Economics of Winter Supplementation: How the Present Affects the Future

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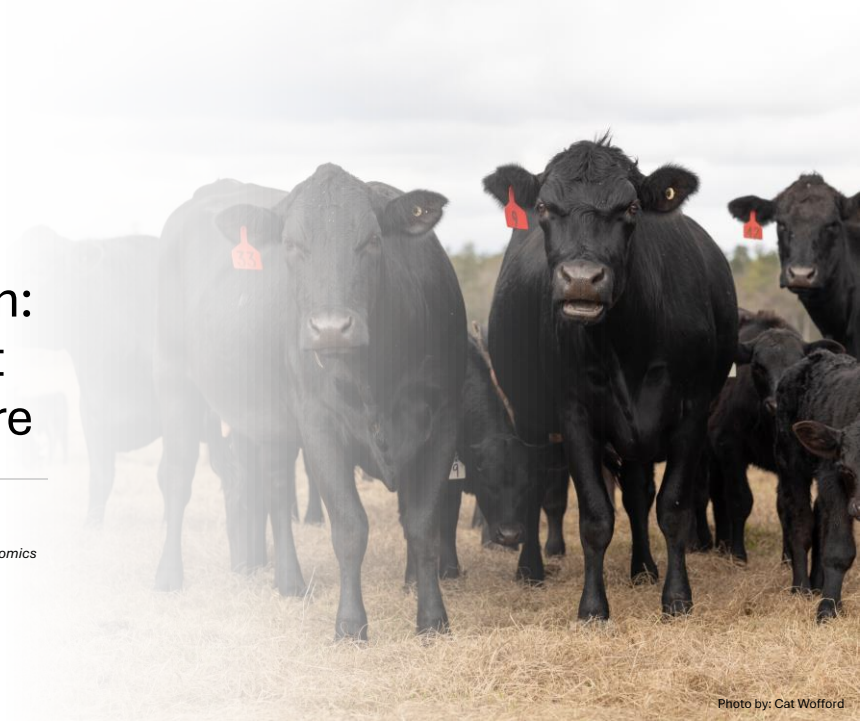

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Maintain/Improve BCS

Improve Pregnancy & Calving Rates

SUPPLEMENTING

Increase Weaning Weights

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What to Consider

Nutritive Value of Forage ⟷ Nutritional Requirements of Cows

- Not just quantity

How to Meet those Requirements Economically

How Supplementing Now Affects Production Later

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1) Nutritive Value of Stockpiled Limpograss

- 30-35% of its growth between November – March **(heavy in Sept & Oct.)**
- Remove cows mid-September in S. FL (Mid-August in N. FL)
- High digestibility & palatability, but low crude protein levels
  - **Low crude protein limits forage intake & digestibility**
  - **Average of 3% CP,** 50% TDN
  - More protein in leaves than stems
  - Need for supplement increases as plant is defoliated
- TDN:CP ration typically above 7 (deficiency of protein relative to energy)
  - 7 or less -> protein supplements have little to no effect
  - **Above 7 -> protein supplements can increase intake and gains**

LIMPOGRASS: OVERVIEW AND MANAGEMENT
Vendramini, Sollenberger, Quensenberry, Wallau, & Dubeux

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2) Nutritional Requirements of Beef Cows

1,200 lb lactating cow
(20 lbs peak milk)

27 lbs of DMI/day
(average)

150 days
(November-March)

Average CP Requirement – 2.5 LBS/DAY
(average during this 210-day period)

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3) Meeting those Requirements Economically

Crude Protein Requirement:

2.5 LBS/DAY

CP Nutrient Deficit:
~1.5 LBS/DAY

CP Supplied by Limpograss:
1.0 LBS/DAY
(4% x 27 lbs of DMI)

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3) Meeting those Requirements Economically

Protein Source	Total Cost of Feed	Pounds of Protein in the Feed	$/lb of Protein
41% cottonseed meal	$350/ton	820 lbs	$0.43
32% liquid feed	$325/ton*	640 lbs	$0.50
20% cubes	$18 per 50 lb bag	10 lbs	$1.80

ONE IS NOT SUPERIOR OVER THE OTHER; THIS IS JUST SHOWING HOW TO THINK ABOUT THE COST OF PROTEIN IN TERMS OF THE TOTAL COST
**LIQUID FEED & COTTONSEED MEAL: DOES NOT INCLUDE COST OF DELIVERY OR LICK TANK*

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3) Meeting those Requirements Economically

CP Nutrient Deficit:
~1.5 LBS/DAY

Supplement for: 150 days

Protein Supplement for One Cow	*Per Day Feeding Rate	Total Amount of Supplement Needed
41% cottonseed meal	3.5 lbs	525 lbs
32% liquid feed	4.5 lbs	675 lbs
20% Cubes	7.5 lbs	1,125 lbs

**WORK WITH FEED REP/NUTRITIONIST TO MAKE SURE PROTEIN WILL NOT DIMINISH FORAGE CONSUMPTION*

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3) Meeting those Requirements Economically

Protein Source	Total Supplement Needed	Total Cost	$/Head
41% cottonseed meal	525lbs or **0.26 tons**	$350/ton	**$91**
32% liquid feed	675 lbs or **0.33 tons**	$325/ton	**$107**
20% Cubes	1,125 lbs or **23 bags**	$18 per 50 lb bag	**$414**

1,200 LB LACTATING COW; SUPPLEMENT PROVIDED FOR 150 DAYS (NOVEMBER – MARCH)

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Thoughts to Consider

- Sometimes, the underlying cost of "convenience" is more expensive than the upfront cost of "inconvenience."
- It is important to understand the cost of protein, not just the total cost of feed. Is one option actually cheaper than the other?
- It is VERY important to know what you are feeding, how much you are feeding, and why you are feeding it. What do your cows need?

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4) How the Now Affects the Later

- "… without proper supplementation when grazing stockpiled Limpograss, cows will lose body condition…"
- "…with proper supplementation when grazing stockpiled Limpograss, cows can maintain or possibly even improve condition…"
- "…importance of prepartum nutrition and calving BCS on maternal and offspring performance combined…"

❖**Proper supplementation, regardless of what cows are grazing, before, during, and after calving is important for your cows to be able to focus on growing a calf and getting bred, not trying to meet their nutritional requirements.**

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4) How the Now Affects the Later

Body Condition of Cows ***At Calving*** Affects ***Weight of Calves***

	BCS greater or equal to 5 at calving	BCS lower than 5 at calving	Difference
Calf Weight at Birth	**79 lbs**	75 lbs	4 lbs
Calf Weight at Weaning	**542 lbs**	524 lbs	**17 lbs**

P. MORIEL: NUTRITIONAL IMPACTS ON BEEF COW REPRODUCTION

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4) How the Now Affects the Later

Body Condition of Cows ***Before and At Calving*** Affects ***Weight of Calves***

	BCS greater or equal to 5	BCS lower than 5	$/Head Difference
Calf Weight at Weaning	542 lbs	524 lbs	17 lbs
Calf Sale Price	**$1,371**	**$1,325**	**$46**

CALF PRICE: $2.53 FOR 500-545 LB STEER CALVES

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4) How the Now Affects the Later

Body Condition of Cows ***After Calving*** Affects ***Calving Rates***

	AFTER CALVING		
AT CALVING	**Lost BC**	**Maintained BC**	**Gained BC**
BCS less than 5	70%	80%	78%
BCS at or greater than 5	85%	86%	87%

P. MORIEL: NUTRITIONAL IMPACTS ON BEEF COW REPRODUCTION

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4) How the Now Affects the Later

Body Condition of Cows ***After Calving*** Affects ***Calving Rates***

Example: herd of 100 cows

Revenue from Calf Sales on a per Cow Basis	AFTER CALVING		
	$236/Cow Difference	$119/Cow Difference	$160/Cow Difference
AT CALVING	**Lost BC**	**Maintained BC**	**Gained BC**
BCS less than 5	70% $927	80% $1,060	78% $1,033
BCS at or greater than 5	85% $1,163	86% $1,179	87% $1,193

CALF PRICE: $2.53 FOR 500-545 LB STEER CALVES

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IS IT WORTH IT???

Let's compare two scenarios showing how much proper supplementation matters.

SCENARIO 1

- 100 head of cows
- Grazing Bahiagrass in September while Limpograss is being stockpiled – feeding 2 lbs/hd/day of 20% cubes for 30 days
- **Move cows to Limpograss once calving starts in October – switch to higher protein supplement -> 32% liquid feed**
- Continue supplement until end of March (end of breeding season)
- Sell calves in July/August

SCENARIO 2

- 100 head of cows
- Grazing Bahiagrass in September while Limpograss is being stockpiled – feeding 2 lbs/hd/day of 20% cubes for 30 days
- **Move cows to Limpograss once calving starts in October – continue feeding 20% cubes at 2 lbs/hd/day**
- Continue supplement until end of March (end of breeding season)
- Sell calves in July/August

DISCLAIMER: This is only an example of one of many different scenarios and is not representative all any specific operation. Each operation's needs and structure are different. This example is only an estimation guide.

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Proper Supplement Program (100 COWS)

TWO-YEAR RETURN TOTAL PER COW:
$2,100
(does not account for other input costs, only feed costs)

YEAR ONE –BCS @ 5

FEED COSTS		REVENUE	RETURNS
September: 30 days of 20% cubes at 2lbs/hd/day	October – March: 150 days of 32% liquid feed at 4.5 lbs/hd/day	July/August: Sell Calves 86% calving rate, 542 lbs, $2.53/lb	**TOTAL: $105,000**
$2,160	$10,700	$117,900	**PER COW: $1,050**

YEAR TWO – BCS @ 5

FEED COSTS		REVENUE	RETURNS
September: 30 days of 20% cubes at 2lbs/hd/day	October – March: 150 days of 32% liquid feed at 4.5 lbs/hd/day	July/August: Sell Calves 86% calving rate, 542 lbs, $2.53/lb	**TOTAL: $105,000**
$2,160	$10,700	$117,900	**PER COW: $1,050**

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Deficient Supplement Program (100 COWS)

TWO-YEAR RETURN TOTAL PER COW:
$1,940
($~160 difference)
(does not account for other input costs, only feed costs)

YEAR ONE –BCS @ 5, drops to 4

FEED COSTS		REVENUE	RETURNS
September: 30 days of 20% cubes at 2lbs/hd/day	October – March: **150 days of 20% cubes at 2lbs/hd/day**	July/August: Sell Calves 86% calving rate, **524 lbs**, $2.53/lb	**TOTAL: $100,990**
$2,160	$10,800	$113,950	**PER COW: $1,009**

Spending just as much as scenario 1, but not meeting nutritional requirements

YEAR TWO – BCS @ 4, maintains at 4

FEED COSTS		REVENUE	RETURNS
September: 30 days of 20% cubes at 2lbs/hd/day	October – March: **150 days of 20% cubes at 2lbs/hd/day**	July/August: Sell Calves **80% calving rate, 524 lbs**, $2.53/lb	**TOTAL: $93,040**
$2,160	$10,800	$106,000	**PER COW: $930**

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Conclusion

- ❖Having a proper supplementation proper is vital for production.
- ❖Large expenses such as supplementation, can be looked at as investments rather than just a large expense.
- ❖Giving our cows what they need when they need it, allows them to focus on raising a healthy calf rather than “survival”.
- ❖**Help your cows, help you!!**

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QUESTIONS???

MAY GOD BLESS YOUR STEWARDSHIP!

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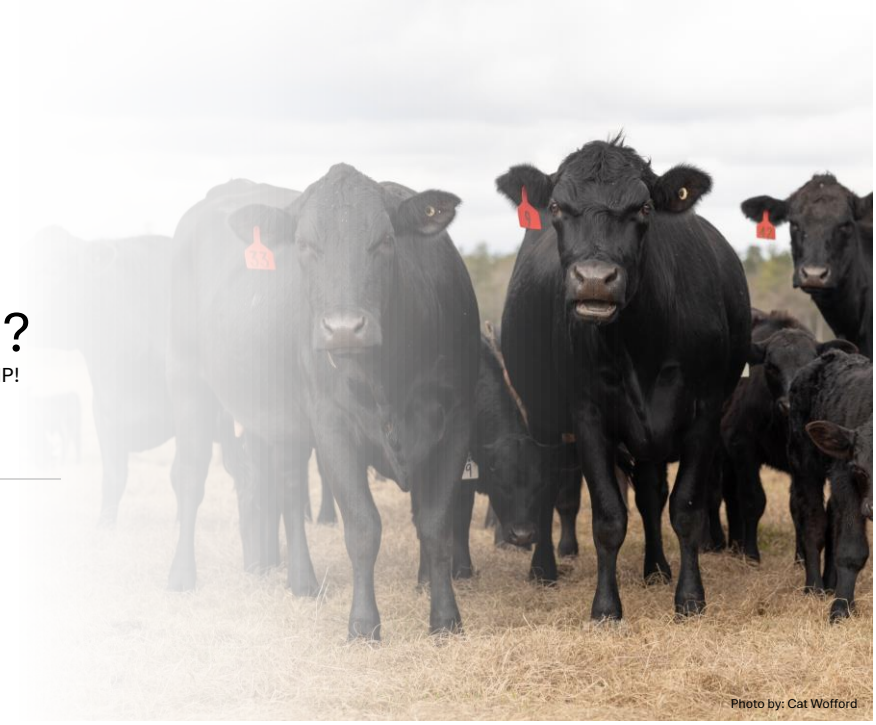

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