FORAGE SUITABILITY GROUP

Organic Soils in Depressions and on Flood Plains

FSG No.: G152AA645FL

Major Land Resource Area (MLRA 152A):

Eastern Gulf Coast Flatwoods

Map Unit List*

Chobee muck, limestone substratum, frequently flooded
Chobee-Gator complex, frequently flooded
Croatan-Dorovan mucks (FL129)
Demory muck, occasionally flooded
Dorovan and Pamlico soils, depressional
Dorovan-Croatan complex, depressional
Dorovan-Pamlico complex, depressional
Ebro-Dorovan complex (FL005)
Gator and Terra Ceia soils, frequently flooded
Leon mucky fine sand, frequently flooded
Maurepas muck, frequently flooded
Myakka muck, occasionally flooded
Pamlico and Dorovan soils, depressional
Pamlico and Dorovan soils, frequently flooded
Pamlico-Dorovan complex (FL005)
Placid and Samsula soils, depressional
Terra Ceia muck, depressional
Yellowjacket and Maurepas mucks, depressional
Yellowjacket and Maurepas mucks, frequently flooded
Yellowjacket and Maurepas soils, frequently flooded

***Note: Some members do not identify flooding or depressional in the map unit name but are subject to flooding or ponding. In these cases, please refer to the water features data on the Web Soil Survey or Soil Data Mart. Information in parenthesis refers to soil survey code where map unit occurs.**

Adapted Species List

The following native forage species are considered adapted to grow on the soils in this group at their natural pH levels. All introduced grasses will need native pH raised to min. 5.5 (unless noted) for best production. Consult with state extension service for current cultivar recommendations (http://agronomy.ifas.ufl.edu/foragesofflorida/).

Perennial Species:

Grasses

Warm season (Introduced)

- Limpograss (*Hemarthria altissima*)

Warm season (Native)

- Maidencane (*Panicum hemitomon*)
- Blue Maidencane (*Amphicarpum muhlenbergianum*)

Annual Species:

Grasses

Warm season

- Japanese Millet (*Echinochloa esculenta*)

Legumes

Warm season

- Aeschynomene (*Aeschynomene americana*)

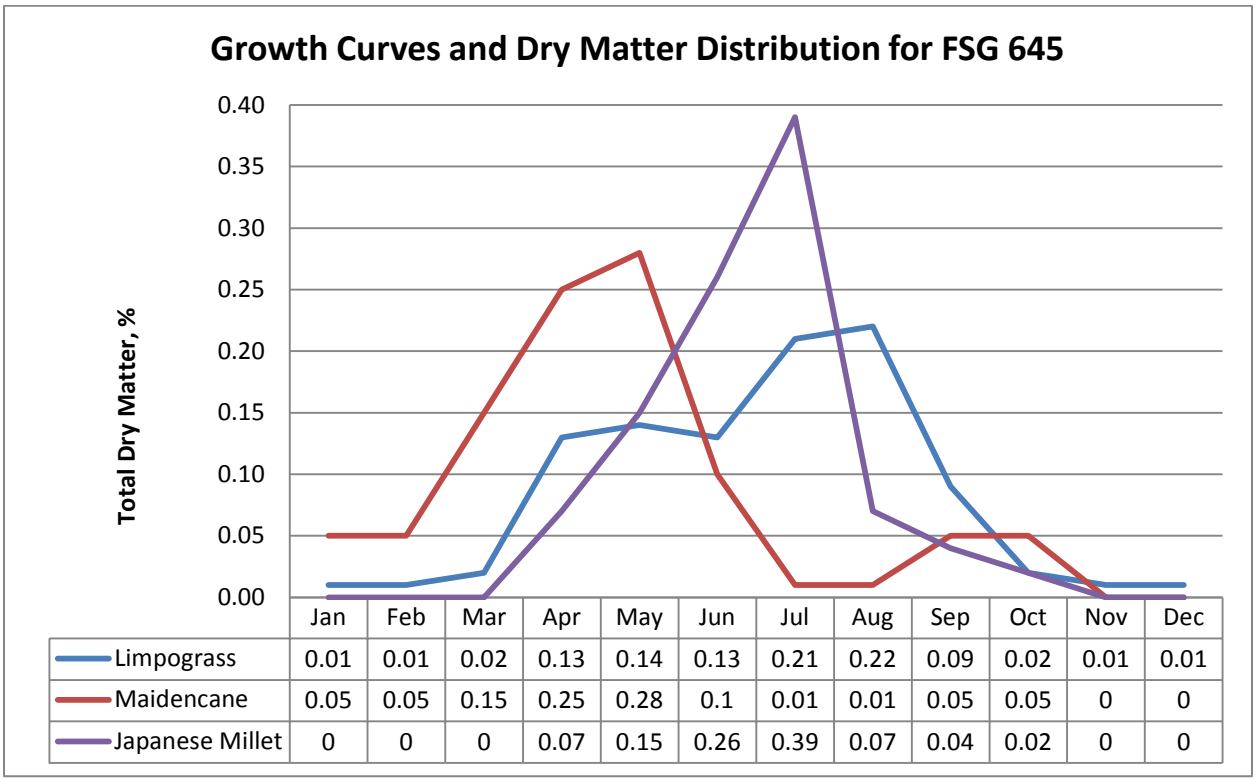
Seasonal and Total Production Estimates

Unless previously drained, soils in this FSG have very few forage species adapted to their seasonal high water table (1 to 2 feet above the soil surface).

Expected Range in Dry Matter Production and Animal Unit Months (AUM) for Different Forages

Forage	Range in Dry Matter, lbs/acre		Range in AUM/acre†	
Limpograss (≈400 lb N/acre)[3,5]	8,000	13,000	5.1	8.2
Maidencane[1]#	5,000	6,700	3.2	4.3
Blue Maidencane[1]#	2,100	2,500	1.3	1.6
Japanese Millet[2]	4,000	6,000	2.5	3.8
Aeschynomene[4]	2,000	3,000	1.3	1.9

†Animal Unit Month based on 50% grazing efficiency and 2.6% intake per day.
‡Superscript numbers refer to references.
#Dry matter estimated based on the assumption air dried yield in reference had ≈16% moisture.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Limpograss	0.01	0.01	0.02	0.13	0.14	0.13	0.21	0.22	0.09	0.02	0.01	0.01
Maidencane	0.05	0.05	0.15	0.25	0.28	0.1	0.01	0.01	0.05	0.05	0	0
Japanese Millet	0	0	0	0.07	0.15	0.26	0.39	0.07	0.04	0.02	0	0

Physiographic Features

Dominantly very deep, nearly level, very poorly drained soils formed in organic material or organic material over sandy, loamy, or clayey marine deposits or alluvial deposits. These soils are on flats or depressions of flood plains or in depressions of marine terraces. Diagnostic subsurface horizons are absent. The organic matter content of the surface layer is dominantly very high. Unless limed, the reaction in the surface layer ranges from extremely acid to slightly alkaline.

Climatic Features

Freeze-free period (>28° F 9 years in 10 at least): averages 268 d (range 243-295 d)

Length of growing season (>32° F 9 years in 10 at least): averages 235 d (range 206-267 d)

Annual minimum temperature (° F in month of January): averages 53.7 (range 49.0-64.5)

USDA Plant Hardiness Zone:
8b (15-20° F, Tallahassee)
9a (20-25° F, Gainesville)

Mean annual precipitation (inches): averages 60.77 (range 52.83-69.20)

Soil Properties

Percent Slope: 0 to 2 percent

Surface Texture: Muck, mucky peat

Sand Content of Surface Layer: Less than 5 percent

Clay Content of Surface Layer: Less than 5 percent

Organic Matter Content of Surface Layer: 20 to 90 percent

Cation Exchange Capacity of Surface Layer (meq/100g): 58.9 to 195.1

Effective Cation Exchange Capacity of Surface Layer (meq/100g): 6.2 to 92.1

Bulk Density of Surface Layer (g/cc): 0.15 to 1.05

Saturated Hydraulic Conductivity of Surface Layer: Moderate to rapid

Soil Reaction of Surface Layer: 3.5 to 7.8

Available Water Capacity (0 to 30 inches): 2 to 14.4 inch per inch

Depth to Sandy or Loamy Material: Dominantly greater than 16 inches, but ranges to 5 inches

Depth to Bedrock: Dominantly greater than 80 inches. A few members have bedrock at less than 80 inches

Drainage Class (Agronomic): Very poorly

Depth to Seasonal High Water Table (during wet periods): 1 to 2 feet above the surface

Flooding: If flooded, frequent or occasional with brief to very long duration

Ponding: If ponded, long or very long duration

Monthly precipitation (inches) and temperature (°F):

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Precip avg	5.25	4.28	5.67	3.52	3.78	6.20	7.82	7.44	5.82	3.46	3.54	3.75
Avg Min	40.5	43.0	48.9	83.7	62.0	66.9	71.6	71.4	68.1	57.1	49.0	43.2
Avg Temp	53.7	56.7	62.7	68.1	75.3	80.8	82.6	82.3	79.4	70.6	62.6	55.8
Avg Max	64.1	67.3	73.3	79.1	85.6	90.1	91.3	90.9	88.3	81.2	73.3	66.2

Climate Station Locations (averages from 1971 to 2000; see Appendix 1)

FSG Documentation

Inventory Data References:

1. --------. 1987. Range management for important native grasses of Florida. Gainesville, FL, USA: US Department of Agriculture, Natural Resources Conservation Service. 168 p.

2. Barnhart, S. 2008. Forage and cover crop considerations for delayed planting and flooded sites. Ames, IA, USA: Iowa State University Extension. Available at: http://www.extension.iastate.edu/CropNews/2008/0611SteveBarnhart.htm. Accessed 18 December 2012.

3. Kalmbacher, R.S., P.H. Everett, F.G. Martin, K.H. Quesenberry, E.M. Hodges, O.C. Ruelke, and S.C. Schank. 1987. Yield and persistence of perennial grasses at Immokalee, Florida: 1981 to 1984. Gainesville, FL, USA: University of Florida, Institute of Food and Agricultural Sciences, Agriculture Experiment Station. Bull. 865. Available at: http://ufdc.ufl.edu/UF00027614/00001?search=kalmbacher. Accessed 17 December 2012.

4. Mislevy, P., R.S. Kalmbacher, and F.G. Martin. 1981. Cutting management of the tropical legume American jointvetch. Agronomy Journal 73:771-775 Available at: https://www.agronomy.org/publications/aj/abstracts/73/5/AJ0730050771. Accessed 17 December 2012.

5. Newman Y.C., A. Agyin-Birikorang, M.B. Adjei, J.M. Silveira, J.M.B. Vendramini, J.E. Rechcigl, and L.E. Sollenberger. 2009. Nitrogen fertilization effect on phosphorus remediation potential of three perennial warm-season forages. Agronomy Journal 101:1243-1248. Available at: https://www.soils.org/publications/aj/pdfs/101/5/1243. Accessed 17 December 2012.

State Correlation: (NA)

Forage Suitability Group Approval:

Greg Hendricks, State Resource Conservationist

Tom Weber, State Soil Scientist

Appendix 1: Climate Station Locations		
COOP ID (FL=08)	**Location**	**County**
3230	Fountain	Bay
6842	Panama City	Bay
2008	Cross City	Dixie
3855	Pensacola Sherman NAS	Escambia
6997	Pensacola Regional Air.	Escambia
211	Apalachicola	Franklin
9566	Wewahitchka	Gulf
5539	Mayo	LaFayette
8758	Tallahassee Mun. Air.	Leon
9120	Usher Tower	Levy
5275	Madison	Madison
6240	Niceville	Okaloosa
3841	Whiting Field NAS	Santa Rosa
5099	Live Oak	Suwannee
7025	Perry	Taylor
8565	Steinhatchee	Taylor