FORAGE SUITABILITY GROUP

Organic Soils in Depressions and on Flood Plains

FSG No.: G133AA645FL

Major Land Resource Area (MLRA 133A):

Southern Coastal Plain

Map Unit List*

Croatan muck, depressional
Dorovan and Pamlico soils, depressional
Dorovan muck, frequently flooded
Dorovan mucky peat (FL073)
Dorovan-Pamlico association (FL063, FL113)
Dorovan-Pamlico association, frequently flooded
Maurepas muck, frequently flooded
Pamlico muck (FL131)
Pamlico-Dorovan complex (FL073)
Pamlico-Dorovan mucks

***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:

Warm season (Introduced)
- Limpograss (*Hemarthria altissima*)

Grasses
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*)

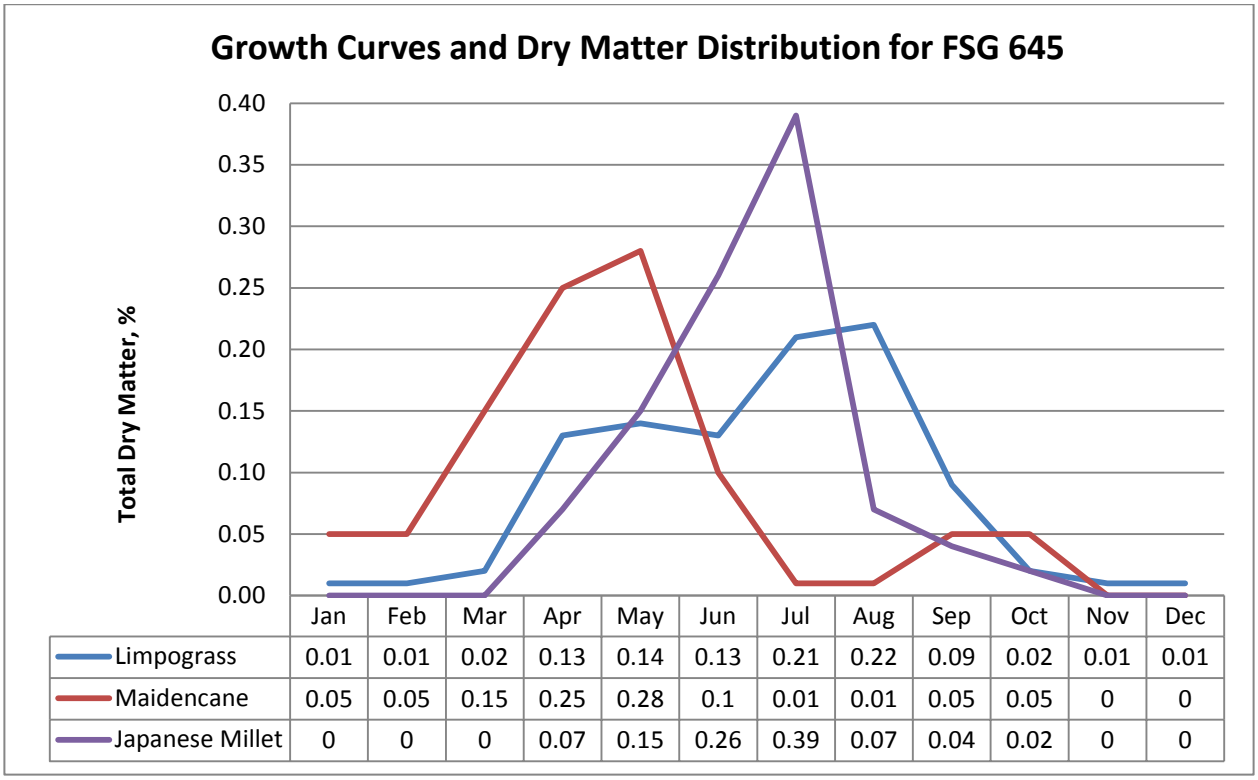
Seasonal and Total Production Estimates

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.

Production Curves:



	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 255 d (range 243-273 d)

Length of growing season (>32° F 9 years in 10 at least): averages 224 d (range 205-247 d)

Annual minimum temperature (° F in month of January): averages 38.2 (range 36.7-39.7)

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

Mean annual precipitation (inches): averages 62.14 (range 53.18-69.48)

Group Soil Properties (Statewide)

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	4.80	6.37	3.78	4.45	6.36	7.04	6.32	5.24	3.31	4.16	4.09	4.80
Avg Min	38.2	40.8	46.9	99.8	60.8	67.8	70.7	70.3	66.4	54.6	46.5	41.3
Avg Temp	51.6	54.9	61.2	67.0	74.4	80.2	82.1	81.8	78.7	69.9	61.5	54.4
Avg Max	62.2	66.1	72.5	78.7	85.3	90.1	91.5	91.0	88.0	80.3	71.9	64.5

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. USDA, NRCS. Gainesville, FL. 168 p.
2. Barnhart, S. 2008. Forage and Cover Crop Considerations for Delayed Planting and Flooded Sites. Iowa State Univ. Ext. http://www.extension.iastate.edu/CropNews/2008/0611SteveBarnhart.htm (accessed Oct. 12, 2011).
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. Univ. Florida, IFAS, Agric. Exp. Stn., Bull. 865. (http://ufdc.ufl.edu/UF00027614/00001?search=kalmbacher, accessed August 22, 2011).
4. Mislevy, P., R.S. Kalmbacher, and F.G. Martin. 1981. Cutting Management of the Tropical Legume American Jointvetch. Agron. J. 73:771-775 (https://www.agronomy.org/publications/aj/abstracts/73/5/AJ0730050771, accessed September 29, 2011).
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 Recommendation Potential of Three Perennial Warm-Season Forages. Agron. J. 101:1243-1248. (https://www.soils.org/publications/aj/pdfs/101/5/1243, accessed August 22, 2011).

State Correlation: Pending

Forage Suitability Group Approval:

Rosalind Moore, Acting State Resource Conservationist

Tom Weber, State Soil Scientist

Appendix 1: Climate Station Locations		
COOP ID (FL=08)	**Location**	**County**
1544	Chipley	Washington
1986	Crestview	Okaloosa
2220	De Funiak Springs	Walton
3230	Fountain	Bay
5275	Madison	Madison
5793	Milton Exp. Stn.	Santa Rosa
5879	Monticello	Jefferson
6240	Niceville	Okaloosa
7429	Quincy	Gadsden
8758	Tallahassee Mun. Air.	Leon