
FLORIDA DRAINAGE GUIDE



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Appendix FL 14G

a) Introduction

This Appendix supplements the planning and design of drainage system as discussed in Chapter 14 with specific recommendations for Florida soils.

This Florida Drainage Guide has been updated from the previous version of the Florida Drainage Guide dated October 1980.

This revised Drainage Guide was developed to assist Florida NRCS field personnel and others to provide general design guidance and/or recommendations for various drainage systems commonly used in Florida. These recommendations include depth, spacing, and channel side slope for surface drain main or lateral and surface drain field ditch, and tile depth and spacing for subsurface tile drainage as well as recommendations for spacing between field ditches or tiles when used for subsurface irrigation. Generally, subsurface irrigation systems require smaller spacing than surface drainage systems.

Table FL 14-1 contains recommendations for drainage of Florida soil series that commonly require drainage. The recommendations are based on analysis of drainage equations supported by interpretations and experience with the particular soil or a similar soil. The recommendations are intended to serve as guidance as drainage is highly site-specific and thus field characteristics and local knowledge and experience needs to be used for actual design.

To improve design recommendations, a detailed evaluation can be performed using the computer model DRAINMOD (USDA NRCS 1994, DRAINMOD User's Guide). The spacing and depth recommendations from this guide may then serve as inputs for the initial DRAINMOD or other computer simulations to refine the final design.

Refer to NRCS Web Soil Survey for detailed physical and chemical properties for Florida soils that are provided with drainage recommendations in Table FL 14-1.

The soils included in this Drainage Guide are those identified on a modern detailed soil survey which meet the current standards of the National Cooperative Soil Survey. Drainage recommendations are not to be interpreted as rigid specifications. Adjustments should be made to meet specific on-farm locations or conditions where experience indicates these adjustments are desirable.

Depth to high water table and drainage class are two properties listed in the NRCS soils database. Florida soils requiring drainage for agricultural or other purposes were mostly identified as poorly drained soils with shallow water tables. Overall, thirty two (32) percent of Florida soils

b) Drainage Recommendations

The following guidelines for each soil series are included in the drainage recommendation tables (Table FL 14-1):

1. **Average Land Slope.** The land slopes for each soil that may require drainage are shown. Control of underground seepage on soils of greater slopes than shown in Table FL 14-1 may be accomplished through the use of subsurface interceptor drains or diversion ditches, but is not addressed in this guide.
2. **Crop or Land Use.** Major agricultural uses that could benefit from drainage are listed. For each use or crop to be grown, different drainage practices and recommendations are provided for consideration of drainage.
3. **Drainage Type.** The type of drainage recommended for the stated land use include:
 - i. **Surface Drain, Field Ditch.** These types of ditches (Figure 1) function either as collection ditches and/or two-fold surface ditches to collect surface water and distribute subsurface irrigation water.

- ii. **Surface Drain, Main or Lateral.** An open drainage ditch (Figure 2) constructed to a designed size and grade. Does not include surface drainage field ditches which are not designed for capacity.
- iii. **Subsurface drain.** A set of parallel or randomly placed underground perforated pipes (tile) that convey drainage water to an appropriate buried main, or an open ditch or lateral (Figure 3).

4. **Drainage Coefficient.** For surface drainage, the numerical value of the coefficient “C” value for the Cypress Creek equation is given for surface drain, main or lateral type ditches but not for surface drain, field ditch type. For subsurface drainage, the design removal rate is stated in a fraction of an inch per 24 hours.



Figure FL 14-1 - Field Ditch for Subirrigation.



Figure FL 14-2 - Surface Drain, Main or Lateral.

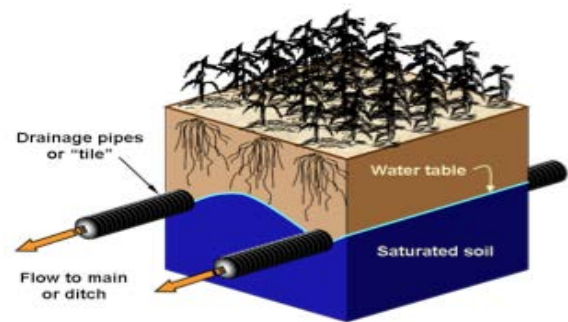


Figure FL 14-3 - Subsurface Drain (Gary Sands, Univ. of Minnesota Extension; Drainage Fact Sheet).

5. **Side Slopes.** Side slopes are shown for surface ditches only. The “Min” column represents the steepest or minimum slopes recommended. The “Rec” column represents the recommended side slopes for most situations. These side slopes are compatible with the criteria for these conservation practices. The horizontal components of slope ratio are listed (0 represents 0 horizontal to 0 vertical (0:0) side slopes; 1 represents 1 horizontal to 1 vertical (1:1) side slopes; 1.5 represents 1.5 horizontal to 1 vertical (1.5:1) side slopes; 2 represents 2 horizontal to 1 vertical (2:1) side slopes; 3 represents 3 horizontal to 1 vertical (3:1) side slopes; 4 represents 4 horizontal to 1 vertical (4:1) side slopes).

6. **Depth.** The recommended depths for surface and subsurface drains are presented in inches under minimum depth (Min.) and maximum depth (Max.) columns. The minimum depth represents the minimum drain depth recommended for the particular crop and soil. The maximum depth is not shown for open ditches as this is highly variable due to different site conditions. The normal maximum depth needed for effective subsurface drain is shown in the maximum depth column. These depths (Min. and Max.) are not intended to express depths on knolls or ridges through which a drain may flow.

7. **Spacing.** This is the recommended minimum (Min.) and maximum (Max.) distances for the spacing of drains in feet. The recommended spacing is based on an effective depth (i.e., root zone) of 6 inches less than the drain depth. Spacing values are not shown for surface drainage, mains and laterals.

8. **Filter.** This column is used to denote the need of a filter or envelope material around the subsurface drain. Filters and envelopes are often provided to perform one of the following.

- i. Prevent fine-grained material in the surrounding soils from being carried into the drain by ground water.
- ii. Improve flow conditions in the area immediately surrounding the drain. (Normally use an envelope)
- iii. Improve bedding conditions under the drain.

Notations made in this column as related to filters and envelopes include:

ALL – Indicates that protection from siltation hazard needs to be provided. A filter of any type can be utilized to provide this protection.

ENVELOPE – Envelope is needed to either improve flow conditions or improve bedding.

SAND-G – A sand-gravel filter is needed to reduce the accumulation of iron sludge and plugging of drains.

THIN – Indicates that a filter is needed and that a Spun Nylon filter Cloth or similar material will provide the protection from siltation.

CHECK N – Denotes the need to check the soil to determine whether a filter or envelope will be required.

NONE – Filter not needed.

9. **Surface Treatment.** This column shows different conservation practices that should be considered to mechanically form the land surface to provide the needed drainage. Bedding, Grade and Smooth, are practices used for improving surface drainage. LEVELING is used for those soils suited for subsurface irrigation; leveling the land surface will benefit both drainage and irrigation.

10. **Comments.** Additional notes or remarks have been included on some soils to warn of possible problems and/or to indicate acceptable procedures of practice application to solve drainage problems.

i. **Soils Suitable for Subsurface Irrigation.** Indicates a soil with favorable profile characteristics whereby an artificial water table can be built-up sufficiently close to ground surface without excessive water losses.

ii. **Dike & Pump Normally Required.** Indicates a lack of available gravity outlets. Soils are positioned on a watershed whereby inundation will occur from diffused surface flow ponding or backwater during the regular growing season of crops.

iii. **Spacing Suitable for Subsurface Irrigation.** Denotes spacing shown for this soil and practice is adequate and will serve as an effective subsurface irrigation system. Also, this note indicates soil is suitable for irrigation by one of the

- subsurface methods, open ditch or buried conduits.
- iv. **For Subsurface Irrigation, Reduce Spacing to 40-60 Feet.** Implies irrigation by subsurface means is suitable for a soil but spacing provided for drainage is excessive to control water tables within the limits needed for the crops to be grown.
- v. **Random Drainage Normally Used.** Indicates that installing either surface or subsurface drains in low areas and on seepage breaks (where water accumulates) will provide satisfactory drainage.
- vi. **High Potential for Plugging of Subsurface Drains by Iron.** This is an indication that this hazard should be considered in the drainage design.
- vii. **Flood Soils When Fallow.** Denotes soils have a potential for subsidence from oxidation and must be protected from unnecessary drainage when not in crop/agricultural production.
- viii. **Deep Surface Drains not Normally Recommended for Woodland.** Implies soils will normally support commercial timber plantings provided seedlings are protected from surface water by bedding.

Table FL 14-1 - Soil Drainage Recommendations

Series: **ADAMSVILLE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Citrus	45	1.5	2	36					Bedding	
0-5	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	24						
<u>Surface Drain - Field Ditch</u>											
0-5	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.
0-5	Vegetables		1.5	2	18	24	40	80		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-5	Citrus	$\frac{3}{4}$			42	54	79	162	All		
0-5	Vegetables	$\frac{1}{2}$			24	30	75	122	All		For Sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **ALLANTON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18					Smooth	
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	18	24	80	100		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **ALAPAHA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	36						
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland				12	18	40	80		Bedding	
0-2	Pasture		3	4	12	18	80	100		Smooth	

(210-VI-NEH, FL Amendment, FL-1 October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **ALBANY**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Cropland	45	1.5	2	36						
0-5	Pasture	25	3	4	18						
<u>Surface Drain – Field Ditch</u>											
0-5	Cropland				12	18	60	80		Bedding	
0-5	Pasture				12	18	100	120		Smooth	
<u>Subsurface Drain</u>											
0-5	Cropland	0.5			36	48	90	189	All		

Table FL 14-1 - Soil Drainage Recommendations

Series: **ANCLOTE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	80		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1 October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **ANKONA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100			Dike and pump normally required.

Table FL 14-1 - Soil Drainage Recommendations

Series: **APALACHEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	1.5	2	18						
0-2	Woodland				6	12	8	24		Bedding	Deep surface drains not normally recommended for woodland.
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture				12	18	18	120		Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **ARDILLA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	36						
0-2	Pasture	25	3	4	18						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland				12	18	30	80		Bedding	
0-2	Pasture				12	18	80	100		Smooth	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			30	42	40	86	All		

Table FL 14-1 - Soil Drainage Recommendations

Series: **ARIPEKA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Cropland	45	1.5	2	30					Smooth	
0-5	Pasture	25	3	4	18					Smooth	
<u>Surface Drain - Field Ditch</u>											
0-5	Cropland		3	4	18	24	60	80		Smooth	Spacing suitable for sub-surface irrigation.
0-5	Pasture		3	4	18	24	80	100		Smooth	Spacing suitable for sub-surface irrigation.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **ASTOR**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Vegetables		1.5	2	24						
<u>Surface Drain - Field Ditch</u>											
0-1	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.
0-1	Vegetables		1.5	2	24	30	40	80		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-1	Vegetables				24	30	75	122	All		For sub-surface irrigation reduce spacing 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **BASINGER**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	24						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	24	30	40	80		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	93	152	All		For sub-surface irrigation reduce spacing to 40-60 feet. Dike and pump normally required.

(210-VI-NEEH, FL Amendment, FL-1 October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **BAYBORO**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Drain</u>											
0-2	Woodland									Bedding	Deep surface drains not normally recommended for woodland.
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30						
0-2	Pasture	25	3	4	18						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland				12	18	30	80		Bedding	
0-2	Pasture		3	4	12	78	80	120		Smooth	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			30	36	20	44	Sand-G	Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **BIBB**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30						
0-2	Pasture	25	3	4	18						
0-2	Woodland	10	1.5	2	30					Bedding	
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland				12	18	60	80		Bedding	
0-2	Pasture				12	18	80	120			
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			30	36	26	41	Sand-G	Smooth	

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-17

Table FL 14-1 - Soil Drainage Recommendations

Series: **BLADEN**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30						
0-2	Pasture	25	3	4	18						
0-2	Woodland	10	1.5	2	30					Bedding	
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland				12	18	60	80		Bedding	
0-2	Pasture		3	4	12	18	80	120		Bedding	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			30	36	20	44	Sand-G	Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **BLICHTON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	36					Bedding	
0-2	Cropland	45	1.5	2	30						
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	18	24	60	80		Grade	
0-2	Pasture		3	4	12	18	80	100		Smooth	
0-2	Vegetables				18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			36	48	63	117	Sand-G	Bedding	
0-2	Cropland	1/2			30	36	76	110	Sand-G		
0-2	Vegetables	1/2			24	30	75	114	All	Bedding	

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **BOARDMAN**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Subsurface Drain</u>											
5-8	Pasture				24				All	Smooth	Random drain normally used to intercept side hill seepage.
5-8	Vegetables				24				All		Random drain normally used to intercept side hill seepage.

Table FL 14-1 - Soil Drainage Recommendations

Series: **BOCA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	30					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	75	110		Smooth	For sub-surface irrigation reduce spacing to 40-60 feet.

(2)10-VI-NBEH, FL Amendment, FL-1-September 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **BRADENTON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	36					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables				18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			36	48	48	93	All	Bedding	
0-2	Vegetables	1/2			24	30	50	78	None		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **BRIGHTON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	0	0.5	48		330				Soils suitable for sub-surface irrigation.
0-2	Pasture	25	0	0.5	36		660				Flood soils when fallow.
0-2	Vegetables	45		0.5	48		330				Dike and pump normally required.
<u>Mole Drain</u>											
0-2	Cropland				30	36	10	12		Smooth	
0-2	Pasture				30	36	12	15		Smooth	
0-2	Vegetables				30	36	10	12		Smooth	Normally mole drains replaced every 2 years.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **BROWARD**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	30					Bedding	
0-2	Vegetables	45	1.5	2	24						
<u>Surface Drain - Field Ditch</u>											
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			24	30	61	100	All	Bedding	
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **BUSHNELL**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Citrus	45	1.5	2	30					Bedding	
0-5	Vegetables	45	1.5	2	24						
<u>Surface Drain - Field Ditch</u>											
0-5	Vegetables		1.5	2	18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-5	Vegetables	1/2			24	30	55	83	All		

210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **BYARS**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30						
0-2	Pasture	25	1.5	2	18						
0-2	Vegetables	45	1.5	2	30						
0-2	Woodland	10	1.5	2	30					Bedding	Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland				12	18	40	80		Bedding	
0-2	Pasture		3	4	12	18	60	80		Smooth	
0-2	Vegetables		1.5	2	18	24	30	40		Grade	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			30	48	20	44	Sand-G		
0-2	Vegetables	1/2			24	30	18	28	All		

Table FL 14-1 - Soil Drainage Recommendations

Series: **CANOVA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	24	3	4	18						
0-2	Vegetable	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetable		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.

(210-VI-NEH, FL Amendment, FL-1 October 2015)

FL14-27

Table FL 14-1 - Soil Drainage Recommendations

Series: **CHAIRES**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	36						
0-2	Pasture	25	3	4	18						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	30	36	82	132		Smooth	
0-2	Pasture		3	4	12	18	80	100		Grade	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			36	48	110	186	Check-N	Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **CHIPLEY**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Cropland	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-5	Cropland		1.5	2	30	36	82	132		Smooth	
<u>Subsurface Drain</u>											
0-5	Cropland	1/2			36	48	90	189	All		

Table FL 14-1 - Soil Drainage Recommendations

Series: **CHOBEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	48					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Grade	
0-2	Vegetables		1.5	2	18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	23	34	Check-N		

Table FL 14-1 - Soil Drainage Recommendations

Series: **COPELAND**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **DANIA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Pasture	25	3	4	18						Soil suitable for sub-surface irrigation.
<u>Surface Drain - Field Ditch</u>											
0-1	Pasture		3	4	12	18	80	100		Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **DELKS**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	48					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	
0-2	Vegetables		1.5	2	18	24	40	60			
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			36	48	64	116	Check-N		
0-2	Vegetables	1/2			24	30	75	116	All		

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **DELRAY**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	5	12	18	80	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	79	162	All		
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **DOROVAN**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Cropland	45	0	0.5	48		330				Soils suitable for sub -surface irrigation.
0-1	Pasture	25	0	0.5	36						Flood soils when fallow.
0-1	Vegetables	45	0	0.5	48		330				Dike and pump normally required.
<u>Mole Drain</u>											
0-1	Cropland				30	36	10	12		Smooth	Normally mole drains replaced every 2 years.
0-1	Pasture				30	36	12	15		Smooth	
0-1	Vegetables				30	36	10	12		Smooth	

210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **DUNBAR**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30						
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
0-2	Woodland	10	1.5	2	30					Bedding	
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland			12	18	60	80			Smooth	
0-2	Pasture	3	4	12	18	60	80			Smooth	
0-2	Vegetables	1 1/2	2	24	30	30	40			Grade	
<u>Subsurface Drain</u>											
0-2	Cropland	3/4			36	48	32	70			
0-2	Vegetables	1/2			24	30	32	48			

Table FL 14-1 - Soil Drainage Recommendations

Series: **DUPLIN**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		3	4	18	24	80	100		Smooth	
0-2	Vegetables		3	4	18	24	40	60		Smooth	

(210-VI-NEH, FL Amendment, FL-1 October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **EATON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Orchard	45	1.5	2	30					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	
0-2	Vegetables				18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Orchard	3/4			36	48	65	120	All		Spacing suitable for sub-surface irrigation.
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation, reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **EAUGALLIE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	48					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	120		Smooth	
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	70	150	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing to 40-60 feet. Dike and pump normally required.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **ELLABELLE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	24	1.5	2	18						
0-2	Vegetables	45			30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	60	80		Smooth	
0-2	Vegetables		3	4	18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	42	68	None		

Table FL 14-1 - Soil Drainage Recommendations

Series: **EMERALDA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture				12	18	60	100		Smooth	

(210-VI-NEH, FL Amendment, FL-1 October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **ESCAMBIA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	36					Smooth	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			30	36	35	54	All		

Table FL 14-1 - Soil Drainage Recommendations

Series: **EUNOLA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Cropland	45	1.5	2	30						
0-5	Pasture	25	3	4	18						
<u>Surface Drain - Field Ditch</u>											
0-5	Cropland		1.5	2	12	18	60	80		Grade	
0-5	Pasture		3	4	12	18	80	100		Smooth	

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **EUREKA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30						
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	24						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	18	24	60	80		Grade	
0-2	Pasture		3	4	12	18	80	100		Smooth	
0-2	Vegetables		1.5	2	18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			30	42	48	105	Check N		
0-2	Vegetables	1/2			24	30	53	75	Check N		

Table FL 14-1 - Soil Drainage Recommendations

Series: **EVERGLADES**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	0	0.5	36						Soils suitable for sub -surface irrigation.
0-2	Sugarcane	25	0	0.5	48			330			Flood soils when fallow.
0-2	Vegetables	45	0	0.5	48			330			Dike and pump normally required.
<u>Mole Drain</u>											
0-2	Pasture				30	36	12	15		Smooth	
0-2	Sugarcane				30	36	12	15		Smooth	
0-2	Vegetables				30	36	10	12		Smooth	Normally mole drains replaced every 2 years.
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	52	78	Check-N		For sub-surface irrigation reduce spacing 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-45

Table FL 14-1 - Soil Drainage Recommendations

Series: **FARMTON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	48					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	4	60		Smooth	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	74	135	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: FELDA

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	48					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Sugarcane	25	1.5	2	42						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture	4	3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Sugarcane		1.5	2	24	30	60	80		Grade	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	70	150	All		
0-2	Sugarcane	1/2			24	30	72	110	All		
0-2	Vegetables	1/2			24	30	72	110	All		For sub-surface irrigation reduce spacing to 40-60 feet.

210-VI-NEH, FL Amendment, FL-1, October 2015

Table FL 14-1 - Soil Drainage Recommendations

Series: **FELLOWSHIP**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
2-5	Orchard				24				Check N		Random drain normally used.
2-5	Pasture				24				All		Random drain normally used.
2-5	Vegetables				24				All		Random drain normally used.
<u>Surface Drain - Field Ditch</u>											
2-5	Pasture		3	4	12	18	60	100		Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **FLEMINGTON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30						
0-2	Orchard	45	1.5	2	30					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland				12	18	60	80		Grade	
0-2	Pasture		3	4	12	18	80	100		Smooth	
0-2	Vegetables		1.5	2	18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			30	42	38	70	Check N		
0-2	Orchard	3/4			30	42	30	57	Check N		Random drain normally used.
2-5	Orchard				24				Sand-G		Random drain normally used.
2-5	Pasture				24				Sand-G		
0-2	Vegetables	1/2			24	30	40	60	Check N		

(210-VI-NEH, FL Amendment, FL-1, October 2015)

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Table FL 14-1 - Soil Drainage Recommendations

Series: **FLORIDANA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	70	127	All		
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **FT. DRUM**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42	40	60			Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	100	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	69	142	All		
0-2	Vegetables	1/2			24	30	64	110	All		For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-51

Table FL 14-1 - Soil Drainage Recommendations

Series: **GARCON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Cropland	45	1.5	2	30					Smooth	
0-5	Pasture	25	3	4	18					Smooth	
<u>Surface Drain - Field Ditch</u>											
0-5	Cropland		3	4	18	24	60	80		Smooth	Spacing suitable for sub-surface irrigation.
0-5	Pasture		3	4	18	24	80	100		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **GENTRY**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-53

Table FL 14-1 - Soil Drainage Recommendations

Series: **GRADY**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland		1.5	2	36						
0-2	Pasture		3	4	18						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	24	30	60	80		Grade	
0-2	Pasture		3	4	12	18	80	100		Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **HALLANDALE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	36	36				Bedding	
0-1	Pasture	25	3	4	18	18					Dike and pump normally required.
0-2	Vegetables	45	1.5	2	30	30					Soils suitable for sub-surface irrigation.
<u>Surface Drain - Field Ditch</u>											
0-2	Citrus	45	1.5	2	36	36				Bedding	Spacing suitable for sub-surface irrigation.
0-1	Pasture	25	3	4	18	18					

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-55

Table FL 14-1 - Soil Drainage Recommendations

Series: **HILOLO**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	60	80		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	38	75	Check N		
0-2	Vegetables	1/2			24	30	42	60	Check N		For sub-surface irrigation reduce spacing to 30-40 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: HOLOPAW

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	36					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	79	162	All		
0-2	Vegetables	1/2			24	30	75	122	All		

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-57

Table FL 14-1 - Soil Drainage Recommendations

Series: HONTOON

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	0	0.5	36		660				Dike and pump normally required.
0-2	Vegetables	45	0	0.5	48		330				Flood soils when fallow.
0-2	Vegetables	45	0	0.5	48		330				
<u>Mole Drain</u>											
0-2	Pasture				30	36	12	15		Smooth	Soils suitable for sub -surface irrigation.
0-2	Vegetables				30	36	10	12		Smooth	Normally mole drains replaced every 2 years.

Table FL 14-1 - Soil Drainage Recommendations

Series: **IMMOKALEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	48					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	78	135	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **JOHNS**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	42						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	24	30	60	80		Grade	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			36	48	48	128	All	Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **JUMPER**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Cropland	45	1.5	2	36						
0-2	Orchard	45	1.5	2	42					Bedding	
2-5	Pasture		3	4	18					Smooth	Random drain normally used.
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Citrus	0.75			42	54	62	115	All		
0-2	Cropland	0.5			36	48	90	130	Check-N		
0-2	Orchard	0.75			42	54	78	142	Check-N		

Table FL 14-1 - Soil Drainage Recommendations

Series: **KALIGA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Pasture	25	3	4	30						Dike and pump normally required.
0-1	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-1	Pasture		3	4	18	24	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-1	Vegetables		1.5	2	24	30	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-1	Vegetables	1/2			24	30	75	111	Check-N		

Table FL 14-1 - Soil Drainage Recommendations

Series: **KANAPAHA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Citrus	45	1.5	2	42					Bedding	
0-5	Orchard	45	1.5	2	36					Bedding	
0-5	Pasture	25	3	4	18						
0-5	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-5	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-5	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-5	Citrus	3/4			42	54	79	126	All		
0-5	Orchard	3/4			36	48	74	124	All		
0-5	Vegetables	1/2			24	30	75	122	All		

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: LAUDERHILL

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	0	0.5	36						Dike and pump normally required.
0-2	Sugarcane	25	0	0.5	36						
0-2	Vegetables	45	0	0.5	36						
<u>Mole Drain</u>											
0-2	Pasture				18	30	10	12		Smooth	Normally mole drains replaced every 2 years.
0-2	Sugarcane				18	30	10	12		Smooth	Soils suitable for sub -surface irrigation.
0-2	Vegetables				18	30	10	12		Smooth	Flood soils when fallow.

Table FL 14-1 - Soil Drainage Recommendations

Series: **LAWNWOOD**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	51	92	All		
0-2	Vegetables	1/2			24	30	51	75	All		For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **LEEFIELD**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Cropland	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-5	Cropland		1.5	2	24	30	100	150		Bedding	

Table FL 14-1 - Soil Drainage Recommendations

Series: **LEON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	36						
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	24	30	60	80		Grade	
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables				18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			36	48	75	165	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL4-67

Table FL 14-1 - Soil Drainage Recommendations

Series: **LOCHLOOSA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Orchard	45	1.5	2	42					Bedding	
0-2	Vegetables		1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Random drain normally used.
2-5	Pasture		3	4	18					Smooth	
<u>Subsurface Drain</u>											
0-2	Citrus	0.75			42	54	64	119	All		
0-2	Orchard	0.75			36	48	65	120	All		
0-2	Vegetables	0.5			24	30	75	114	All		

Table FL 14-1 - Soil Drainage Recommendations

Series: **LOKOSSE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	120		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: LYNN HAVEN

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	36						Spacing suitable for sub-surface irrigation.
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	24	30	60	80		Grade	
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			36	48	90	189	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: LYNNE

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	
0-2	Vegetables		1.5	2	18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	68	102	All		

Table FL 14-1 - Soil Drainage Recommendations

Series: **MALABAR**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	115	184	Sand-G		High potential for plugging of sub-surface drains by iron.

Table FL 14-1 - Soil Drainage Recommendations

Series: **MANATEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	36					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	60	80		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	20	40		Grade	Spacing suitable for sub-surface irrigation.
<u>Drain</u>											
0-1	Woodland									Bedding	Deep surface drains not normally recommended for woodland. Dike & pump normally required.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-73

Table FL 14-1 - Soil Drainage Recommendations

Series: **MARGATE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Max.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	30					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	60	80		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **MARTEL**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Field Ditch</u>											
5-7	Pasture		3	4	12	18	80	100		Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **MASCOTTE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Drain</u>											
0-2	Woodland									Bedding	Deep surface drains not normally recommended for woodland
<u>Surface Drain - Main or Lateral</u>											
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	62	90	Sand-G		High potential for plugging of sub-surface drains by iron.

Table FL 14-1 - Soil Drainage Recommendations

Series: **MEGETT**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture				12	18	80	100		Grade	

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-77

Table FL 14-1 - Soil Drainage Recommendations

Series: **MICANOPY**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	36					Bedding	
0-2	Orchard	45	1.5	2	36					Bedding	
0-5	Pasture	25	3	4	18						Random drain normally used.
0-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-5	Pasture		3	4	12					Smooth	Random drain normally used.
0-2	Vegetables		1.5	2	18	24	0	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			36	48	50	88	Check N		
0-2	Orchard	3/4			30	42	48	90	Check N		
0-2	Vegetables	1/2			24	30	60	88	All		For sub-surface irrigation reduce spacing to 30-40 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **MICCO**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Pasture	25	1.5	2	36						Flood soils when fallow.
0-1	Vegetables	45	1.5	2	36						Dike and pump normally required.
<u>Mole Drain</u>											
0-1	Pasture				18	30	10	12		Smooth	Soils suitable for sub -surface irrigation.
0-1	Vegetables				18	30	10	12		Smooth	Normally mole drains replaced every 2 years.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **MYAKKA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	48					Bedding	
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	68	142	Sand-G		High potential for plugging sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	70	106	Sand-G		High potential for plugging sub-surface drains by iron. For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **NARCOOSSEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	48					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing Suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing Suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	80	156	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **NETTLES**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	48					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	98	144	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **NITTAW**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	1.5	2	36						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture				12	18	80	100		Bedding	Soils suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **OCILLA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-5	Cropland	45	1.5	2	30					Smooth	
0-5	Pasture	25	3	4	18					Smooth	
<u>Surface Drain - Field Ditch</u>											
0-5	Cropland		3	4	18	24	60	80		Smooth	Spacing suitable for sub-surface irrigation.
0-5	Pasture		3	4	18	24	80	100		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **OCOEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	0	0.5	36		330				Soils suitable for sub-surface irrigation.
0-2	Pasture	25	0	0.5	30		660				Flood soils when fallow.
0-2	Vegetables	45	0	0.5	36		330				Dike and pump normally required.
<u>Mole Drain</u>											
0-2	Cropland				30	36	10	12		Smooth	
0-2	Pasture				24	30	12	15		Smooth	
0-2	Vegetables				30	36	10	12		Smooth	Normally mole drains replaced every 2 years.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **OKEECHOBEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Pasture	25	0	0.5	36		660				Soils suitable for sub-surface irrigation.
0-1	Sugarcane	25	0	0.5	42		660				Flood soils when fallow
0-1	Vegetable	45	0	0.5	42		330				Dike and pump normally required.
<u>Mole Drain</u>											
0-1	Pasture				24	30	12	15		Smooth	
0-1	Sugarcane				30	36	10	12		Smooth	For sub-surface irrigation reduce spacing to 40-60 feet.
0-1	Vegetable				30	36	10	12		Smooth	Normally mole drains replaced every 2 years.

Table FL 14-1 - Soil Drainage Recommendations

Series: OKLAWAHA

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	54	1.5	2	36						Soils suitable for sub-surface irrigation.
0-2	Pasture	25	1.5	2	36		660				Flood soils when fallow.
0-2	Vegetables	45	1.5	2	36						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	24	30	60	80		Grade	
0-2	Vegetables		1.5	2	24	30	40	60		Grade	
<u>Mole Drainage</u>											
0-2	Pasture				18	24	12	15		Smooth	

(210-VI-NEH, FL Amendment, FL-1, October 2015)

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Table FL 14-1 - Soil Drainage Recommendations

Series: **OLDSMAR**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						High potential for plugging of sub-surface drains by iron. Dike and pump normally required.
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	104	159	Sand-G		
0-2	Vegetables	1/2			24	36	75	122	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **OLUSTEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	36						
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	24	30	60	80		Grade	
0-2	Pasture		3	4	12	18	100	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			36	48	90	139	Check - N		
0-2	Vegetables	1/2			24	30	48	78	All		For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **ONA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	50	101	168	Sand-G		High potential for plugging sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	58	104	All		For subsurface irrigation, reduce spacing to 40 - 60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **PACTOLUS**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18					Smooth	
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	18	24	80	100		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **PAHOKEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Pasture	25	3	4	18						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-1	Pasture		3	4	18	24	80	120		Smooth	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-1	Sugarcane				30	36	10	15		Smooth	For sub-surface irrigation reduce spacing to 40-60 feet.
0-1	Vegetable				24	36	10	15		Smooth	Normally mole drains replaced every 2 years.

Table FL 14-1 - Soil Drainage Recommendations

Series: **PAISLEY**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18					Bedding	
0-2	Woodlands	10	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	60	80		Smooth	

Table FL 14-1 - Soil Drainage Recommendations

Series: **PAMILICO**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Cropland	25	1.5	2	36						Soils suitable for sub-surface irrigation.
0-1	Pasture	25	1.5	2	30						Flood soils when fallow.
0-1	Vegetables	45	1.5	2	36						Dike and pump normally required.
<u>Mole Drain</u>											
0-1	Cropland				24	28	10	12		Smooth	
0-1	Pasture				18	24	12	15		Smooth	
0-1	Vegetables				18	28	10	12		Smooth	Normally mole drains replaced every 2 years.

Table FL 14-1 - Soil Drainage Recommendations

Series: **PARKWOOD**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetable	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	120		Smooth	
0-2	Vegetable		1.5	2	18	24	40	60		Grade	Spacing Suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	0.75			42	54	106	180	All		
0-2	Vegetable	0.5					66	70	All		For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **PELHAM**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	36	24					
0-2	Pasture	25	4	18							
0-2	Vegetables	45	1.5	2	36						
0-2	Woodland	10	1.5	2	30					Bedding	
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	18	24	60	80		Grade	
0-2	Pasture		3	4	12	18	80	100		Smooth	
0-2	Vegetables		1.5	2	18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Cropland	1/2			30	36	76	116	Check N		
0-2	Vegetables	1/2			24	30	75	112	Check N		Dike and pump normally required.

Table FL 14-1 - Soil Drainage Recommendations

Series: **PENDARVIS**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-5	Pasture		3	4	12					Smooth	Random drain normally used.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	0.75			42	54	78	130	Sand-G		High potential for plugging of sub-surface drain by iron.
0-2	Vegetables	0.5			24	30	51	83	All		For sub-surface irrigation reduce spacing to 40-60 feet.

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Table FL 14-1 - Soil Drainage Recommendations

Series: **PEPPER**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	78	130	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	64	100	All		For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **PICKNEY**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18					Smooth	
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	18	24	80	100		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: PINEDA

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	16						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	115	130	All		
0-2	Vegetables	1/2			24	30	75	102	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **PINELLAS**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	115	130	All		
0-2	Vegetables	1/2			24	30	75	102			For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1 October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **PLACID**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	79	162	All		
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **PLANTATION**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Pasture	25	3	4	18						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-1	Pasture		3	4	18	24	80	120		Smooth	Spacing suitable for sub-surface irrigation.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **PLUMMER**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						Dike and pump normally required.
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	120		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **POMONA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	75	113	None		For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

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Table FL 14-1 - Soil Drainage Recommendations

Series: **POMPANO**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	79	162	All		
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: RIVIERA

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	94	140	All		
0-2	Vegetables	1/2			24	30	75	118	All		For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

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Table FL 14-1 - Soil Drainage Recommendations

Series: **ROBERTSDALE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30					Bedding	
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		3	4	18	24	60	80		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **RUTLEGE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18					Smooth	
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	18	24	80	100		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **SALERNO**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **SAMSULA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	0	0.5	36						Soils suitable for sub-surface irrigation.
0-2	Vegetables	45	0	0.5	36						Flood soils when fallow. Dike and pump normally required.
<u>Mole Drain</u>											
0-2	Pasture				24	30	12	15		Smooth	For sub-surface irrigation reduce spacing to 40-60 feet.
0-2	Vegetables				24	30	10	12		Smooth	Normally mole drains replaced every year.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-111

Table FL 14-1 - Soil Drainage Recommendations

Series: **SANIBEL**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Sugarcane	25	1.5	2	36						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Sugar cane		1.5	2	24	30	100	150		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Vegetables	0.5			24	30	75	122	Check-N		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **SCOGGIN**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Pasture	25	3	4	18						Dike and pump normally required.
0-1	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-1	Pasture		3	4	12	18	80	120		Smooth	Spacing suitable for sub-surface irrigation.
0-1	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-1	Vegetables	0.5			24	30	75	122	Check N		For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-113

Table FL 14-1 - Soil Drainage Recommendations

Series: **SCRANTON**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	36						
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		1.5	2	24	30	80	150		Grade	Spacing suitable for sub-surface irrigation.
0-2	Pasture		3	4	12	18	80	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-3	Cropland	1/2			36	48	90	188	All		For sub-surface irrigation reduce spacing to 60-80 feet.
0-4	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing to 60-80 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **SMYRNA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	18						
0-2	Vegetable	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	150		Smooth	
0-2	Vegetable		1.5	2	18	24	40	60		Grade	
<u>Subsurface Drain</u>											
0-2	Vegetable	1/2			24	30			None		

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **SPARR**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
1-2	Citrus	45	1.5	2	42					Bedding	
1-2	Cropland	45	1.5	2	36						
1-2	Vegetables	45	1.5	2	30						
<u>Surface Drain - Field Ditch</u>											
1-2	Cropland		1.5	2	24	30	75	132		Grade	
1-2	Vegetables		1.5	2	18	24	40	60		Smooth	
<u>Subsurface Drain</u>											
1-2	Citrus	3/4			42	54	79	162	Check-N		
1-2	Cropland	1/2			36	48	90	189	Check-N		
1-2	Vegetables	1/2			24	30	75	122	All		

Table FL 14-1 - Soil Drainage Recommendations

Series: **ST. JOHNS**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	0.75			42	54	90	150	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	0.5			24	30	75	112	Sand-G		High potential for plugging of sub-surface drains by iron. For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-117

Table FL 14-1 - Soil Drainage Recommendations

Series: **SUSANNA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	85	130	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	75	108	Sand-G		High potential for plugging of sub-surface drains by iron. For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **TANTILE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	98	150	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	75	114	Sand-G		High potential for plugging of sub-surface drains by iron. For sub-surface irrigation reduce spacing to 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-119

Table FL 14-1 - Soil Drainage Recommendations

Series: **TEQUESTA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	3	4	24						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	18	24	100	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **TERRA CEIA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Pasture	25	0	0.5	36		660				Soils suitable for sub-surface irrigation.
0-1	Sugarcane	25	0	0.5	48		330				Flood soils when fallow.
0-1	Vegetables	45	0	0.5	48		330				Dike and pump normally required.
<u>Mole Drain</u>											
0-1	Pasture				24	30	12	15		Smooth	
0-1	Sugarcane				24	36	10	12		Smooth	
0-1	Vegetables				24	36	10	12		Smooth	Normally mole drains replaced every 2 years.

(210-VI-NEH, FL Amendment, FL-1 October 2015)

FL14-121

Table FL 14-1 - Soil Drainage Recommendations

Series: **TOMOKA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Pasture	25	0	0.5	36						Dike and pump normally required.
0-2	Vegetables	45	0	0.5	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Vegetables		0	0.5	24	30	60	80		Smooth	Spacing suitable for sub-surface irrigation.
<u>Mole Drain</u>											
0-2	Pasture				18	24	12	15		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **TORRY**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-1	Pasture	25	0	0.5	36		660				Soils suitable for sub-surface irrigation.
0-1	Sugarcane	25	0	0.5	36		330				Flood soils when fallow.
0-1	Vegetables	45	0	0.5	36		330				Dike and pump normally required.
<u>Mole Drain</u>											
0-1	Pasture				18	30	12	15			
0-1	Sugarcane				24	30	10	12		Smooth	
0-1	Vegetables				24	30	10	12		Smooth	Normally Mole drains replaced every two years.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-123

Table FL 14-1 - Soil Drainage Recommendations

Series: **TUSCAWILLA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	68	136	Check N		
0-2	Vegetables	1/2			24	30	56	83	All		For sub-surface irrigation reduce spacing 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: VALKARIA

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	150		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	79	162	Check N		
0-2	Vegetables	1/2			24	30	75	122	All		For sub-surface irrigation reduce spacing 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **WABASSO**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	82	136	All		
0-2	Vegetables	1/2			24	30	63	98	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **WACHOTA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
5-7	Pasture	25	3	4	18						Random drain normally used.
<u>Subsurface Drain</u>											
5-7	Citrus	3/4			42	54	106	142	Check-N	Smooth	Random drain normally used.
5-7	Cropland	1/2			30	36	80	127	Check-N	Smooth	
5-7	Pasture	1/4			24				Check-N		Random drain normally used.
5-7	Vegetables	1/2			24	36	72	161	Check-N	Smooth	

(210-VI-NEH, FL Amendment, FL-1, October 2015)

FL14-127

Table FL 14-1 - Soil Drainage Recommendations

Series: **WAHEE**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Cropland	45	1.5	2	30					Smooth	
0-2	Pasture	25	3	4	18					Smooth	
<u>Surface Drain - Field Ditch</u>											
0-2	Cropland		3	4	18	24	60	80		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Pasture		3	4	18	24	80	100		Smooth	Spacing suitable for sub-surface irrigation.

Table FL 14-1 - Soil Drainage Recommendations

Series: **WAUCHULA**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	8						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	100	120		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60			Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	101	150	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	72	110	All		For sub-surface irrigation reduce spacing 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

Table FL 14-1 - Soil Drainage Recommendations

Series: **WAVELAND**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	8						
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	68	104	Sand-G		High potential for plugging of sub-surface drains by iron.
0-2	Vegetables	1/2			24	30	51	83	All		For sub-surface irrigation reduce spacing to 40-60 feet.

Table FL 14-1 - Soil Drainage Recommendations

Series: **WINDER**

Average Land Slope	Crop or Land Use	Drainage Coefficient	Side Slope		Depth (inches)		Spacing (feet)		Filter	Surface Treatment	Comments
			Min.	Rec.	Min.	Max.	Min.	Max.			
<u>Surface Drain - Main or Lateral</u>											
0-2	Citrus	45	1.5	2	42					Bedding	
0-2	Pasture	25	3	4	18						Dike and pump normally required.
0-2	Vegetables	45	1.5	2	36						
<u>Surface Drain - Field Ditch</u>											
0-2	Pasture		3	4	12	18	80	100		Smooth	Spacing suitable for sub-surface irrigation.
0-2	Vegetables		1.5	2	18	24	40	60		Grade	Spacing suitable for sub-surface irrigation.
<u>Subsurface Drain</u>											
0-2	Citrus	3/4			42	54	60	112	Check-N		
0-2	Vegetables	1/2			24	30	52	78	Check-N		For sub-surface irrigation reduce spacing 40-60 feet.

(210-VI-NEH, FL Amendment, FL-1, October 2015)

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