UF IFAS Extension
UNIVERSITY of FLORIDA

FORAGE TEAM

A matter of choices

Importance of variety selection and resources available

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Ona, FL, June 7th, 2021

What should I plant?

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Outline

Importance and criteria for variety selection

Resources available for decision making
- Variety trials
- EDIS publications
- Websites

Quick overview of current projects

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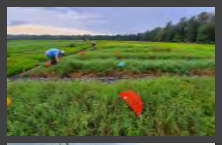

Great genetic diversity within species

And the goal of our **forage breeding program** is to develop materials adapted to *your* region and reality

Using locally-developed varieties can enhance chances of success, resilience against local challenges (and supports our breeding program)

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Why variety choice is important?

Chosing the right material for your operation

- Grow what is adapted to your conditions
- What better fist your needs
- What better fist your management style
- Level of invesitiment

→ Many different species can be grown in Florida, and many different varieties are available for each species

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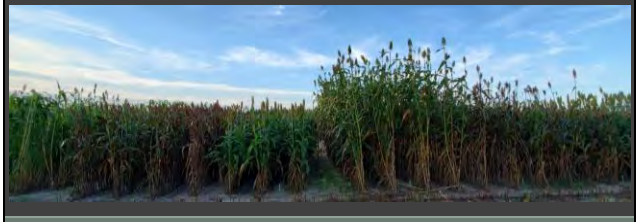
Great difference in genetic potential, maturity and disease resistance



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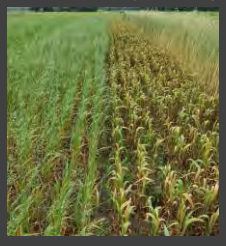
First management practices against pests and diseases



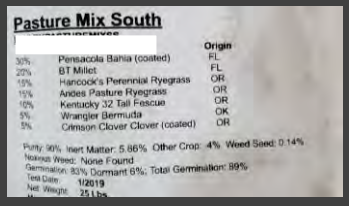
Florida's environment is prone to many pests and diseases! Affect production, quality and use

What am I planting?

Things that don't grow here

15-way mixes

Something is going to grow



Seed quality

Cultivar value

Pure and viable seeds

Contaminants

Coating

Seed is too expensive…

Cocker 227 vs. Legend 567 oat

$18/50 lb bag	39% more	$25/50 lb bag
$36/A		$50/A
5100 lb/A	45% more	6900 lb/A
2200 lb/A in Jan	45% more	3200 lb/A in Jan

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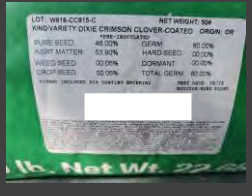
Pure viable seeds

% pure seeds (by weight) x % germination



46% x 80% = 0.368

Target seeding rate = 20 lb/A 0.368

54.3 lb/A

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Weeds

Main concern with brown bag seeds

Pensacola bahiagrass seeds – issues with brunswickgrass
- Restricted noxious weed in AL and GA
- Not a major issue with Argentine (seed size)

It pays off buying certified seeds!

Main issue with brownbag seeds
- Unknown precedence
- Unknown quality
- Unknown contaminants

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Corn and Sorghum

Corn and Sorghum hybrids

Partnership with multiple seed companies

- Experiment in Citra, FL,
- 2 planting dates, spring and summer, under irrigation
- Data since 2008

In 2021

- 51 corn hybrids
- 42 sorghum and sorghum-sudan hybrids

https://animal.ifas.ufl.edu/extension/courses/cs16/

Dr. Diwakar Vyas

Before deciding on what corn to plant…

Information on

- Productivity
- Nutritive value
- Milk production per ton of silage and per acre
- Disease incidence

Other information for decision making (from companies)

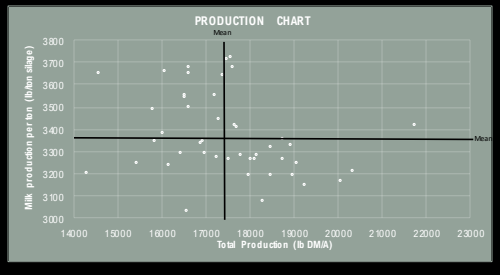
- Main traits of each hybrid
- Seed treatment available
- Cost of seed

Example from 2020 Spring Corn trial

Company	Hybrid	Relative maturity	Total Production	Estimated silage production (35% DM)	Milk production per ton	Milk production per acre	Disease score
			lb DM/A	Ton silage/A	lb milk/ton silage	lb milk/A	
Syngenta	NK1808 3111	117	21780*	31.1*	3414	36781*	
Local Seed	LC1506 VT2P	118	17583	25.1	3723*	32766*	1.4
Phoenix	7402A4	116	20368*	29.1*	3207	32679*	1.1
Phoenix	6507A3	117	17491	25.0	3711*	32472*	2.1*
Dyna-Gro	D55VC80	115	17639	25.2	3675*	32427*	1.5
Phoenix	6542A4	115	20107*	28.7*	3169	31906*	1.3
AgraTech	1024VIP		17419	24.9	3643*	31785*	1.1
Dyna-Gro	D58SS65	118	18962	27.1	3328	31557*	1.0
Croplan Genetics	SS700	118	18793	26.8	3356	31541*	1.3
MorCorn	MC 4725	116	19108	27.3*	3243	30994*	1.6
Dekalb	DKC69-99 TRECEPTA	119	18797	26.8	3263	30676*	0.9
Syngenta	NK1573-5222	116	16659	23.8	3678*	30674*	1.3
AgraTech	908VIP		17239	24.6	3548*	30532*	0.9
MorCorn	MC 4255	117	16638	23.8	3648*	30401*	1.2

Example from 2020 Spring Corn trial

Company	Hybrid	NEl	TDN	CP	IVTDMD30	Starch	WSC	ADF	aNDF	dNDF30	NDFD30
		Mcal/lb DM			% DM						% NDF
Syngenta	NK1808 3111	0.71	74.8	9.0	76.8 *	29.5 *	6.3	22.4	43.0	23.0	53.5 *
Local Seed	LC1506 VT2P	0.76 *	77.7*	9.6 *	79.3 *	31.2 *	5.5	20.2	38.8	20.7	53.3 *
Phoenix	7402A4	0.68	71.8	7.5	74.6	27.4 *	5.2	26.1	47.4	25.0	53.0 *
Phoenix	6507A3	0.75 *	77.9*	7.8	78.0 *	33.6 *	5.1	21.2	40.8	21.4	52.6 *
Dyna-Gro	D55VC80	0.74 *	78.0*	9.8 *	77.7 *	28.3 *	6.2	21.4	41.3	20.2	48.9
Phoenix	6542A4	0.67	70.8	6.5	75.3	30.3 *	4.4	26.2	45.9	23.8	52.1 *
AgraTech	1024VIP	0.74 *	77.4*	8.3	76.6 *	28.2 *	6.3	24.0	43.6	23.6	54.2 *
Dyna-Gro	D58SS65	0.70	72.8	8.0	76.4 *	30.6 *	5.3	22.5	42.2	20.4	48.4
Croplan Genetics	SS700	0.70	73.7	8.0	76.2 *	31.0 *	5.1	23.1	42.4	20.7	48.9
MorCorn	MC 4725	0.68	72.0	7.7	75.2	26.8	5.3	24.9	45.9	22.4	48.7
Dekalb	DKC69-99 TRECEPTA	0.69	72.2	6.8	73.8	28.7 *	4.5	25.3	46.2	22.2	48.0
Syngenta	NK1573-5222	0.75 *	77.8*	9.9 *	75.8 *	27.4 *	6.3	22.7	42.6	21.4	50.3
AgraTech	908VIP	0.73 *	76.2*	8.3	74.5	24.3	6.9	26.0	46.7	24.0	51.5 *
MorCorn	MC 4255	0.74 *	77.2*	8.2	78.8 *	31.7 *	5.8	20.4	40.4	21.0	52.1 *



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Company	Hybrid	Total Production	Estimated silage production (35% DM)	Milk production per ton	Milk production per acre	Disease score	Lodging score
		lb DM/A	Ton silage / A	lb milk/ton silage	lb milk/A		
Alta Seeds	ADV F7232	10030n.s.	14.3n.s.	2290	11466n.s.	1.9	(
Alta Seeds	ADV F8322	9721	13.9	2392	11515	2.3*	(
DynaGro	F72FS05	10267	14.7	2715 *	13885	2.0	(
DynaGro	F74FS23 BMR	6697	9.6	2410	7931	1.1	1.71*
DynaGro	F74FS72 BMR	10205	14.6	2299	11714	2.4*	(
DynaGro	F75FS13	9324	13.3	2213	10381	1.4	(
DynaGro	Super Sile 20	7945	11.4	2484	9174	2.4*	(
DynaGro	Super Sile 30	11257	16.1	2919 *	16720	2.8*	(
MOJO Seed Enterprises	OPAL	10781	15.4	2240	12125	1.9	(
Sorghum Partners	NK300	9795	14.0	2450	11927	2.3*	(
Sorghum Partners	SP3904 BD BMR	9182	13.1	2360	10753	1.8	(
Sorghum Partners	SP3905 BD BMR	7824	11.2	3238 *	12700	1.4	(
Sorghum Partners	SS405	9035	12.9	2800 *	12746	2.8*	(
Mean	Mean	9390	13.4	2524	11772	2.0	0.11
SE	SE	1206	1.7	205	1996	0.2	0.07

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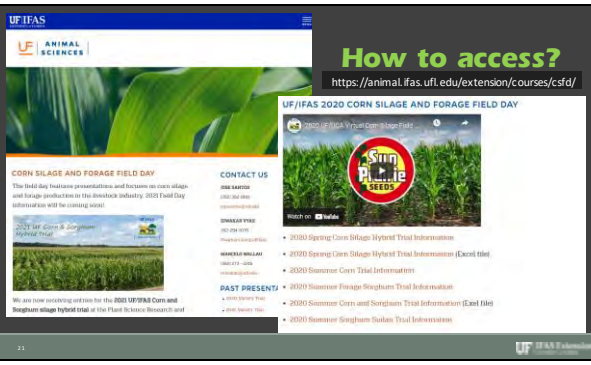

How to access?

https://animal.ifas.ufl.edu/extension/csfd/

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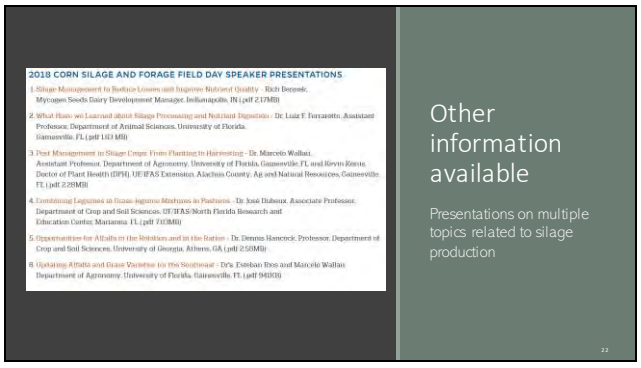
2018 CORN SILAGE AND FORAGE FIELD DAY SPEAKER PRESENTATIONS
1. Silage Management to Reduce Losses and Improve Nutrient Quality - Richi Dennis, Mycogen Seeds Dairy Development Manager, Indianapolis, IN (.pdf 2.17MB)
2. What Have we Learned about Silage Processing and Nutrient Digestion - Dr. Luiz F. Ferraretto, Assistant Professor, Department of Animal Sciences, University of Florida, Gainesville, FL (.pdf 1.63 MB)
3. Pest Management in Silage Crops: From Planting to Harvesting - Dr. Marcelo Wallau, Assistant Professor, Department of Agronomy, University of Florida, Gainesville, FL and Kevin Rivera, Doctor of Plant Health (DPH), UF/IFAS Extension, Alachua County: Ag and Natural Resources, Gainesville, FL (.pdf 2.28MB)
4. Combining Legumes in Grass-legume Mixtures in Pastures - Dr. José Dubeux, Associate Professor, Department of Crop and Soil Sciences, UF/IFAS/North Florida Research and Education Center, Marianna, FL (.pdf 7.6MB)
5. Opportunities for Alfalfa in the Rotation and in the Ration - Dr. Dennis Hancock, Professor, Department of Crop and Soil Sciences, University of Georgia, Athens, GA (.pdf 2.58MB)
6. Updating Alfalfa and Grass Varieties for the Southeast - Dr's. Esteban Rios and Marcelo Wallau, Department of Agronomy, University of Florida, Gainesville, FL (.pdf 940KB)
Other information available
Presentations on multiple topics related to silage production
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Cool Season forages
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Cool-season variety recommendation list
Multi-state effort on variety testing – Coordinated by UGA
Marianna and Citra; Gainesville (ryegrass)
Updated EDIS publication yearly
UF IFAS Extension
SS-AGR-84
2020 Cool-Season Forage Variety Recommendations for Florida[1]
A. R. Blount, M. Wallau, E. Rios, J. M. B. Vendramini, J. C. B. Dubeux, Md. A. Babar, K. E. Kenworthy, M. Mulvaney, and K. H. Quesenberry[2]
Introduction
Drs. Ann Blount, Kevin Kenworthy and Ali Babar
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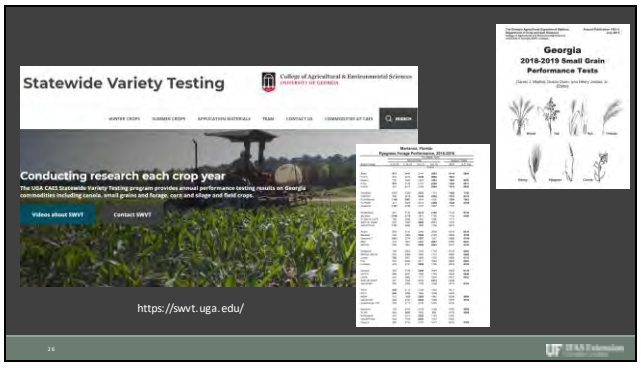
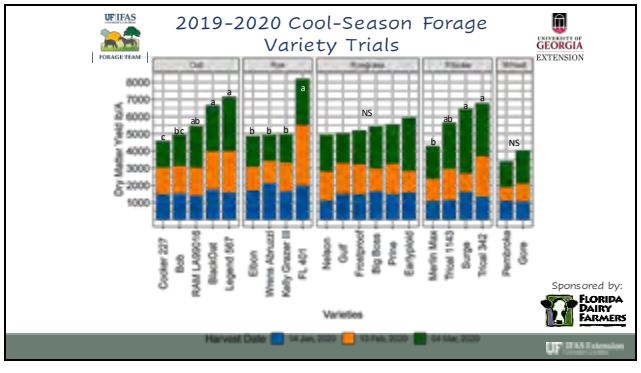


Cool season demonstration and variety trial

5 dairies in North-Central Florida

Multiple county demonstration sites throughout the state



Bermudagrass

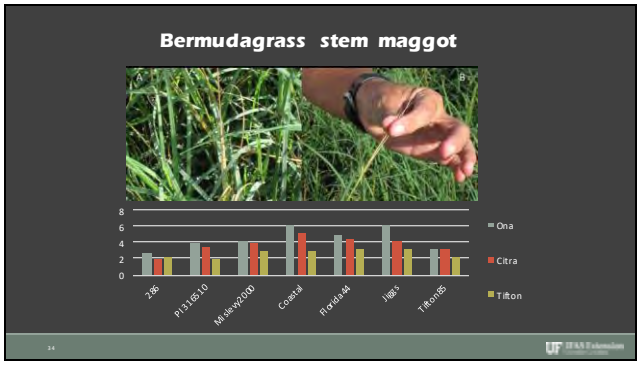
Bermudagrass

Two new varieties released – Mislevy 2000 and Newell

- Still limited plating material available
- Nurseries being established in various regions
- Current working with USDA – Tifton for new releases

Drs. Esteban Rios and Joao Vendramini

https://edis.ifas.ufl.edu/publication/AA200

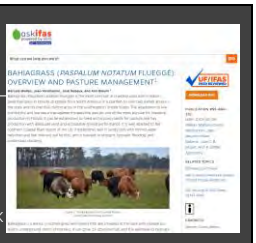


Bahiagrass

INFORMATION ON VARIETY AVAILABLE ON https://edis.ifas.ufl.edu/publication/ag342

"RECENT" RELEASES UF RIATA AND TIFQUICK

NINE NEW TETRAPLOID LINES BEING TESTED UNDER GRAZING



Drs. Esteban Rios, Lynn Sollenberger, Kevin Kenworthy and Fredy Altpeter

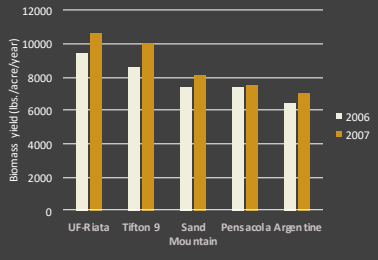
Differences between bahiagrass cultivars

Credits: Mark Mauldin

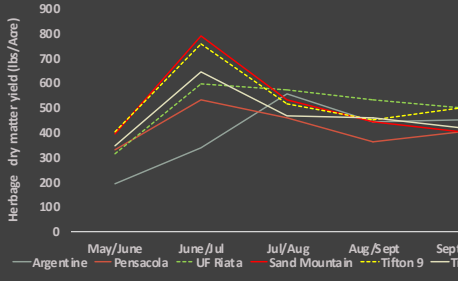
Tifton 9 – higher productivity

UF Riata – extended growing season and more productive

Bahiagrass herbage production on Florida Panhandle



Data from Marianna, FL, 2006 and 2007. Source: A. Blount (personal communication).



Data averaged across two seasons (2014 and 2015); Marianna, FL. Source: Dubeux et al. (2016).

Bahiagrass herbage production in South Florida (low N)

Cultivar	Herbage accumulation (lb./acre)	
	Year	
	2010	2011
Argentine	5710 b	3836 a
Pensacola	5264 c	3033 c
Tifton 9	6156 ab	3301 c
UF Riata	6245 a	3569 b

Below-average rainfall in May

41 Adapted from Vendramini et al. (2013).

Limpograss

2 recent releases – Gibtuck and Kenhy

Dr. Ken Quesenberry

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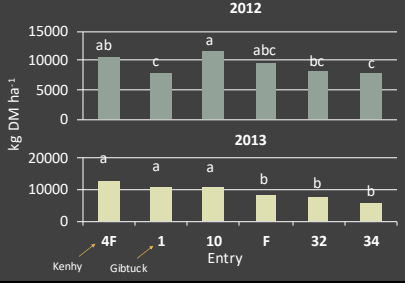
Herbage accumulation

4F and 10: 30% > F



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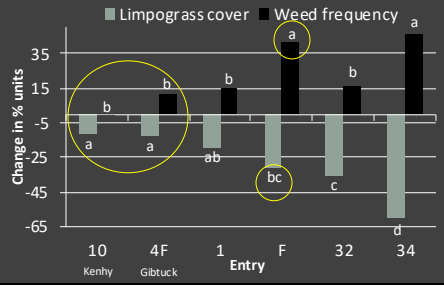
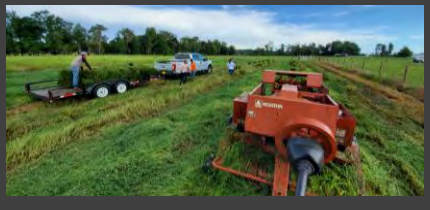
Change in limpograss cover/weed freq. after 2 yr grazing



Baling limpograss planting material



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Check our resources

UF Forage Team Facebook and Instagram

https://www.facebook.com/**UFForageTeam**

https://www.instagram.com/**uf.forages/**

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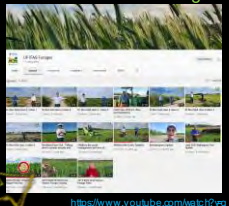
2019-2020 UF/IFAS Cool-Season Forages Variety Updates

UF IFAS Forages



https://www.youtube.com/watch?v=qpH_jeLGBPA&t=66s