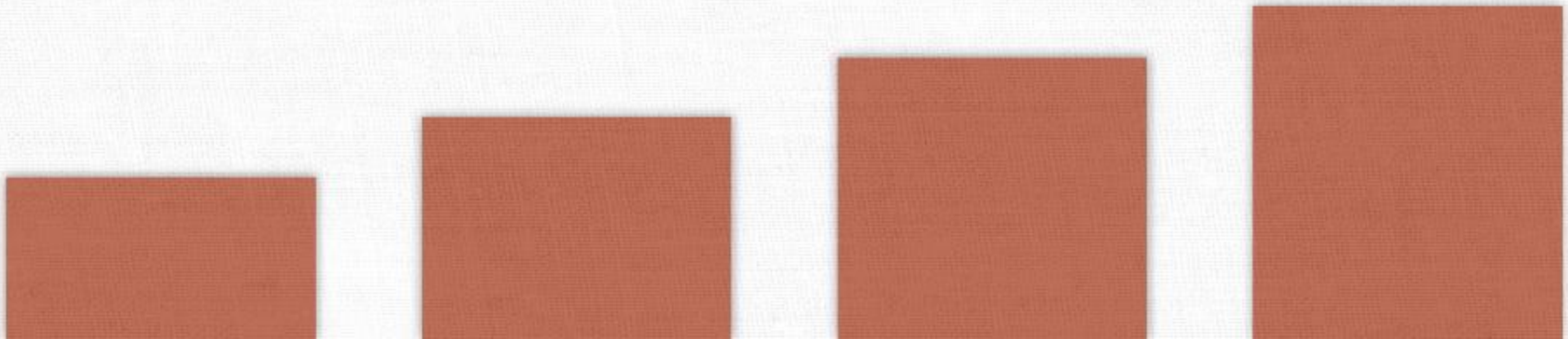
Financial Health for Tribal Producers

Building your Business Foundation Part 2: Financial Analysis

WESTERN EXTENSION RISK MANAGEMENT EDUCATION

USDA United States Department of Agriculture National Institute of Food and Agriculture

This webinar is based upon work supported by USDA/NIFA under Award Number 2018-70027-28587



Project Team:

- Ruby Ward, Professor, Utah State University
- Trent Teegerstrom, Associate Director of Tribal Extension, University of Arizona
- Vicki Hebb, University of Nevada Reno
- Juan Arias, University of Arizona

Acknowledgments: Karli Salisbury, Kynda Curtis, Staci Emm and Carol Bishop.

Money flows in

What is left in the tank?

Money flows out

Water level

Money flows in

What is left in the tank?

Money flows out

What flows in less what flows out

How can the water level go up?

Money flows in

Water level

Money flows out

How can the water level go up?

Money flows in

Water level

Money flows out

- More flow in
- Less flow out
- Change with more flow in than flows out

What is bottom line used for

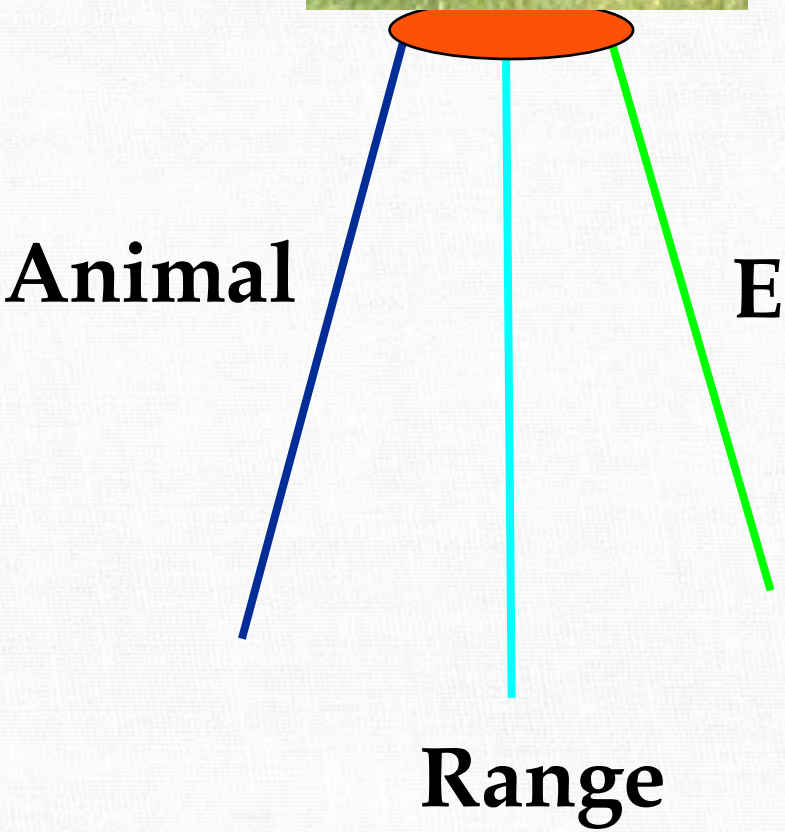
Money flows in

Bottom line

Money flows out

- Service debt (principal payments)
- Reinvest in business (working capital, down payment, etc.)
- Money taken out of business for family

Three Legs Supporting Cow-Calf Industry



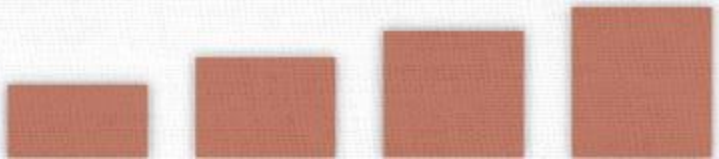
Records of all three items linked together are needed to make good management decisions

Which Animal?

Source: Russell Tronstad

Objectives

- What is Profit?
  - Increasing Profit
- Analyze Business Using:
  - Sensitivity Analysis

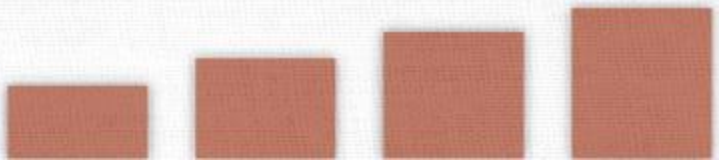


What is profit?

Profit = (price – Variable Cost) quantity – fixed cost

Margin Per Unit

Funds left to cover fixed cost & profit



How can the water level go up?

Money flows in

Water level

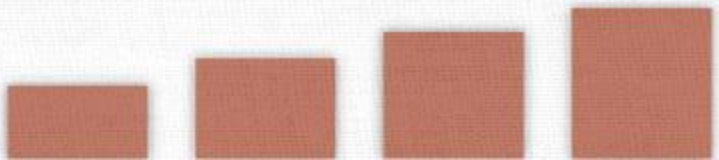
Money flows out

- More flow in
- Less flow out
- Change with more flow in than flows out

How do I Improve Margin?

Margin = (Price – Variable Cost) * Quantity

- Increase Price
- Lower Expenses
- Increase Yield



Analyze Fixed Cost

Profit = (price – Variable Cost) quantity – fixed cost

- Are fixed costs too high?
- How many units to cover fixed costs (fixed cost / margin)?
- Do you have equipment that sits idle for long periods of time?
- How many bulls per cow do you have?
- Is your horse trailer or truck the envy of your neighbors?

Analyze Profit - Ranch

General Composite Ranch

				Total	Per AUY
INCOME	Price	Quantity	Cwt		
Calves	$150.00	31.2	5	$23,412	$468.24
Cull Cows	$72.00	5.0	10	$3,600	$72
Cull Bulls	$90.00	0.1	15	$182	$3.65
Total Income				**$27,195**	**$544**
EXPENSES					
Variable Costs					
Lease and Grazing Fees				$2,047	$41
Feed				$2,670	$53
Livestock Expenses (inputs)				$8,632	$173
Labor				$2,937	$59
Total Variable Expenses				**$16,285**	**$326**
Net Cash Return Over Varialbe Expenses (Margin)				**$10,909**	**$218**
Fixed Costs	**Average Fixed Costs Per AU**				
Cash fixed (property tax & Insurance)		$71		$3,560	$71
Depreciation		$71		$3,560	$71
Total Fixed Expenses				**$7,119**	**$142**
Total Expenses				**$23,404**	**$468**
Net Ranch Income				**$3,790**	**$76**

This budget reflects a 50 head ranch with a 75% calving rate.

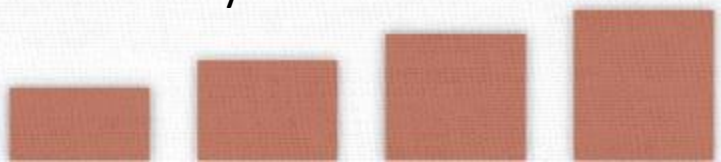
Price per AUY (unit) = $544
Variable Cost per Unit = $326
Margin per unit = $218

Will increasing quantity increase profit?

What about fixed cost?

What would happen if cattle prices decreased by 10% or more?

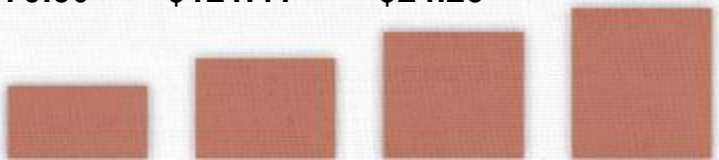
What would happen if variable cost increased by 10% or more?



Ranch Operation Enterprise Budget

General Composite Ranch		
Total Income	$27,195	$544
Total Variable Expenses	$16,285	$326
Net Cash Return Over Variable Expenses (Margin)	$10,909	$218
Total Fixed Expenses	$7,119	$142
Total Expenses	$23,404	$468
Net Ranch Income	$3,790	$76

	Returns	Per Cow	Per Calf Sold	Per Cwt
Returns above variable costs	$10,909	$218.19	$349.48	$69.90
Returns above Variable and Cash Fixed Costs	$7,350	$146.99	$235.45	$47.09
Returns above all costs	$3,790	$75.80	$121.41	$24.28



Situation	Strategy	Examples
Negative Margin	Quit and do something else	Other crops or livestock, other markets
Low Margin	Increase Price Decrease Variable Costs	Pool livestock, Charge more Use pasture longer, less labor, EQIP for better range
Sufficient Margin	Look at Fixed Costs	
High Fixed Costs	Decrease Fixed Costs Increase Revenue from FC Increase Volume	Sell equipment Do custom work Plant more acres, increase herd size
Average Fixed Costs	Increase Volume	Plant more acres, increase herd size
Low Fixed Costs	Good Job!	

Analyze Your Situation

Simple Income Statement

Historical	Dollars	% of Sales
Sales	$27,195	100%
- Variable Costs:	$16,285	60%
= Gross Margin:	$10,909	40%
- Fixed Costs/Overhead	$7,119	26%
= Profit	$3,790	14%

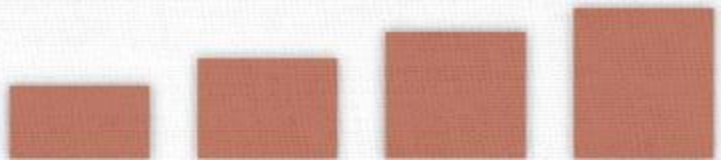
http://farmbiztrainer.com/resources/groups/one-page-planning-suite/

Source: Farm Credit

Simple Income Statement

Historical	Dollars	% of Sales
Sales	$27,195	100%
- Feed	$4,717	17%
- Inputs	$8,632	32%
- Labor	$2,937	11%
- Marketing	$0	0%
= Gross Margin:	$10,909	40%
- Fixed Costs/Overhead	$7,119	26%
= Profit	$3,790	14%

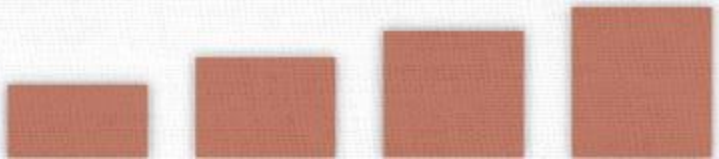
Source: Farm Credit



Sensitivity Analysis

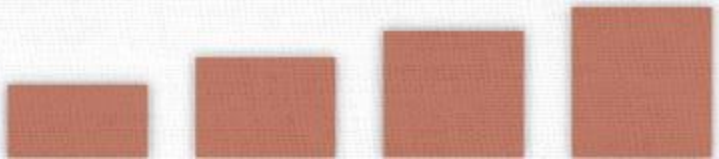
How Sensitive Are You?

- You made your best guess
- Determine what will happen if you are wrong
- Look at the good, the bad, and the ugly
- Changing one assumption may cause bigger changes in results



What happens if …

- Things happen that can affect your net profit
- Knowing the relationship of revenue, costs, and profit allows you to predict net income
- Help make adjustments and prepare for the year



Doing it

- Need to know revenue (value of sales) for a typical year
- How much you paid for
  - Expenses
  - Labor
  - Overhead (electricity, phone, insurance, etc.)
- Convert to percentages of revenue

Available in Excel tools at

https://tinyurl.com/AZFRTEPFacebook or

https://extension.arizona.edu/tribal-extension

Questions?

Thank You!