Range Cattle Research and Education Center - Ona FL

Managing Forage Resources in the Fall

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Forage Specialist

Nutritional Requirement

- ✓ Beef Cattle DM, CP and TDN requirements

Class	DM (lbs)	TDN (%)	CP (%)
Dry cow mid preg	27	48	7
Mature cow 10# milk	30	56	9
2 yr old lact cow	21	63	11

Stockpiled Forage

Stockpiled Forage

Stockpiled Forage

- ✓ 50-65 % grazing efficiency
- ✓ Grazing period: 70-120 d
- ✓ 0.75 acres / pair

Stockpiled Forage

Comparing Limpograss and Bahia + hay winter grazing systems

	Weight Gain	Calf Weight	Preg Rates
	lbs	lbs	%
Limpograss	-115	547	91.6
Bahia + hay	-88	535	92.2

Stockpiled Forage

- ✓ Coastal bermudagrass

Weeks	Yield (lb/A)	CP (%)	TDN (%)
2	1500	16	56
4	2100	13	57
6	3200	9	52
8	3600	7.5	48
10	4600	8.0	46

Stockpiled Forage

Regrowth interval, wk	Grass [b]	OMI, % BW[c]	TDN, % DM[c]	TDNI, g/MW[c]
Four	Limpograss	2.46	62.6	44.5
	Bahiagrass	2.26	56.0	35.6
	Bermudagrass	2.28	57.3	37.6
	Stargrass	2.32	59.3	40.5
Six	Limpograss	2.33	63.2	42.1
	Bahiagrass	2.11	55.4	32.9
	Bermudagrass	2.24	52.4	33.2
	Stargrass	2.36	52.6	34.0
Eight	Limpograss	2.22	56.3	34.8
	Bahiagrass	1.74	53.5	25.7
	Bermudagrass	1.84	43.8	22.0
	Stargrass	2.20	53.2	34.6

[a]Data from Moore et al. (1981).

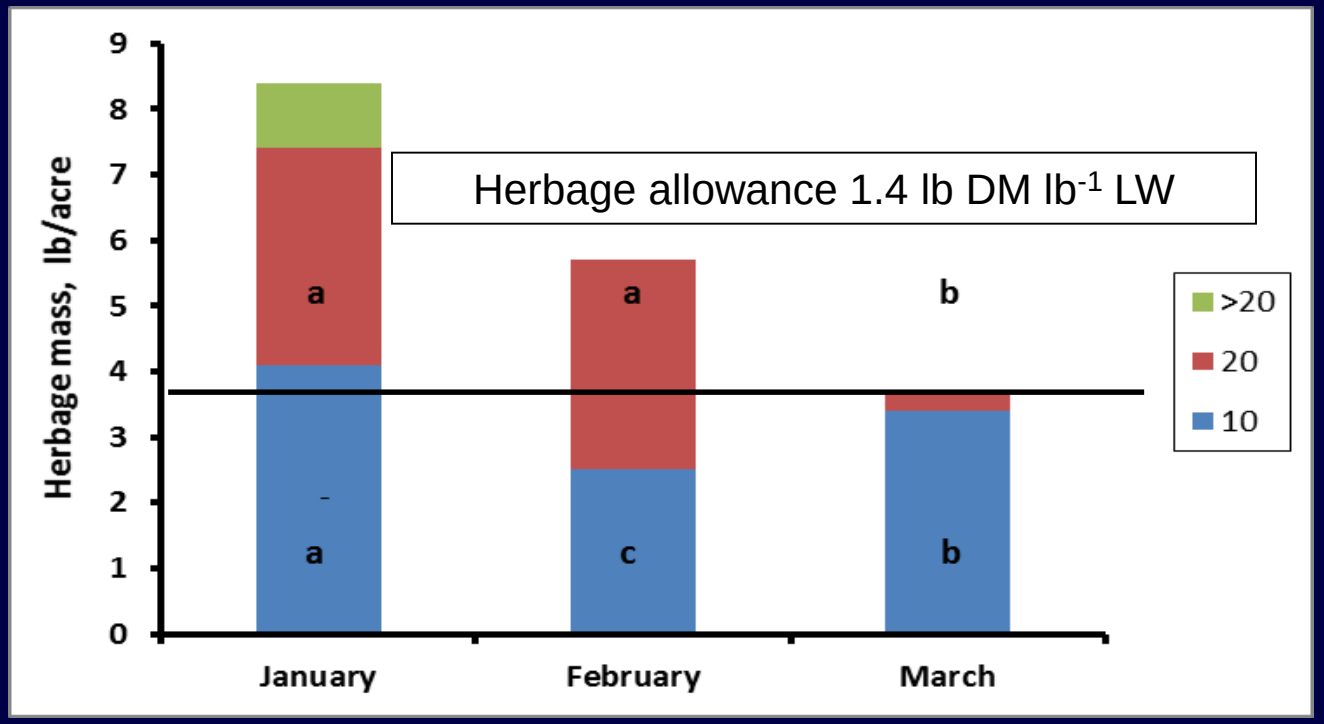
Stockpiled Forage

	Ano	
Limpograss Diferido	**2011**	**2012**
PB (%)		
J		
F		
M		
S		
IVDOM (%)		
Janeiro	**51.1a**	**49.1a**
Fevereiro	**49ab**	**47.6a**
Marco	**45.2b**	**40.4b**
SE	**2.1**	

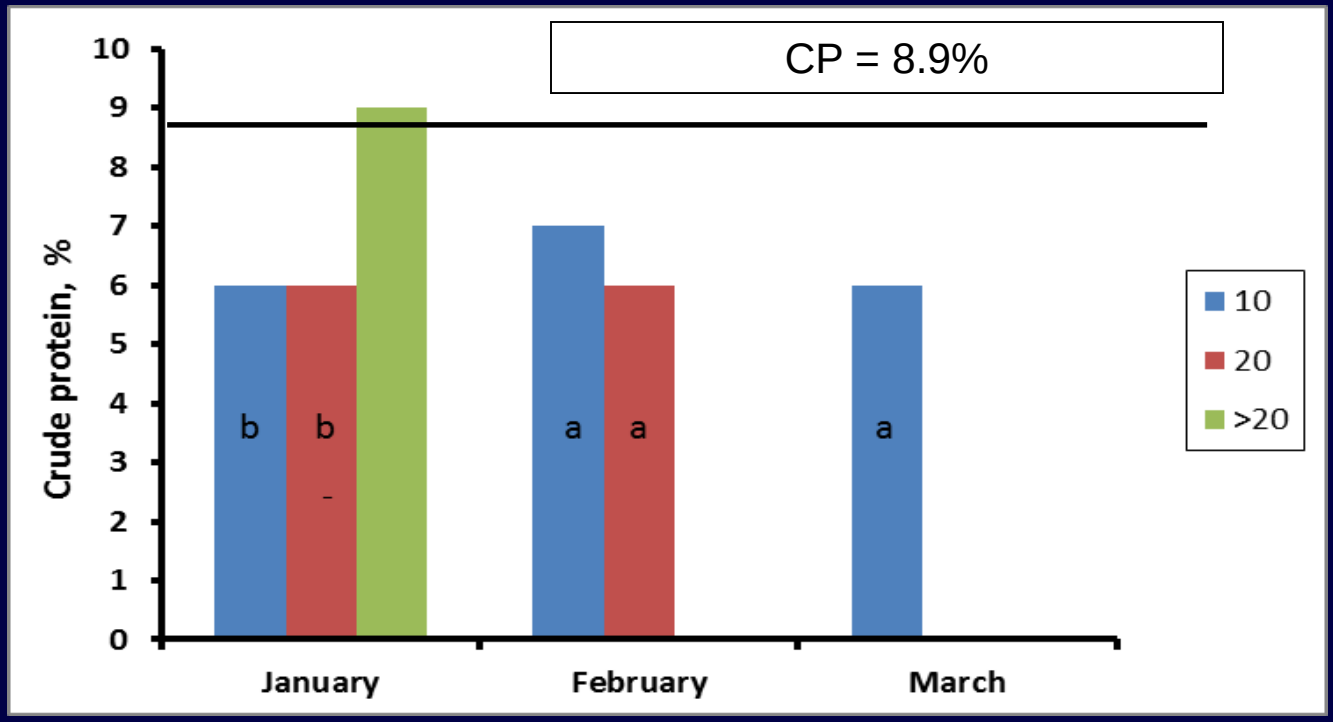
BCC 2011 = 4.9

BCC 2012 = 4.4

Stockpiled Forage



Stockpiled Forage



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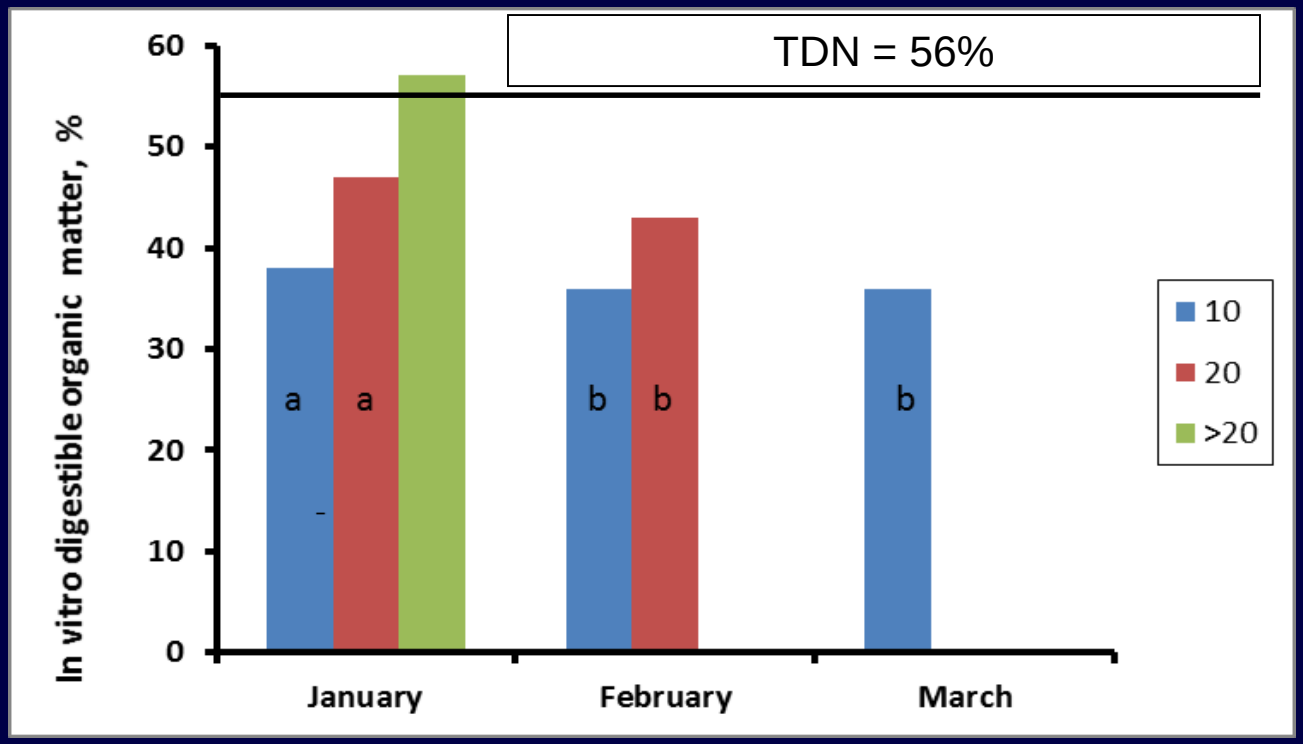

Stockpiled Forage

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Stockpiled Forage

Nutrient	Supplement (lb/d)		
	January	**February**	**March**
DM	No	Yes	Yes
CP	No	1.0	1.0
TDN	No	2.8	3.7

Haylage

- Haylage of warm-season grasses

Haylage

- Wilting forage on field to increase DM concentration
- Wilting time is different among species and cultivars
- Bale and wrap in the same day
- It is recommended to wrap with at least 6 layers of plastic
- Inoculants?
- Additives

Haylage

Species = Jiggs (J) and Tifton 85 (T)
Moisture = 53% (D) and 23% (W) DM
Inoculants = Ecosyl (E), B500 (B), Molasses 2% (M), Control (C)

Variables		**Treatments**	
	Species	Moisture	Inoculant
DM, %	=	D>W	=
CP, % of DM	=	=	=
ADF, % of DM	T>J	D>W	M<Other
NDF, % of DM	T>J	W>D	M<Other
pH	=	D>W	M<Other
Lactate, % of DM	=	W>D	M>Other
Acetate, % of DM	=	W>D	=
IVDOM, % of DM	=	W>D	M>Other
NDFD, % of DM	T>J	=	=

Haylage

- Haylage of warm-season grasses

https://www.youtube.com/watch?v=9sTKjVxFmKQ

Hay

- ✓ Hay value calculation: $/ lb TDN

Example: $ 70 / round bale

Weight (lb)	TDN (%)	TDN/bale	$ / TDN
1200	60	720	0.09
1200	50	600	0.11 (~20%)

Storage Losses

Storage System	Dry Matter (%)	Animal Refusal (%)	TOTAL (%)
Ground	28	22	50
Gravel	31	17	48
Tires	35	6	41
Rack	26	6	32
Rack with cover	12	2	14
Barn	2	1	3

* Hay stored for 7 months

Winter forage

- ✓ Annual Ryegrass
- Cold tolerant varieties
- Late maturity, greater spring production
- Adapted to most soil types

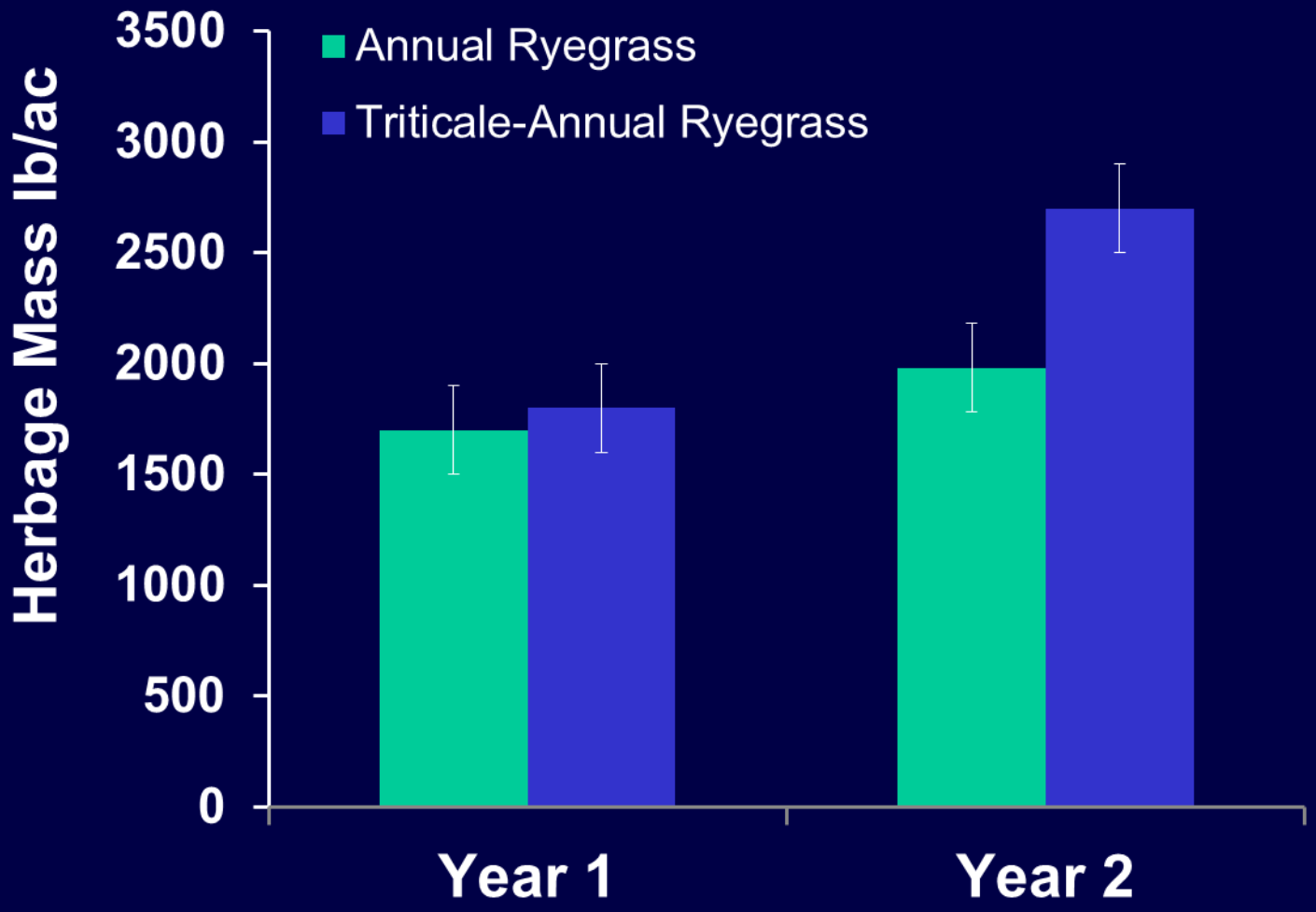
Annual Ryegrass

Average dry matter yield of annual ryegrass at Ona.

Variety	Ploidy	Yield (ton/ac)
Prine	Tetraploid	3.2
Jumbo	Tetraploid	3.0
Big Daddy	Tetraploid	2.6
Jackson	Diploid	2.5
Marshall	Diploid	2.4
Gulf	Diploid	2.1

Annual Ryegrass

- Annual ryegrass management in South Florida

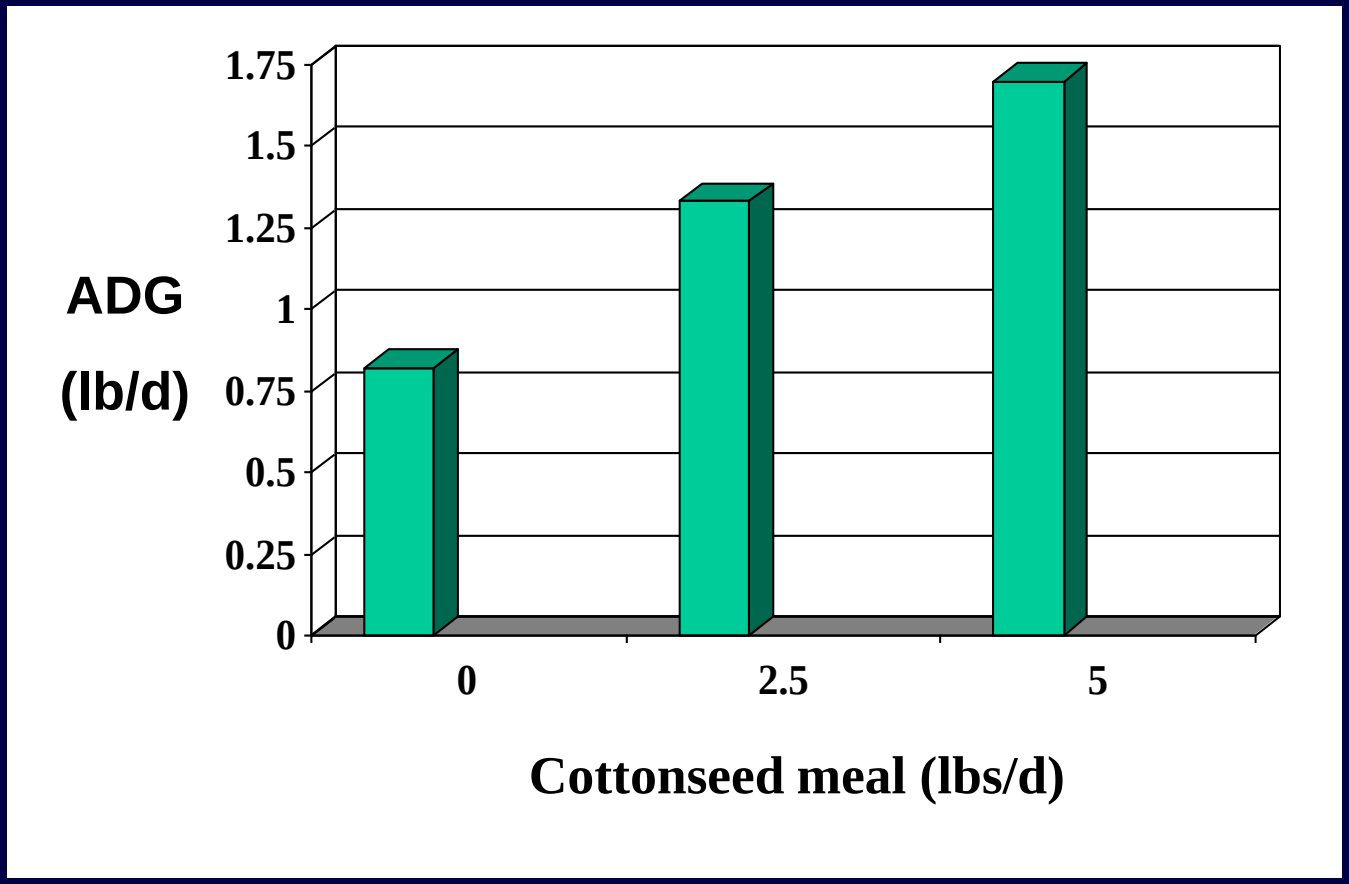


Annual Ryegrass Establishment

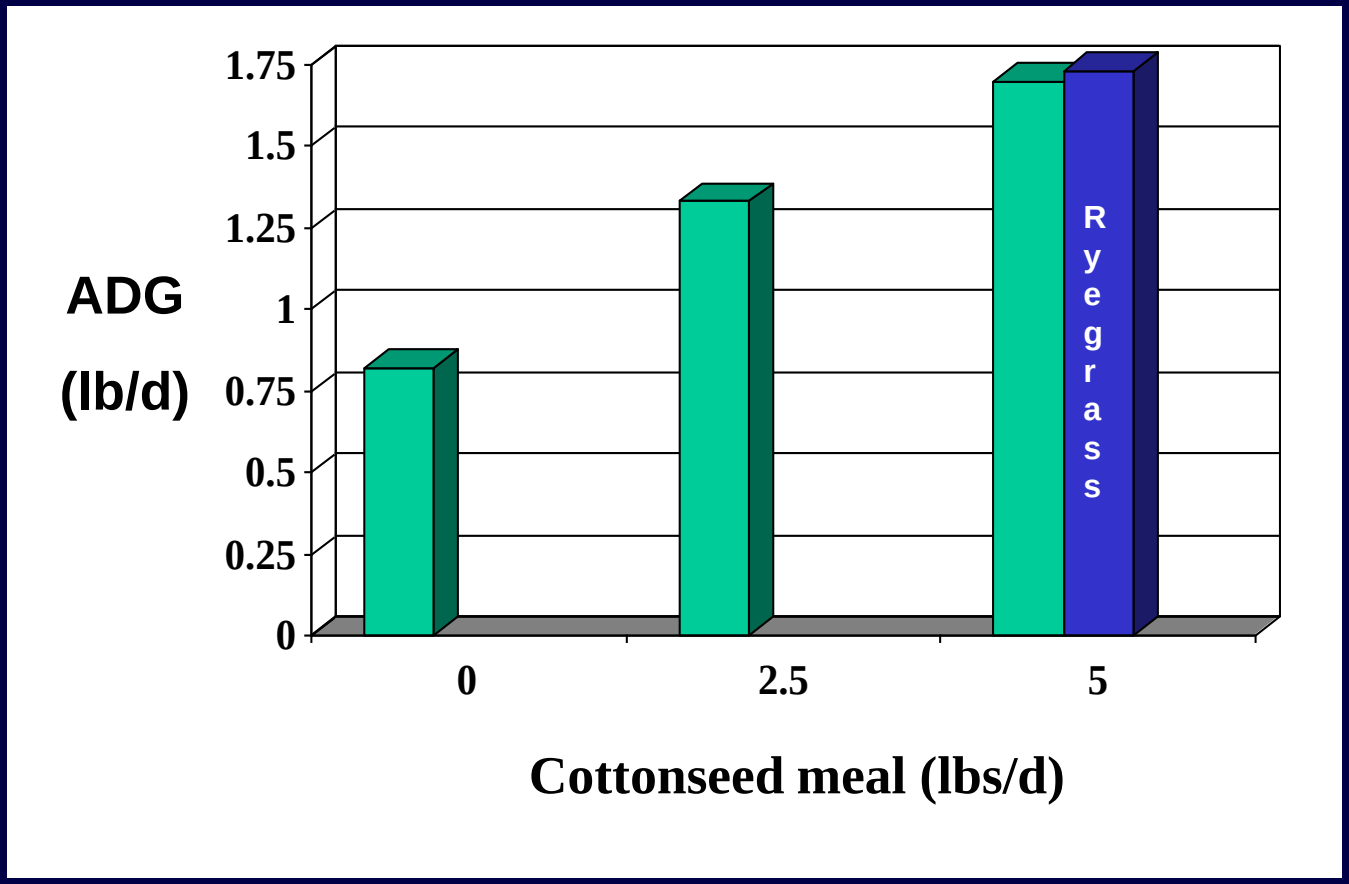
Method of Establishment	Ryegrass Yield (lb/ac)
Control	0
Overseeded	150
Gramoxone + overseeded	630
Light disk + overseeded	740
Roundup + overseeded	3400
Prepared seedbed + overseeded	3200

Annual Ryegrass

VERY IMPORTANT!



Effect of cottonseed meal supplementation or part-time grazing ryegrass on performance of replacement heifers grazing stockpiled Limpograss



Effect of cottonseed meal supplementation or part-time grazing ryegrass on performance of replacement heifers grazing stockpiled Limpograss

Economics of part-time grazing ryegrass

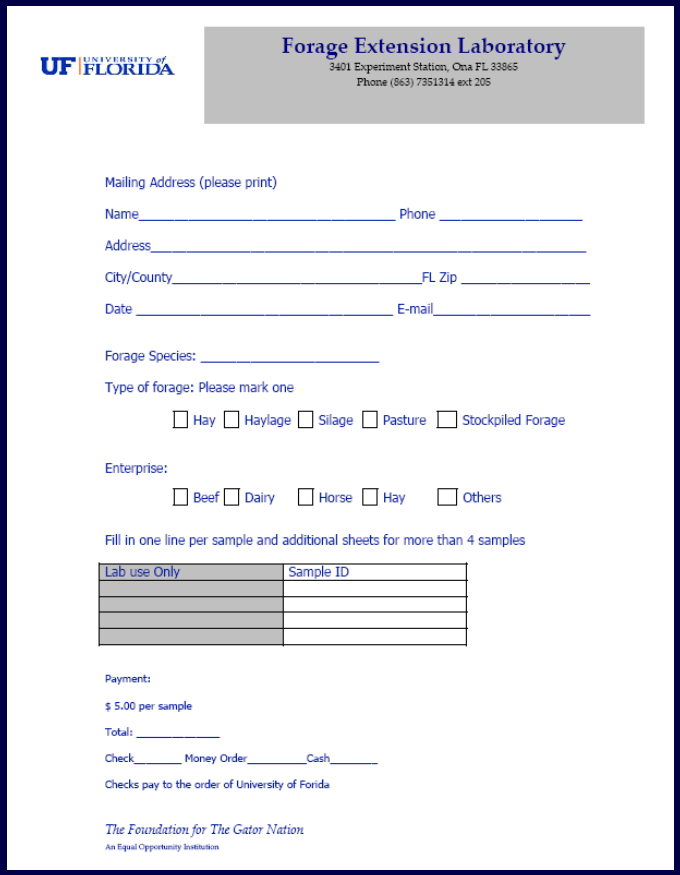
Days Grazing Ryegrass		Cost of Ryegrass establishment + fertilization / acre			
	CSM $ Equiv.	$100	$150	$200	$250
	$		-----$-----		
12	42	-58	-108	-158	-208
24	84	-16	-66	-116	-166
36	126	26	-24	-74	-124
48	168	68	18	-32	-82

Stocking rate = 3 heifers/acre of ryegrass

Cottonseed meal = $200 / ton

Grazing part-time ryegrass 12 d /month = 420 lbs cottonseed meal

Forage Extension Lab



UF UNIVERSITY of FLORIDA

Forage Extension Laboratory
3401 Experiment Station, Ona FL 33865
Phone (863) 7351314 ext 205

Mailing Address (please print)

Name_____ Phone _____

Address_____

City/County_____FL Zip _____

Date _____ E-mail_____

Forage Species: _____

Type of forage: Please mark one

☐ Hay ☐ Haylage ☐ Silage ☐ Pasture ☐ Stockpiled Forage

Enterprise:

☐ Beef ☐ Dairy ☐ Horse ☐ Hay ☐ Others

Fill in one line per sample and additional sheets for more than 4 samples

Lab use Only	Sample ID

Payment:

$ 5.00 per sample

Total: _____

Check_____ Money Order_____Cash_____

Checks pay to the order of University of Forida

The Foundation for The Gator Nation
An Equal Opportunity Institution

http://rcrec-ona.ifas.ufl.edu/felgform.pdf

or

County Extension Offices

Forage Nutritive Value

Forage Species	Number of Samples	CP	TDN	ADF	NDF
Bahiagrass	78	6.9 ± 3.0	51 ± 3	--	--
Bermudagrass	202	10.7 ± 3.1	52 ± 4	41 ± 3	74 ± 3
Stargrass	60	8.7 ± 3.8	51 ± 5	47 ± 9	70 ± 15
Limpograss	240	4.3 ± 3.0	54 ± 9	41 ± 4	70 ± 6
Corn Silage	35	8.0 ± 2.0	78 ± 8	30 ± 2	43 ± 8

Forage Testing Results

Species	CP (%)	TDN (%)
“Horse” Hay	8.3	48.0
“Cattle” Hay	5.5	49.0

Questions?

http://rcrec-ona.ifas.ufl.edu