

Hendry County, Florida Nontechnical Soil Descriptions



Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units. These descriptions are written in terminology that nontechnical users of soil survey information can understand and are used to create reports. By linking the description to the soil survey map units these reports can be generated by conservation planners and other NRCS employees for distribution to land users. These descriptions are available through both TOOLKIT and NASIS.

In this subsection nontechnical descriptions are available through four categories they are Agronomic, ecological community, urban, and Water Quality. Separate map unit to description links are provided for each category.

AGRONOMIC

The following agronomic categories are available and linked through the Land Capability Unit (LCU) that are listed below.

Category

- aSOI - Soil Characteristics
- bSAC - Soil Agronomic Characteristics
- cH2O - Seasonal High Water Table
- dCUL - Cultivation Limitations
- eERO - Erosion Control
- fIRR - Irrigation Needs
- gCIT - Citrus Production
- hPAS - Pasture and Hayland
- iWMG - Water Table Management

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
1	3w6	3w24		
2	3w1	3w21		
4	4w3	4w22		
6	3w3	3w22		

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
7	4w2	4w21		
8	4w3	4w22		
9	4w3	3w21		
10	4w3	3w21		
12	3w2	3w21		
13				7w3
14	3w3	3w23		
15	4w2	4w21		
17	4w2	4w21		
18	4w2	4w21		
19				7w1
20			3w27	7w1
21	4w7	4w22		
22	4w2	4w21		
23	4w6	4w23		
24	6s8			
26	4w8	4w22		
27	3w1	3w21		
28				7w3
29	4w8	4w22		
32				7w3
33				7w3
34				7w3
37	3w7	3w26		
39	No LCU			
42				7w3
44	4w3	4w25		
45			3w27	7w1
47	No LCU			
49	NO LCU			
50				7w3
51	4w3	4w22		
53	3w9			
56			3w27	7w1
57				7w3
58				7w3
59				7w3
60				7w3
61				7w3
62				7w3
63	4w6 8s1	4w23		
64				7w3

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
65			3w27	7w1
66	No LCU			
67			3w27	7w1
68				7w1
69			3w27	7w3
70			3w9	7w3
73	3w9			

Map Units without an LCU listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

ECOLOGICAL COMMUNITY

The following categories are available below.

kRNG - Rangeland Suitability
 IWLD - Wildlife Suitability
 mWOD - Woodland Suitability

EC 3 (Sand Scrub) - Map Unit: 24

EC 6 (South Florida Flatwoods) - Map Units: 1 (91), 4, 6, 7, 14, 15, 23*, 29, 51

EC 9 (Everglades Flatwoods) - Map Units: 23*, 63*

EC 13 (Cabbage Palm Hammock) - Map Unit: 44*

EC 24 (Sawgrass Marsh) - Map Units: 44*, 63*, 65*, 66*

EC 26 (Slough) - Map Units: 2, 8, 9, 10, 12, 17, 18, 12, 22, 26, 27, 66*

EC 25 (Freshwater Marshes and Ponds) - Map Units: 13, 19, 20, 28, 13, 32, 33, 34, 42, 45, 50, 56, 58, 59, 60, 61, 62, 64, 65*, 67, 68, 69, 70

* - These Map Units have more than one type of ecological community.

Map Units without an ecological community listed are not suited to these uses or suitability is so variable that it must be determined on-site.

URBAN USES

The following additional nontechnical descriptions are available for urban interpretations:

oURB - Urban Use Statement
pSEP - Septic Tank Absorption Fields
qLRS - Local Roads and Streets

02 - Map Units 19, 20, 45, 56, 65, 67, 68, 69, and 70.

05 - Map Units 28, 32, 33, 34, 42, 50, 57, 58, 59, 60, 61, 62, and 64.

03 - Map Units 1 (91), 2, 43, 6, 7, 8, 9, 10, 12, 14, 15, 17, 18, 21, 22, 23, 26, 27, 29, 37, 44, 49, 51, 63, and 66.

04 - Map Units 24, 47, 53, and 73

Map units without a link listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

WATER QUALITY

The last group of nontechnical description in this subsection of this FOTG is that group dealing with water quality, specifically pesticide and nutrient management. The link between the statements and the map units is listed below.

sWQ – Water Quality Statement
tPES – Pesticide Management Statement
uNUT – Nutrient Management Statement

01 - Map Units - None

02 - Map Units - none

03 - Map Units - 1 (91), 7, 14, 15, 17, 18, 22, 23, 24, 28, 39, 44, 47, 53, 60, 63, 64, 66

04 - Map Units - 2, 4, 6, 8, 9, 12, 13, 19, 20, 21, 26, 27, 29, 32, 33, 34, 37, 42, 45, 50, 51, 56, 57, 58, 59, 61, 62, 65, 67, 68, 69, 70, 73

Nontechnical Soil Descriptions

3w1 Non-hydric, portions of Map Units 2, 27

"aSOI", "3w1", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers 20 to 40 inches thick over moderately to moderately rapidly permeable loamy layers. These soils have limestone bedrock within depths of 40 to 80 inches."

"bSAC", "3w1", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w1", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w1", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are well suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w1", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w1", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w1", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "3w1", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w1", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w2 Non-hydric, portions of Map Units 12

"aSOI", "3w2", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers 20 to 40 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "3w2", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w2", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w2", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are well suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w2", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w2", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w2", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "3w2", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w2", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w3 Non-hydric, portions of Map Unit 6, 14

"aSOI", "3w3", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy or sandy subsoils. These soils have dark colored organic stained layers within 40 inches"

"bSAC", "3w3", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w3", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w3", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "3w3", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w3", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w3", "With proper water table management these soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "3w3", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w3", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w6 Non-hydric, portions of Map Unit 1 (91)

"aSOI", "3w6", "This map unit consists of nearly level poorly drained soils on flatwoods, hammocks, and upland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of 20 to 40 inches."

"bSAC", "3w6", "The root zone of these soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low but crop response to fertilization is moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid. The hazard of erosion is slight."

"cH2O", "3w6", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w6", "These soils have severe limitations for cultivated crops because of wetness and the depth to bedrock. The variety of crops is very limited without a total water table management system that is designed to remove excess water in wet seasons and provide subirrigation during dry periods. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "3w6", "Erosion control is not a management concern on these soils."

"fIRR", "3w6", "If cultivated, highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w6", "These soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "3w6", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w6", "If cropped, these soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w7 Non-hydric portions of Map Unit 37

"aSOI", "3w7", "This map unit consists of nearly level, poorly and very poorly drained hydric soils on low flatwood ridges and hammocks. These soils consist of sandy layers less than 20 inches thick over loamy calcareous material."

"bSAC", "3w7", "These soils have a root zone restricted by the underlying loamy calcareous material. The variety of crops is limited to those that are tolerant to alkaline conditions. Adapted crops include potatoes and West Indian vegetables. The available water capacity is moderate to high in the root zone. Natural fertility is moderate and crops respond well to the addition of nutrients."

"cH2O", "3w7", "In normal years these soils have a seasonal high water table at a depth of 6 to 18 inches for 2 to 6 months. In other months the water table is usually below this depth. During periods of high rainfall the water table may be within 6 inches of the surface for periods of brief duration."

"dCUL", "3w7", "These soils have severe limitations for cultivated crops due to wetness and alkalinity. In their natural conditions these soils are not suited to cultivation; however, with an adequate water table management system, they are moderately well suited to a limited variety of locally important vegetable crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "3w7", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w7", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w7", "Due to alkalinity and the depth to loamy calcareous material these soils are not suited to the production of citrus crops,"

"hPAS", "3w7", "Due to alkalinity and the depth to limestone bedrock and the limited variety of grasses suited to these conditions, these soils are not suited to the production of pasture and hay crops,"

"iWMG", "3w7", "If cropped, these soils need a total water table management system to remove excess water rapidly and consistently. Tile drains, canals, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depth for the crop grown. Slow soil permeability, frequent heavy rains, and the location of an adequate outlet are factors important to the design of a water table management system. Tile drains may be used for subirrigation during periods of low rainfall."

3w9 Map Unit 53, 70, 73

"aSOI", "3w9", "This map unit consists of nearly level and gently sloping, somewhat poorly drained soils on low ridges within the flatwoods. They have rapidly permeable sandy layers to depths of more than 40 inches."

"bSAC", "3w9", "The root zone of these soils is limited by a seasonal high water table in wet seasons and by droughtiness during periods of low rainfall. The available water capacity is low in the root zone. Natural fertility is low but crop response to fertilization is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O", "3w9", "In normal years these soils have a seasonal high water table at a depth of between 18 and 40 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w9", "These soils have severe limitations for most cultivated crops due to wetness in wet seasons, droughtiness during periods of low rainfall, and the rapid leaching of plant nutrients. These factors also limit the choice of plants and reduces potential yields of adapted crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "3w9", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w9", "Irrigation of high value crops is usually feasible where irrigation water is readily available. Good yields of citrus crops can normally be grown without irrigation, but irrigation to maintain optimum yields is usually feasible where irrigation water is readily available."

"gCIT", "3w9", "These soils are moderately well suited to citrus trees where they occur in places that are relatively free from freezing temperatures. A good ground cover of close growing vegetation is needed between the trees to minimize erosion. Good yields of citrus crops can normally be grown without irrigation."

"hPAS", "3w9", "These soils are well suited to pastures. Pangola grass, hybrid bermudagrass, and bahiagrasses are well adapted. White clover and lespedezas are also well adapted. These soils produce good yields where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG", "3w9", "Tile, or other types of drains, are needed for some crops such as citrus that are damaged by high water table during the growing season. Tiles can also be used as a source for subirrigation during periods of low rainfall."

3w21 Hydric, portions of Map Units 2, 9, 10, 12, 27

"aSOI", "3w21", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers 20 to 40 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "3w21", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w21", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "3w21", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness. With a total water management system these soils are suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w21", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "3w21", "If cultivated, highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w21", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "3w21", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w21", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w22 Hydric, portions of Map Unit 6

"aSOI", "3w22", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy or sandy subsoils. These soils have dark colored organic stained layers within 40 inches"

"bSAC", "3w22", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"ch2O", "3w22", "In normal years these hydric soils have a seasonal high water table at a depth of less than 6 inches for 2 to 6 months. In other months the water table is usually below these depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "3w22", "Cultivation of these hydric soils is not recommended. If cultivated, severe limitations due to wetness in wet seasons and droughtiness during periods of low rainfall exist. With a total water management system these soils are suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "3w22", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "3w22", "Highest yields on these hydric soils require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w22", "With proper water table management these hydric soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "3w22", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w22", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w23 Hydric, portions of Map Unit 14

"aSOI", "3w23", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy or sandy subsoils. These soils have dark colored organic stained layers within 40 inches"

"bSAC", "3w23", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w23", "In normal years these hydric soils have a seasonal high water table at a depth of less than 6 inches for 2 to 6 months. In other months the water table is usually below these depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "3w23", "Cultivation of these hydric soils is not recommended. If cultivated, severe limitations due to wetness in wet seasons and droughtiness during periods of low rainfall exist. With a total water management system these soils are suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "3w23", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "3w23", "Highest yields on these hydric soils require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w23", "With proper water table management these hydric soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "3w23", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w23", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w24 Hydric, portions of Map Unit 1 (91)

"aSOI", "3w24", "This map unit consists of nearly level poorly drained soils predominantly on sloughs. These soils also occur on low flatwoods, low hammocks, and wetland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of 24 to 40 inches."

"bSAC", "3w24", "The root zone of these hydric soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low but crop response to fertilization is moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid."

"cH2O", "3w24", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depth. During periods of high rainfall the water table may be as much as 3 inches above the surface for periods of brief duration."

"dCUL", "3w24", "These hydric soils have severe limitations for cultivated crops because of wetness and the depth to bedrock and cultivation is not recommended. If they are cultivated the variety of crops is very limited without an adequate total water table management system. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "3w24", "Erosion control is not a management concern on these hydric soils."

"fIRR", "3w24", "If cultivated, highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w24", "These hydric soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome. If citrus crops are grown on these soils, a total water table management system is needed. Nutrient management maximizes yields."

"hPAS", "3w24", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w24", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w26 Hydric Portions of Map Unit 37

"aSOI", "3w26", "This map unit consists of nearly level, poorly and very poorly drained hydric soils on low flatwood ridges and hammocks. These soils consist of sandy layers less than 20 inches thick over loamy calcareous material."

"bSAC", "3w26", "These soils have a root zone restricted by the underlying loamy calcareous material. The variety of crops is limited to those that are tolerant to alkaline conditions. Adapted crops include potatoes and West Indian vegetables. The available water capacity is moderate to high in the root zone. Natural fertility is moderate and crops respond well to the addition of nutrients."

"cH2O", "3w26", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depth. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "3w26", "These soils have severe limitations for cultivated crops due to wetness and alkalinity. In their natural conditions these soils are not suited to cultivation; however, with an adequate water table management system, they are moderately well suited to a limited variety of locally important vegetable crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "3w26", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w26", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w26", "Due to alkalinity and the depth to loamy calcareous material these soils are not suited to the production of citrus crops."

"hPAS", "3w26", "Due to alkalinity and the depth to limestone bedrock and the limited variety of grasses suited to these conditions, these soils are not suited to the production of pasture and hay crops."

"iWMG", "3w26", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and consistently. Tile drains, canals, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depth for the crop grown. Slow soil permeability, frequent heavy rains, and the location of an adequate outlet are factors important to the design of a water table management system. Tile drains may be used for subirrigation during periods of low rainfall."

3w27 Drained portions of Map Units 20, 45, 56, 65, 67, 69

"aSOI", "3w27", "This map unit consists of nearly level, very poorly drained organic soils on broad flats and depressions. These hydric soils have been drained and protected from flooding and ponding by means of pumping stations, canals, and dikes for crop production and other uses."

"bSAC", "3w27", "In natural conditions these soils have a seasonal high water table above the surface for much of the year. Where or when the pumping stations, dikes, and canals are not maintained and operated the root zone is limited by the water table which will revert to pre-drained conditions. The available water capacity is very high in the root zone. Natural fertility is moderate and the soils respond well to fertilization. The internal drainage rate is slow, but response to artificial drainage is rapid."

"cH2O", "3w27", "Depth to the water table is management dependent on these hydric soils. These soils are drained and protected from flooding and ponding by means of pumping stations, canals, and dikes for crop production and other uses. In natural conditions these soils have a seasonal high water table above the surface for much of the year and where or when the pumping stations, dikes, and canals are not maintained and operated the water table will revert to pre-drained conditions."

"dCUL", "3w27", "These soils are well suited to cultivated crops such as vegetables and sugar cane where and when the pumping stations, dikes, and canals are maintained. All crop residues and cover crops should be returned to the soil."

"eERO", "3w27", "To keep the soil from oxidizing and subsiding the water table should be maintained as near the surface as feasible for crop production. Soil blowing is also a problem in the early spring. To reduce loss of soil due to soil blowing either a vegetative cover should be maintained or the area should be covered with water."

"fIRR", "3w27", "Irrigation of the high value crops produced on these soils is usually feasible either through subirrigation or sprinklers."

"gCIT", "3w27", "These soils are not suited to citrus unless the pumping stations, dikes, and canals are maintained so that the water table is kept at a depth of about 4 feet."

"hPAS", "3w27", "Most improved grasses and clovers adapted to the area grow well on these soils when and where the water table is properly controlled. Pangola grass, bahiagrasses, and white clovers grow well. Water control should maintain the water table near the surface to prevent excessive oxidation of the organic horizons."

"iWMG", "3w27", "A well designed and maintained water control system should provide for removing excess water during times when crops are on the land and for keeping the soils saturated with water at all other times. Nutrient management is necessary to keep fertilizers from reaching surface water. Water tolerant cover crops should be on the soils when they are not in use for row crops."

4w2 Non-hydric portions of Map Units 7, 15, 17, 18, 22

"aSOI", "4w2", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy layers more than 72 inches thick."

"bSAC", "4w2", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages low in the root zone. Natural fertility is low but crop response to fertilization is moderate. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w2", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w2", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are well suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "4w2", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w2", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w2", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "4w2", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w2", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w3 Non-hydric portions of Map Units 4, 8, 9, 10, 44, 51

"aSOI", "4w3", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They are dominately sandy with a moderately slowly subsoil layer within 60 inches."

"bSAC", "4w3", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons and by droughtiness during periods of low rainfall. The available water capacity averages low to very low in the root zone. Natural fertility is low and crop response to fertilization is moderate. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w3", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w3", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w3", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w3", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w3", "With proper water table management these soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "4w3", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w3", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w6 Non-hydric portions of Map Units 23, 63

"aSOI", "4w6", "This map unit consists of nearly level poorly drained soils on flatwoods, hammocks, and upland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of less than 20 inches."

"bSAC", "4w6", "The root zone of these soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low and crop response to nutrients is low to moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid. The hazard of erosion is slight."

"cH2O", "4w6", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w6", "These soils have severe limitations for cultivated crops because of wetness and the depth to bedrock. The variety of crops is very limited without an adequate total water table management system that designed to remove excess water in wet seasons and provide subirrigation during dry periods. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "4w6", "Erosion control is not a management concern on these soils."

"fIRR", "4w6", "If cultivated, highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w6", "These soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "4w6", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w6", "If cropped, these soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w7 Non-hydric, portions of Map Unit 21

"aSOI", "4w7", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy subsoil layers below 40 inches"

"bSAC", "4w7", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w7", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w7", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w7", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w7", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "4w7", "With proper water table management these soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "4w7", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w7", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w8 Non-hydric, portions of Map Units 26, 29

"aSOI", "4w8", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy subsoils below 40 inches. These soils have limestone bedrock within 40 to 80 inches or the surface."

"bSAC", "4w8", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w8", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w8", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w8", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w8", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "4w8", "With proper water table management these soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "4w8", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w8", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w21 Hydric portions of Map Units 7, 15, 17, 18, 22

"aSOI", "4w21", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy layers more than 72 inches thick and a spodic horizon within 30 inches."

"bSAC", "4w21", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w21", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w21", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness. With a total water management system these soils are suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "4w21", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w21", "If cultivated, Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w21", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "4w21", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w21", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w22 Hydric portions of Map Units 4, 8, 21, 26, 29, 51

"aSOI", "4w22", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They are dominately sandy with a moderately slowly subsoil layer within 60 inches."

"bSAC", "4w22", "The root zone is limited by a seasonal high water table that is at or near the surface in wet seasons and by droughtiness during periods of low rainfall. The available water capacity averages low to very low in the root zone. Natural fertility is low and crop response to fertilization is moderate. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w22", "In normal years these hydric soils have a seasonal high water table at a depth of less than 6 inches for 2 to 6 months. In other months the water table is usually below these depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w22", "Cultivation of these hydric soils is not recommended. If cultivated, severe limitations due to wetness in wet seasons and droughtiness during periods of low rainfall exist. With a total water management system these soils are suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w22", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w22", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w22", "With proper water table management these hydric soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "4w22", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w22", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w23 Hydric portions of Map Units 23, 63

"aSOI", "4w23", "This map unit consists of nearly level poorly drained soils on flatwoods, hammocks, and upland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of less than 20 inches."

"bSAC", "4w23", "The root zone of these soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low and crop response to nutrients is low to moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid. The hazard of erosion is slight."

"cH2O", "4w23", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w23", "These soils have severe limitations for cultivated crops because of wetness and the depth to bedrock. The variety of crops is very limited without an adequate total water table management system that designed to remove excess water in wet seasons and provide subirrigation during dry periods. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "4w23", "Erosion control is not a management concern on these soils."

"fIRR", "4w23", "If cultivated, highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w23", "These soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "4w23", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w23", "If cropped, these soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w25 Hydric, portions of Map Unit 44

"aSOI", "4w25", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy subsoils below 40 inches"

"bSAC","4w25","The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O","4w25","In normal years these hydric soils have a seasonal high water table at a depth of less than 6 inches for 2 to 6 months. In other months the water table is usually below these depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL","4w25","Cultivation of these hydric soils is not recommended. If cultivated, severe limitations due to wetness in wet seasons and droughtiness during periods of low rainfall exist. With a total water management system these soils are suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO","4w25","Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR","4w25","Highest yields on these hydric soils require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT","4w25","With proper water table management these hydric soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS","4w25","These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG","4w25","A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

6s8 Map unit 24

"aSOI", "6s8", "This map unit consists of nearly level, somewhat poorly and moderately well drained soils on low ridges of the flatwoods. They have sandy layers to more than 72 inches deep. A layer 20 to 60 inches below the surface is weakly cemented with dark colored organic material."

"bSAC", "6s8", "The root zone is limited by a water table during wet seasons and by droughtiness during periods of low rainfall. The available water capacity is very low in the root zone. Natural fertility is very low and crop response to nutrient management is only fair. The internal drainage rate is slow under natural conditions but response to artificial drainage is rapid."

"cH2O", "6s8", "In normal years these soils have a seasonal high water table at a depth of 18 and 40 inches for 1 to 4 months. In other months the water table is usually below this depth. Only rarely, during periods of high rainfall, is the water table above 18 inches."

"dCUL", "6s8", "Due to the very low natural fertility, wetness in wet seasons, droughtiness during periods of low rainfall, and the rapid leaching of plant nutrients, these soils are not suited to cultivated field crops."

"eERO", "6s8", "If these soils are cultivated, erosion control measures are not normally needed."

"fIRR", "6s8", "Irrigation of high value crops is usually feasible where irrigation water is readily available. The rate of water application should be low enough to prevent runoff and erosion. A well designed irrigation system to maintain optimum moisture conditions is needed to assure acceptable citrus yields."

"gCIT", "6s8", "These soils are only fairly to poorly suited for citrus trees even where they are in places relatively free from freezing temperatures. A good ground cover of close growing plants is needed between the trees to protect the soil from blowing and washing. Poor to fair yields of oranges and grapefruit are usually obtained without irrigation."

"hPAS", "6s8", "These soils have only fair suitability for pastures. Grasses such as pangola grass and bahiagrass make only fair growth where an intensive nutrient management system is maintained. Clovers are not adapted."

"iWMG", "6s8", "Water table management is not normally practiced on these soils."

7w1 Undrained portions of Map Units 19, 20, 45, 56, 65, 67, 68

"aSOI", "7w1", "This map unit consists of nearly level, very poorly drained organic soils in depressional areas. They have thick layers of partially decomposed remains of aquatic plants."

"bSAC", "7w1", "The root zone is limited by water that is above the surface in wet seasons. The available water capacity averages high in the root zone. Natural fertility is high. The internal drainage rate is very slow in the natural condition and seepage water seeps from the soil in wet seasons."

"cH2O", "7w1", "In normal years these soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months of most years. During other months the water table is deeper. These soils are also subject to frequent ponding and/or flooding. Only rarely is the water table below the surface for an extended period."

"dCUL", "7w1", "If water control measures are established, these soil would be moderately well to well suited to cultivated crops. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for crops."

"eERO", "7w1", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "7w1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7w1", "If water control measures are established, these soil would be moderately well to well suited to improved pastures. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for pasture."

"iWMG", "7w1", "Water table management is not a normal practice on these soils because of the lack of cultivation."

7w3 Map Units 13, 28, 32, 33, 34, 42, 50, 57, 58, 59, 60, 61, 62, 64, 69, 70

"aSOI", "7w3", "This map unit consists of nearly level, very poorly drained soils on depressions. They have sandy or loamy surface layers and sandy, loamy or clayey subsoil layers."

"bSAC", "7w3", "The root zone is limited by water that is above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is moderate. The internal drainage rate is very slow in the natural condition and seepage water seeps from the soil in wet seasons."

"cH2O", "7w3", "In normal years these soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months of most years. During other months the water table is deeper. These soils are also subject to frequent ponding. Only rarely is the water table below the surface for an extended period."

"dCUL", "7w3", "Due to extreme wetness, these soils are not suited to cultivated crops."

"eERO", "7w3", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "7w3", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7w3", "If water control measures are established, these soil would be moderately well suited to improved pastures. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for pasture."

"iWMG", "7w3", "Water table management is not a normal practice on these soils because of the lack of cultivation."

8s1 Map Unit 63

"aSOI", "8s1", "This map unit consists of miscellaneous areas where no soil exists and has no value for agricultural uses."

"bSAC", "8s1", "Due to an impervious surface these areas are not vegetated."

"cH2O", "8s1", "These soils have a highly variable water table."

"dCUL", "8s1", "Due to the impervious surface, these soils are not suited to cultivated crops."

"eERO", "8s1", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "8s1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "8s1", "Due to the impervious surface, actions, these soils are not suited to hay and pasture."

"iWMG", "8s1", "Water table management is not a normal practice on these soils because of the lack of cultivation."

ECOLOGICAL COMMUNITIES

kRNG - Rangeland

IWLD - Wildlife

mWOD - Woodland

Sand Scrub - Map Unit 24

"kRNG", "03", "This Sand Scrub range site supports a dense stand of trees and shrubs and has limited potential for producing native forage. Sites in excellent condition produce 1500 to 3500 pounds per acre annually. Fifteen to 40 acres or more are usually needed per animal unit. Little forage will be available if the tree canopy cover exceeds 60%. Forage is usually 75% grasses and grass-like plants, 15% trees and shrubs, and 10% forbs."

"IWLD", "03", "This Sand Scrub site is suited to deer and turkey, especially as escape cover. Many birds inhabit the area including warblers, towhees, flycatchers, scrub jays, and quail. Native legumes furnish food (seeds) for the birds. Fruits of palmetto, gopher apple, and various species of oak are also a good food source. Timber harvest and other disturbances increase wildlife food by increasing the amount and types of Herbaceous plants and by sprout production."

"mWOD", "03", "This Sand Scrub site has a low potential for commercial production of wood and timber. The soils create severe equipment limitations and moderate seedling mortality problems. Sand pine is a commercial species suited to planting. It has a potential annual growth of approximately 0.4 to 0.5 cords per acre."

South Florida Flatwoods - Map Units: 1 (91), 4, 6, 7, 14, 15, 23*, 29, 51

"kRNG", "06", "This South Florida Flatwoods range site has the potential for producing significant amounts of high quality forage from creeping bluestem, chalky bluestem, and indiagrass. Sites in excellent condition produce 3000 to 6000 pounds per acre annually. Three to 16 acres or more are usually needed per animal unit. Little forage will be available if the tree canopy cover exceeds 60%. Forage is usually 75% grasses and grass-like plants, 15% trees and shrubs, and 10% herbaceous plants."

"IWLD", "06", "This South Florida Flatwoods site is well suited to deer, turkey, and quail. It is fairly suited to squirrels and well suited to many songbirds. Palmetto fruit, pine mast, oak acorns, legume seed, and grasses are good sources of wildlife food. Mature hardwoods and snags provide good nesting sites for birds. This site is also well suited to bobcat, raccoons, opossums, and skunks. It is poorly suited to dove."

"mWOD", "06", "This South Florida Flatwoods site has a moderate potential for commercial production of wood and timber. The soils create moderate equipment limitations and moderate seedling mortality rates. Commercial species suited to planting and their potential annual growth in cords are as follows: Slash pine, 0.9 to 0.7. Longleaf pine, 0.5 to 0.4."

Everglades Flatwoods - Map Units: 23*, 63*

"kRNG", "09", "This Everglades Flatwoods range site has the potential for producing usable amounts of high quality forage from bluestems and panicums. Sites in excellent condition produce 1500 to 3000 pounds per acre annually. Twelve to 33 acres or more are usually needed per animal unit. Little forage will be available if the tree canopy cover exceeds 60%. Forage is usually 75% grasses and grass-like plants, 15% trees and shrubs, and 10% herbaceous plants."

"IWLD", "09", "This Everglades Flatwoods site is well suited to deer, bobcat, owls, and small rodents. It is fairly suited to squirrels and well suited to many songbirds. Palm and palmetto fruit, pine mast, oak acorns, legume seed, and grasses are good sources of wildlife food. This site is also highly valuable as a habitat for migrating birds to and from South America. Many reptiles find suitable habitat in this community."

"mWOD", "09", "This Everglades Flatwoods site has a moderate potential for commercial production of wood and timber. The soils create moderate equipment limitations and severe seedling mortality rates. Commercial species suited to planting and their potential annual growth in cords are as follows: South Florida slash pine, 1.0 to 0.8. Slash pine, 0.8 to 0.6."

Cabbage Palm Hammock - Map Unit 44*

"kRNG", "13", "This Cabbage Palm Hammock range site has a low potential for producing forage due to a dense canopy of and cabbage palms. It provides livestock protection in cold and hot weather. Sites in excellent condition produce 2000 to 4000 pounds per acre each year. Ten to 30 acres per animal unit are needed. If the tree canopy cover exceeds 60%, little forage will be available. The annual forage produced is 55% grasses and grass-like plants, 25% trees and shrubs, and 20% herbaceous plants."

"IWLD", "13", "This Cabbage Palm Hammock site is well suited to deer, turkey, squirrel, black bear, feral and wild hogs, woodpeckers, and owls. Palm and palmetto fruit, pine mast, oak acorns, legume seed, and grasses are good sources of wildlife food. Habitat is poor for quail and dove and fair for most songbirds and squirrels."

"mWOD", "14", "This Cabbage Palm Hammock site has a moderately high to high potential for commercial production of wood and timber. The soils create moderate equipment limitations and moderate seedling mortality rates. Commercial species suited to planting and their potential annual growth in cords are as follows: Slash pine, 1.5 to 1.3. Loblolly pine, 1.2 to 1.0. Sweetgum, 1.5 to 1.3. Sycamore is also suitable for planting."

Sawgrass Marsh – MapUnits: 44*, 63*, 65*, 66*

"kRNG", "24", "This Sawgrass Marsh site has little or no range value."

"IWLD", "24", "This Sawgrass Marsh site is well suited to alligators, snakes, blackbirds, ibis, herons, bitterns, egrets, and kites. Wading birds and many types of waterfowl especially like this habitat. Frogs, snails, and crayfish are also common and serve as food for larger animals."

"mWOD", "24", "This Sawgrass Marsh site is unsuited to the commercial production of wood and timber."

Freshwater Marshes and Ponds - Map Units: 13, 19, 20, 28, 13, 32, 33, 34, 42, 45, 50, 56, 58, 59, 60, 61, 62, 64, 65*, 67, 68, 69, 70,

"kRNG", "25", "This Freshwater Marsh and Ponds range site has the potential for producing significant amounts of high quality forage from a variety of high quality forage plants. Sites in excellent condition produce 5000 to 10000 pounds per acre annually. Three to 13 acres or more are usually needed per animal unit. Forage is usually 80% grasses and grass-like plants, 5% trees and shrubs, and 15% herbaceous plants."

"IWLD", "25", "This Freshwater Marsh and Ponds site is well suited to a wide variety of wetland wildlife species including waterfowl, reptiles, amphibians, and mammals. These species must withstand ponding of long or very long duration. Inhabitants include mink, otter, raccoons, herons, bitterns, ibis, cranes, snipe, ducks, kites, killdeer, caracara, and hawks. This community also serves as a water source for species from surrounding communities."

"mWOD", "25", "This Freshwater Marsh and Ponds site is seldom used for the commercial production of wood and timber. The soils create very severe limitations that are difficult to overcome."

Slough - Map Units: 2, 8, 9, 10, 12, 17, 18, 12, 22, 26, 27, 66*

"kRNG", "26", "This Slough range site has the potential for producing significant amounts of high quality forage from a variety of high quality forage plants such as maidencanes, bluestems, and panicums. Sites in excellent condition produce 3000 to 6000 pounds per acre annually. Four to 16 acres or more are usually needed per animal unit. Forage is usually 85% grasses and grass-like plants and 15% herbaceous plants."

"IWLD", "26", "This Slough site is well suited to snakes, frogs, salamanders, raccoons, and wading birds. The grass dominated vegetation is a highly valued food source for quail and deer; however, it provides poor cover for these and most other wildlife species except at its confluence with other communities."

"mWOD", "26", "This Slough site is seldom used for the commercial production of wood and timber. The soils create very severe limitations that are difficult to overcome."

* - These Map Units have more than one type of ecological community.

URBAN USES

oURB - Urban Use Statement

pSEP - Septic Tank Absorption Fields

qLRS - Local Roads and Streets

Map Units: 19, 20, 45, 56, 65, 67, 68, 69, and 70.

"oURB", "02", "This soil is generally unsuited to most urban uses because of ponding and low bearing strength of the soil. Dwellings and small buildings can be constructed on pilings driven to suitable depths, however, access may be limited during periods when water tables are highest. Drainage may be impractical in many areas because of a lack of suitable outlets. Landscaping considerations should include use of species that are adapted to ponded water and organic soils."

"pSEP", "02", "This soil has severe limitations for septic tank absorption fields. Ponded water tables and organic soil materials interfere with the absorption of effluent from septic tanks and pose risks of contamination to adjacent surface waters."

"qLRS", "02", "This soil has severe limitations for local roads and streets. Road and street surfaces may subside, crack or ripple if sufficient fill is not used as a base. When possible, organic soil material should be removed and filled with suitable soil material to prevent subsidence and damage to road surfaces."

Map Units: 28, 32, 33, 34, 42, 50, 57, 58, 59, 60, 61, 62, and 64.

"oURB", "05", "This soil is generally unsuited to most urban uses because of ponding and low bearing strength of the soil. Dwellings and small buildings can be constructed on pilings driven to suitable depths, however, access may be limited during periods when water tables are highest. Drainage may be impractical in many areas because of a lack of suitable outlets. Landscaping considerations should include use of species that are adapted to ponded water."

"pSEP", "05", "This soil has severe limitations for septic tank absorption fields. Ponded water tables interfere with the absorption of effluent from septic tanks and pose risks of contamination to adjacent surface waters."

"qLRS", "05", "This soil has severe limitations for local roads and streets. Road and street surfaces may subside, crack or ripple if sufficient fill is not used as a base."

Map Units: 1 (91), 2, 43, 6, 7, 8, 9, 10, 12, 14, 15, 17, 18, 21, 22, 23, 26, 27, 29, 37, 44, 49, 51, 63, and 66.

"oURB", "03", "This soil is poorly suited to most urban uses because of a seasonal high water table at or near the soil surface. Housing pads, driveways, and other home site areas can be elevated using suitable fill. Area drainage can be installed to lower the water table if suitable outlets are available. Fill may also be used to elevate sites for small commercial buildings. Landscaping considerations should include use of species that are adapted to wetness."

"pSEP", "03", "This soil has severe limitations for septic tank absorption fields. High water tables interfere with the absorption of effluent from septic tanks and pose risks of contamination to adjacent surface waters. Septic tank absorption fields can be mounded to maintain the system above the seasonal high water table."

"qLRS", "03", "This soil has severe limitations for local roads and streets. For any construction, care should be taken not to impede natural drainage or impound water on the site and adjacent areas. Well designed culvert placement beneath any fill and use of existing water conveying landscapes can help minimize disturbance to natural drainage"

Map Units: 24, 47, 53, and 73

"oURB", "04", "Suitability is fair for most urban uses because of a seasonal high water table within 40 inches of the soil surface, and fine textured soil material near the soil surface. House or small building pads can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. Landscaping considerations should include use of species that are adapted to wetness."

"pSEP", "04", "This soil has severe limitations for septic tank absorption fields. High water table and fine textured soil material interfere with the absorption of effluent from septic tanks and creates a risk of contamination to adjacent surface waters and system failure. Absorption fields can be mounded. Absorption field laterals should be installed downslope from dwellings."

"qLRS", "04", "This soil has severe limitations for local roads and streets. They can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. An engineer or soil scientist should be consulted to determine the shrink-swell potential of below surface soil material. Additional design precautions can be planned if shrink-swell is determined to be a concern."

WATER QUALITY: PESTICIDE AND NUTRIENT MANAGEMENT

sWQ – Water Quality Statement

tPES – Pesticide Management Statement

uNUT – Nutrient Management Statement

Map Units - None

"sWQ", "01", "These soils have a low potential for pesticide leaching to groundwater and a low potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES", "01", "The Florida Pest Control Guide contains a listing of pesticides suitable for each type of pest and is available from the Cooperative Extension Service. Read and follow pesticide labels."

"uNUT", "01", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients should be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units - none

"sWQ", "02", "These soils have a medium or high potential for pesticide leaching to the groundwater and a low potential for pesticide runoff from the field(s) to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES", "02", "The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value and Health Advisory Level (HAL or HALEQ) value. Read and follow pesticide labels."

"uNUT", "02", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units - 1 (91), 7, 14, 15, 17, 18, 22, 23, 24, 28, 39, 44, 47, 53, 60, 63, 64, 66

"sWQ", "03", "These soils have a medium or high potential for pesticide leaching to groundwater and a medium to high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES", "03", "The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) and Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value, RRPI value, Health Advisory Level (HAL or HALEQ) value, and Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT", "03", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units 2, 4, 6, 8, 9, 12, 13, 19, 20, 21, 26, 27, 29, 32, 33, 34, 37, 42, 45, 50, 51, 56, 57, 58, 59, 61, 62, 65, 67, 68, 69, 70, 73

"sWQ", "04", "These soils have a low potential for pesticide leaching to groundwater and a medium or high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES", "04", "The Florida Pest Control Guide from the Cooperative Extension Service contains a listing of pesticides suited to each pest. This list also contains Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RRPI value and a larger Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT", "04", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown, or according to the producer's goals, whichever is lower."