



Virginia Cooperative Extension

Virginia Tech. • Virginia State University

CSES-202-B

Virginia Soil Judging Scorecard

Name: _____

County: _____

Pit # _____

Part 1: SOIL FEATURES

A. Measure Thickness (in inches) of the Surface Layer or the A Horizon (5)

B. Surface Layer Textural Class (5)

Sand	
Loamy Sand	
Sandy Loam	
Loam	
Silt Loam	
Silty Clay Loam	
Clay Loam	
Sandy Clay Loam	
Clay	
Silty Clay	
Sandy Clay	

C. Subsoil Textural Class (5)

Sand	
Loamy Sand	
Sandy Loam	
Loam	
Silt Loam	
Silty Clay Loam	
Clay Loam	
Sandy Clay Loam	
Clay	
Silty Clay	
Sandy Clay	

D. Subsoil Color (5)

Red, Brown or Yellow	
Mottled (No Gray Mottles)	
Mottled (With Gray Mottles)	
Gray (With or Without Red, Yellow, or Brown Mottles)	

E. Depth to Saturation (5)

Shallowest Gray Mottles or Water	
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F. Topsoil Structure (not graded)

G. Subsoil Structure (not graded)

Part 2: LANDSCAPE FACTORS

A. Slope Gradient (5)

Nearly Level	0-2%	
Gently Sloping	3-7%	
Sloping	8-15%	
Moderately Steep	16-25%	
Steep	>25%	

B. Erosion (5)

None or Slight	
Moderate	
Severe	

C. Landscape Analysis (5)

Upland Ridge	
Slideslope	
Footslope	
Floodplain, Terrace, Drainageways	

Part 3: INFERRED FEATURES

A. Infiltration Rate (5)

Rapid	
Medium	
Slow	

B. Surface Runoff (5)

Rapid	
Medium	
Slow	
Very Slow	

C. Permeability (Slowest rate) (5)

Rapid	
Moderately Rapid	
Moderate	
Slow	

D. Agricultural Drainage Class (5)

Excessive	
Well	
Moderately Well	
Somewhat Poorly	
Poorly	

Part 4: AGRICULTURAL MANAGEMENT

A. Major factors that keep area out of Class I (3 pts each)

None		Permeability	
Slope		Runoff	
Erosion		Wetness	
Depth		Flooding	
Texture			

B. Land Capability Class (5)

Class I		Class V	
Class II		Class VI	
Class III		Class VII	
Class IV		Class VIII	

C. Soil Amendments (3 pts each)

None Needed		Soil Test Data Surface	
Lime/ sulfur		pH	
Nitrogen		N	
Phosphorous		P	
Potassium		K	

SOIL JUDGING IN VIRGINIA

D. Land Management (3 pts each)

Continuous row crops	
Sod or legume crop every 4th year	
Sod or legume crop every 3rd year	
Sod or legume crop every 2nd year	
Residue management or cover crops along with minimum tillage	

Establish recommended grasses and legumes	
Control grazing and conduct proper pasture management	

Plant recommended trees and harvest trees selectively	
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Use only for wildlife or recreation	
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E. Mechanical Practices (3 pts each)

No treatment needed	
Farm on contour or strip crop	
Control brush, trees	
Control gullies	
Windbreaks or cover crops	

TOTALS

Part 1 _____ Part 4 _____ Pit Total _____
 Part 2 _____ Part 5 _____
 Part 3 _____

Part 5: LAND USE INTERPRETATIONS

Rate each soil site property in column 1 for each land use below. (1 point per answer)

Circle the correct answer.	Degree of Limitations	Foundations (no basement)	Septic Tank Drainfields	Shrubs and Trees	Roadfill	Waste Lagoons
A. GENERAL SUBSOIL TEXTURE						
1. Sands	Slight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Loams & Clay Loams	Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Clay – low shrink-swell	Severe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Clay – high shrink-swell						
B. PERMEABILITY						
1. Slow <0.6 "/hr.	Slight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Moderate 0.61-8.0 "/hr.	Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Moderately Rapid 0.81-2.0"/hr.	Severe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Rapid > 2.1 "/hr.4.						
C. DEPTH TO ROCK						
1. Shallow 0 - 20"	Slight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Mod. Deep 21 - 40"	Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Deep 41 - 72"	Severe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Very Deep over 72"						
D. SLOPE NEARLY LEVEL						
1. Nearly level 0-2%	Slight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Gentle 2.1 - 7%	Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Moderate 7.1 - 15%	Severe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Strong 15.1 - 25%						
5. Steep > 25%						
E. WATER TABLE (permanent or temporary)						
1. Shallow < 30"	Slight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Mod. Deep 30 > 72"	Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Deep > 72"	Severe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. FLOODING						
1. None	Slight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Occasional	Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Frequent	Severe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FINAL EVALUATION						
Circle the correct answer.	Slight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. All factors none to slight	Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. One or more factors moderate, none, severe	Severe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. One or more factors severe						

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Produced by Virginia Cooperative Extension, Virginia Tech, 2025

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