

## MARYLAND SOIL HEALTH CARD

Project Name:	Location:	Assisted By:
Coordinates:		Date:
Crop Rotation and Tillage System:	Current Crop:	Air Temperature/Weather:
Inputs: <input type="checkbox"/> Synthetic Fertilizers <input type="checkbox"/> Manure <input type="checkbox"/> Herbicides <input type="checkbox"/> Pesticides <input type="checkbox"/> Irrigation <input type="checkbox"/> Other:		
Map Unit Symbol:	Soil Series:	Surface Texture:

Indicators	Descriptive Ratings and Potential Scoring Points				Score	Notes
	Excellent 9-11 points	Good 6-8 points	Fair 3-5 points	Poor 0-2 points		
<b>Surface Cover</b> – living and dead matter visible on surface	>80%	60-80%	30-60%	<30%		
<b>Infiltration</b> – Based on surface texture, refer to Infiltration Chart	Soil absorbs water quickly and easily	Soil absorbs water in a timely manner and is not susceptible to runoff or ponding	Infiltration rate is within expected range for textural class. Soil absorbs water, but more slowly and runoff or ponding may occur	Soil absorbs water very slowly and runoff or ponding will occur		
<b>Compaction/Root Growth</b> (Based on moist topsoil conditions)	Wire flag easily penetrates soil to 8” with no resistance. Unrestricted root growth.	Wire flag penetrates soil to 6-8” with a little resistance. Requires a little wiggling of wire flag. Little root growth restriction.	Wire flag penetrates soil to 4-6”, requires a lot of wiggling of the wire flag and moderate force. Root growth is restricted.	Wire flag penetrates soil 2-4”, requires force. Roots may be growing laterally.		
<b>Organic Matter</b> – Compare to soil color book using hues 7.5YR, 10YR, or 2.5Y	0-3” depth	Soil is black, organic matter is visible. Value ≤2 and Chroma ≤2	Soil is dark brown, organic matter is visible. Value =3 and Chroma =3	Soil is somewhat dark in color, little organic matter is visible. Any value or chroma that doesn’t meet good or poor criteria.	Soil is light brown to dull colored, no organic matter visible. Value >4 and Chroma >4	
	3-8” depth	(see criteria above)	(see criteria above)	(see criteria above)	(see criteria above)	

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Soil Structure/ Aggregation	0-3" depth	Soil is granular, soft, and crumbly, like cottage cheese. Roots are covered in a soil film (rhizosheath) and soil is held together with many fine roots. Living roots are healthy, fully branched, and extend into the subsoil.	Soil is granular, but not soft and crumbly. Soil aggregates are held together with some fine roots.	Soil is blocky and firmer with few fine roots.	Soil is platy, single grain, or massive and hard to break apart. Few or no fine roots.		
	3-8" depth	(see criteria above)	(see criteria above)	(see criteria above)	(see criteria above)		
Earthworms and Macroinvertebrates		≥7 earthworms and macroinvertebrates per shovel slice, more than three different types of organisms observed without magnification, or many obvious middens, casts, and channels.	4-6 earthworms and macroinvertebrates per shovel slice, or obvious middens, casts, and pores. Root and earthworm channels extend vertically through the soil with some connecting to the surface.	1-3 earthworms and macroinvertebrates per shovel slice, or few middens, casts, and channels.	No earthworms or macroinvertebrates present in shovel slice. No middens, casts, or channels.		
Soil Odor		Earthy/sweet odor noticeable > 6 inches from nose.	Earthy/sweet odor noticeable when close to nose.	Little odor at all.	No odor at all, or sour, metallic, kitchen sink, rotten egg or stagnant smell.		

- Assessment Indicator  
 Surface Cover  
 Infiltration  
 Residue Breakdown  
 Water Stable Aggregates  
 Soil Structure  
 Soil Color  
 Plant Roots  
 Biodiversity  
 Biopores  
 Surface Crusting  
 Earthworm Channels

**CART ASSESSMENT**

Resource Concern # Criteria Met Interpretation

- Compaction  
 Soil Organic Matter Depletion  
 Soil Organism Habitat Loss  
 Aggregate Instability

<b>Total Score =</b>	Excellent: 75-99 Good: 50-74 Fair: 25-49 Poor: 0-24
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