for Drylot Option:

3a) Reverse the steps and entries that were made above for the early calf weaning option. If you saved the changes made to a new file for the early weaning option, just open the original file without any of the early weaning option changes. In the *Feed Expense Planning Sheet*, feed consumption is calculated for all cows in an entire age group. Using a calculator, 25 lbs. per day for 120 cows for 90 days equals 135 tons $([25 \cdot 120 \cdot 90] / 2000)$ of hay. Note that in the *Herd Production Planning Sheet*, 175 cows are in the category of “Unknown > 4.” We can adjust the hay consumption to 17.14 lbs. per day (i.e., $[120/175] \cdot 25$) for all the cows in this category to get

135 tons total. That is, enter 17.14 in cell B27 and 90 in cell C27; cell D27 reveals that an additional 135 tons are being bought. The price of \$95 per ton is given in cell E5. Figure 8 illustrates these before and after changes.

3b) Go to the *Health Expense Planning Sheet* (see Figure 9), and add additional medicine costs for calves by entering the vaccination label of "LA200" in cell N5. Next, enter the cost per head or .80 in cell O5. Enter 60 in both cells N8 and N9 to reflect the number of steer and heifer calves expected to be given this vaccine.

3c) In the *Herd Production Planning Sheet*, weaning weights need to be increased to the same level as the leased pasture option. Calves in the drylot are expected to weigh 20 lbs. per head more than calves on the range. This increases the average sale weight of all spring born calves by 7 lbs./head ($[(120/341) \cdot 20 = 7.0]$). Increase the sale weight of calves by 7 lbs. in cells L8 and L9. Also, check to see that trucking costs have been reduced to zero (i.e., cells Q9, Q11, and Q13 equal 0).

3d) Go to the *Diagnostic Tree Per Exposed Cow* and record what the cash and accrual profit is for this drylot option.

Cash Profit (Cell B21) _____

Accrual Profit (Cell B23) _____

As described in Figure 11, cash return from the drylot option is -60.85, or \$1.01 less per exposed cow than the return associated with the leasing pasture option (-60.85 minus -59.84). The major expense for the hay feeding option is 135 tons of hay at \$95 per ton, or \$12,825. Major expenses for the leasing pasture option were \$7,000

for trucking and \$5,400 for pasture for a total of \$12,400. Note that the spreadsheet tool can easily determine at what hay price it becomes more economical to drylot than ship to pasture. By changing cell E5 or the price of hay in the *Feed Expense Planning Sheet*, a hay price of \$92.19 per ton results in the same cash return of -59.84 as in the leasing pasture option. If hay can be delivered to the ranch for less than \$92.19 per ton, 120 pairs in the drylot would then be the most profitable option. Hay quality would also impact the rate of gain and health expenses.

It is very important to keep in mind that the results produced from the spreadsheet template are no better than the inputs behind the results. For example, you may expose your cows to a disease by shipping them to Nevada and this could increase future vaccination costs and even your death losses. Labor costs might increase from feeding hay in the drylot. These factors could be built into your analysis using the spreadsheet template, but it is very important to realize that results produced are no better than the inputs behind the results.

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Figure 1. Supplemental Feeding: Feed Expense Planning Sheet Changes

Before

Ranch Analysis 98										
A	C	D	E	F	G	H	I	J	K	
1	FEED SUMMARY									
2	©1999 University of Arizona									
3		48		\$4,583	SUPPLEMENT			0	\$0	
4	Disclaimer: Neither the issuing ind									
5				COST AT				COST AT		
6		TONS		\$95	LBS/			TONS		\$0
	DAYS	FED	PER TON		DAY	DAYS	FED	PER TON		
7	CALVES - Spr. Born									
8	STEER	30	13	\$1,216			0	\$0		
9	HEIFER	30	13	\$1,216			0	\$0		
10	CALVES - Fall Born									
11	STEER	30	1	\$71	0	0	0	\$0		
12	HEIFER	30	1	\$78	0	0	0	\$0		
13	YEARLINGS on Ranch for Sale									
14	STEERS	0	0	\$0			0	\$0		
15	HEIFERS	0	0	\$0			0	\$0		
16	COYS, Breeding Stock									
17	Yearlings -- exposed w/out Calf	90	21	\$2,001	0	0	0	\$0		
18	Bred Heifers/2 Year Olds	0	0	\$0	0	0	0	\$0		
19	3 YEAR OLDS	0	0	\$0	0	0	0	\$0		
20	4 YEAR OLDS	0	0	\$0	0	0	0	\$0		
21	5 YEAR OLDS	0	0	\$0	0	0	0	\$0		
22	6 YEAR OLDS	0	0	\$0	0	0	0	\$0		
23	7 YEAR OLDS	0	0	\$0	0	0	0	\$0		
24	8 YEAR OLDS	0	0	\$0	0	0	0	\$0		
25	9 YEAR OLDS	0	0	\$0	0	0	0	\$0		
26	10 YEAR OLDS	0	0	\$0	0	0	0	\$0		
27	UNKNOWN >4	0	0	\$0	0	0	0	\$0		
28	BULLS									
29	YEARLING	0	0	\$0			0	\$0		
30	2 YEAR OLDS	0	0	\$0			0	\$0		
31	3 YEAR OLDS	0	0	\$0			0	\$0		
32	4 YEAR OLDS	0	0	\$0			0	\$0		

After

Ranch Analysis 98										
A	C	D	E	F	G	H	I	J	K	
1	FEED SUMMARY									
2	©1999 University of Arizona									
3		48		\$4,583	SUPPLEMENT			29	\$5,170	
4	Disclaimer: Neither the issuing ind									
5				COST AT				COST AT		
6		TONS		\$95	LBS/			TONS		\$180
	DAYS	FED	PER TON		DAY	DAYS	FED	PER TON		
7	CALVES - Spr. Born									
8	STEER	30	13	\$1,216			0	\$0		
9	HEIFER	30	13	\$1,216			0	\$0		
10	CALVES - Fall Born									
11	STEER	30	1	\$71	0	0	0	\$0		
12	HEIFER	30	1	\$78	0	0	0	\$0		
13	YEARLINGS on Ranch for Sale									
14	STEERS	0	0	\$0			0	\$0		
15	HEIFERS	0	0	\$0			0	\$0		
16	COYS, Breeding Stock									
17	Yearlings -- exposed w/out Calf	90	21	\$2,001	0	0	0	\$0		
18	Bred Heifers/2 Year Olds	0	0	\$0	2	80	7	\$1,238		
19	3 YEAR OLDS	0	0	\$0	2	60	2	\$367		
20	4 YEAR OLDS	0	0	\$0	2	60	2	\$346		
21	5 YEAR OLDS	0	0	\$0	2	60	2	\$324		
22	6 YEAR OLDS	0	0	\$0	2	60	2	\$302		
23	7 YEAR OLDS	0	0	\$0	2	60	2	\$270		
24	8 YEAR OLDS	0	0	\$0	2	60	1	\$216		
25	9 YEAR OLDS	0	0	\$0	2	60	1	\$162		
26	10 YEAR OLDS	0	0	\$0	2	60	0	\$54		
27	UNKNOWN >4	0	0	\$0	2	60	11	\$1,890		
28	BULLS									
29	YEARLING	0	0	\$0			0	\$0		
30	2 YEAR OLDS	0	0	\$0			0	\$0		
31	3 YEAR OLDS	0	0	\$0			0	\$0		
32	4 YEAR OLDS	0	0	\$0			0	\$0		

Figure 2. Supplemental Feeding: Herd Production Planning Sheet Changes

Before

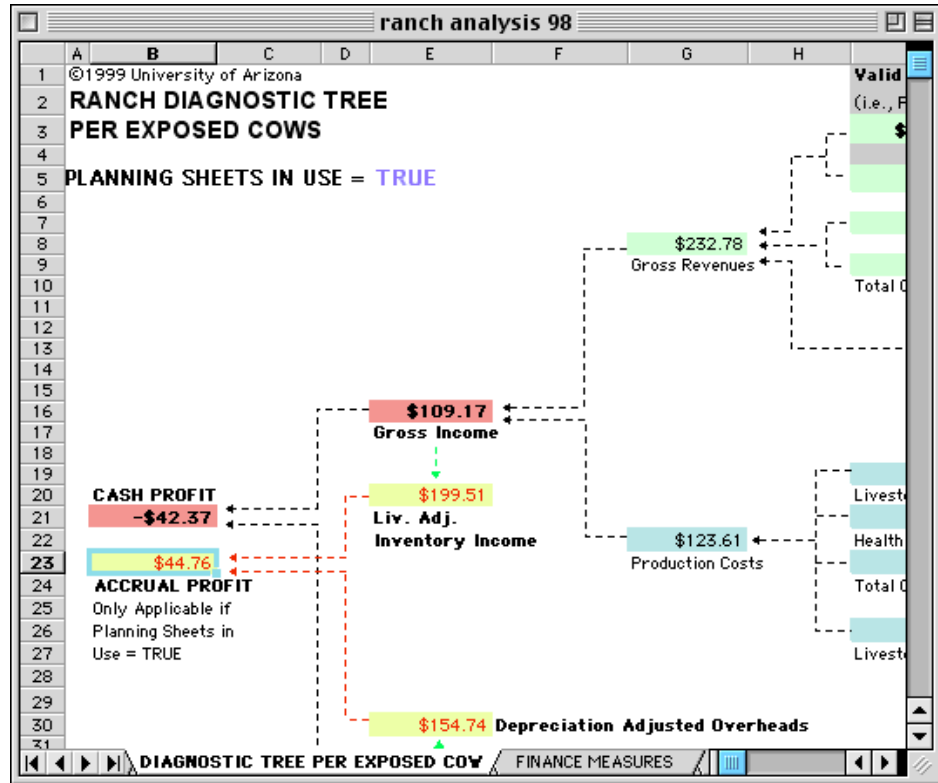
Ranch Analysis 98						
A	J	K	L	M	N	
1	LIVESTOCK PRODUCTION					
2						
3	DECISION CONTROL=1					
4	TRUE					
5	ACTUAL HEAD SOLD OR CULLED					
6	FROM ACF DEFICIENCIES	31-Dec-98 INVENTORY	SALE WEIGHT	PRICE (\$/CWT)	GROSS SELLING VALUE	PER HEAD
7	CALVES - Spr. Born	302	0	(LBS.)		
8	STEER	169	0	445	\$75	\$33
9	HEIFER	134	0	420	\$70	\$29
10	CALVES - Fall Born	11	18			
11	STEER	10	9	435	\$80	\$34
12	HEIFER	1	9	400	\$75	\$30
13	YEARLINGS on Ranch for Sale	0	0			
14	STEERS	0	0	700	\$65	\$45
15	HEIFERS	0	0	650	\$60	\$39
16	COYS, Breeding Stock	24	454	\$45		
17	Replacement Calves		45			
18	Yearlings -- exposed w/out Calf	1	38	\$40		
19	Bred Heifers/2 Year Olds	1	84	\$45		
20	3 YEAR OLDS	1	32	\$45		
21	4 YEAR OLDS	1	30	\$47		
22	5 YEAR OLDS	1	28	\$47		
23	6 YEAR OLDS	1	26	\$47		
24	7 YEAR OLDS	1	23	\$47		
25	8 YEAR OLDS	1	18	\$47		
26	9 YEAR OLDS	1	14	\$45		
27	10 YEAR OLDS	5	0	\$44		
28	UNKNOWN >4	10	161	\$46		
29	BULLS	5	32	\$98		
30	YEARLING			\$80		
31	2 YEAR OLDS		0	\$1,00		

After

Ranch Analysis 98						
A	J	K	L	M	N	
1	LIVESTOCK PRODUCTION					
2						
3	DECISION CONTROL=1					
4	TRUE					
5	ACTUAL HEAD SOLD OR CULLED					
6	FROM ACF DEFICIENCIES	31-Dec-98 INVENTORY	SALE WEIGHT	PRICE (\$/CWT)	GROSS SELLING VALUE	PER HEAD
7	CALVES - Spr. Born	302	0	(LBS.)		
8	STEER	169	0	465	\$75	\$34
9	HEIFER	134	0	440	\$70	\$30
10	CALVES - Fall Born	11	18			
11	STEER	10	9	455	\$80	\$36
12	HEIFER	1	9	420	\$75	\$31
13	YEARLINGS on Ranch for Sale	0	0			
14	STEERS	0	0	700	\$65	\$45
15	HEIFERS	0	0	650	\$60	\$39
16	COYS, Breeding Stock	24	454	\$45		
17	Replacement Calves		45			
18	Yearlings -- exposed w/out Calf	1	38	\$40		
19	Bred Heifers/2 Year Olds	1	84	\$45		
20	3 YEAR OLDS	1	32	\$45		
21	4 YEAR OLDS	1	30	\$47		
22	5 YEAR OLDS	1	28	\$47		
23	6 YEAR OLDS	1	26	\$47		
24	7 YEAR OLDS	1	23	\$47		
25	8 YEAR OLDS	1	18	\$47		
26	9 YEAR OLDS	1	14	\$45		
27	10 YEAR OLDS	5	0	\$44		
28	UNKNOWN >4	10	161	\$46		
29	BULLS	5	32	\$98		
30	YEARLING			\$80		
31	2 YEAR OLDS		0	\$1,00		

Figure 3. Supplemental Feeding: Diagnostic Tree Per Exposed Cow Changes

Before



After

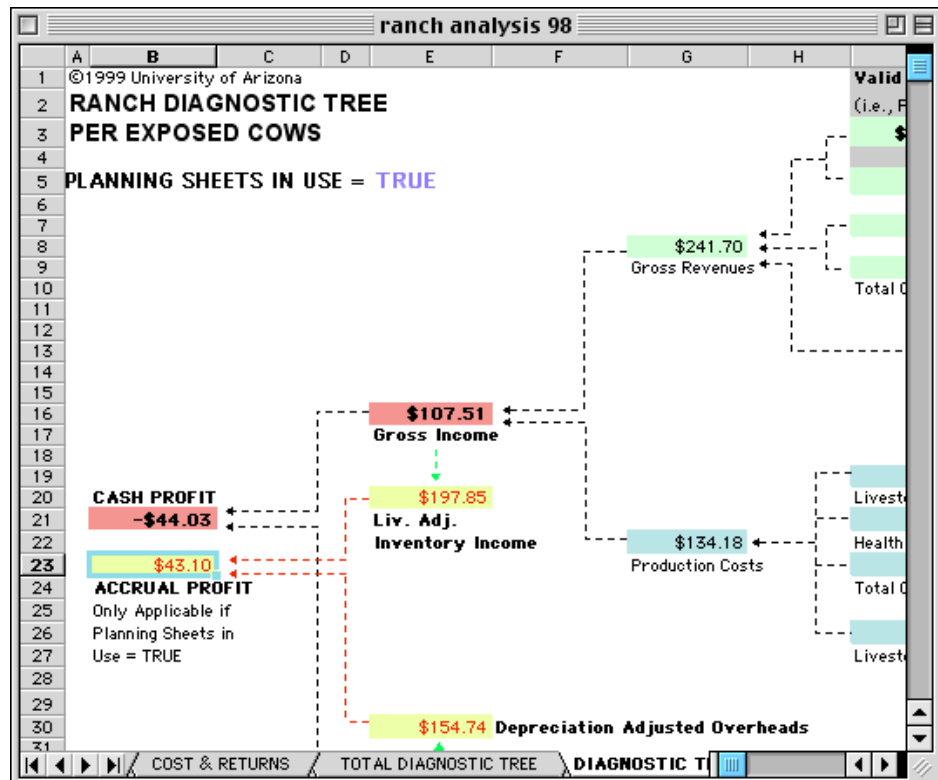


Figure 4. Range Fire (Leasing Pasture Option): Grazing Expense Planning Sheet Changes

Before

ranch analysis 98							
A	H	I	J	K	L	M	N
1	GRAZING SUMMARY						private Extension, nor the Arizona Board of Regents warrant or guarantee the use or results of thi
2				\$0		\$0	\$7,447
3	©1999 University of Arizona		STATE	COST AT	PRIVATE PRIVATE	COST AT	TOTAL
4			GRAZING	\$2.09	GRAZING GRAZING	\$0.00	GRAZING
5			MONTHS		ANIMALS MONTHS	PER AUM	COST
6							
7							
8							
9							
10	YEARLINGS on Ranch for Sale			\$0		\$0	\$0
11			STEERS	0		0	\$0
12			HEIFERS	0		0	\$0
13	COWS, Breeding Stock			\$0	0	\$0	\$0
14			Yearlings -- exposed w/out Calf	0	0	0	\$0
15			Bred Heifers/2 Year Olds	0	0	0	\$0
16			3 YEAR OLDS	0	0	0	\$0
17			4 YEAR OLDS	0	0	0	\$0
18			5 YEAR OLDS	0	0	0	\$0
19			6 YEAR OLDS	0	0	0	\$0
20			7 YEAR OLDS	0	0	0	\$0
21			8 YEAR OLDS	0	0	0	\$0
22			9 YEAR OLDS	0	0	0	\$0
23			10 YEAR OLDS	0	0	0	\$0
24			UNKNOWN >4	0	0	0	\$0
25	BULLS			\$0		\$0	\$0
26			YEARLING	0		0	\$0
27			2 YEAR OLDS	0		0	\$0
28			3 YEAR OLDS	0		0	\$0
29			4 YEAR OLDS	0		0	\$0

After

ranch analysis 98							
A	H	I	J	K	L	M	N
1	GRAZING SUMMARY						private Extension, nor the Arizona Board of Regents warrant or guarantee the use or results of thi
2				\$0		\$5,400	\$10,903
3	©1999 University of Arizona		STATE	COST AT	PRIVATE PRIVATE	COST AT	TOTAL
4			GRAZING	\$2.09	GRAZING GRAZING	\$15.00	GRAZING
5			MONTHS		ANIMALS MONTHS	PER AUM	COST
6							
7							
8							
9							
10	YEARLINGS on Ranch for Sale			\$0		\$0	\$0
11			STEERS	0		0	\$0
12			HEIFERS	0		0	\$0
13	COWS, Breeding Stock			\$0	120	\$5,400	\$5,400
14			Yearlings -- exposed w/out Calf	0	0	0	\$0
15			Bred Heifers/2 Year Olds	0	0	0	\$0
16			3 YEAR OLDS	0	10	3	\$450
17			4 YEAR OLDS	0	10	3	\$450
18			5 YEAR OLDS	0	10	3	\$450
19			6 YEAR OLDS	0	10	3	\$450
20			7 YEAR OLDS	0	10	3	\$450
21			8 YEAR OLDS	0	10	3	\$450
22			9 YEAR OLDS	0	10	3	\$450
23			10 YEAR OLDS	0	10	3	\$450
24			UNKNOWN >4	0	40	3	\$1,800
25	BULLS			\$0		\$0	\$0
26			YEARLING	0		0	\$0
27			2 YEAR OLDS	0		0	\$0
28			3 YEAR OLDS	0		0	\$0
29			4 YEAR OLDS	0		0	\$0

Changes

Figure 5. Range Fire (Leasing Pasture Option): Herd Production Planning Sheet Changes

Before

ranch analysis 98								
A	L	M	N	O	P	Q	R	
1	LIVESTOCK PRODUCTION						TOTAL =	\$1,020
2							PAID/CONTRACT	PAID/CONTRACT
3	DECISION CONTROL=1						TRUCKING COST	TRUCKING COST
4	TRUE						Without Selling	(\$/CWT.)
5	SALE	PRICE	GROSS	December 31				
6	WEIGHT	(\$/CWT)	SELLING VALUE	ENDING VALUE				
7	CALVES - Spr. Born		PER HEAD	PER HEAD			\$984	
8	(LBS.)						Miles	
8	445	\$75	\$334				\$563	
9	420	\$70	\$294		0		\$421	
10	CALVES - Fall Born						Number of Trips	
11	435	\$80	\$348	\$200	0		\$36	
12	400	\$75	\$300	\$225	\$ Per Mile		\$3	
13	YEARLINGS on Ranch for Sale						\$0.00	\$0
14	700	\$65	\$455	\$420			\$0	
15	650	\$60	\$390	\$400			\$0	
16	COWS, Breeding Stock		\$457				\$0	
17	Replacement Calves			\$350			\$0	
18	Yearlings -- exposed w/out Calf		\$400	\$540			\$0	
19	Bred Heifers/2 Year Olds		\$450	\$550			\$0	
20	3 YEAR OLDS		\$450	\$635			\$0	
21	4 YEAR OLDS		\$475	\$650			\$0	
22	5 YEAR OLDS		\$475	\$650			\$0	
23	6 YEAR OLDS		\$475	\$650			\$0	
24	7 YEAR OLDS		\$475	\$650			\$0	
25	8 YEAR OLDS		\$475	\$650			\$0	
26	9 YEAR OLDS		\$450	\$635			\$0	
27	10 YEAR OLDS		\$440	\$635			\$0	
28	UNKNOWN >4		\$464	\$645			\$0	

After

ranch analysis 98								
A	L	M	N	O	P	Q	R	
1	LIVESTOCK PRODUCTION						TOTAL =	\$8,036
2							PAID/CONTRACT	PAID/CONTRACT
3	DECISION CONTROL=1						TRUCKING COST	TRUCKING COST
4	TRUE						Without Selling	(\$/CWT.)
5	SALE	PRICE	GROSS	December 31				
6	WEIGHT	(\$/CWT)	SELLING VALUE	ENDING VALUE				
7	CALVES - Spr. Born		PER HEAD	PER HEAD			\$1,000	
8	(LBS.)						Miles	
8	452	\$75	\$339		500		\$572	
9	427	\$70	\$299		7		\$428	
10	CALVES - Fall Born						Number of Trips	
11	435	\$80	\$348	\$200	7		\$36	
12	400	\$75	\$300	\$225	\$ Per Mile		\$3	
13	YEARLINGS on Ranch for Sale						\$2.00	\$0
14	700	\$65	\$455	\$420			\$0	
15	650	\$60	\$390	\$400			\$0	
16	COWS, Breeding Stock		\$457				\$0	
17	Replacement Calves			\$350			\$0	
18	Yearlings -- exposed w/out Calf		\$400	\$540			\$0	
19	Bred Heifers/2 Year Olds		\$450	\$550			\$0	
20	3 YEAR OLDS		\$450	\$635			\$0	
21	4 YEAR OLDS		\$475	\$650			\$0	
22	5 YEAR OLDS		\$475	\$650			\$0	
23	6 YEAR OLDS		\$475	\$650			\$0	
24	7 YEAR OLDS		\$475	\$650			\$0	
25	8 YEAR OLDS		\$475	\$650			\$0	
26	9 YEAR OLDS		\$450	\$635			\$0	
27	10 YEAR OLDS		\$440	\$635			\$0	
28	UNKNOWN >4		\$464	\$645			\$0	

Figure 6. Range Fire (Early Weaning Option): Herd Production Planning Sheet Changes

Before

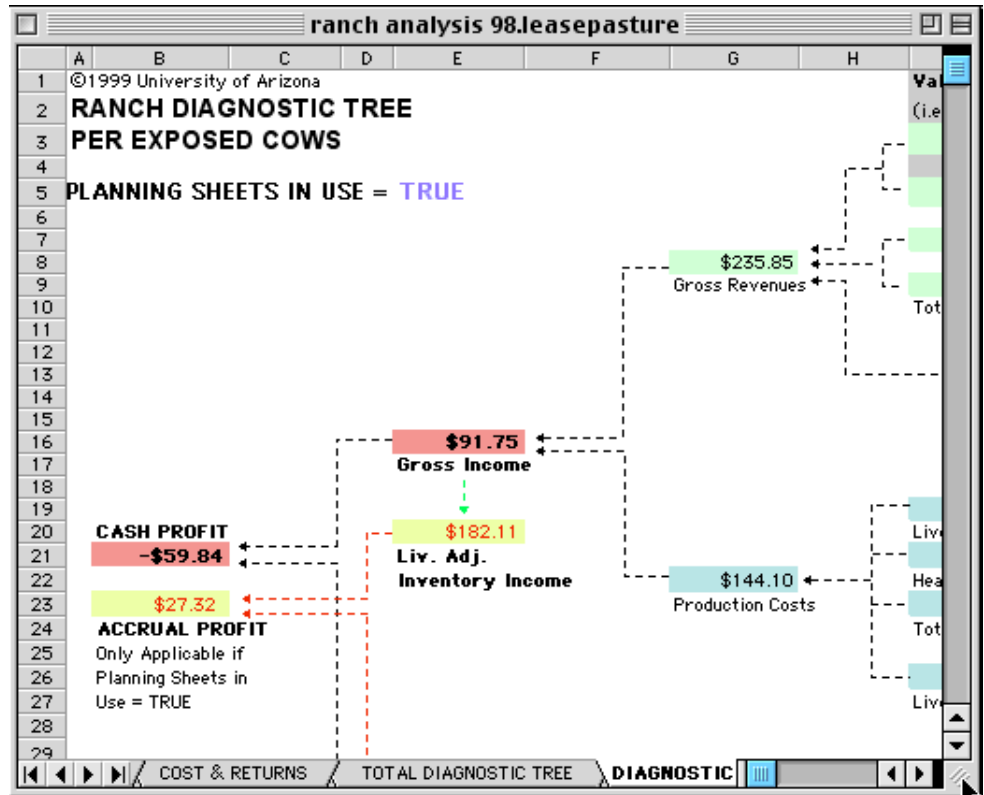
ranch analysis 98							
A	L	M	N	O	P	Q	R
1	LIVESTOCK PRODUCTION						
2							
3	DECISION CONTROL=1						
4	TRUE						
5				GROSS	December 31	PAID/CONTRACT	PAID/CONTRACT
6	SALE	PRICE	SELLING VALUE	ENDING VALUE	TRUCKING COST	TRUCKING COST	
	WEIGHT	(\$/CWT)	PER HEAD	PER HEAD	Without Selling	(\$/CWT.)	
7	CALVES - Spr. Born						
	(LBS.)						
8	STEER	445	\$75	\$334		Miles	\$563
9	HEIFER	420	\$70	\$294		0	\$421
10	CALVES - Fall Born						
11	STEER	435	\$80	\$348	\$200	Number of Trips	\$36
12	HEIFER	400	\$75	\$300	\$225	0	\$33
13	YEARLINGS on Ranch for Sale						
14	STEERS	700	\$65	\$455	\$420	\$ Per Mile	\$0
15	HEIFERS	650	\$60	\$390	\$400	\$0.00	\$0
16	COWS, Breeding Stock						
17				\$457			\$0
18	Replacement Calves				\$350		\$0
19	Yearlings -- exposed w/out Calf			\$400	\$540		\$0
20	Bred Heifers/2 Year Olds			\$450	\$550		\$0
21	3 YEAR OLDS			\$450	\$635		\$0
22	4 YEAR OLDS			\$475	\$650		\$0
23	5 YEAR OLDS			\$475	\$650		\$0
24	6 YEAR OLDS			\$475	\$650		\$0
25	7 YEAR OLDS			\$475	\$650		\$0
26	8 YEAR OLDS			\$475	\$650		\$0
27	9 YEAR OLDS			\$450	\$635		\$0
28	10 YEAR OLDS			\$440	\$635		\$0
29	UNKNOWN >4			\$464	\$645		\$0

After

ranch analysis 98							
A	L	M	N	O	P	Q	R
1	LIVESTOCK PRODUCTION						
2							
3	DECISION CONTROL=1						
4	TRUE						
5				GROSS	December 31	PAID/CONTRACT	PAID/CONTRACT
6	SALE	PRICE	SELLING VALUE	ENDING VALUE	TRUCKING COST	TRUCKING COST	
	WEIGHT	(\$/CWT)	PER HEAD	PER HEAD	Without Selling	(\$/CWT.)	
7	CALVES - Spr. Born						
	(LBS.)						
8	STEER	295	\$95	\$280		Miles	\$373
9	HEIFER	270	\$90	\$243		0	\$271
10	CALVES - Fall Born						
11	STEER	435	\$80	\$348	\$200	Number of Trips	\$36
12	HEIFER	400	\$75	\$300	\$225	0	\$33
13	YEARLINGS on Ranch for Sale						
14	STEERS	700	\$65	\$455	\$420	\$ Per Mile	\$0
15	HEIFERS	650	\$60	\$390	\$400	\$0.00	\$0
16	COWS, Breeding Stock						
17				\$457			\$0
18	Replacement Calves				\$350		\$0
19	Yearlings -- exposed w/out Calf			\$400	\$540		\$0
20	Bred Heifers/2 Year Olds			\$450	\$550		\$0
21	3 YEAR OLDS			\$450	\$635		\$0
22	4 YEAR OLDS			\$475	\$650		\$0
23	5 YEAR OLDS			\$475	\$650		\$0
24	6 YEAR OLDS			\$475	\$650		\$0
25	7 YEAR OLDS			\$475	\$650		\$0
26	8 YEAR OLDS			\$475	\$650		\$0
27	9 YEAR OLDS			\$450	\$635		\$0
28	10 YEAR OLDS			\$440	\$635		\$0
29	UNKNOWN >4			\$464	\$645		\$0

Figure 7. Range Fire: Leasing Pasture vs. Early Weaning Comparison

Leasing Pasture



Early Weaning

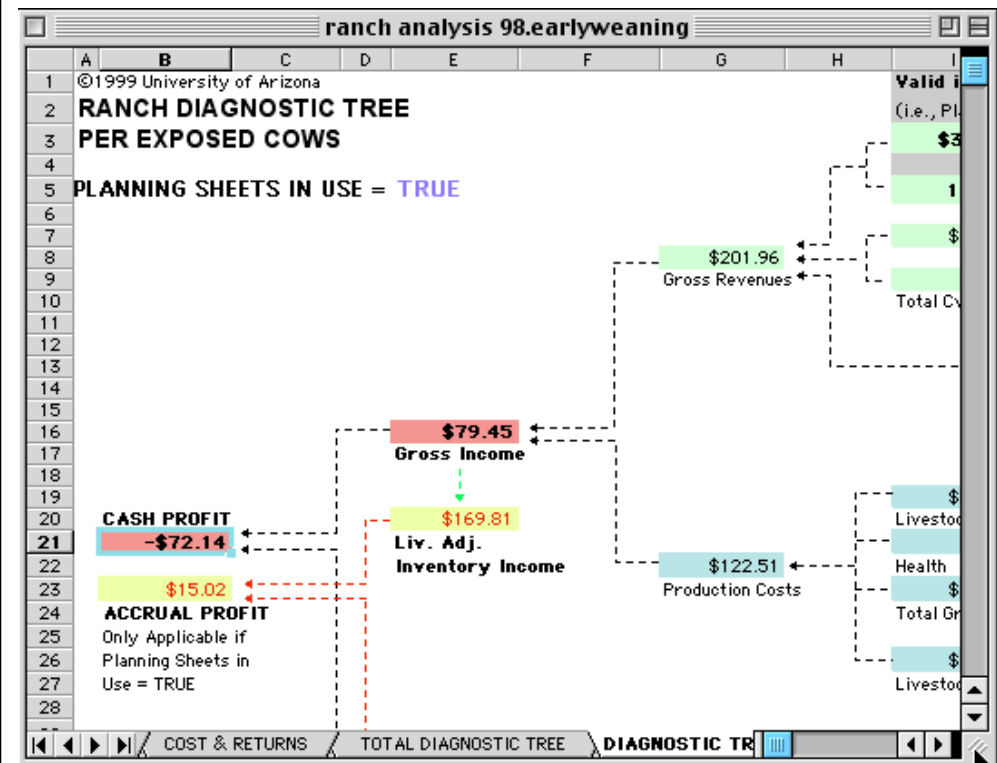


Figure 8. Range Fire (Drylot Option): Feed Expense Planning Sheet Changes

Before

ranch analysis 98									
A	B	C	D	E	F	G	H	I	
1	FEED SUMMARY		HAY		SUPPLEMENT				
2	©1999 University of Arizona		48		\$4,593		0		
3									
4	Disclaimer: Neither the issuing ind								
5	COST AT								
6	LBS/	TONS			LBS/	TONS			
	DAY	DAYS	FED	PER TON	DAY	DAYS	FED		
7	CALVES - Spr. Born		26		\$2,432		0		
8	5	30	13	\$1,216					
9	5	30	13	\$1,216					
10	CALVES - Fall Born		2		\$150		0		
11	5	30	1	\$71	0	0			
12	5	30	1	\$78	0	0			
13	YEARLINGS on Ranch for Sale		0		\$0		0		
14	0	0	0	\$0					
15	0	0	0	\$0					
16	COWS, Breeding Stock		21		\$2,001		0		
17	12	90	21	\$2,001	0	0			
18	0	0	0	\$0	2	0			
19	0	0	0	\$0	2	0			
20	0	0	0	\$0	2	0			
21	0	0	0	\$0	2	0			
22	0	0	0	\$0	2	0			
23	0	0	0	\$0	2	0			
24	0	0	0	\$0	2	0			
25	0	0	0	\$0	2	0			
26	0	0	0	\$0	2	0			
27	0	0	0	\$0	2	0			
28	BULLS		0		\$0		0		

After

ranch analysis 98									
A	B	C	D	E	F	G	H	I	
1	FEED SUMMARY		HAY		SUPPLEMENT				
2	©1999 University of Arizona		183		\$17,405		0		
3									
4	Disclaimer: Neither the issuing ind								
5	COST AT								
6	LBS/	TONS			LBS/	TONS			
	DAY	DAYS	FED	PER TON	DAY	DAYS	FED		
7	CALVES - Spr. Born		26		\$2,432		0		
8	5	30	13	\$1,216					
9	5	30	13	\$1,216					
10	CALVES - Fall Born		2		\$150		0		
11	5	30	1	\$71	0	0			
12	5	30	1	\$78	0	0			
13	YEARLINGS on Ranch for Sale		0		\$0		0		
14	0	0	0	\$0					
15	0	0	0	\$0					
16	COWS, Breeding Stock		156		\$14,824		0		
17	12	90	21	\$2,001	0	0			
18	0	0	0	\$0	2	0			
19	0	0	0	\$0	2	0			
20	0	0	0	\$0	2	0			
21	0	0	0	\$0	2	0			
22	0	0	0	\$0	2	0			
23	0	0	0	\$0	2	0			
24	0	0	0	\$0	2	0			
25	0	0	0	\$0	2	0			
26	0	0	0	\$0	2	0			
27	17	90	135	\$12,823	2	0			
28	BULLS		0		\$0		0		

Figure 9. Range Fire (Drylot Option): Health Expense Planning Sheet Changes

Before

ranch analysis 98							
A	K	L	M	N	O	P	
1	HEALTH EXPENSES						DECISION CONTROL=1
2	©1999 University of Arizona						TRUE
3							
4	Disclaimer: Neither the issuing in						
5		COST	MED.	COST	MED.	COST	
6		\$0.20		\$0			
7	EACH	3 WAY	EACH		EACH		
8	CALVES - Spr. Born	\$66.40	# Head	\$0.00	# Head	\$0.00	
9	STEER	\$33.20	1	\$0.00	0	\$0.00	
10	HEIFER	\$33.20	1	\$0.00	0	\$0.00	
11	CALVES - Fall Born	\$4.20		\$0.00		\$0.00	
12	STEER	\$2.00	1	\$0.00	0	\$0.00	
13	HEIFER	\$2.20	1	\$0.00	0	\$0.00	
14	YEARLINGS on Ranch for Sale	\$0.00		\$0.00		\$0.00	
15	STEERS	\$0.00	0	\$0.00	0	\$0.00	
16	HEIFERS	\$0.00	0	\$0.00	0	\$0.00	
17	COWS, Breeding Stock	\$0.00		\$0.00		\$0.00	
18	Replacement Calves	\$0.00	0	\$0.00	0	\$0.00	
19	Yearlings -- exposed w/out Calf	\$0.00	0	\$0.00	0	\$0.00	
20	Bred Heifers/2 Year Olds	\$0.00	0	\$0.00	0	\$0.00	
21	3 YEAR OLDS	\$0.00	0	\$0.00	0	\$0.00	
22	4 YEAR OLDS	\$0.00	0	\$0.00	0	\$0.00	
23	5 YEAR OLDS	\$0.00	0	\$0.00	0	\$0.00	
24	6 YEAR OLDS	\$0.00	0	\$0.00	0	\$0.00	
25	7 YEAR OLDS	\$0.00	0	\$0.00	0	\$0.00	
26	8 YEAR OLDS	\$0.00	0	\$0.00	0	\$0.00	
27	9 YEAR OLDS	\$0.00	0	\$0.00	0	\$0.00	
28	10 YEAR OLDS	\$0.00	0	\$0.00	0	\$0.00	
29	UNKNOWN >4	\$0.00	0	\$0.00	0	\$0.00	

After

ranch analysis 98							
A	L	M	N	O	P	Q	
1	HEALTH EXPENSES						DECISION CONTROL=1
2	©1999 University of Arizona						TRUE
3							
4	Disclaimer: Neither the issuing in						
5		MED.	COST	MED.	COST	COST	
6			\$0	LA 2000	\$1		
7	3 WAY	EACH		EACH		EACH	
8	CALVES - Spr. Born	# Head	\$0.00	# Head	\$96.00	# Head	
9	STEER	1	\$0.00	60	\$48.00	0	
10	HEIFER	1	\$0.00	60	\$48.00	0	
11	CALVES - Fall Born		\$0.00		\$0.00	\$0.00	
12	STEER	1	\$0.00	0	\$0.00	0	
13	HEIFER	1	\$0.00	0	\$0.00	0	
14	YEARLINGS on Ranch for Sale		\$0.00		\$0.00	\$0.00	
15	STEERS	0	\$0.00	0	\$0.00	0	
16	HEIFERS	0	\$0.00	0	\$0.00	0	
17	COWS, Breeding Stock		\$0.00		\$0.00	\$0.00	
18	Replacement Calves	0	\$0.00	0	\$0.00	0	
19	Yearlings -- exposed w/out Calf	0	\$0.00	0	\$0.00	0	
20	Bred Heifers/2 Year Olds	0	\$0.00	0	\$0.00	0	
21	3 YEAR OLDS	0	\$0.00	0	\$0.00	0	
22	4 YEAR OLDS	0	\$0.00	0	\$0.00	0	
23	5 YEAR OLDS	0	\$0.00	0	\$0.00	0	
24	6 YEAR OLDS	0	\$0.00	0	\$0.00	0	
25	7 YEAR OLDS	0	\$0.00	0	\$0.00	0	
26	8 YEAR OLDS	0	\$0.00	0	\$0.00	0	
27	9 YEAR OLDS	0	\$0.00	0	\$0.00	0	
28	10 YEAR OLDS	0	\$0.00	0	\$0.00	0	
29	UNKNOWN >4	0	\$0.00	0	\$0.00	0	

Changes

Figure 10. Range Fire (Drylot Option): Herd Production Planning Sheet Changes

Before

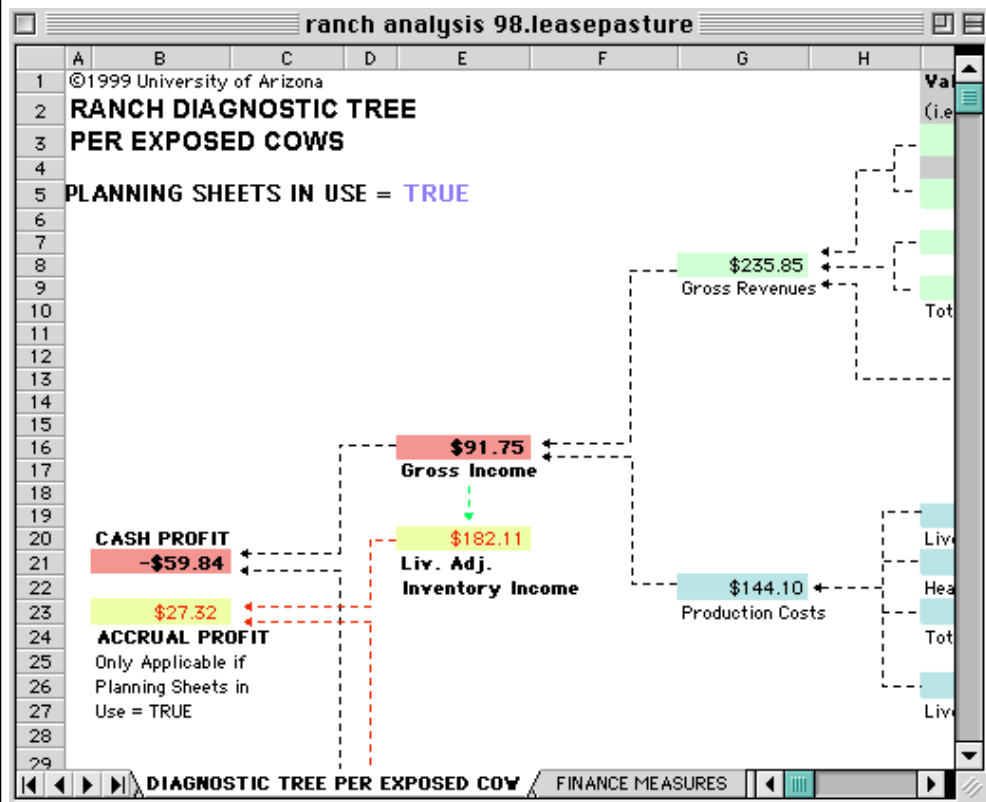
ranch analysis 98						
A	J	K	L	M	N	
1	LIVESTOCK PRODUCTION					
2						
3	DECISION CONTROL=1					
4	TRUE					
5	ACTUAL HEAD			GROSS		
6	SOLD OR CULLED			SELLING VAL		
	FROM ACF	31-Dec-98	SALE	PRICE		
	DEFICIENCIES	INVENTORY	WEIGHT	(\$/CWT)		PER HEAD
7	CALVES - Spr. Born	302	0	(LBS.)		
8	STEER	169	0	445	\$75	\$33
9	HEIFER	134	0	420	\$70	\$29
10	CALVES - Fall Born	11	18			
11	STEER	10	9	435	\$80	\$33
12	HEIFER	1	9	400	\$75	\$30
13	YEARLINGS on Ranch for Sale	0	0			
14	STEERS	0	0	700	\$65	\$45
15	HEIFERS	0	0	650	\$60	\$39
16	COYS, Breeding Stock	24	454			\$45
17	Replacement Calves		45			
18	Yearlings -- exposed w/out Calf	1	38			\$44
19	Bred Heifers/2 Year Olds	1	84			\$44
20	3 YEAR OLDS	1	32			\$44
21	4 YEAR OLDS	1	30			\$44
22	5 YEAR OLDS	1	28			\$44
23	6 YEAR OLDS	1	26			\$44
24	7 YEAR OLDS	1	23			\$44
25	8 YEAR OLDS	1	18			\$44

After

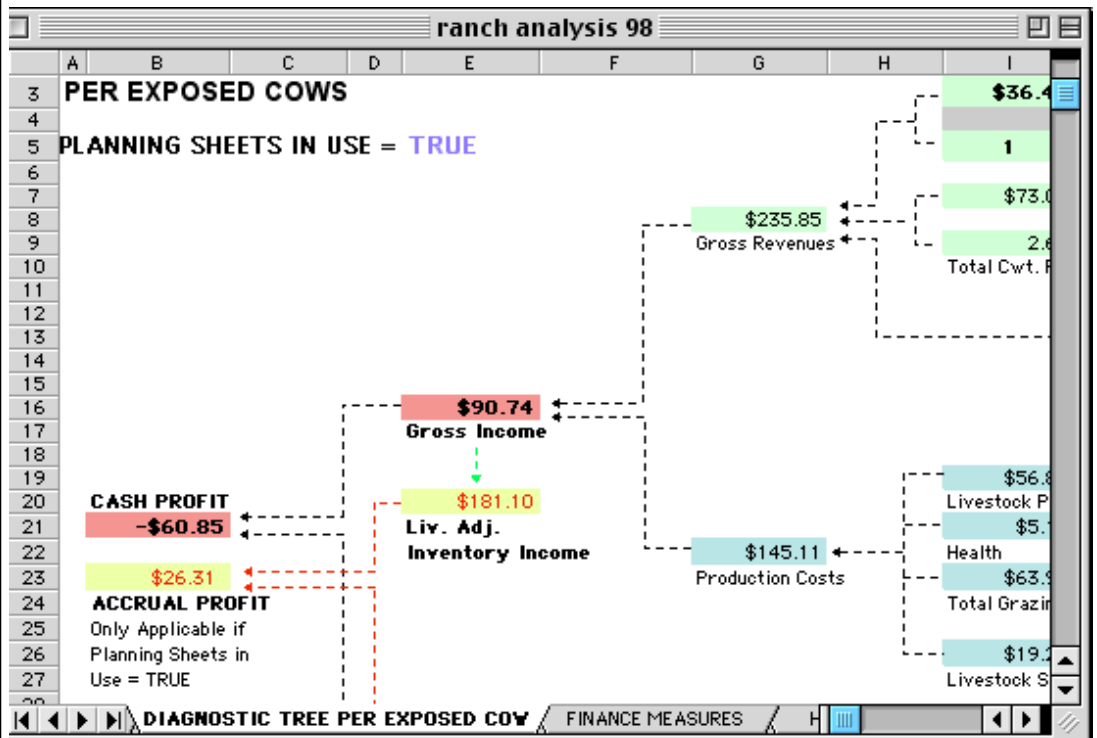
ranch analysis 98						
A	J	K	L	M	N	
1	LIVESTOCK PRODUCTION					
2						
3	DECISION CONTROL=1					
4	TRUE					
5	ACTUAL HEAD			GROSS		
6	SOLD OR CULLED			SELLING VAL		
	FROM ACF	31-Dec-98	SALE	PRICE		
	DEFICIENCIES	INVENTORY	WEIGHT	(\$/CWT)		PER HEAD
7	CALVES - Spr. Born	302	0	(LBS.)		
8	STEER	169	0	452	\$75	\$33
9	HEIFER	134	0	427	\$70	\$29
10	CALVES - Fall Born	11	18			
11	STEER	10	9	435	\$80	\$33
12	HEIFER	1	9	400	\$75	\$30
13	YEARLINGS on Ranch for Sale	0	0			
14	STEERS	0	0	700	\$65	\$45
15	HEIFERS	0	0	650	\$60	\$39
16	COYS, Breeding Stock	24	454			\$45
17	Replacement Calves		45			
18	Yearlings -- exposed w/out Calf	1	38			\$44
19	Bred Heifers/2 Year Olds	1	84			\$44
20	3 YEAR OLDS	1	32			\$44
21	4 YEAR OLDS	1	30			\$44
22	5 YEAR OLDS	1	28			\$44
23	6 YEAR OLDS	1	26			\$44
24	7 YEAR OLDS	1	23			\$44
25	8 YEAR OLDS	1	18			\$44

Figure 11. Range Fire: Leasing Pasture vs. Drylot Comparison

Leasing Pasture



Drylot



FROM:

Arizona Ranchers' Management Guide
Russell Tronstad, George Ruyle, and Jim Sprinkle, Editors.
Arizona Cooperative Extension

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