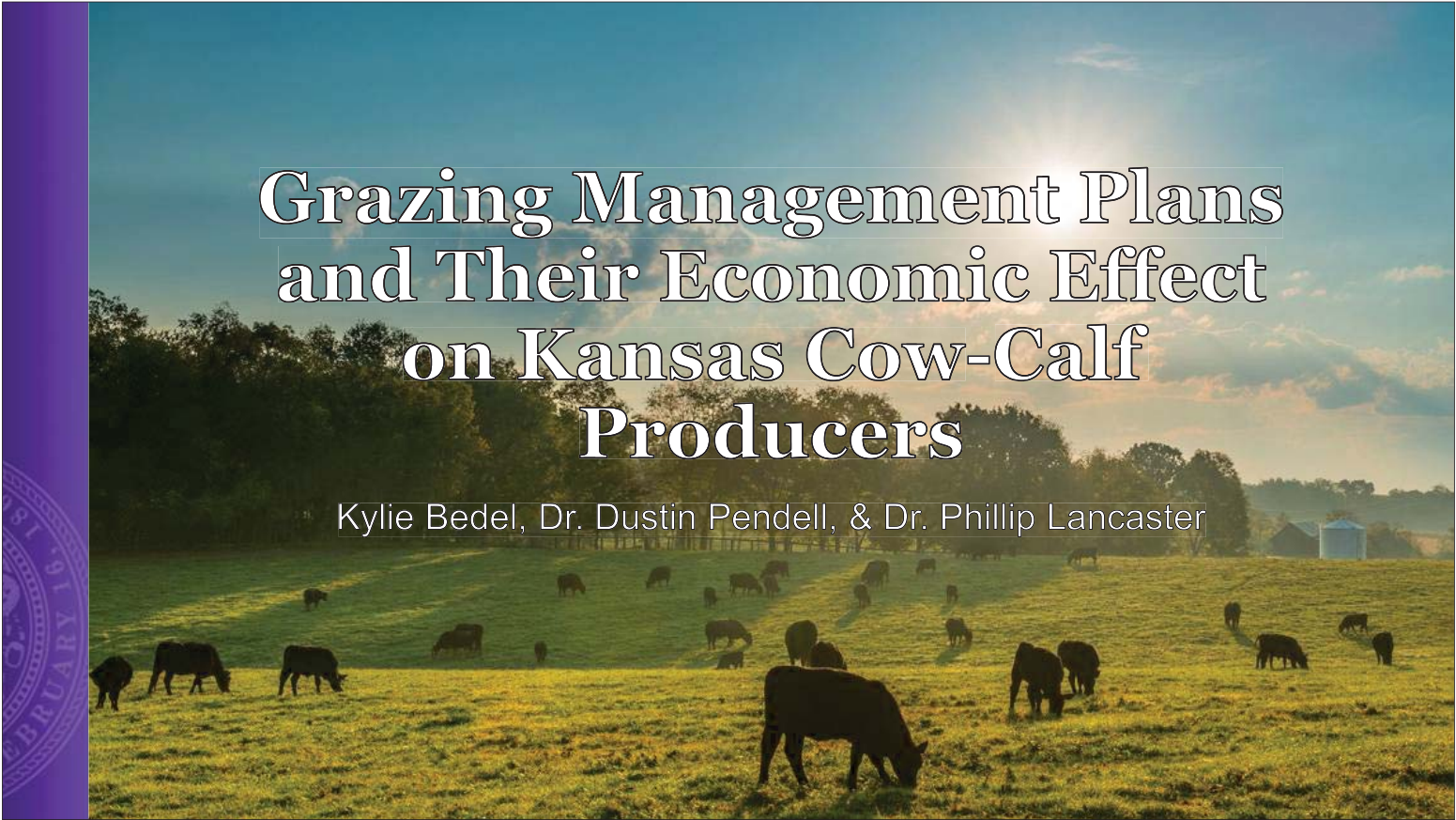




Grazing Management Plans and Their Economic Effect on Kansas Cow-Calf Producers

Kylie Bedel, Dr. Dustin Pendell, & Dr. Phillip Lancaster

Outline

- Grazing Management Plans
- Research Focus
- Why it matters for Kansas and Cow-Calf producers
- Profitability Influences
- Questionnaire Results
- Financial Analysis – Costs, Production, and Profitability
- Summary
- Writing Your Own GMP

What is a grazing management plan?

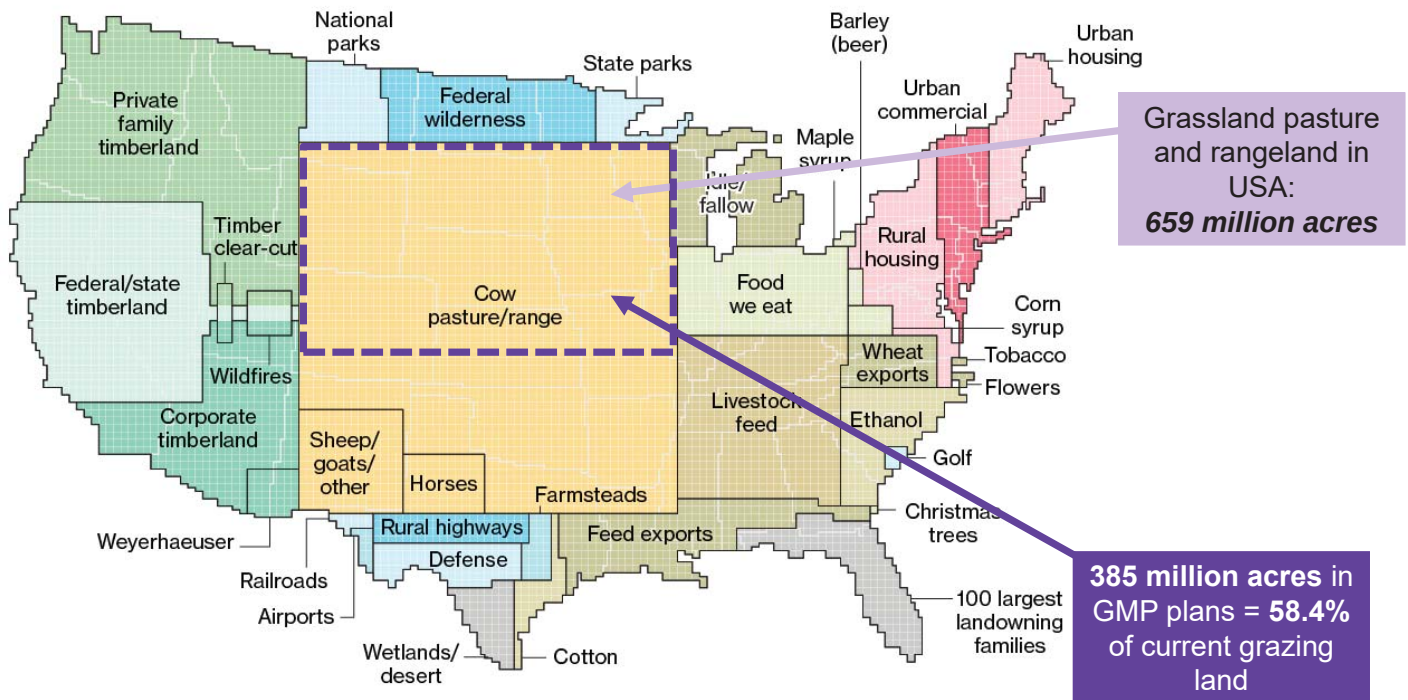
- Grazing Management Plan (GMP): conservation plan specifically addressing the resource inventories of grazing lands
 - Operational Goals and Objectives
 - Resource and Forage Inventories
 - Monitoring Plan
 - Contingency Plan



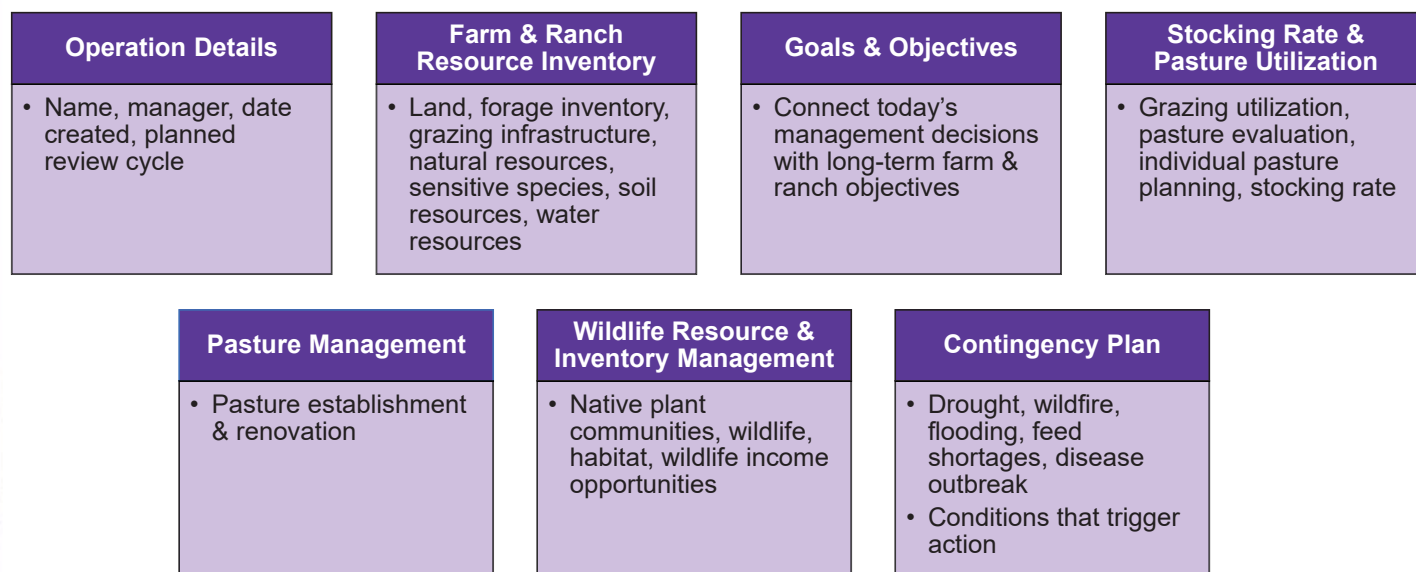
- U.S. Roundtable for Sustainable Beef announced goal of 385 million acres under written GMP by 2050

"Profitable ranching and environmental stewardship go hand in hand."

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GMP – What's included?



Types of GMPs

- No GMP: no grazing management plan for making decisions
- Mental GMP: having a general idea or mental idea for making decisions, but no written documentation
- Written GMP: a form of documentation – written paper, online, specialized software, etc.
- Written GMP with Annual Evaluation: a written plan with operational goals and objectives then evaluating and adapting the plan at least once per year

What should a GMP do for you?

- Helps identify:
 - Key sources of **costs**
 - Feed Costs – forage & non-forage feeds
 - Pasture Costs – burning, wildlife, reclamation
 - **Profitability** influences
 - Goals and Objectives
 - **Productivity** drivers
 - Stocking rates
 - Pasture utilization
- Producers should benefit from:
 - ***Reducing costs***
 - better management of key costs
 - ***Higher profitability***
 - Hitting goals for revenue or other management decisions
 - ***More productive animals***
 - Matching stocking rate to pasture size and quality

If GMP is managed well

Why GMPs matter? Preliminary Results

Having a GMP positively affects:

Non-Pasture
Feed Costs

Calf Sold
Weight

Profitability

Other
Production
Decisions

- 

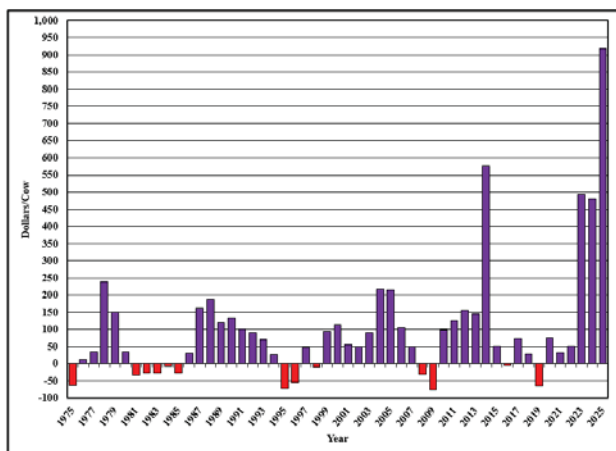
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Cheyenne 11,800	Reading 10,500	Donner 10,500	Norton 15,000	Phillips	Smith	Jewett	Republic 9,800	Washington 21,200	Manitou 15,300	Nemaha 18,400	Brown 6,400	Longmont 7,600	
Sheeran 6,500	Thomas	Shedden	Graham 9,000	Rosita 19,600	Osborne 12,200	Mitchell 15,800	Cloud 11,200	Clay 12,300	Professional 7,600	Jefferson 17,800	Acheson 6,800	Windsor 7,700	
Wallace	Logan 12,500	Grove 11,600	Trope 9,900	Ellis	Russell	Lincoln 15,800	Ottawa	Dillon 7,900	DeWey	Holderness 15,800	Shawnee 12,300	Johnston 300	
Greeley	Watts 3,600	Scott	Lane	Niles 12,300	Rush 7,500	Baron 14,700	Elsworth	Staline	Dulleson	Morse 17,600	Franklin 11,800	Mann 18,100	
Hamilton 5,200	Kearny	Finner	Hodgeman	Powlsen	Stafford 6,700	Rice	McPherson 10,400	Marion 22,200	Chase	Lyon	Colley 9,900	Anderson 12,800	Linn 14,200
Starbuck	Gray 8,800	Fund 8,900	Edwards 6,300	Phair 4,100	Kingman 18,500	Reno 19,700	Haines 10,500	Sedgewick 13,300	Butler 24,800	Greenwood 36,500	Woodson 9,900	Allen 11,500	Resolute 25,000
Morton 4,300	Stevens	Seward	Meade	Clark 12,700	Comanche 16,200	Becker 25,000	Harper 11,700	Sumner 7,700	Custer 26,000	Chouteau	Wheaton 19,300	Lafayette 26,800	Cherokee 12,800

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Profitability in Cow-Calf Sector

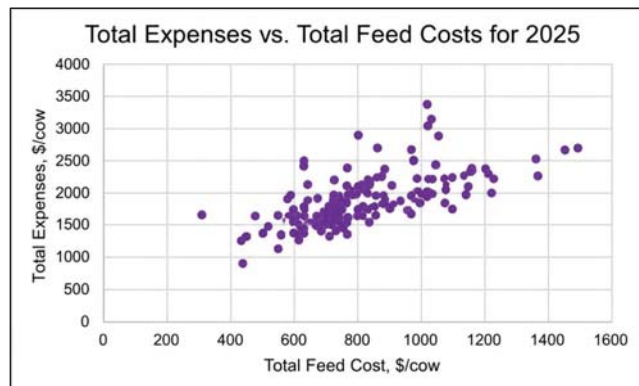
Returns over Variable Cost for Cow-Calf Enterprise



(KFMA Cow-Calf Enterprise, 2025)

- Cow-Calf operators struggle to be profitable

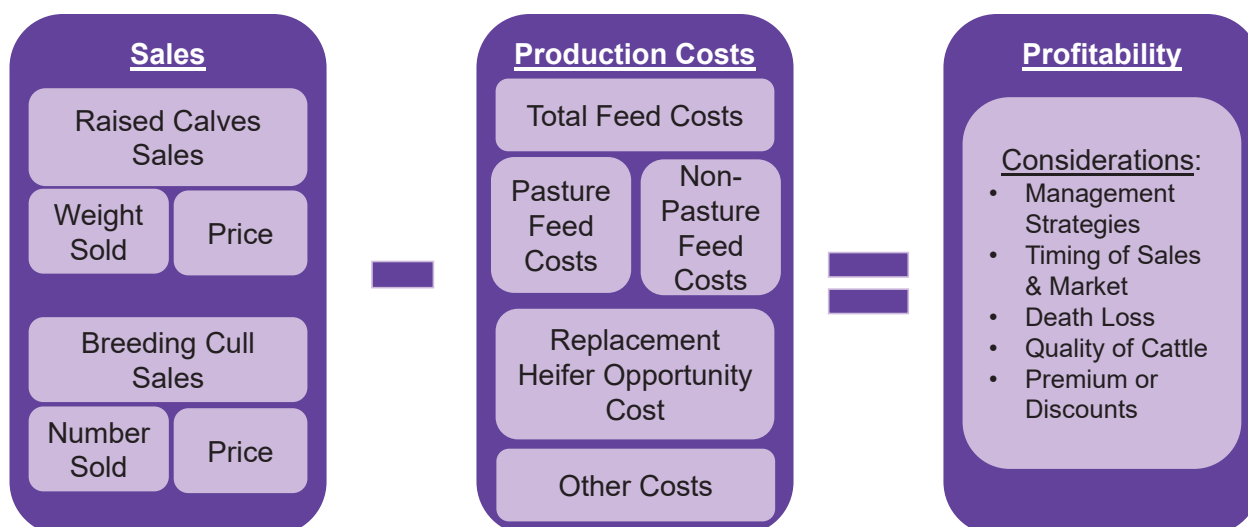
Total Costs vs. Total Feed Costs



(KFMA Cow-Calf Enterprise, 2025)

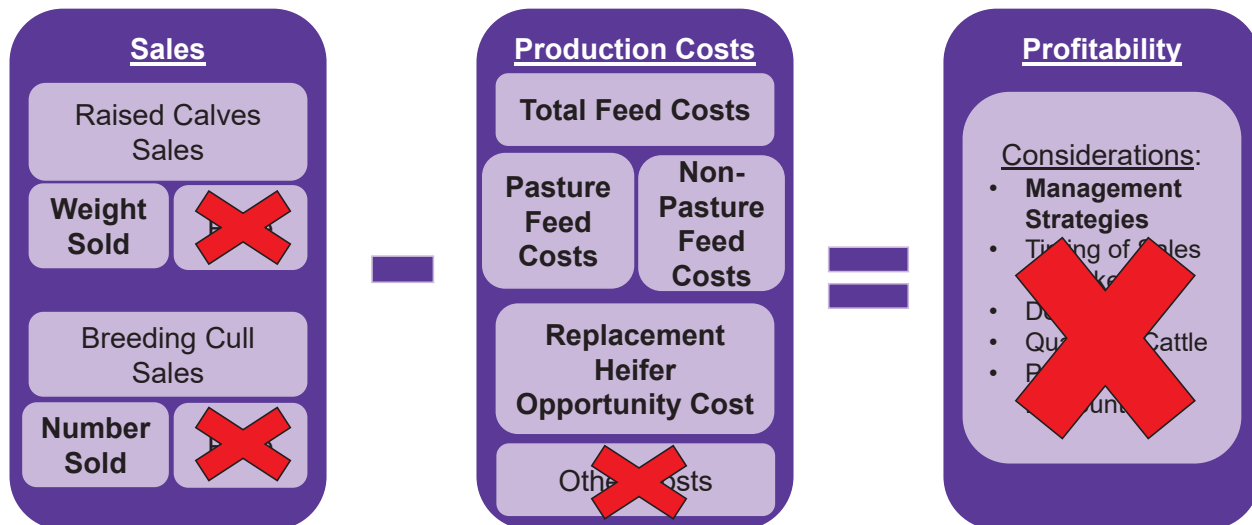
- 54% to 71% of total operating costs within a cow calf operation
- (Falconer et al., 1999; Miller et al., 2001; Dunn, 2002; Shear et al., 2020; Cow-calf production costs and returns, per cow – Prairie Gateway, 2025)

Profitability Influences



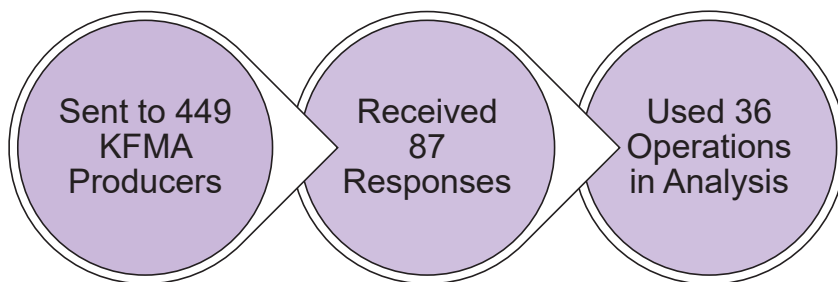
Profitability Influences

What can we look for in our data?



Questionnaire

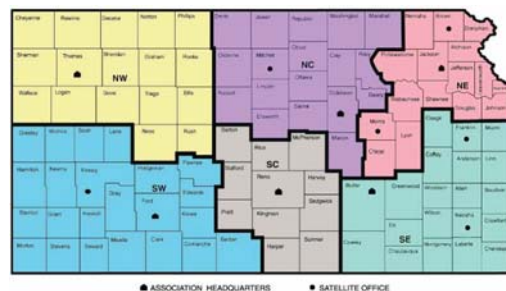
- Focused on:
 - GMP Type
 - GMP Components
 - Timeline of Adoption
 - Type of Grazing Land



Needed more than 2 years' worth of data with 1 year within 2022, 2023, or 2024.

Questionnaire Regions

KFMA Region Analysis				
Regions	Individual Operations	% Individual Operations	Total Observations	% Total Observations
Region 1: North Central (NC)	16	44.4%	69	47.9%
Region 2: South Central (SC)	0	0.0%	0	0.0%
Region 3: Southwest (SW)	1	2.8%	3	2.1%
Region 4: Northeast (NE)	4	11.1%	13	9.1%
Region 5: Northwest (NW)	3	8.3%	20	13.9%
Region 6: Southeast (SE)	12	33.3%	39	27.1%



Mostly Flint Hills Producers

Questionnaire Results

Grazing Management Plan (GMP)		
GMP Type	Individual Operations	% Individual Operations
No GMP	6	16.7%
Mental GMP	26	72.2%
Written GMP	4	11.1%
Written GMP with Annual Evaluation	0	0.0%

Most producers have mental plans

Questionnaire Results

Pastureland		
GMP Type	Individual Operations	% Individual Operations
Native	25	69.4%
Cultivated	6	16.7%
Other	5	13.9%

Most pastureland is in Native, which makes sense for Kansas Cow-Calf producers

Summary of Operations

No GMP

Average Herd Size:
100 cows
Average Calves Born:
84 calves
Average Sold Calves:
84 calves
% of Calves Retained:
0%
Average Cows Culled:
14 cows
% of Cows Culled:
13.9%
Average Pasture Acres:
784 acres
Stocking Rate:
7.78 acres/cow

Mental GMP

Average Herd Size:
141 cows
Average Calves Born:
127 calves
Average Sold Calves:
112 calves
% of Calves Retained:
12%
Average Cows Culled:
23 cows
% of Cows Culled:
16.5% annually
Average Pasture Acres:
1,355 acres
Stocking Rate:
9.29 acres/cow

Written GMP

Average Herd Size:
139 cows
Average Calves Born:
126 calves
Average Sold Calves:
104 calves
% of Calves Retained:
17.5%
Average Cows Culled:
24 cows
% of Cows Culled:
17.0% annually
Average Pasture Acres:
1,925 acres
Stocking Rate:
12.3 acres/cow

Cost Results

Total Feed Cost: all feed costs associated with feeding cows – pasture, grown feed, purchased feed, etc.

Pasture Feed Cost: all feeding costs associated with pasture upkeep – can be native, cultivated, or hayland pastures

Non-Pasture Feed Cost: all feeding costs associated with grown or purchased feed – corn, grain, pellets, hay, etc.

Stocking Rate = total pasture acres / number of cows in herd

	<i>Total Feed Cost per Cow</i>	<i>Pasture Feed Cost per Cow</i>	<i>Non-Pasture Feed Cost per Cow</i>
No GMP	\$641.45	\$196.29	\$434.27
Mental GMP	\$738.45	\$228.12	\$508.37
Written GMP	\$704.66	\$239.21	\$412.06

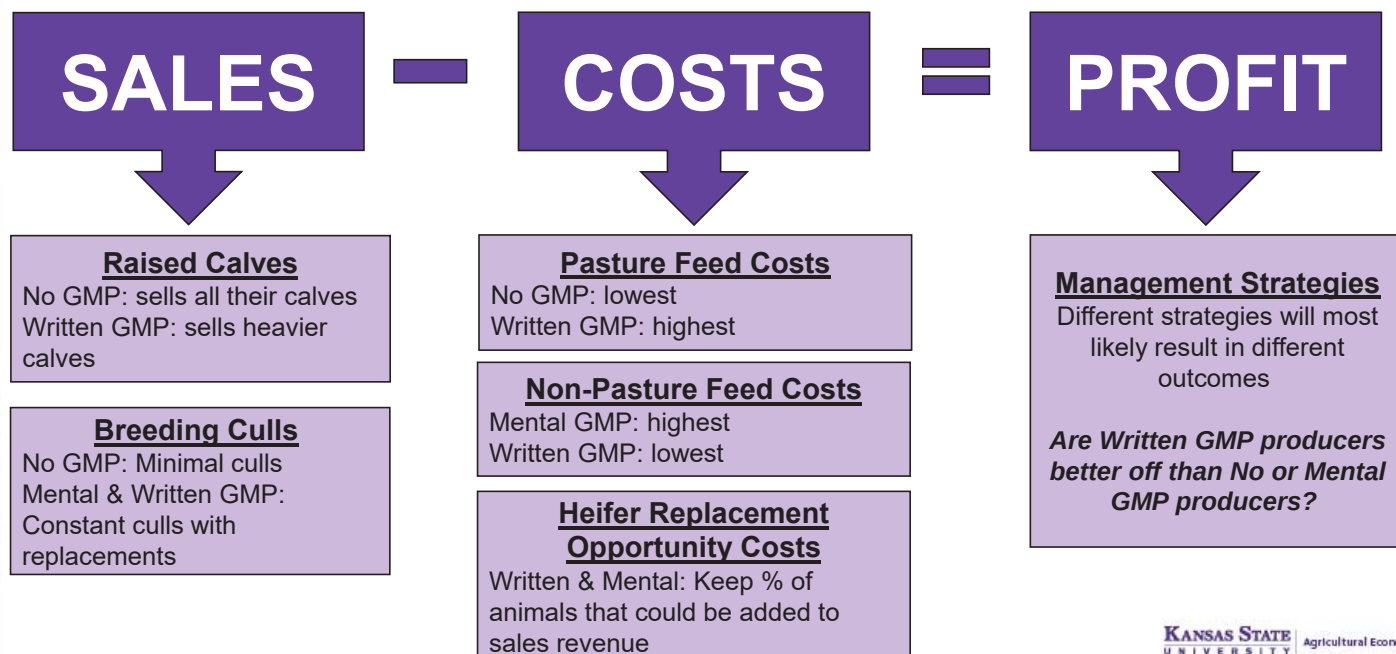
Production Results – Calf Sold Weight

No GMP	Mental GMP	Written GMP
		
Kansas Feeder Price 500-600lbs (7/17/26): \$452.75	Kansas Feeder Price 500-600lbs (7/17/26): \$452.75	Kansas Feeder Price 600-700lbs (7/17/26): \$430.35
Calf Sale Value: \$2,444.85	Calf Sale Value: \$2,340.72	Calf Sale Value: \$2,629.44

Written GMP – No GMP:
\$184.59
Left on the Pasture

Written GMP – Mental GMP:
\$288.72
Left on the Pasture

Profitability Considerations



Profitability

There are somethings that our dataset doesn't cover: timing of selling calves, fall vs spring calvers, vaccination programs, premiums or discounts associated with cattle, breed specifics, etc.

<i>For Native Pastureland Grazed Operations / Stocking Rate Adjusted</i>	<i>Sales per Cow</i>	<i>Sales - Total Feed Cost per Cow</i>	<i>Sales - Pasture Feed Cost per Cow</i>	<i>Sales - Non- Pasture Feed Cost per Cow</i>
No GMP	\$998.05	\$400.83	\$803.69	\$579.22
Mental GMP	\$1035.14	\$392.47	\$815.18	\$602.03
Written GMP	\$1016.20	\$548.55	\$796.25	\$737.49

Summary

A Written GMP:

- Reduces Non-Pasture Feeding Costs – better management of resources
- Increases size of cattle sold
- Improves profitability over feed costs
- Integrates environmental conservation practices into daily cattle operation

Are cow-calf producers better off using a GMP?

YES!

"Good grazing management today means good grass tomorrow."

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Getting a GMP for your Operation

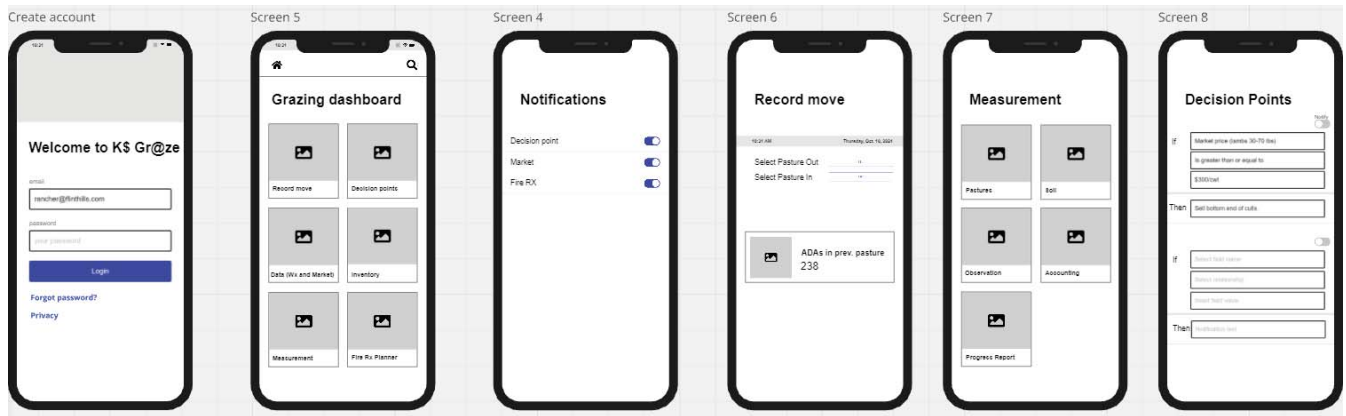


This document is a template for a Grazing Management Plan (GMP) for your operation. It includes sections for: Operation Information, Goals & Objectives, Stocking Rates, Pasture Management, Water Resources, Wildlife Resources, Contingency Plan, and a summary table for Goals & Objectives, Stocking, Pasture, Wildlife, and Contingency.

https://www.usrsb.org/Media/USRSB2024/Docs/grazingmanagementplan_fillable.pdf

USRSB | GRAZING MANAGEMENT

Mobile App - GrazePro



Acknowledgements

- Data: Kansas Farm Management Association
- Funding: National Cattlemen's Beef Association



Thank You & Questions

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Understanding the Math

Before Stocking Rate Adjustment

	<i>Total Feed Cost per Cow</i>	<i>Pasture Feed Cost per Cow</i>	<i>Non-Pasture Feed Cost per Cow</i>
No GMP	\$494.10	\$50.80	\$431.70
Mental GMP	\$562.50	\$54.40	\$505.30
Written GMP	\$471.70	\$9.20	\$408.00

Two considerations not included in cost calculation are **pasture type**, which native pasture reduces costs, and **stocking rate**.

No GMP

Stocking Rate: **7.78 acres/cow**

Mental GMP

Stocking Rate: **9.29 acres/cow**

Written GMP

Stocking Rate: **12.30 acres/cow**

Stocking Rate

+\$18.94***

+\$18.70***

+\$0.33

Costs of an "Average Operation"

Adjusting for Stocking Rate

	<i>Total Feed Cost per Cow</i>	<i>Pasture Feed Cost per Cow</i>	<i>Non-Pasture Feed Cost per Cow</i>
No GMP	$\$494.10 + 18.94 \times 7.78$	$\$50.80 + 18.70 \times 7.78$	$\$431.70 + 0.33 \times 7.78$
Mental GMP	$\$562.50 + 18.94 \times 9.29$	$\$54.40 + 18.70 \times 9.29$	$\$505.30 + 0.33 \times 9.29$
Written GMP	$\\$471.70 + 18.94 \times 12.30$	$\\$9.20 + 18.70 \times 12.30$	$\\$408.00 + 0.33 \times 12.30$

After Adjusted for Stocking Rate

	<i>Total Feed Cost per Cow</i>	<i>Pasture Feed Cost per Cow</i>	<i>Non-Pasture Feed Cost per Cow</i>
No GMP	\$641.45	\$196.29	\$434.27
Mental GMP	\$738.45	\$228.12	\$508.37
Written GMP	\$704.66	\$239.21	\$412.06