

Official

## Soil Study and Land Evaluation Scorecard Part I

Team Name \_\_\_\_\_ Member Name \_\_\_\_\_ Pit No. \_\_\_\_\_  
 Team No. \_\_\_\_\_ Div: Sr/Jr/4H Member No. \_\_\_\_\_ Potential Score 50

SITE			SURFACE SOIL	
Position in Landscape (5 points)	Slope (5 points)	Type and Degree of Erosion or Deposition (5 points)	Texture (5 points)	Structure (5 points)
Upland Hilltop or Plain <input checked="" type="checkbox"/>	Nearly Level <input checked="" type="checkbox"/> 0 - 2%	None to Slight Water <input checked="" type="checkbox"/> Over 75% of the original surface soil remains 10"	Coarse <input type="checkbox"/> Sands and Loamy sands	Loose <input type="checkbox"/> Single grained
Sloping Hillside <input type="checkbox"/>	Gently Sloping <input type="checkbox"/> 2 - 6%	Moderate Water <input type="checkbox"/> 25 to 75% of the surface soil remains (some mixing of subsoil with surface layer)	Moderately Coarse <input type="checkbox"/> Sandy Loam	Granular <input checked="" type="checkbox"/> Fragments small, Mostly rounded
Depression or drainage way <input type="checkbox"/>	Moderately Sloping <input type="checkbox"/> 6 - 12%	Severe Water <input type="checkbox"/> Less than 25% of surface soil remains (Plowlayer mostly subsoil material)	Medium <input checked="" type="checkbox"/> Loam, Silt, Silt loam	Blocky <input type="checkbox"/> Fragments irregular, Some sharp corners
Stream Bottom Or Bench Nearly level <input type="checkbox"/>	Strongly Sloping <input type="checkbox"/> 12 - 20%	Deposition By wind or water <input type="checkbox"/>	Moderately Fine <input type="checkbox"/> Clay loam, Sandy clay loam, Silty clay loam	Platy <input type="checkbox"/> Fragments flat and thin
Sloping <input type="checkbox"/>	Steep <input type="checkbox"/> 20 - 30%		Fine <input type="checkbox"/> Sandy clay, Silty clay, Clay	Cloddy <input type="checkbox"/> Fragments large and irregular
Depressional <input type="checkbox"/>	Very Steep <input type="checkbox"/> 30% or greater		Organic <input type="checkbox"/> Peat and Muck	
SUBSOIL (thickest or most prominent layer below surface soil) - <i>Answer regardless of soil depth</i>		SOIL PROFILE		SOIL TEST REPORT
Texture (5 points)	Structure (5 points)	Natural Drainage (5 points)	Depth of soil Favorable for Roots (5 points)	Soil Fertility and Nutrient Management (5 points)
Coarse <input type="checkbox"/> Sands and Loamy sands	Loose <input type="checkbox"/> Single grained	Very Poorly <input type="checkbox"/> Organic	Over 40 inches <input checked="" type="checkbox"/> 42"	pH adjustment <input checked="" type="checkbox"/>
Moderately Coarse <input type="checkbox"/> Sandy Loam	Granular <input type="checkbox"/> Fragments small, Mostly rounded	Poorly <input type="checkbox"/> Mottling above 12"	20 to 40 inches <input type="checkbox"/>	Nitrogen <input checked="" type="checkbox"/>
Medium <input type="checkbox"/> Loam, Silt, Silt loam	Blocky <input checked="" type="checkbox"/> Fragments irregular, Some sharp corners	Somewhat Poorly <input type="checkbox"/> Mottles between 12" and 36"	12 to 20 inches <input type="checkbox"/>	Phosphorus <input checked="" type="checkbox"/>
Moderately Fine <input checked="" type="checkbox"/> Clay loam, Sandy clay loam, Silty clay loam Both	Platy <input type="checkbox"/> Fragments flat and thin	Moderately Well <input checked="" type="checkbox"/> or Well No mottles above 36"	Less than 12 inches <input type="checkbox"/>	Potassium <input checked="" type="checkbox"/>
Fine <input checked="" type="checkbox"/> Sandy clay, Silty clay, Clay	Prismatic, Columnar or Massive <input type="checkbox"/> Large fragments		Root growth of crops <u>MAY</u> be limited by: Sand gravel layers Bedrock Soil pans Marl	No fertilizer/soil amendments needed <input type="checkbox"/> NOTE: CHECK ALL NEEDED AMENDMENTS (may be more than one box checked)
Organic <input type="checkbox"/> Peat and Muck				

# Soil Study and Land Evaluation Scorecard Part II-V

## PART II. Soil Limitations

**Potential Score 14 Pts (2 Pts Per Correct Answer)**

Mark all characteristics Yes if they are limiting, No if not limiting.

Yes No

- 1. Soil subject to sheet, rill, or wind erosion
- 2. Subject to occasional overflow or flooding
- 3. Surface drainage restricted
- 4. Subsoil drainage restricted from high water table
- 5. Low available water capacity
- 6. Stoniness
- 7. No major limitations (CLASS I LAND)

## PART III. Land Capability Classes

**Potential Score 7 Pts**

**3 Points - Answer One Class Off**

Mark **one** as the **most intensive long-time use** for this land when needed conservation practices are applied.

- CLASS I: May be safely used for intensive cropping such as continuous row crops.
- CLASS II: Requires general soil conserving cropping systems.
- CLASS III Requires specific practices and conservation measures for cultivated crops.
- CLASS IV Requires intensive soil conserving systems and practices for cultivated crops.
- (CLASS V - NOT APPLICABLE IN WISCONSIN)*
- CLASS VI Develop permanent pasture or timber. Use conservation practices.
- CLASS VII Use very carefully for pasture. Improve for timber production. Needs careful conservation.
- CLASS VIII Reserve for wildlife production.

## PART IV. Conservation Practices for Long Term Land Use

**Potential Score 26 Pts (2 Pts Per Correct Answer)**

Mark all practices, Yes if it is needed, No if it not needed, for most-intensive land use unless otherwise indicated on Pit Information Card.

Yes No

- 1. Develop and implement a nutrient management plan
- 2. Use residue management and/or plant cover crop
- 3. Contour farming, contour buffer strips, contour strip cropping, or terraces
- 4. Maintain existing terraces
- 5. Construct or maintain grassed waterways, diversions, or erosion control structures
- 6. Renovate or otherwise improve pasture
- 7. Eliminate or manage grazing
- 8. Improve timber stand or plant adapted trees in woodland
- 9. Establish windbreaks
- 10. Protect stream banks or lakeshore
- 11. Improve fish and wildlife habitat
- 12. Establish/maintain riparian forest buffer or grass filter strip
- 13. Control invasive species that are present

## PART V. Non-Ag Land Use Limitations

**Potential Score 3 Pts (1 Pt Per Correct Answer)**

Mark Yes if limitations are present for the following, No if not.

Yes No

- 1. Houses with Basements
- 2. Septic Tank Absorption Fields
- 3. Local Roads, Streets and Driveways

Possible Points	Official Score
Part I - 50	_____ of 50
Part II - 14	_____ of 14
Part III - 7	_____ of 7
Part IV - 26	_____ of 26
Part V - 3	_____ of 3
<b>TOTAL - 100</b>	<b>_____ of 100</b>
Team No. _____	Contestant No. _____
Contestant Name: _____	