

# Rhode Island Soil Health Worksheet

Client: \_\_\_\_\_

Address: \_\_\_\_\_

Field: \_\_\_\_\_

Date: \_\_\_\_\_

Indicator	Worst----->Best										Descriptions			Notes/Observations
	1	2	3	4	5	6	7	8	9	10	Poor (1-3)	Fair (4-7)	Excellent (8-10)	
<b>1. Soil Organisms</b> 											0-1 earthworms in shoveful of top foot of soil; no nightcrawler mounds; spiders and ground beetles absent	2-10 earthworms in shoveful of top foot of soil; some nightcrawler mounds; spiders and ground beetles scarce	>10 earthworms in shoveful of top foot of soil; many nightcrawler mounds; spiders and ground beetles visible under residue	
<b>2. Color (Organic Matter)</b> 											Topsoil color similar to subsoil color	Surface color closer to subsoil color	Topsoil clearly defined, darker than subsoil color	
<b>3. Roots and Decomposing Residue</b> 											Few roots and residue in top foot of soil	Moderate roots and residue in top foot of soil	Dense roots and residue in top foot of soil	
<b>4. Surface Coverage<sup>1</sup></b> 											Surface cover from living crop or dead mulch absent part of the year; cover <30% after planting	Surface cover from living crop or dead mulch only part of the year; cover 30-50% after planting	Year round surface cover from living crop or dead mulch; cover 50-100% after planting	
<b>5. Compaction<sup>2</sup></b> 											>50 percent of points have a penetrometer resistance >300 psi	30-50 percent of points have a penetrometer resistance >300 psi	<30 percent of points have a penetrometer resistance >300 psi	
<b>6. Soil Tilth/Structure</b> 											Soil clods difficult to break, crusting, tillage creates large clods, soil falls apart in hands, very powdery	Moderate porosity, some crusting, small clods, soil breaks apart with medium pressure	Soil crumbles well, friable, porous; Soil aggregates remain intact after soil disturbance	
<b>7. Water Infiltration/Drainage</b> 											Water on surface for long period of time after rain or irrigation (hours to days). Excessive wet spots in field	Water drains slowly after rain or irrigation (hours). Some ponding and wet spots in field	No ponding after heavy rain or irrigation, water moves steadily through soil	
<b>8. Erosion</b> 											Much visual evidence of rills and some gullies; possibly significant evidence of soil movement and deposition in parts of the field	Some visual evidence of small rills and soil movement and deposition in parts of the field; some rocks, gravels, or washed sand grains apparent on surface	No visual evidence of rills or soil movement and deposition in the field; few to no rock fragments on the surface	
<b>9. Crop Vigor/Appearance</b> 											Stunted crop growth, uneven stands, discoloration, low yields	Some uneven or stunted growth, slight discoloration, signs of stress	Healthy, vigorous, and uniform stands	

 anytime

 With adequate moisture

 During growing season

 After rain

<sup>1</sup> Use transect method in the National Agronomy Manual Subpart 503.51 "Estimating Crop Residue Cover Using the Line Transect Method" for residue coverage

<sup>2</sup> Refer to "Diagnosing soil compaction using a penetrometer", Penn State Department of Crop and Soil Sciences - Cooperative Extension

<http://cropsoil.psu.edu/extension/facts/agronomy-facts-63>

Please refer to NRCS "Guidelines for Soil Quality Assessment in Conservation Planning" for questions regarding the use of this card and for management and conservation practice suggestions

[http://soils.usda.gov/sqi/assessment/files/sq\\_assessment\\_cp.pdf](http://soils.usda.gov/sqi/assessment/files/sq_assessment_cp.pdf)