Land Judging Score Card

Part One: Land Characteristics

CONDITIONS OF FIELD

FIELD NO. 2

1. THICKNESS OF SURFACE SOIL WAS: 8 INCHES
2. OTHER CONDITIONS ARE:

   BASE SATURATION = 29%.

3. PAY NO ATTENTION TO CURRENT PRACTICES ON THIS FIELD.
4. CONSIDER THE MOST INTENSIVE USE OF THE LAND.
5. THE CROP WILL NOT BENEFIT FROM REDUCTION OF SOIL ACIDITY.
6. P SOIL TEST IS RATED AS: HIGH
7. K SOIL TEST IS RATED AS: MEDIUM
8. THE FOLLOWING NUTRIENTS WILL BE DEFICIENT: Mo, Mn

LAND JUDGING SCORE CARD

Name . . . . . Field No. . . . . .

Indicate your answer by an X in the ☐

LAND CHARACTERISTICS - PART ONE

SURFACE TEXTURE
- Sandy . . . . . ☐
- Loamy . . . . . ☐
- Clayey . . . . . ☐
- (Organic) . . . . . ☐

ORGANIC MATTER (SURFACE SOIL)
- High . . . . . ☐
- Medium . . . . . ☐
- Low . . . . . ☐

THICKNESS OF ROOTING ZONE
- Thin . . . . . ☐
- Thick . . . . . ☐
- Very Thick . . . . . ☐

MOVEMENT OF AIR AND WATER IN THE SOIL (PERMEABILITY)
- Rapid . . . . . ☐
- Moderate . . . . . ☐
- Slow . . . . . ☐

SLOPE
- A Nearly level . . . . . ☐
- B Gently sloping . . . . . ☐
- C Moderately sloping . . . . . ☐
- D Strongly sloping . . . . . ☐
- E Steep . . . . . ☐
- F Very steep . . . . . ☐

EROSION - WIND AND WATER
- None to slight . . . . . ☐
- Moderate . . . . . ☐
- Severe . . . . . ☐
- Very severe . . . . . ☐

DRAINAGE
- Poor . . . . . ☐
- Somewhat poor . . . . . ☐
- Moderately well or well . . . . . ☐
- Excessive . . . . . ☐

FACTORS DETERMINING LAND CLASS
- Texture . . . . . ☐
- Organic matter . . . . . ☐
- Thickness of rooting zone . . . . . ☐
- Permeability . . . . . ☐
- Slope . . . . . ☐
- Erosion . . . . . ☐
- Drainage . . . . . ☐

LAND CAPABILITY CLASS
I II III IV V VI VII VIII

Circle one of the above

SOIL ORDER
- Alfisol . . . . . ☐
- Aridisol . . . . . ☐
- Entisol . . . . . ☐
- Histosol . . . . . ☐
- Inceptisol . . . . . ☐
- Mollisol . . . . . ☐
- Oxisol . . . . . ☐
- Spodosol . . . . . ☐
- Ultisol . . . . . ☐
- Vertisol . . . . . ☐

CONSERVATION PRACTICES - PART TWO

VEGETATIVE

Use soil conserving and improving crops:

- ☐ 1. Every year between cash crops.
- ☐ 2. Every other year.
- ☐ 3. Two years out of three.
- ☐ 4. Three years out of four.

- ☐ 5. Contour strip cropping.
- ☐ 6. Manage crop residue.
- ☐ 7. Use sod-based rotation.
- ☐ 8. Wind strip cropping.
- ☐ 9. Use field windbreaks.
- ☐ 10. Control noxious plants.
- ☐ 11. Establish recommended grasses and/or legumes.
- ☐ 12. Manage pasture or range properly.
- ☐ 13. Protect from wildfire.
- ☐ 14. Plant recommended trees.
- ☐ 15. Harvest trees selectively.
- ☐ 16. Use for wildlife or recreational area.
- ☐ 17. . . . . .

MECHANICAL

- ☐ 18. Terrace.
- ☐ 19. Farm on the contour.
- ☐ 20. Maintain terraces.
- ☐ 21. Construct diversion terraces.
- ☐ 22. Develop waterways.
- ☐ 23. Install water control system.
- ☐ 24. Control gullies.
- ☐ 25. Subsoil.
- ☐ 26. . . . . .

FERTILIZER & SOIL AMENDMENTS

- ☐ 27. Lime.
- ☐ 28. Nitrogen.
- ☐ 29. Phosphorus.
- ☐ 30. Potassium.
- ☐ 31. One micronutrient.
- ☐ 32. Two or more micronutrients.
- ☐ 33 . . . . . .

SCORE PART I . . . . . .

SCORE PART II . . . . . .

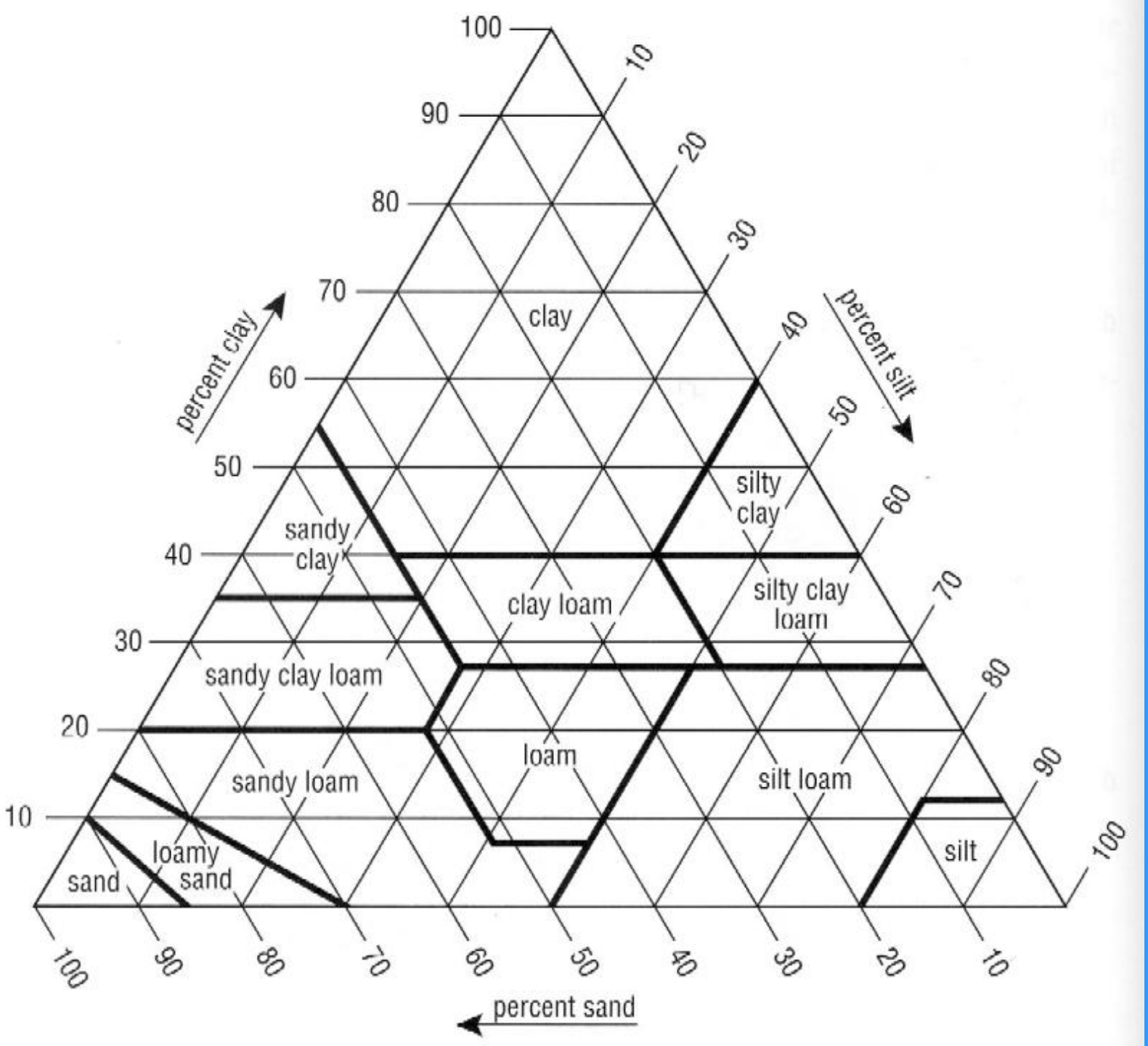
TOTAL SCORE . . . . . .

Florida Cooperative Extension Service/Institute of Food and Agricultural Sciences/University of Florida, Gainesville

LAND CHARACTERISTICS - PART ONE

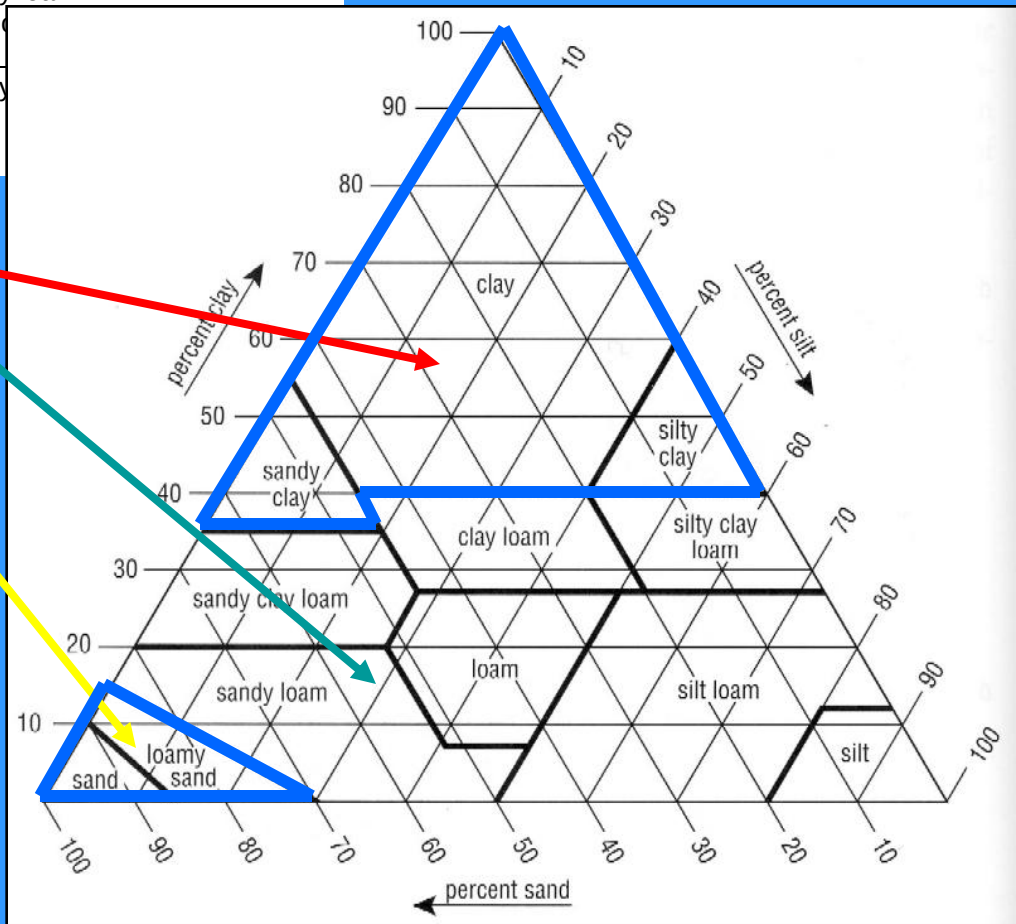
SURFACE TEXTURE

- Sandy . . . . . ☐
- Loamy . . . . . ☐
- Clayey . . . . . ☐
- (Organic) . . . . . ☐


100
90
80
70
60
50
40
30
20
10
percent clay
percent silt
percent sand
clay
silty clay
sandy clay
clay loam
silty clay loam
sandy clay loam
loam
silt loam
sandy loam
loamy sand
sand
silt

Broad Textural Groups		Textural Names from USDA Textural Triangle
Sandy soils	Coarse-textured, very sandy soils	Sands Loamy sands
Loamy soils	Moderately coarse-textured soils	*Coarse sandy loam* Sandy loam Fine sandy loam
	Medium-textured soils	Very fine sandy loam Loam Silt loam Silt
	Moderately fine-textured soils	Clay loam Sandy clay loam Silty clay l
Clayey soils	Fine-textured soils	Sandy clay Silty clay Clay

Coarse sandy loam (added in 2007)



SANDY SOILS

Feels and sounds gritty. Ball usually breaks in your hand.

No ribbon

LOAMY SOILS

Usually smooth. Ball shows some finger marks and holds its shape.

Has short thick ribbon.

CLAYEY SOILS

Feels smooth and sticky. Ball shows finger marks. Holds shape.

Long thin ribbon.

LAND CHARACTERISTICS - PART ONE

SURFACE TEXTURE

Sandy . . . . . ☐

Loamy . . . . . ☐

Clayey . . . . . ☐

(Organic) . . . . . ☐

ORGANIC MATTER (SURFACE SOIL)

High . . . . . ☐

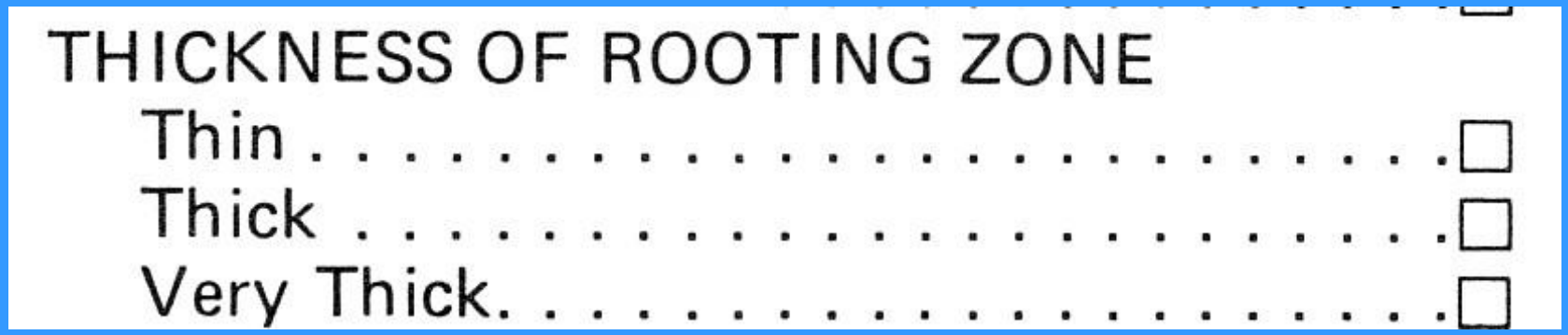
Medium . . . . . ☐

Low . . . . . ☐

Need some color-based guidance here. That would keep things quantitative. Look for changes this summer.

Organic matter

Soil organic matter is the residue of plant and animal material in various stages of decomposition. It helps hold both water and nutrients in the plant root zone and, upon decomposition, becomes plant food. Organic matter of the surface soil (from the surface down to the first significant change in color) is estimated visually by examining the darkness of color of an air-dry sample. Usually the darker the color of the surface soil, the higher the organic matter content. It is generally agreed that, where the soil organic matter is between 0 and 2 percent, it is low; between 2 and 5 percent, it is medium; and where it is over 5 percent, it is high.



Thickness of rooting zone

The total thickness of surface and subsoil layers readily penetrated by crop roots is considered to be the thickness of the rooting zone. Dense hardpan, clay pan, rock, a seasonally high water table (under natural conditions, i.e., without artificial drainage), or other unfavorable conditions may limit the rooting zone. ***Occurrence of roots at a given depth is not a good indicator, because there may be artificial drainage in place, and/or the roots may be those of weeds or other non-agronomic plants that are not the primary consideration in land judging****. Rooting zone thickness is described in Table 2.*

Students usually use their knives… too subjective?

Table 2. Rooting zone thickness.

Thin	0 - 19.9 inches
Thick	20 - 39.9 inches
Very thick	40 inches or more

LAND JUDGING SCORE CARD

Name . . . . . Field No. . . . . .

Indicate your answer by an X in the ☐

LAND CHARACTERISTICS - PART ONE

SURFACE TEXTURE

- Sandy . . . . . ☐
- Loamy . . . . . ☐
- Clayey . . . . . ☐
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ORGANIC MATTER (SURFACE SOIL)

- High . . . . . ☐
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THICKNESS OF ROOTING ZONE

- Thin . . . . . ☐
- Thick . . . . . ☐
- Very Thick . . . . . ☐

MOVEMENT OF AIR AND WATER IN THE SOIL (PERMEABILITY)

- Rapid . . . . . ☐
- Moderate . . . . . ☐
- Slow . . . . . ☐

SLOPE

- A Nearly level . . . . . ☐
- B Gently sloping . . . . . ☐
- C Moderately sloping . . . . . ☐
- D Strongly sloping . . . . . ☐
- E Steep . . . . . ☐
- F Very steep . . . . . ☐

EROSION - WIND AND WATER

- None to slight . . . . . ☐
- Moderate . . . . . ☐
- Severe . . . . . ☐
- Very severe . . . . . ☐

DRAINAGE

- Poor . . . . . ☐
- Somewhat poor . . . . . ☐
- Moderately well or well . . . . . ☐
- Excessive . . . . . ☐

FACTORS DETERMINING LAND CLASS

- Texture . . . . . ☐
- Organic matter . . . . . ☐
- Thickness of rooting zone . . . . . ☐
- Permeability . . . . . ☐
- Slope . . . . . ☐
- Erosion . . . . . ☐
- Drainage . . . . . ☐

LAND CAPABILITY CLASS

I II III IV V VI VII VIII

Circle one of the above

SOIL ORDER

Alfisol . . . . . ☐	Mollisol . . . . . ☐
Aridisol . . . . . ☐	Oxisol . . . . . ☐
Entisol . . . . . ☐	Spodosol . . . . . ☐
Histosol . . . . . ☐	Ultisol . . . . . ☐
Inceptisol . . . . . ☐	Vertisol . . . . . ☐

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FERTILIZER & SOIL AMENDMENTS

- ☐ 27. Lime.
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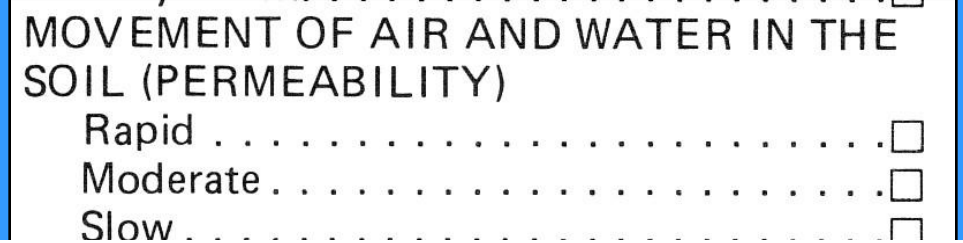
SCORE PART I . . . . . .

SCORE PART II . . . . . .

TOTAL SCORE . . . . . .

Florida Cooperative Extension Service/Institute of Food and Agricultural Sciences/University of Florida, Gainesville



Permeability refers to the rate of water or air movement through the most restrictive layer in the soil, including bedrock, if present. This may be considered as internal drainage. Permeability can be estimated from texture, compaction, and arrangement of soil particles (structure). Figure 3 illustrates the common ways particles may be arranged to form soil structure. This secondary grouping of particles may affect the soil's internal drainage by either providing a pathway for water to drain (such as around the outside of granules) or by retarding water movement (such as with platy structure or where structure is absent and the soil is massive).

Rapid. *Soils are generally not finer than sands to fine sandy loam throughout the profile, with little if any defined structure other than being structureless (i.e., single-grained) (very little restriction to movement of water and air). Organic soil material (e.g., muck or peat) is generally rapidly permeable, unless compaction or some other soil feature gives cause to think otherwise.*

Moderate. *These soils generally include medium-textured loamy soils, light silty clay loam (i.e., on the coarser-textured side of the silty clay loam category), light clay loam, or light sandy clay loam with prismatic to granular or blocky structure, and have no severely restrictive layers. Weakly cemented sandy material is also included.*

Slow. Soils generally would be on the fine side of the loamy group, such as heavy silty clay loam to heavy sandy clay loam. Such soils would be structureless (massive) or have platy structure, weakly expressed blocky structure, or weakly expressed prismatic structure. Strongly cemented sandy material is included here, as is impermeable or slowly permeable bedrock.

Broad Textural Groups		Textural Names from USDA Textural Triangle
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Loamy soils	Moderately coarse-textured soils	*Coarse sandy loam* Sandy loam Fine sandy loam
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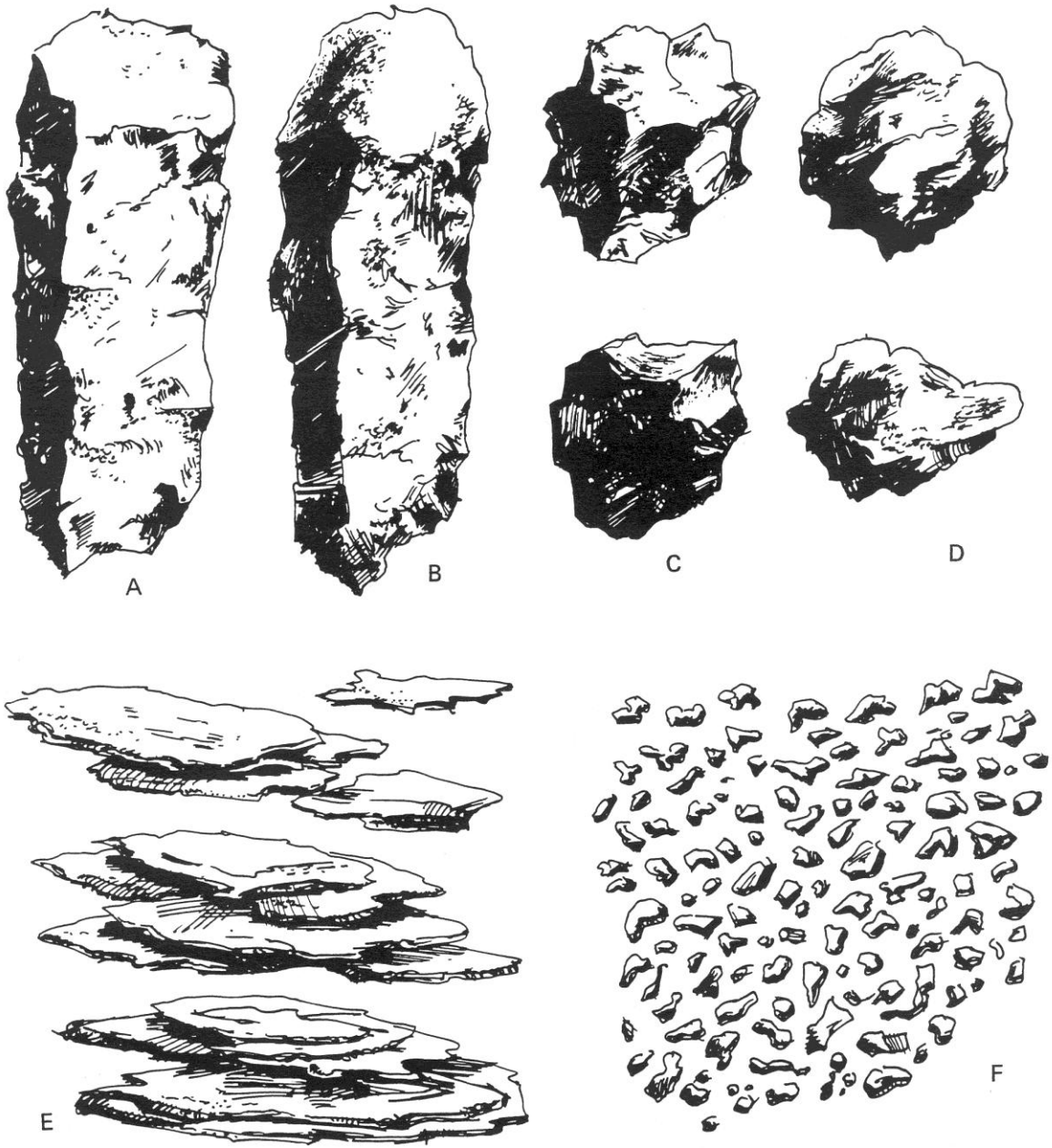


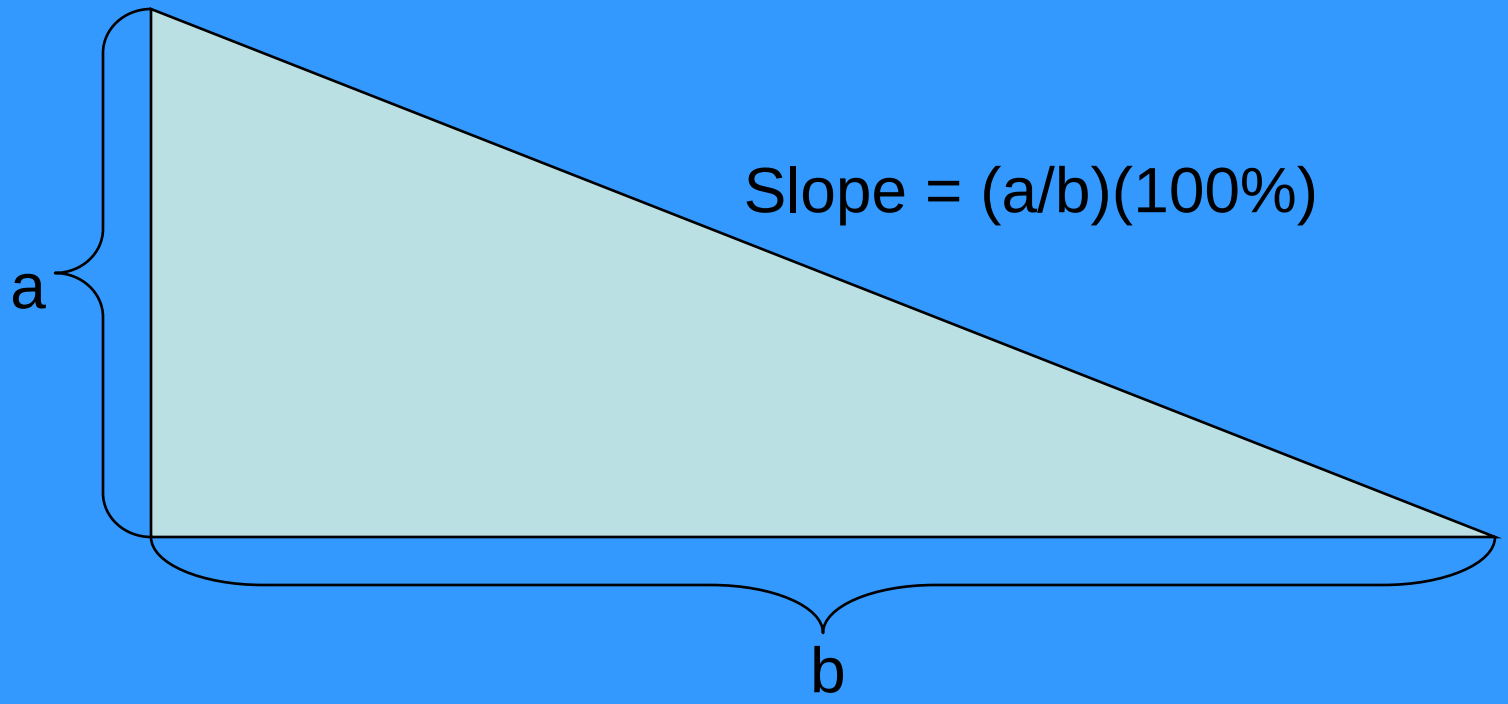
Drawings illustrating some of the types of soil structure: A, prismatic; B, columnar; C, angular blocky; D, subangular blocky; E, platy; and F, granular.

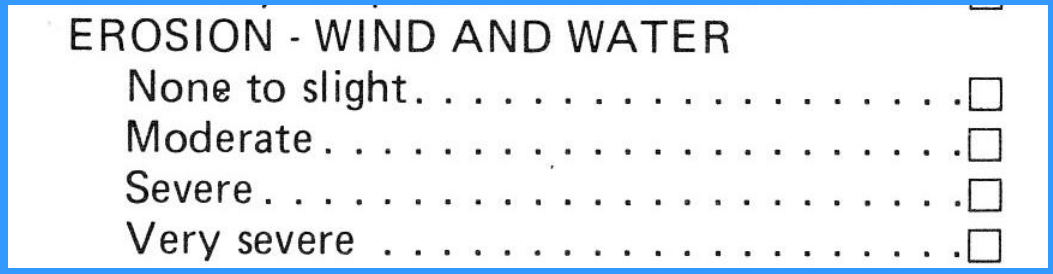
SLOPE
A Nearly level . . . . . ☐
B Gently sloping. . . . . ☐
C Moderately sloping. . . . . ☐
D Strongly sloping . . . . . ☐
E Steep. . . . . ☐
F Very steep . . . . . ☐

Slope

Slope is measured in feet of fall or rise per 100 feet of horizontal travel and is expressed in percent, as follows:

A.	Nearly level	0 - 1.9%
B.	Gently sloping	2 - 4.9%
C.	Moderately sloping	5 - 7.9%
D.	Strongly sloping	8 - 11.9%
E.	Steep	12 - 16.9%
F.	Very steep	17% or more





Erosion -- wind and water

Erosion is the loss of soil by forces of water and wind. Proper soil management can greatly reduce erosion and maintain productivity and usefulness of the land. The degree to which erosion has occurred is described by the following terms:

None to slight. Less than 25 percent of surface soil removed. No gullies.

Moderate. 25 to 75 percent of surface soil removed, with or without gullies.

Severe. 75 percent or more of the surface soil removed, with or without occasional uncrossable gullies.

Very severe. All of the surface soil removed, and up to 75 percent of the subsoil lost.

DRAINAGE

Poor . . . . . ☐

Somewhat poor. . . . . ☐

Moderately well or well . . . . . ☐

Excessive . . . . . ☐

Drainage

Drainage can be regarded as an index of wetness of the natural soil. Drainage is associated with the rate at which water is removed from the soil profile under natural conditions. Wetness of a soil is influenced by many factors, including internal drainage, permeability, and depth to the water table. Generally, internal drainage is a reflection of permeability. For example, a very slowly permeable soil exhibits poor to very poor internal drainage. The presence and depth of a water table is not necessarily a reflection of permeability. Establishing depth and permanency of the water table requires study during different seasons of the year. The terms used to describe soil drainage are discussed below.

Poor. Water drains so slowly that the soil remains wet for a large part of the time. The water table is commonly within 20 inches of the surface during a considerable part of the year. Poorly drained conditions are due to a high water table, to a slowly permeable layer within the profile, to seepage, or to some combination of these conditions. Poorly drained soils are usually characterized by uniform gray or mottled gray colors immediately below the surface soil. Mottling is normally associated with loamy or clayey subsoils. Some poorly drained sandy soils may be light gray or white from the surface downward, with or without mottles. *A spodic layer at depths of 10 to 40 inches is usually (but not always!) an indicator of poor drainage. Landscape position and other factors **may** cause a Spodosol to be somewhat poorly drained or even drier.*

Somewhat poor. Water is removed from the soil slowly enough to keep it wet for significant periods. The water table is at depths of 20 to 40 inches for a considerable part of the year. Somewhat poorly drained conditions are due to a moderately high water table, to a slowly permeable layer within the profile, to seepage, or to some combination of these conditions. Somewhat poorly drained soils are usually characterized by uniform grayish, brownish, or yellowish colors in the upper profile and commonly have mottles between the 20 and 40-inch depths. Mottling is normally associated with loamy or clayey subsoils. Somewhat poorly drained sandy soils may be white or light gray from the surface downward with or without mottles.

Moderately well or well. Water is removed from the soil somewhat slowly so that the profile may be wet for short, but significant, periods of time. The water table is commonly below the 40-inch depth. Moderately well drained soils may have a slowly permeable layer within or immediately beneath the subsoil, a relatively high water table, additions of water through seepage, or some combination of these conditions. Moderately well drained and well-drained soils normally have uniform colors in surface soil and upper subsoil, but may be mottled in the lower subsoil (below 40 inches). ***If the water table is below 72 inches and the soil is not sandy throughout the 0- to 72-inch depth (e.g., it is loamy in part or all of the profile), the soil is well drained.***

Excessive. ***The soil is sandy throughout its depth.*** Water is removed from the soil readily. The water table occurs at depths below 72 inches. The soil is free or nearly free of mottling throughout the profile. Dominant colors are pale brown, yellow, and red. Some excessively drained soils are white or light gray in color and lack evidence of wetness.

LAND JUDGING SCORE CARD

Name . . . . . Field No. . . . . .

Indicate your answer by an X in the ☐

LAND CHARACTERISTICS - PART ONE

SURFACE TEXTURE

- Sandy . . . . . ☐
- Loamy . . . . . ☐
- Clayey . . . . . ☐
- (Organic) . . . . . ☐

ORGANIC MATTER (SURFACE SOIL)

- High . . . . . ☐
- Medium . . . . . ☐
- Low . . . . . ☐

THICKNESS OF ROOTING ZONE

- Thin . . . . . ☐
- Thick . . . . . ☐
- Very Thick . . . . . ☐

MOVEMENT OF AIR AND WATER IN THE SOIL (PERMEABILITY)

- Rapid . . . . . ☐
- Moderate . . . . . ☐
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SLOPE

- A Nearly level . . . . . ☐
- B Gently sloping . . . . . ☐
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- Severe . . . . . ☐
- Very severe . . . . . ☐

DRAINAGE

- Poor . . . . . ☐
- Somewhat poor . . . . . ☐
- Moderately well or well . . . . . ☐
- Excessive . . . . . ☐

FACTORS DETERMINING LAND CLASS

- Texture . . . . . ☐
- Organic matter . . . . . ☐
- Thickness of rooting zone . . . . . ☐
- Permeability . . . . . ☐
- Slope . . . . . ☐
- Erosion . . . . . ☐
- Drainage . . . . . ☐

LAND CAPABILITY CLASS

I II III IV V VI VII VIII

Circle one of the above

SOIL ORDER

Alfisol . . . . . ☐	Mollisol . . . . . ☐
Aridisol . . . . . ☐	Oxisol . . . . . ☐
Entisol . . . . . ☐	Spodosol . . . . . ☐
Histosol . . . . . ☐	Ultisol . . . . . ☐
Inceptisol . . . . . ☐	Vertisol . . . . . ☐

CONSERVATION PRACTICES - PART TWO

VEGETATIVE

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MECHANICAL

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FERTILIZER & SOIL AMENDMENTS

- ☐ 27. Lime.
- ☐ 28. Nitrogen.
- ☐ 29. Phosphorus.
- ☐ 30. Potassium.
- ☐ 31. One micronutrient.
- ☐ 32. Two or more micronutrients.
- ☐ 33 . . . . . .

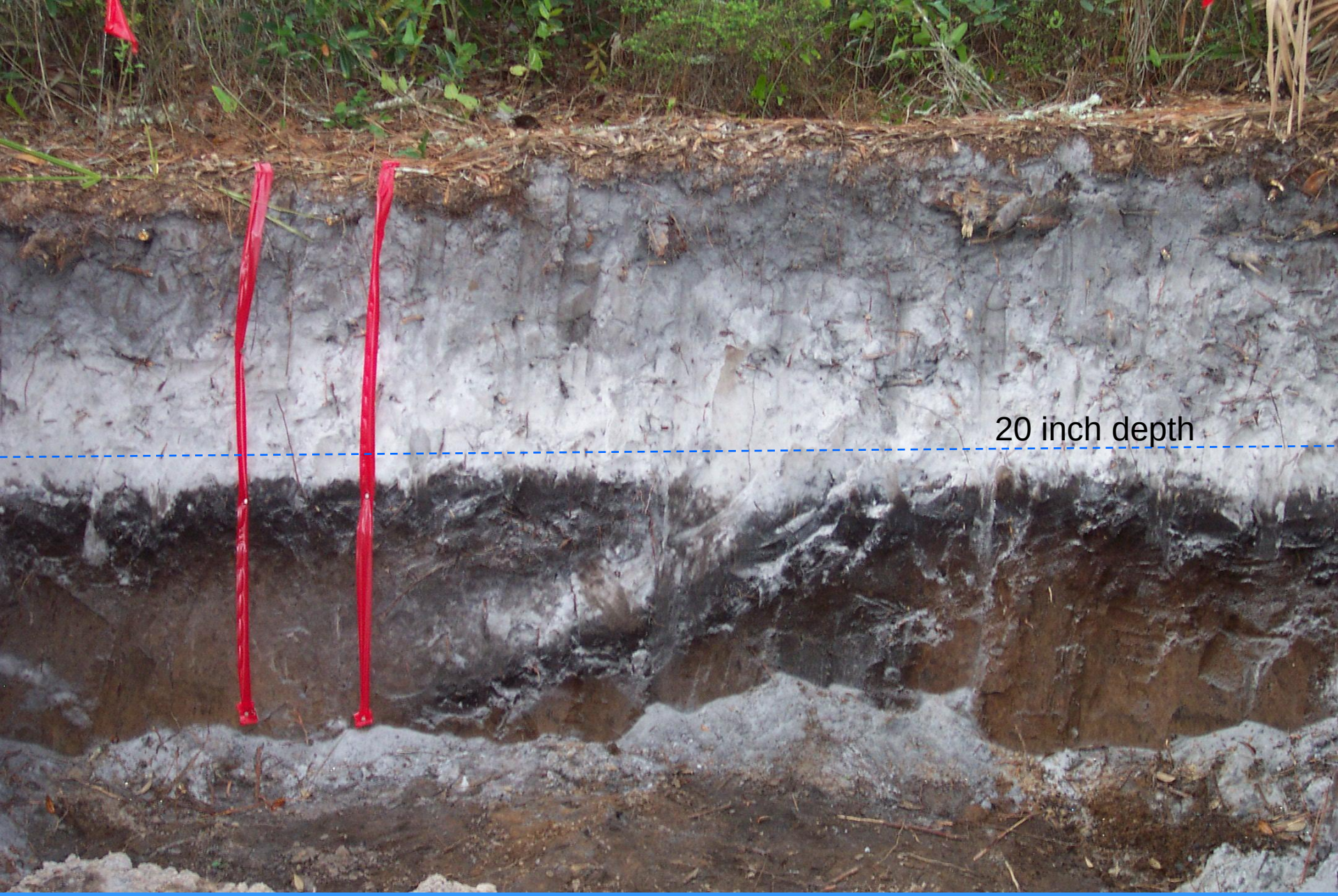
SCORE PART I . . . . . .

SCORE PART II . . . . . .

TOTAL SCORE . . . . . .

Florida Cooperative Extension Service/Institute of Food and Agricultural Sciences/University of Florida, Gainesville


20 inch depth


20 inch depth

FACTORS DETERMINING LAND CLASS

- Texture . . . . . ☐
- Organic matter . . . . . ☐
- Thickness of rooting zone . . . . . ☐
- Permeability . . . . . ☐
- Slope . . . . . ☐
- Erosion . . . . . ☐
- Drainage . . . . . ☐

LAND CAPABILITY CLASS

I II III IV V VI VII VIII

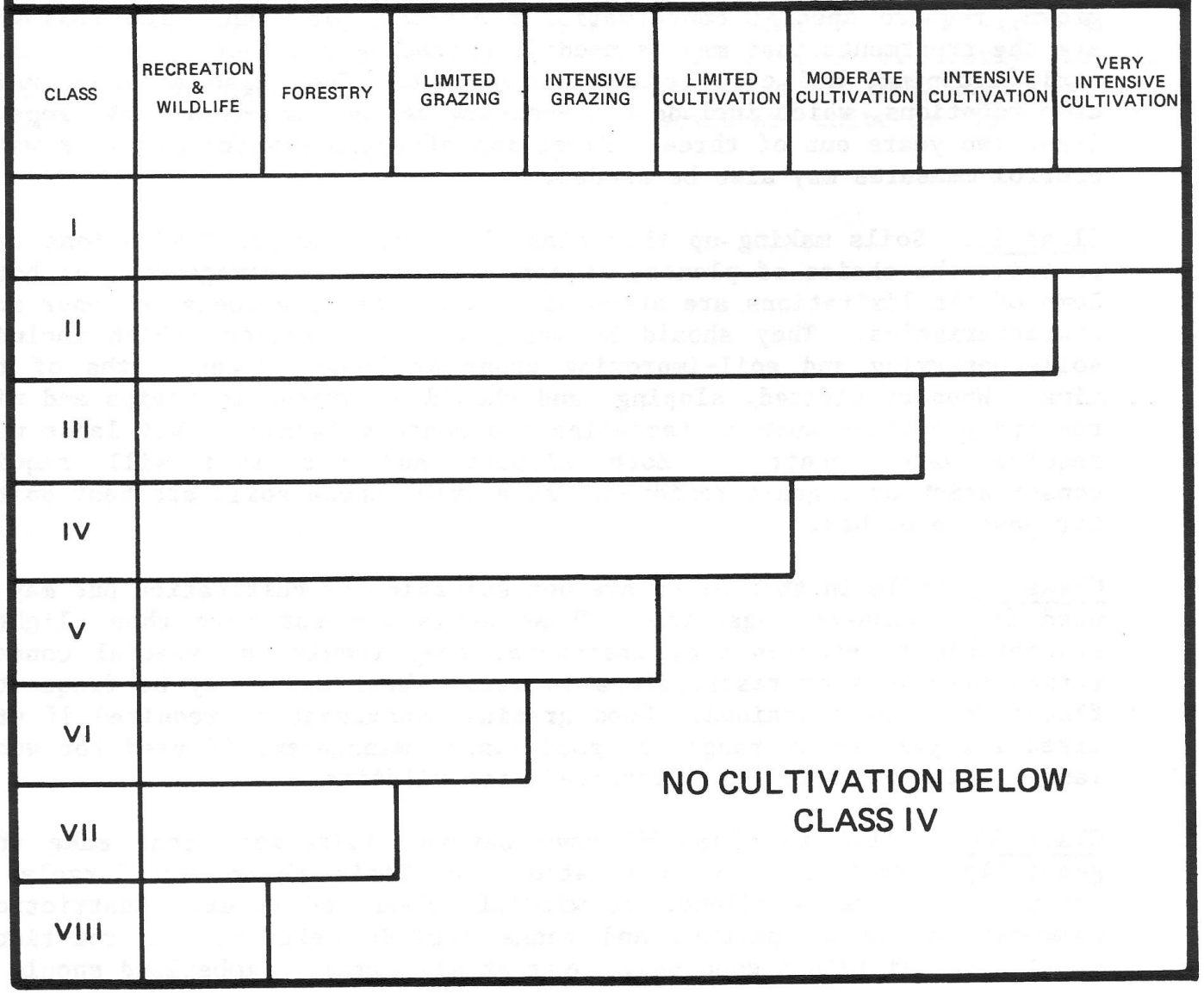
Circle one of the above


TYLENOL
8 Hour

LAND CLASSES AND SAFE LAND USES

THE LENGTH OF BAR SHOWS THE SAFE USES FOR EACH CLASS OF LAND

NOTE: THE SHORTER THE BARS THE FEWER THE SAFE USES



Land Characteristics and Their Limitations on Capability Class

Factor	Best Possible Land Class
Surface Texture	
Sandy	II
Loamy	I
Clayey	III
(Organic)	III
Organic Matter	
High	I
Medium	I
Low	I
Thickness of rooting zone	
Thin	III
Thick	II
Very thick	I
Permeability	
Rapid	II
Moderate	I
Slow	II
Slope	
A Nearly level	I
B Gently sloping	II
C Moderately sloping	III
D Strongly sloping	IV
E Steep	VI
F Very steep	VII
Erosion	
None to slight	I
Moderate	II
Severe	III
Very severe	IV
Drainage	
Poor	III
Somewhat poor	II
Moderately well and well	I
Excessive	IV

Rules

- Take a deep breath
- Start with the most restrictive class, then cover it up
- Examine what's left
- Three or more occurrences of II = one penalty
- One occurrence of III or greater = one penalty
- Skip V in Florida
- Cap out at VII in Florida

If only one factor keeps a site from being Class I, that factor determines land class. Where two or more factors are involved, the situation may be more complex. Capability class may be determined by the most limiting factor. A penalty, or downgrading of capability class, may be assessed under some circumstances, however, as in the examples given below.

Ex.	Surface Texture	Organic Matter	Thickness of rooting zone	Permeability	Slope	Erosion	Drainage	Class
1.	Sandy	Low	Thick	Moderate	B	Moderate	Well	
	II	I	II	I	II	II	I	III
2.	Loamy	Medium	Thick	Slow	C	Moderate	Somewhat Poor	
	I	I	II	II	III	II	II	IV
3.	Sandy	Low	Very Thick	Rapid	C	Slight	Excessive	
	II	I	I	II	III	I	IV	VI
4.	Loamy	Medium	Very Thick	Moderate	C	Moderate	Well	
	I	I	I	I	III	II	I	III
5.	Loamy	Low	Thin	Slow	E	Moderate	Poor	
	I	I	III	II	VI	II	III	VII

1: Three II = one penalty

2: Three II = one penalty

3: One III = one penalty, skip V

4: No penalty

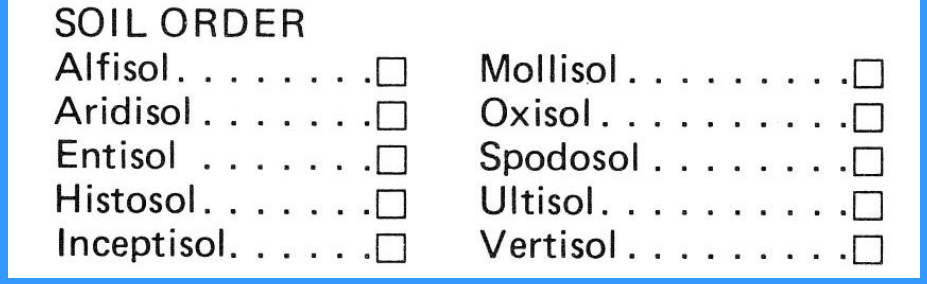
5: Two III = two penalties but cap at VII

6.	Sandy	High	Thick	Rapid	A	None	Poor	
	II	I	II	II	I	I	III	IV
7.	Loamy	Medium	Thin	Slow	D	Moderate	Somewhat Poor	
	I	I	III	II	IV	II	II	VII
8.	Loamy	Low	Very Thick	Moderate	C	Severe	Well	
	I	I	I	I	III	III	I	IV
9.	Organic	High	Thin	Rapid	A	None	Poor	
	III	I	III	II	I	I	III	VI
10.	Sandy	Low	Thin	Slow	B	None	Poor	
	II	I	III	II	II	I	III	VI
11.	Sandy	Low	Thick	Rapid	B	Moderate	Well	
	II	I	II	II	II	II	I	III

6: Three II = one penalty
7: Three II and one III = two penalties
8: One III = one penalty
9: Two III = one penalty, skip V
10: One III and three II = two penalties
11: 4 II = one penalty

12.	Loamy	Medium	Thin	Slow	C	Severe	Moderately	Well	
	I	I	III	II	III	III	I	VI	
13.	Loamy	Low	Thick	Slow	D	Moderate	Well		
	I	I	II	II	IV	II	I	VI	
14.	Loamy	Medium	Very Thick	Moderate	A	None	Well		
	I	I	I	I	I	I	I	I	
15.	Sandy	Low	Very Thick	Moderate	A	None	Moderately	Well	
	II	I	I	I	I	I	I	II	
16.	Sandy	Low	Thin	Moderate	A	None	Somewhat	Poor	
	II	I	III	I	I	I	II	III	

17.	***Sandy***	***Low***	***Thick***	***Moderate***	***B***	***None***	***Moderately Well***	
	II	***I***	***II***	***I***	***II***	***I***	***I***	***II***
18.	***Sandy***	***Medium***	***Thick***	***Rapid***	***B***	***Moderate***	***Somewhat Poor***	
	II	***I***	***II***	***II***	***II***	***II***	***II***	***III***
19.	***Sandy***	***Low***	***Thick***	***Moderate***	***D***	***Very Severe***	***Moderately Well***	
	II	***I***	***II***	***I***	***IV***	***IV***	***I***	***VI***
20.	***Sandy***	***Low***	***Very Thick***	***Rapid***	***D***	***Very Severe***	***Excessive***	
	II	***I***	***I***	***II***	***IV***	***IV***	***IV***	***VII***



Alfisols. Well-developed soils with a relatively fine-textured subsoil horizon that has a percent base saturation of 35 percent or more.
Aridisols. Dry soils that occur in arid or semi-arid regions.
Entisols. Soils with little or no horizon development.
Histosols. Soils composed of relatively thick (usually 16 inches or more) organic materials (mucks and peats).
Inceptisols. Soils of humid regions with profile development sufficient to exclude them from the Entisols, but insufficient to include them in Spodosols, Ultisols, or other well-developed soils. Soils that appear to be like Mollisols but have less than 50 percent base saturation may also be Inceptisols.
Mollisols. Soils with thick (usually 10 inches or more) , dark surfaces that have a base saturation of 50 percent or more in the surface soil.
Oxisols. Highly weathered soils of the tropics.
Spodosols. Soils with a spodic horizon (a dark-colored horizon or subhorizon with a mixture of organic matter and aluminum [Al], with or without iron [Fe]).
Ultisols. Well-developed soils with a relatively fine-textured subsoil horizon that has less than 35 percent base saturation.
Vertisols. Soils with more than 30 percent clay which appreciably expand upon wetting and contract upon drying.

While Florida's soil orders are shown alphabetically in the above listing, it should be understood that there is a protocol for determining the taxonomic classification of a soil. Using that protocol, ***soils should be keyed out in the following sequence****:*

- *Histosols*
- *Spodosols*
- *Oxisols*
- *Vertisols*
- *Aridisols*
- *Ultisols*
- *Mollisols*
- *Alfisols*
- *Inceptisols*
- *Entisols*

For example, a soil that qualifies for the Histosol order should be placed in the Histosols, regardless of whether or not the soil meets any of the requirements of an order or orders further down the list. Similarly, a soil that does not qualify for the Histosols but does qualify for the Spodosols should be called a Spodosol, whether or not the soil has a relatively fine-textured subsoil, and regardless of base saturation.

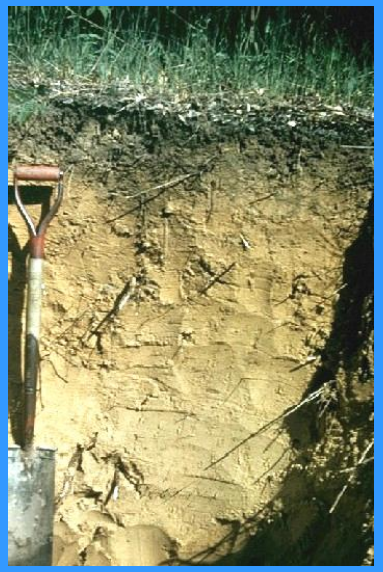
Soil Orders

12 soil orders in the US

- Gelisol — cold soils w/ permafrost
- Histosol* — >40cm of topsoil is organic
- Spodosol* — soils with a spodic horizon
- Andisol — soils formed from volcanic ash
- Oxisol — highly weathered soils of the tropics
- Vertisol — soils with high shrink/swell clays near the surface
- Aridisol — soils from arid environments
- Ultisol* — soils with argillic horizons (<35% BS)
- Mollisol* — soils with a Mollic epipedon (10” thick, dark, >50% BS)
- Alfisol* — soils with argillic horizons (>35% BS)
- Inceptisol* — soils w/out orchirc epipedon and/or weak subsurface development
- Entisol* — all other soils

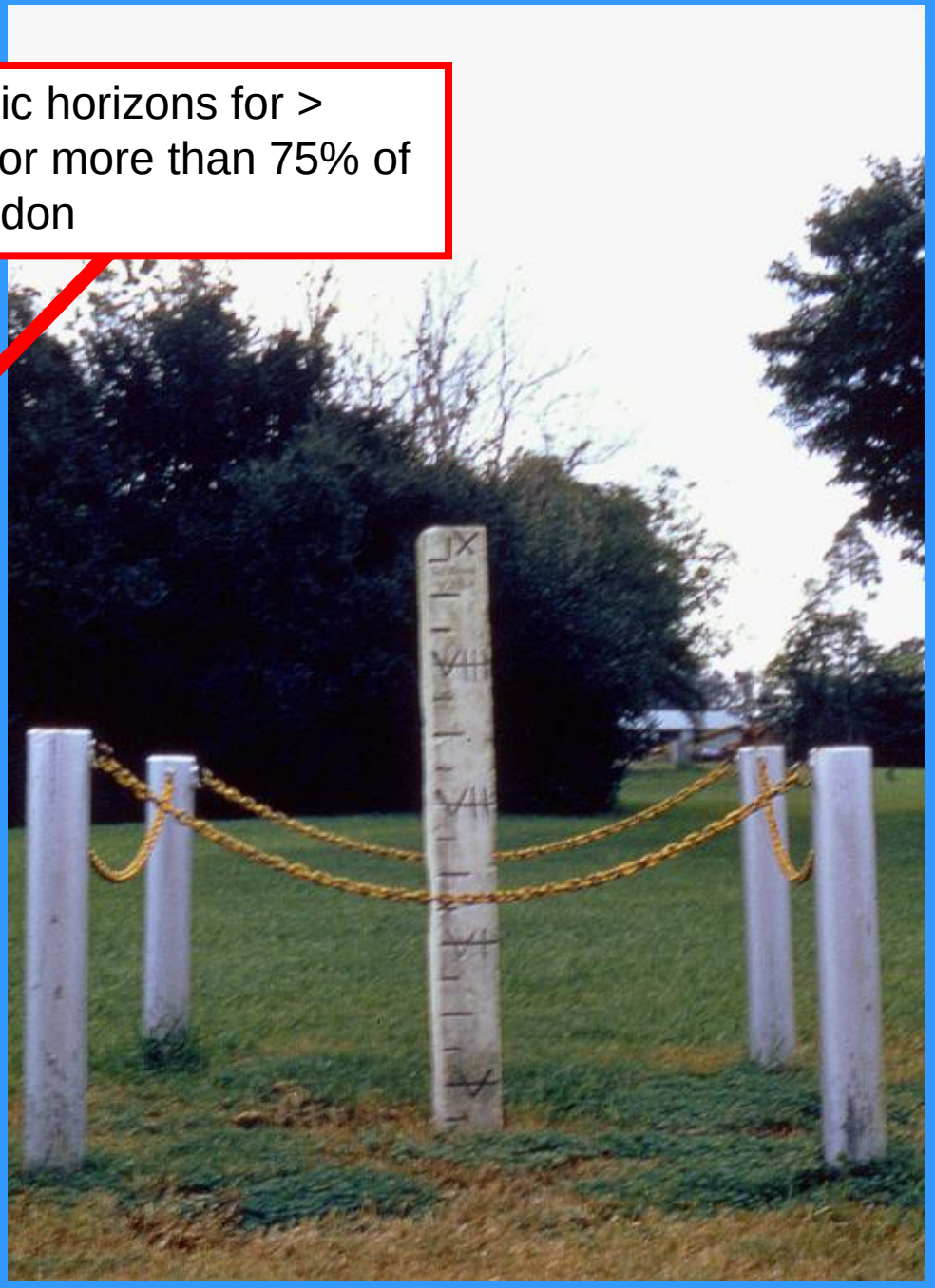
** Occurs in Florida*

Examples



Histosol

Organic horizons for > 40cm or more than 75% of the pedon



Spodosol

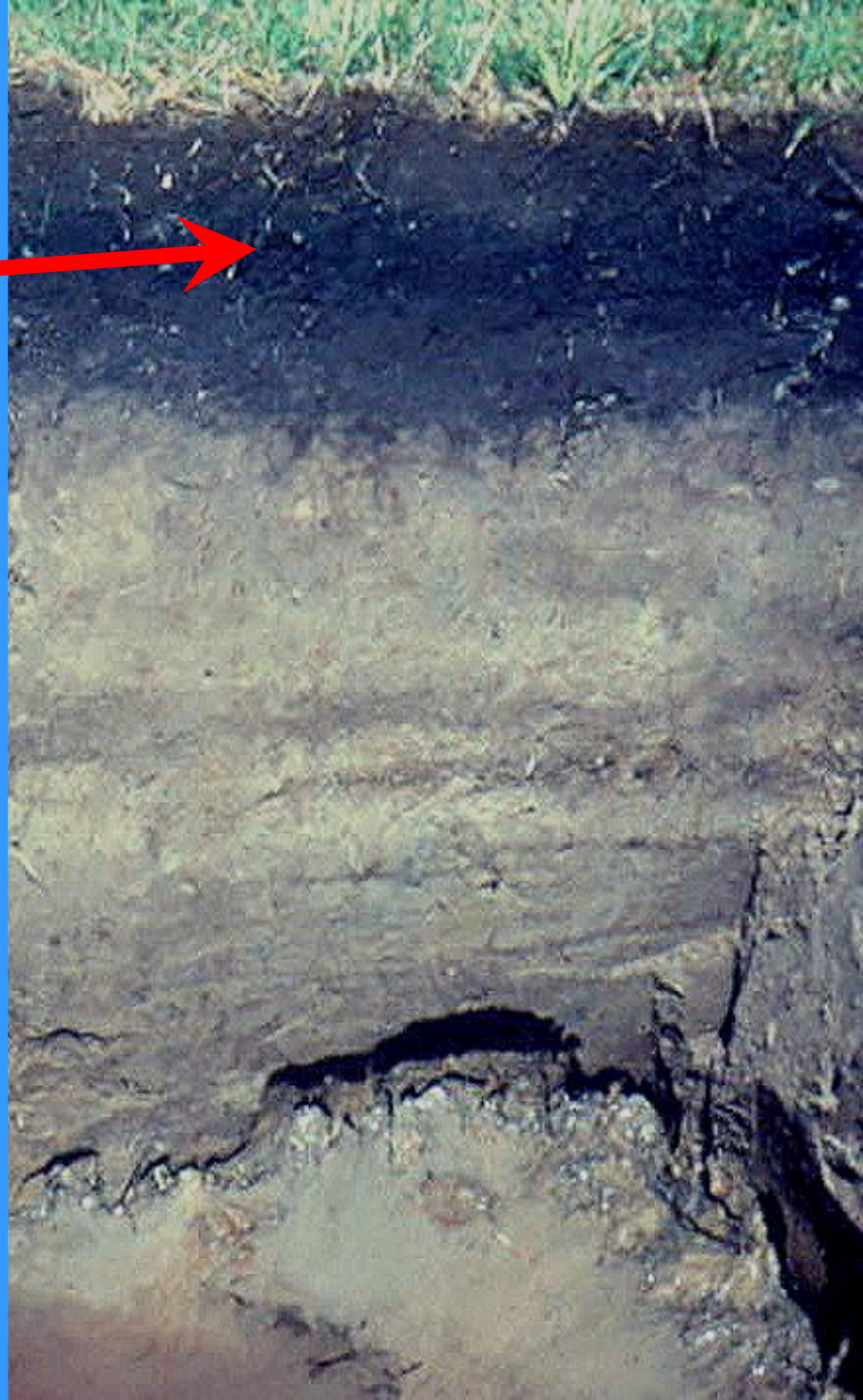
A spodic horizon occurring < 2m from surface

Ultisol

Argillic horizon (BS<35%) occurring < 2m from surface

Mollisol

Mollic epipedon
(>9.8” thick)



Alfisol

Argillic horizon (BS>35%) occurring < 2m from surface

Inceptisol

No picture

Has an Umbric or Histic Epipedon, or has a Cambic horizon (signs of weak development)

Entisol

No diagnostic subsurface horizons occuring w/in 2m of soil surface and/or has an Ochric epipedon

- SPODIC HORIZON
- LOW BASE SATURATION (<35%)
- RELATIVELY CLAYEY SUBSOIL

SPODOSOL????

ULTISOL????

SPODOSOL keys out first!