

Putting Profit back in Ranching: Managing Cow Costs



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Tom Lasater once said....
The key to profitable ranching is
keeping it simple....

*... the challenge to profitable
ranching is keeping it simple*



What factors truly impact profit???

Scale of operation?

Weaning weights ?

Calf price ?

Labor Costs ?

Feed Costs ?

Overheads ?

Weaning Percent ?

Operating Costs ?

Cow or ewe size ?

Enterprise selection?



Summary of SPA record herds

Source: Dr. Allen Miller, U of IL, Beef Extension Specialist,

<u>Dependent Variable</u>	<u>R²</u>
Feed Cost	.567
Depreciation Cost	.086
Operating Cost	.049
Calf weight	.046
Capital charge	.024
Calf price	.027
Weaning percentage	.017
<u>Herd size</u>	<u>.007</u>
Total	.823

-There are 8 financial measures capable of explaining over 82% of farm-to-farm variation in RLM

-Cost factors were far more influential in driving RLM than production, reproduction, or producer-controlled marketing factors

-In the financial prediction equation nearly **57% of herd-to-herd variation in profit can be explained by feed cost**



Top four costs I find with my consulting clients

- Winter feed
 - Equipment depreciation
 - Equipment operation
 - Fertilizer
 - Irrigation
- Cow depreciation
- Land
- Labor

Winter feed costs are the largest cost for most cow-calf producers



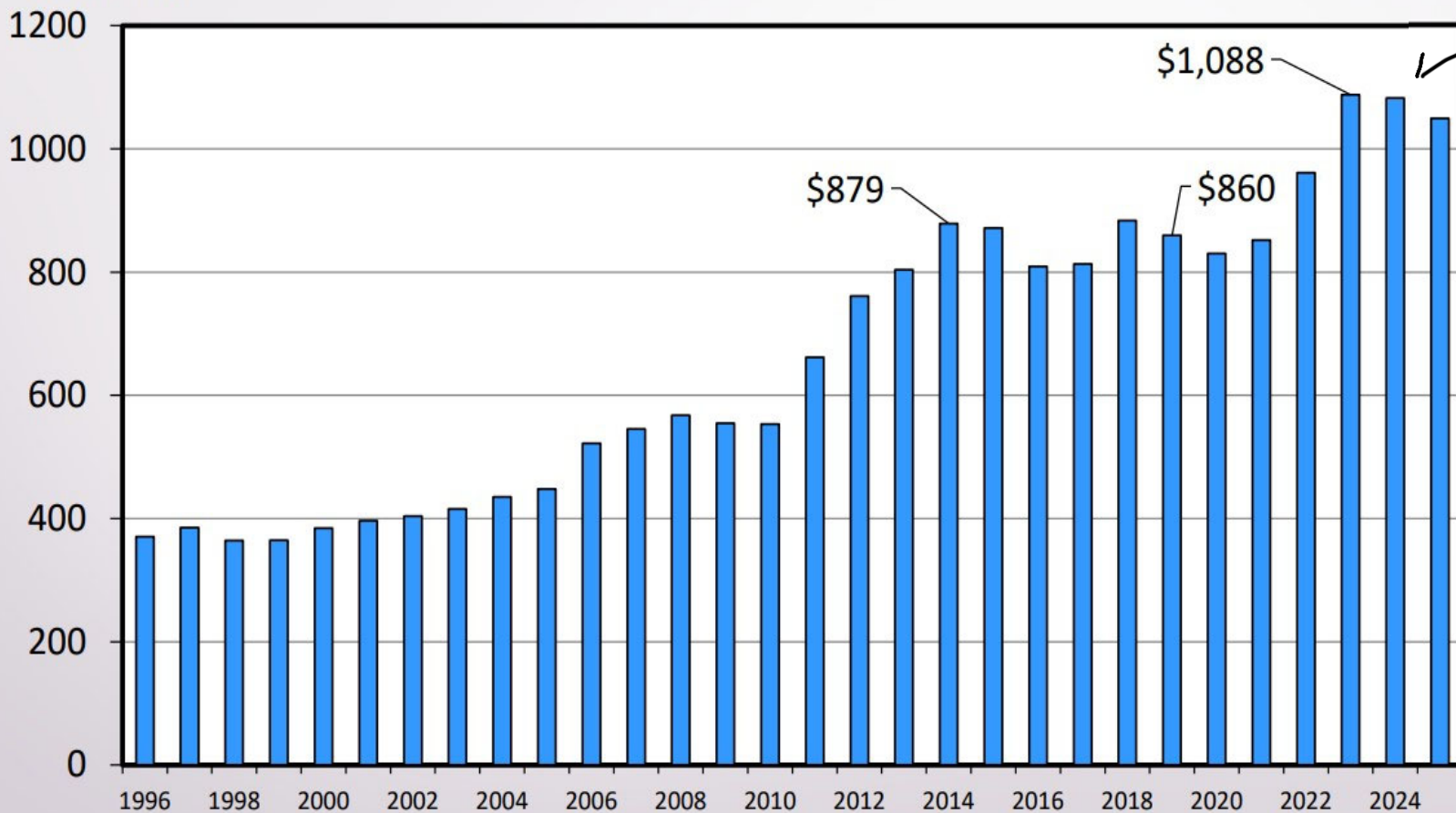
Most farmers and ranchers have no idea what it cost to get to this point !

Cost for cow-calf operation has steadily increased here in the 21st century!

ESTIMATED AVERAGE COW CALF COSTS

Total Cash Cost Plus Pasture Rent, Annual

\$ Per Cow



Annual costs had been predicted to drop in 2024

Costs actually increased to \$1143/cow!

Data Source: USDA & LMIC, Compiled by LMIC

Livestock Marketing Information Center

09/19/23



Profit = Income - Costs

- You can increase income by:
 - Increasing units of production
 - Receiving higher price per unit
 - Adding enterprises
- **You can increase profit most effectively by reducing costs**
 - Operating (or variable)
 - Overhead

It is critical you know your unit cost of production !

What are operating (variable) costs ?

- Costs that change as production level changes
 - Livestock purchase
 - Feed
 - Vet
 - Fuel
 - Machine operating, repair, & maintenance
 - Trucking
 - Etc.

Profit = Income – Costs:

Understanding gross margin

- Gross margin is the difference between sale value and operating (variable) cost for each unit of production.
- Our goal should be to increase gross margin of every product we sell to >50%

Gross margin example

- If your operating costs for maintaining a cow are \$1120 annually and a calf sells for \$1800, the gross margin is \$680
- The gross margin ratio is 38%
(\$680/\$1800)
- Profit margin will be increased more by reducing costs by \$100 than increasing income by \$100

Profit = Income – Costs:

Understanding gross margin

- Gross margin is the difference between sale value and operating cost for each unit of production.
- Our goal should be to increase gross margin of every product we sell to >50%
- **Until gross margin >50%, focus on cost management**
 - Not increased production**

What are overhead costs ?

- Costs incurred whether you produce anything or not
 - Land ownership
 - Labor
 - Equipment depreciation
 - Facility depreciation
 - Utilities
 - Insurance
 - Taxes
 - Cow depreciation*

Profit = Income – Costs:

Understanding overhead ratio

- How much of total costs are tied up in overheads ?
- Ratio is overheads/gross income
- For sustainable ranching overhead ratio must be less than 50% (RMC)
- Target should be less than 33%

Profit = Income – Costs:

Understanding overhead ratio

- Calculating overhead ratio
 - If overhead costs/cow are \$540 and gross income/cow is \$1800
 - Overhead ratio is 30% ($\$540/\1800)...
....this ranch has a chance of surviving

Overhead summary example on fixed land base capable of carrying 500 cows

This is why we call them 'Overheads' and not 'Fixed' costs!

Overhead summary						
Herd size	Labor	Land	Facilities	Equipment	Utilities	Total
0	\$ 30,000	\$ 50,000	\$ 10,000	\$ 4,000	\$ 2,000	\$ 96,000
50	\$ 30,000	\$ 50,000	\$ 10,000	\$ 8,000	\$ 3,000	\$ 101,000
100	\$ 30,000	\$ 50,000	\$ 10,000	\$ 12,000	\$ 4,000	\$ 106,000
200	\$ 30,000	\$ 50,000	\$ 12,500	\$ 15,000	\$ 4,500	\$ 112,000
300	\$ 35,000	\$ 50,000	\$ 15,000	\$ 17,000	\$ 4,750	\$ 121,750
400	\$ 40,000	\$ 50,000	\$ 20,000	\$ 19,000	\$ 5,000	\$ 134,000
500	\$ 50,000	\$ 50,000	\$ 25,000	\$ 20,000	\$ 5,100	\$ 150,100

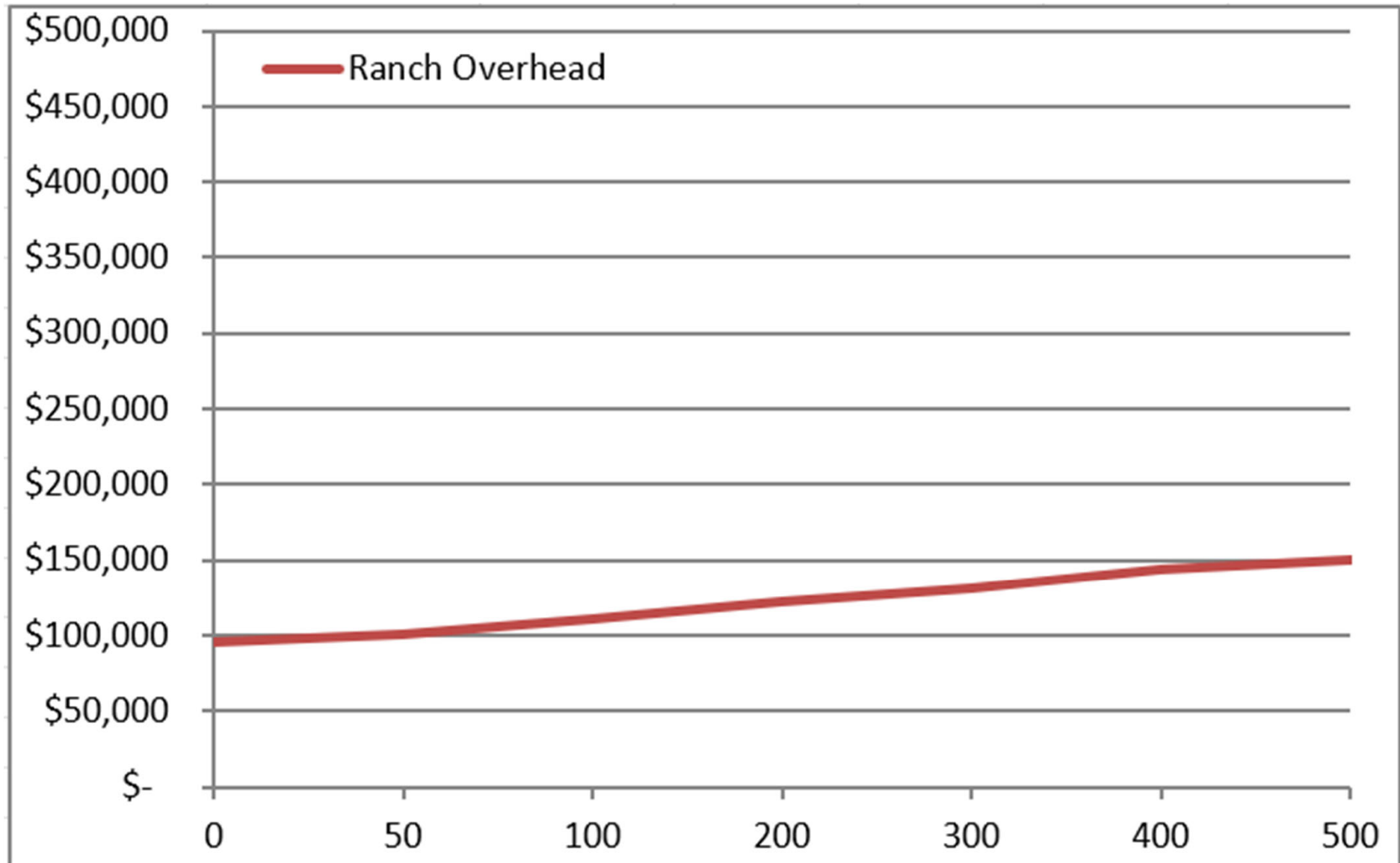
Scale does matter!

*As we bring ranch to its full carrying capacity,
overhead cost per cow steadily declines*

Overhead cost per cow

Herd size	Labor	land	facilities	equipment	utilities	Total
0						
50	\$ 600	\$ 1,000	\$ 200	\$ 160	\$ 60	\$ 2,020
100	\$ 350	\$ 500	\$ 100	\$ 120	\$ 40	\$ 1,110
200	\$ 200	\$ 250	\$ 63	\$ 75	\$ 23	\$ 610
300	\$ 150	\$ 167	\$ 50	\$ 57	\$ 16	\$ 439
400	\$ 125	\$ 125	\$ 50	\$ 48	\$ 13	\$ 360
500	\$ 100	\$ 100	\$ 50	\$ 40	\$ 10	\$ 300

Overhead costs for B & H Ranch



What is the expected labor requirement for a cow herd ?

- Extension service says 300-500 cows / FTE
- Highly successful ranches in US >800 cows
- Australian national standard 1500 cows
- Highly successful Australian stations 3000

What do you do?

These 3600 healthy, happy cows have received about 90 days of hay in the last 40 years.

.... Two men take care of this herd most of the year



Overcapitalization in equipment & facilities breaks many ranches



Equipment depreciation is a real cost



... and must be accounted for in the budget

What equipment do you
really need to own ?



Facility depreciation is a real cost

- and it must be accounted for in the budget

What about cow depreciation ?



- *It is a real cost....*
- *.... and it must be accounted for in the budget*

Understanding cow depreciation

- The difference between purchase price and salvage value
- Spread over the calves a cow produces in her lifetime
- With interest charged

Cow depreciation example: 2003 example

- Purchase cow for \$1000
- Salvage value \$ 500
- Difference **-\$500**

- Cow has 5 calves, so the charge is \$100 per calf plus interest charge for the five years she tied up your money
- @ 8% interest annual charge is **\$125.23**



Cow depreciation example:

Example with cow purchased in 2025

- Purchase cow for \$3000
- Salvage value \$ 1200
- Difference **-\$1800**
- Cow has 5 calves, so the charge is \$360 per calf plus interest charge for the five years she tied up your money
- @ 7% interest, the annual charge is **\$511/calf**



**On the downside of the cattle cycle,
cow depreciation becomes the biggest
line-item in the cow-calf budget...**



... and it will be devastating

Cow depreciation: Overhead or operating cost ?

- If you own a cow herd you likely incur depreciation, therefore it is an overhead
- But it is incurred every year and must be paid for by the current calf crop, therefore it is an operating cost
- However you classify cow depreciation, it is a real cost

What are variable costs ?

- Costs that change as production level changes
 - Livestock purchase
 - Feed
 - Vet
 - Fuel
 - Machine repair & maintenance
 - Trucking
 - Etc.

There is an economy of scale

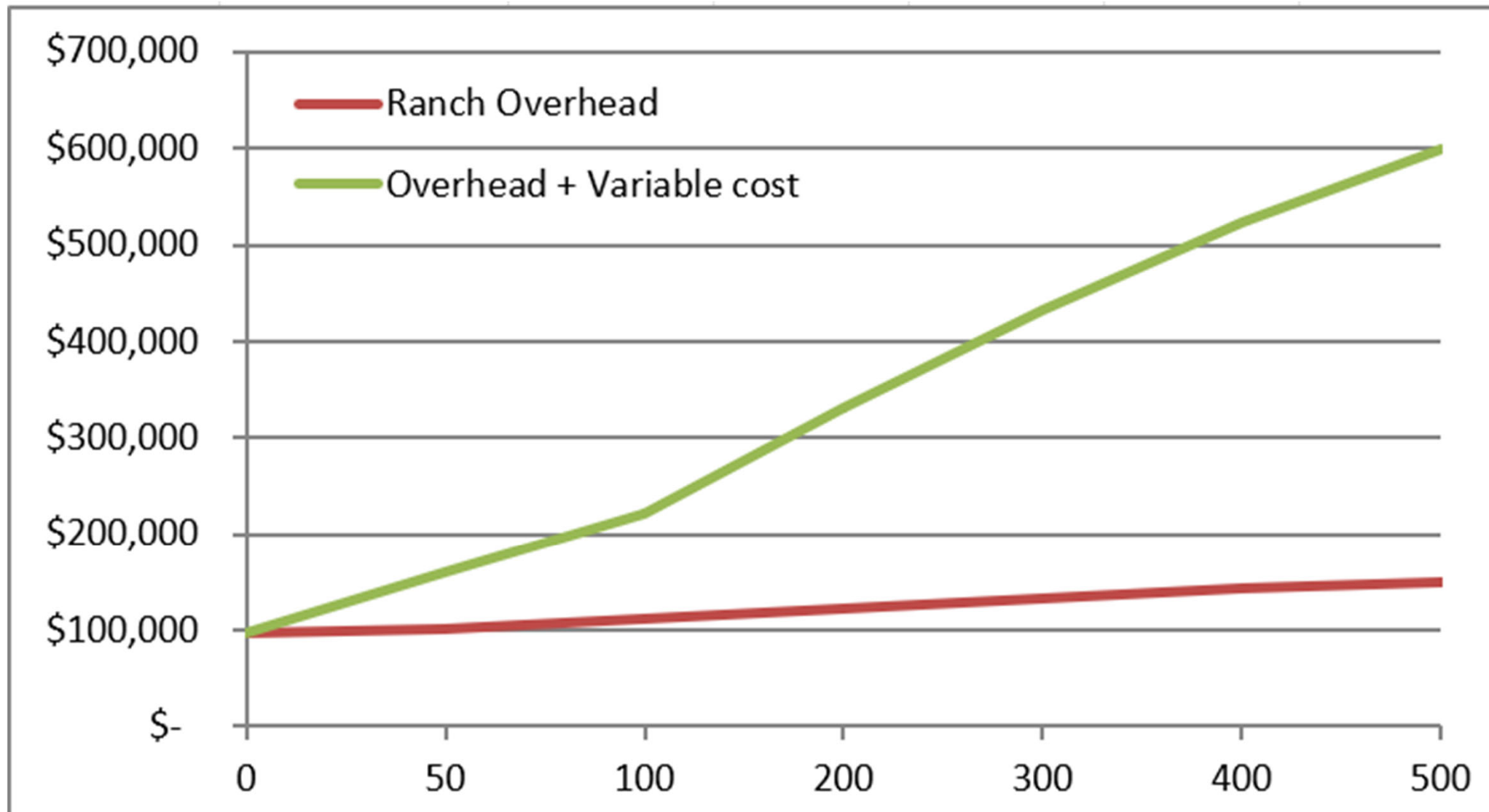
- For this example, variable costs are:

■ 50 COWS	\$1200
■ 100 "	\$1100
■ 200 "	\$1050
■ 300 "	\$1000
■ 400 "	\$ 950
■ 500 "	\$ 900

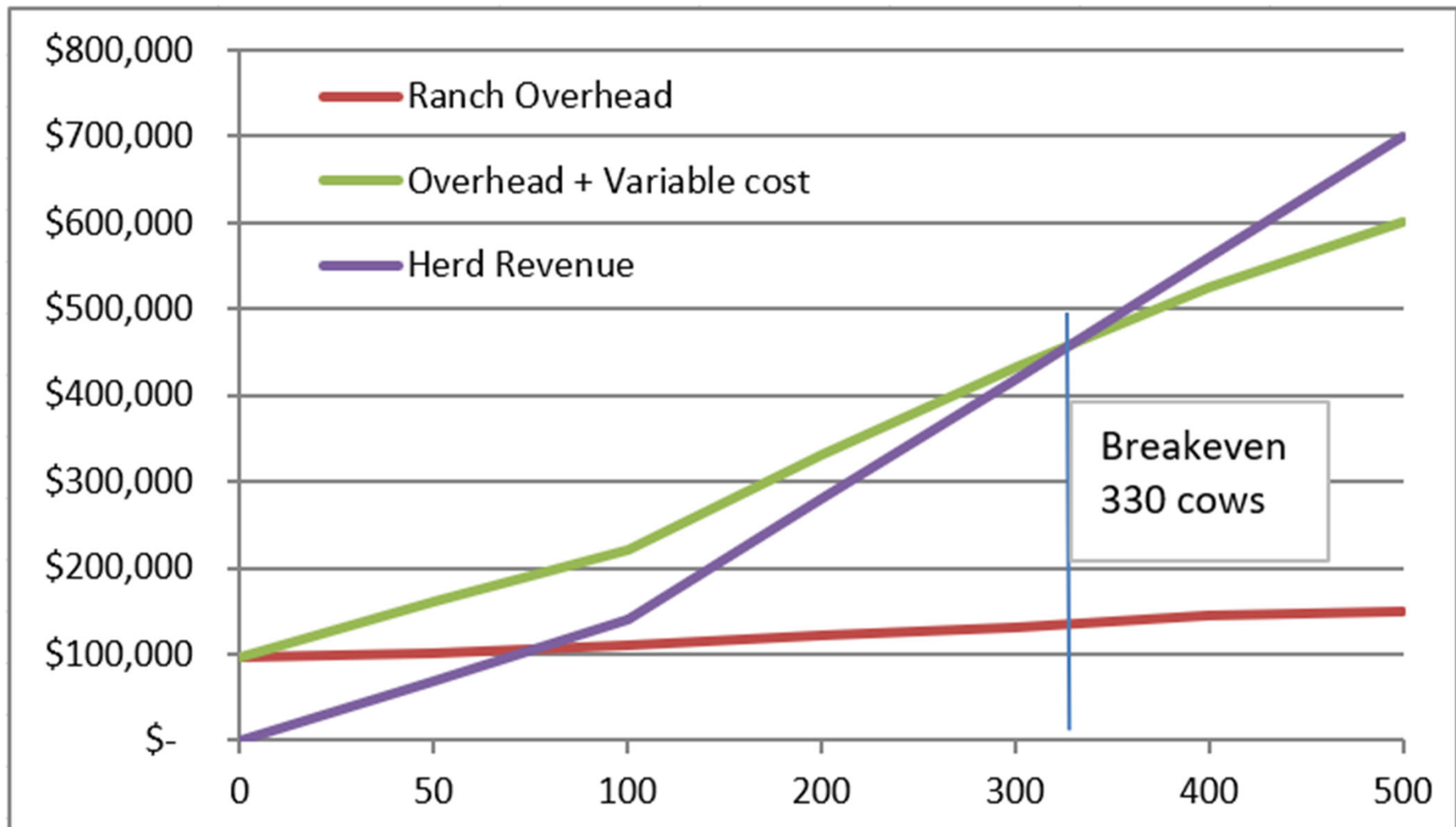
Cost & Return summary for a 'hypothetical' ranch

Herd Size	Ranch Overhead	Variable Costs/Cow	Ranch Variable Costs	Ranch Total Cost	Herd Revenue	Gross Margin	Gross Margin Ratio	Overhead Ratio
0	\$ 96,000	\$ -	\$ -	\$ 96,000	\$ -	\$ -	0%	100%
50	\$ 101,000	\$ 775	\$ 38,750	\$ 39,750	\$ 45,000	\$ 6,250	14%	72%
100	\$ 106,000	\$ 700	\$ 70,000	\$ 176,000	\$ 90,000	\$ 20,000	22%	60%
200	\$ 112,000	\$ 650	\$ 130,000	\$ 242,000	\$ 180,000	\$ 50,000	28%	46%
300	\$ 121,750	\$ 625	\$ 187,500	\$ 309,250	\$ 270,000	\$ 82,500	31%	39%
400	\$ 134,000	\$ 610	\$ 244,000	\$ 378,000	\$ 360,000	\$ 116,000	32%	35%
500	\$ 150,100	\$ 600	\$ 300,000	\$ 450,100	\$ 450,000	\$ 150,000	33%	33%
projected revenue per cow unit: \$ 900								

B & H Ranch example: Overhead plus variable costs

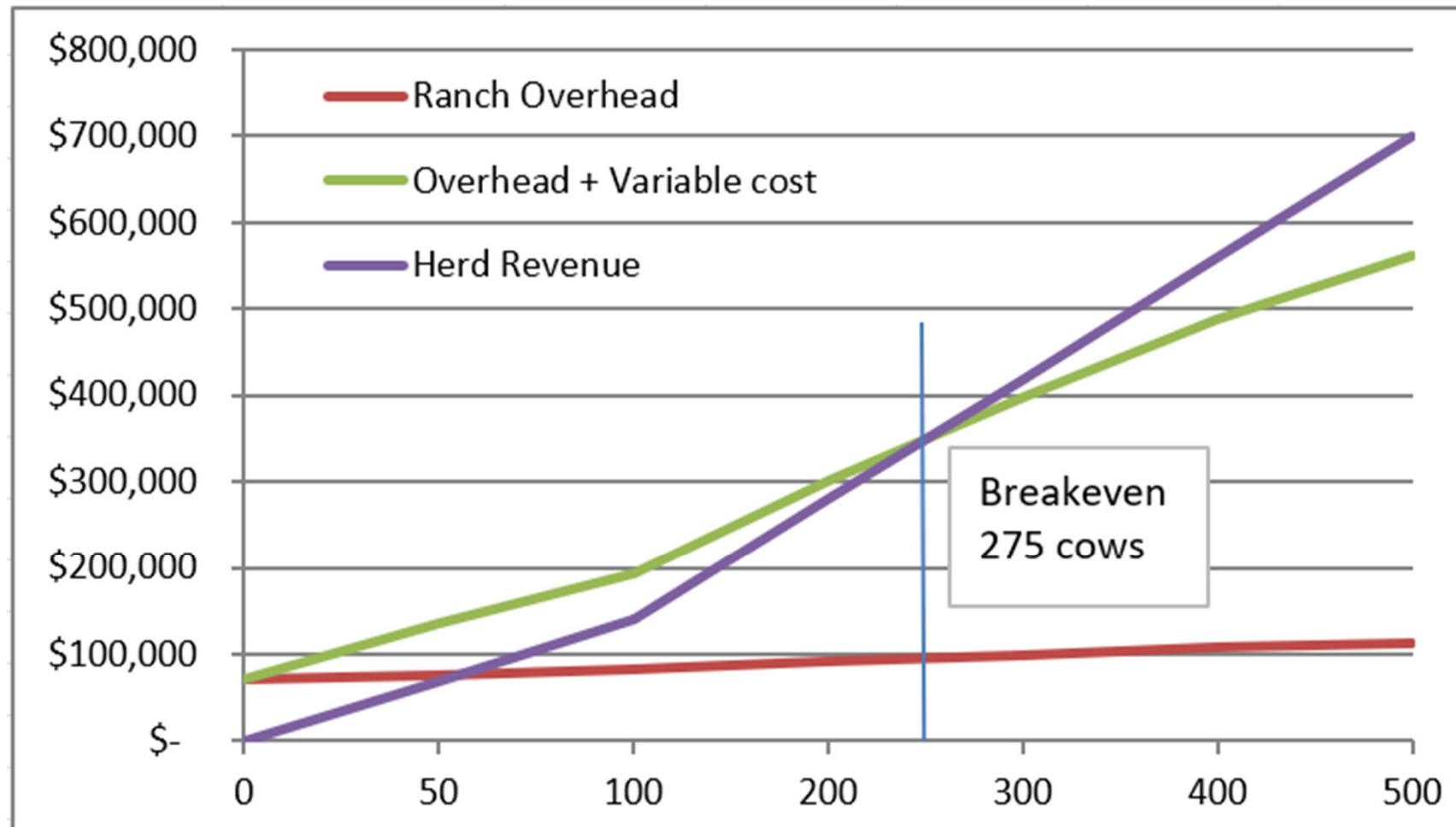


B&H Ranch example: Total costs and revenues



Cow-Calf revenue figured
at \$1400/cow annually

What if overheads were reduced by 25%



There were 55 cows needed to pay for the privilege of owning equipment !

How can we reduce overheads ?

- Get out of farming

"The only bad thing about ranching is farming" ... Gregg Simonds

"The most profitable ranches in the Ranching for Profit Executive Link ranches are those with no farming operations" ... Dave Pratt, RMC Inc.

Alternatives to owning equipment

- Hire custom operator
- Lease equipment
- Let the livestock do more of the harvesting themselves
 - Extend the grazing season
 - Managed grazing

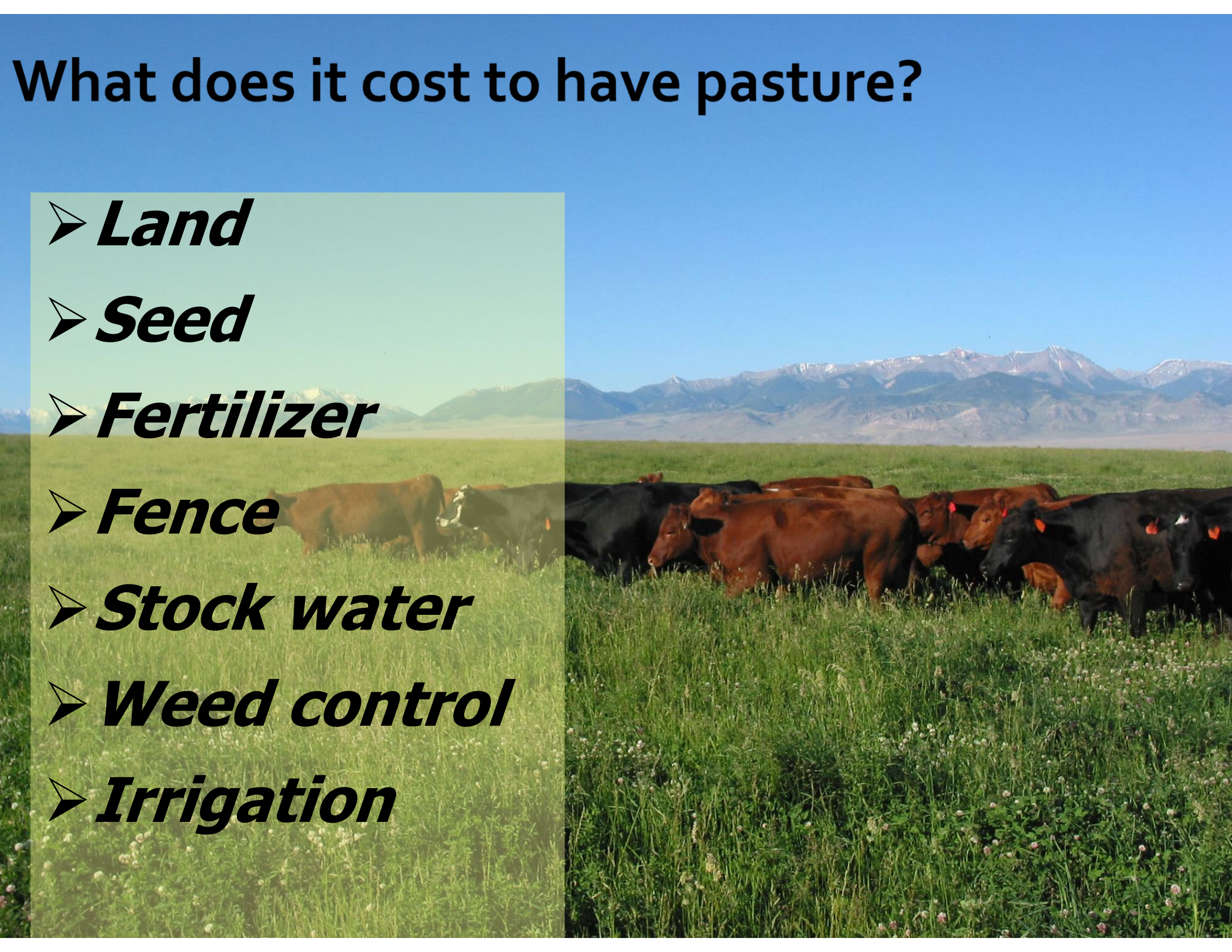
How can we reduce overheads ?

- Get out of farming
- Increase land use efficiency

Management-intensive Grazing is about managing resources in both time and space

What does it cost to have pasture?

- ***Land***
- ***Seed***
- ***Fertilizer***
- ***Fence***
- ***Stock water***
- ***Weed control***
- ***Irrigation***





Every acre of pasture or range has a base cost associated with it

The more pounds of beef it produces, the lower the cost per pound !

As long as the increase comes from management

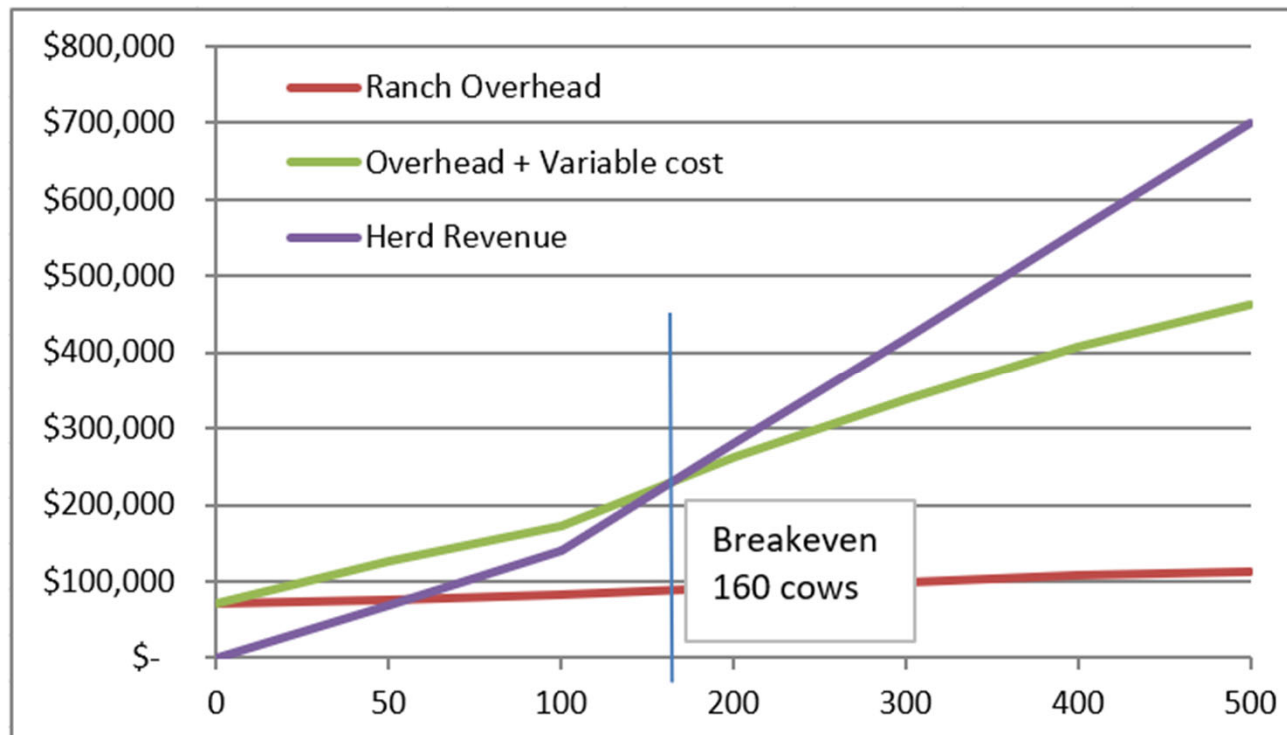
The impact of management

- Set stock pivot on next ranch
 - 120-140 cow-days/acre (1.9 ton/A)
- This pivot 1997-2004 w/ 3-5 day GP
 - 185 cow-days/acre (2.7 ton/A)
- This pivot in 2009 w/ 1-2 day GP
 - 318 cow-days/acre (4.7 ton/A)
 - The three best paddocks > 400 CDA

How can we reduce overheads ?

- Get out of farming
- Increase land use efficiency
- Increase labor efficiency

What if variable costs were reduced by \$200/cow ?



Half the cow herd is now working towards making a profit !

How might variable costs be reduced by \$200 /cow ?

- Let the cows harvest more of their own feed

**Stockpiling is accumulating forage
in the growing season for use in
the dormant season**



***Maybe this is a better picture of
wintering cows***



Typical winter grazing conditions in north Missouri

What about labor for grazing ?

- Use 1-3 day strip grazing for stockpiled pasture or swaths
- Use the right tools to minimize time requirement



***Your job: Design a good grazing cell
and use the right tools***

What about labor for grazing ?

- Use 1-3 day strip grazing for stockpiled pasture or swaths
- Use the right tools to minimize time requirement
- 50 cows or 500 cows takes about the same amount of labor

What about labor ?

- The livestock are ranch employees
- Let them do more of the work

***Do you work for the cows,
or do the cows work for you ?***



What is a cow's job description?



What is a cow's job description?

- Rustle her own grub
- Find the best bite of feed she can
- Deliver a live calf every 12 months
- Bring a live calf to the weaning pen
- Stay healthy without a lot of fuss
- Mow weeds, fertilize pastures.
Plant seeds, till ground, etc.
- Come to work with a positive attitude every day



What is the manager's role?

- Create a working environment where your employees can thrive
- Maintain ranch infrastructure
- Market ranch products
- Plan, Monitor, Adapt, Re-plan

Managing cow cost summary:

- You can't manage costs until you know what they are.
 - A good record system is critical
 - Overheads
 - Operating

Managing cow cost summary:

- You can't manage costs until you know what they are.
- Attack the big dollar items
 - Winter feed
 - Cow depreciation
 - Labor
 - Land

Managing cow cost summary:

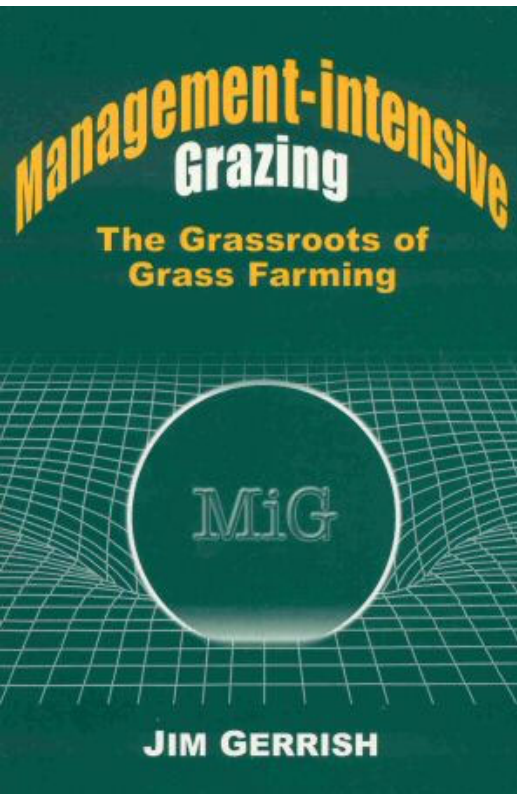
- You can't manage costs until you know what they are.
- Attack the big dollar items
- Only own what you absolutely need
 - Find more ways for the livestock to do more of the work
 - You can hire most equipment jobs for less cost than you can do it yourself

Managing cow cost summary:

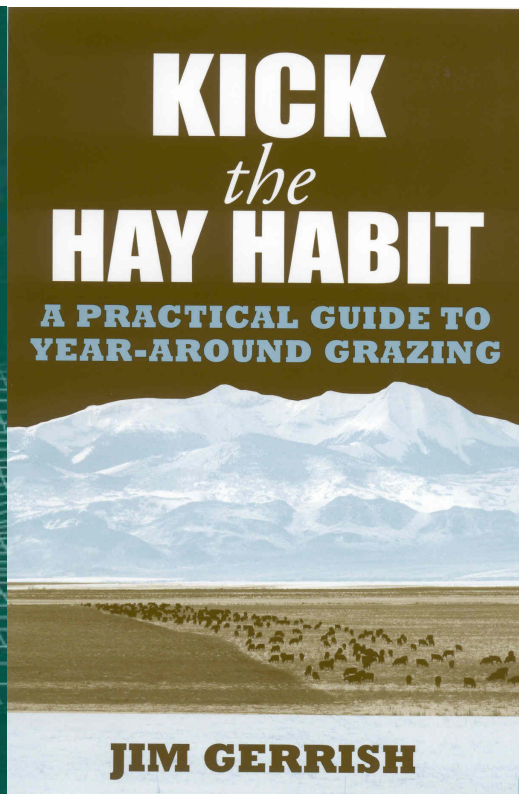
- You can't manage costs until you know what they are.
- Attack the big dollar items
- Only own what you absolutely need
- Every day spent grazing is money saved
 - Cost advantage of grazing over hay feeding is frequently >\$1 / day

Two winters ago, our clients ran from \$1.50 to \$2.10 cost savings per day of grazing!

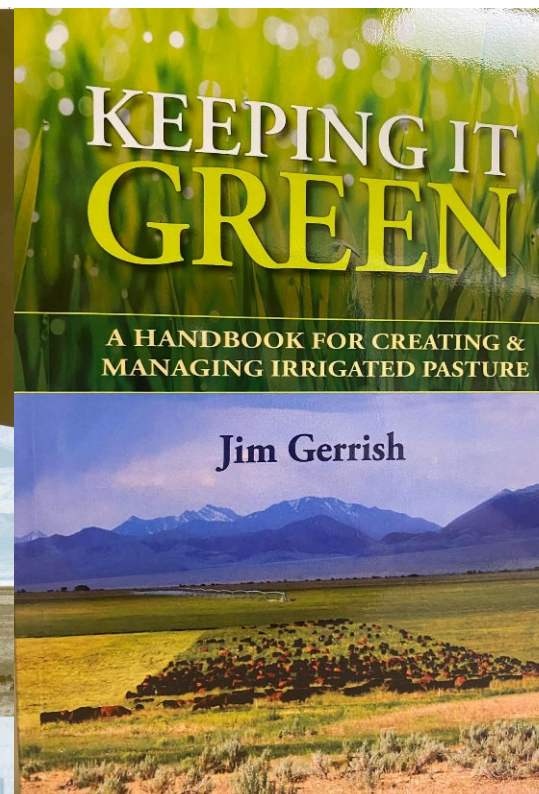
Books by Jim Gerrish



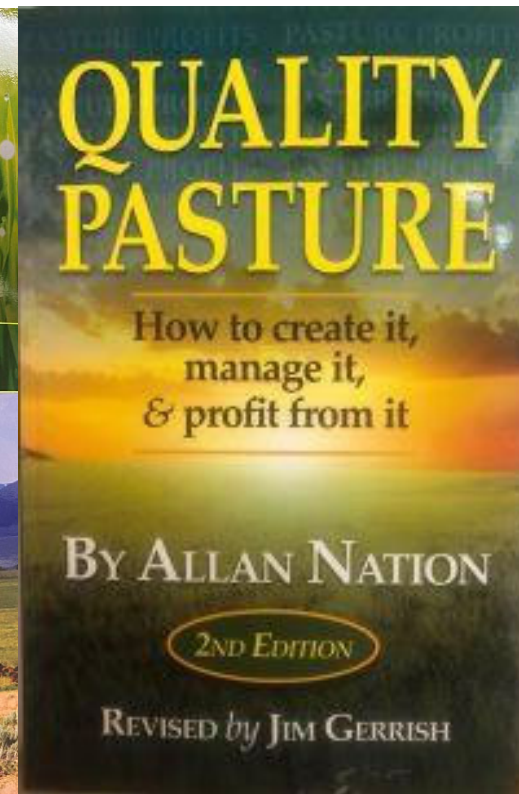
\$31



\$27



\$20



\$30

<https://www.americangrazinglands.com/collections/books-more>

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