

**Economic Impacts of Supplementation:**  
*Spending Money to Make Money*

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**BEEF FORAGE**  
FOR THE FUTURE

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Maintain BCS

Improve Pregnancy & Calving Rates

**SUPPLEMENTING**

Increase Weaning Weights

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**Importance of Supplementation**

Healthy Cows	Heavy Calves	Happy Rancher
		

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### Where to Start

- Forage Sampling
- Nutritional Requirements
- Meeting Requirements
- Estimating the Cost
- Implement Supplementation Plan




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### Forage Nutrition in South Florida

#### Bahiagrass

CP% –  $6.8 \pm 3$   
 TDN% –  $50 \pm 3$

#### Limpograss (*hemarthria*)

CP% –  $4.1 \pm 3$   
 TDN% –  $53 \pm 9$

#### Bermudagrass

CP% –  $11.1 \pm 3.7$   
 TDN% –  $53 \pm 2$

#### Stargrass

CP% –  $8 \pm 3$   
 TDN% –  $52 \pm 5$

FORAGE TESTING  
 J. M. Vondra, M. S. Silveira, J. D. Arrington, and A. R. Blount, 2022

Forage Sample – Nutritional Requirements – Meet Requirements – Estimate Cost – Implement Supplementation Plan

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### Cow Nutrition Average Requirements

1,100 lb lactating cow  
 (10 lbs peak milk)  
 210 Days  
 (September-March)

DMI – 24 LBS/DAY  
 CP – 1.92 LBS/DAY (8.3%)  
 TDN – 13.00 LBS/DAY (54.2%)



BASIC NUTRIENT REQUIREMENTS OF BEEF COWS  
 Matt Hersom, 2020

Forage Sample – Nutritional Requirements – Meet Requirements – Estimate Cost – Implement Supplementation Plan

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### What We Know, What we Have, & What We Need

**Cow Requirement:**  
 CP – 1.92 LBS/DAY  
 TDN – 13.00 LBS/DAY

**Supplied by Forage:**  
 CP – 1.5 LBS/DAY  
 TDN – 11.00 LBS/DAY

**Nutrient Deficit:**  
 CP – 0.42 LBS/DAY  
 TDN – 2.00 LBS/DAY

Forage Sample – Nutritional Requirements – Meet Requirements – Estimate Cost – Implement Supplementation Plan

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### Protein Supplement

Supplement Option for Bahiagrass

Nutrient Deficiency in CP (lbs/hd/day)	Protein Supplement	Feeding Rate (lbs/hd/day)	Protein Supplied (lbs/hd/day)
0.42	32%	1.3	0.42 

Forage Sample – Nutritional Requirements – Meet Requirements – Estimate Cost – Implement Supplementation Plan

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### What's the Total Cost?

Grazing Bahiagrass

Lbs of protein/Hd	Lbs of protein	Lbs of liquid feed	Tons	\$/Ton	Total Cost	Total Cost/Hd
0.42	8,820	27,563	14	\$375	\$5,250	\$52.50

100 head of 1,100 lb cows in lactation stage, 210 days of supplement, 32% protein

Forage Sample – Nutritional Requirements – Meet Requirements – Estimate Cost – Implement Supplementation Plan

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## What are the Options?

**Supplement:**  
 Maintains BCS of 5  
 Sell Weaned Calf  
 Weaning Rate: 77%  
 Weaning Wt.: 525 lbs  
 Pregnancy Rate: 80%

**No Supplement:**  
 BCS falls to 4  
 Sell Weaned Calf  
 Weaning Rate: 73%  
 Weaning Wt.: 518 lbs  
 Pregnancy Rate: 75%

IMPLICATIONS OF COW BODY CONDITION SCORE ON PRODUCTIVITY  
 Matt Hersom, Todd Thrift, and Joel Velich, 2018  
 Forage Sample – Nutritional Requirements – Meet Requirements – Estimate Cost – Implement Supplementation Plan

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## Recap/Summary

100 Head of Cows Grazing Bahiagrass  
 Supplement 32% protein liquid feed, 210 days  
 \$5,250

Option 1: Supplement  
 77 weaned calves, 525 lbs  
 \$247.01/cwt  
 23 Cull Cows, 1,100 lbs  
 \$1.05/cwt

Option 2: No Supplement  
 73 weaned calves, 518 lbs  
 \$247.01/cwt  
 27 Cull Cows, 1,000 lbs  
 \$0.90/cwt

	Supplement	No Supplement
Calf Revenue	\$99,849.75	\$93,400.58
Cull Cow Revenue	\$26,565.00	\$24,300.00
Cost	\$5,250.00	\$0.00
Profit	<b>\$121,164.75</b>	<b>\$117,700.58</b>
	<b>Difference</b>	
	<b>\$3,464.17</b>	

Forage Sample – Nutritional Requirements – Meet Requirements – Estimate Cost – Implement Supplementation Plan

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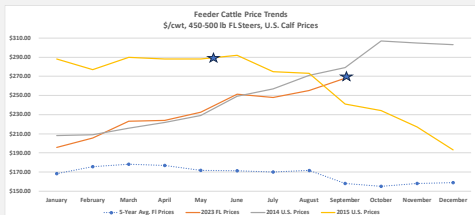
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## What does this mean for Spring 2024 Weaning?



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### Forecast

100 Head of Cows Grazing Bahiagrass  
Supplement 32% protein liquid feed, 210 days  
\$5,250

Option 1: Supplement  
77 weaned calves, 525 lbs  
**\$290.00/cwt**  
23 Cull Cows, 1,100 lbs  
\$1.05/cwt

Option 2: No Supplement  
73 weaned calves, 518 lbs  
**\$290.00/cwt**  
27 Cull Cows, 1,000 lbs  
\$0.90/cwt

	Supplement	No Supplement
Calf Revenue	\$117,232.50	\$109,660.60
Cull Cow Revenue	\$26,565.00	\$24,300.00
Cost	\$5,250.00	\$0.00
Profit	<b>\$138,547.50</b>	<b>\$133,960.60</b>
	<b>Difference</b>	
	<b>\$4,586.90</b>	

Forage Sample – Nutritional Requirements – Meet Requirements – Estimate Cost – Implement Supplementation Plan

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### Key Takeaways:

- Sample your forages/hay 
- Know your cows & what they need 
- Today's Market: input costs are high, but so are calf prices
- Supplementing is an **investment.** 

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## QUESTIONS?

Contact me at [aholmes@iut.edu](mailto:aholmes@iut.edu) or (863) 374-7051

May God Bless your Stewardship!

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