Cropland In-Field Soil Health Assessment Worksheet

Soil Health Resource Concerns

CPT: Compaction

SOM: Soil Organic Matter Depletion

AGG: Aggregate Instability

HAB: Soil Organism Habitat Loss or Degradation

Location

Field/CMU

Tract #

Client/Customer

Planner

Date

Soil Map Units

Soil Moisture

Surface Horizon Texture

Indicator Timing and Use

Anytime | After Rain or Irrigation | With Adequate Moisture | Before a Tillage Event

Primarily No-till Systems | Before Growing Season | During Growing Season | Interview

Meets Assessment Criteria (Yes/No)

Soil Cover | **SOM, AGG, HAB**
- Surface cover from plants, residue or mulch; cover greater than 75%

☐ Y ☐ N

Residue Breakdown | **SOM, HAB**
- Natural decomposition of crop residues or organic mulch is as expected with crop and conditions

☐ Y ☐ N

Surface Crusts | **AGG, HAB**
- Crusting on no more than 5% of the management unit

☐ Y ☐ N

Ponding/Infiltration | **CPT, AGG**
- No ponding on non-hydric soils within 24 hours following typical rainfall or surface irrigation event;
- OR, no infiltration difference between assessment area and fencerow sample in the same soil type;
- OR, soil infiltrates 1-inch of water in 30 minutes or less

☐ Y ☐ N

Penetration Resistance | **CPT**
- Penetrometer rating <150 psi within top 6-inch depth and <300 psi in the 6 to 18-inch depth;
- OR, slight or no resistance with wire flag inserted to 12-inches

☐ Y ☐ N

Water-Stable Aggregates | **CPT, SOM, AGG, HAB**
- Cylinder: At least 80% remains intact after 5 minutes with little cloudy water;
- OR, strainer: soil remains intact with aggregates apparent;
- OR, Soil Quality Test Kit (SQTK)/Jornada slake box meets stability class 6

☐ Y ☐ N

Soil Structure | **CPT, SOM, AGG, HAB**
- Granular surface soil structure and no platy or massive structure in top foot of soil

☐ Y ☐ N

Soil Color | **SOM**
- No color difference between assessment area and fencerow sample in same soil type;
- OR, value is on the darker range using color chart and official series description

☐ Y ☐ N

Plant Roots | **CPT, SOM, AGG, HAB**
- Roots covered in a soil film (rhizosheaths) or are part of soil aggregates;
- OR, living roots if present are healthy, fully branched, extended and unrestricted

☐ Y ☐ N

Biological Diversity | **SOM, HAB,AGG**
- Evidence of more than 3 different types of non pest organisms observed or biological hotspots present

☐ Y ☐ N

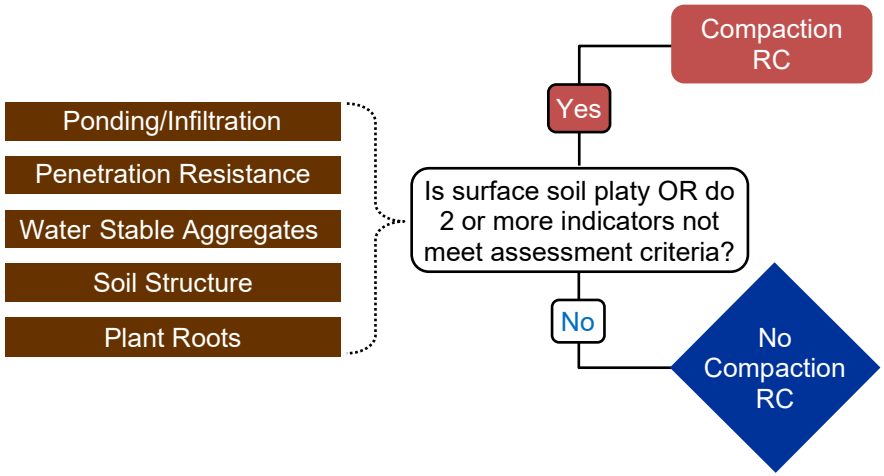
Biopores | **SOM, AGG, HAB**
- Presence of multiple intact root or earthworm channels that extend vertically through the soil with some connecting to the surface

☐ Y ☐ N

Cropland In-Field Soil Health Assessment Resource Indicator Decision Trees, Turn on Alt Text

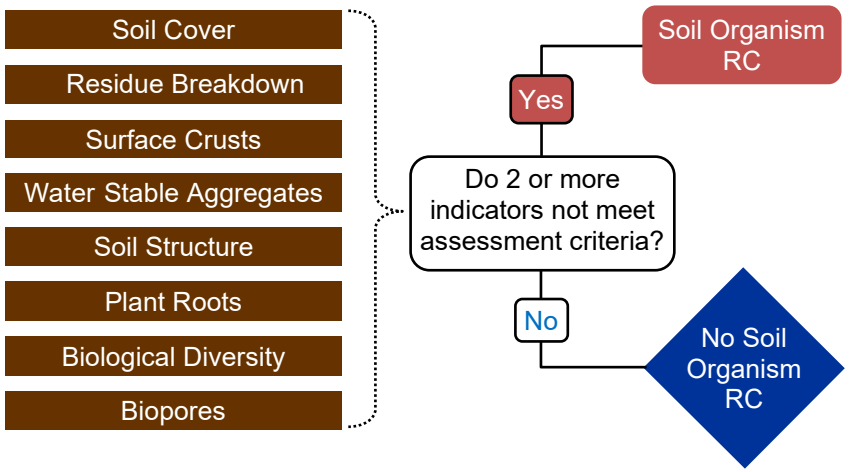
Compaction

Circle the indicators that do not meet assessment criteria during the evaluation and follow decision tree below to determine if the given resource concern (RC) is present. Document on worksheet.



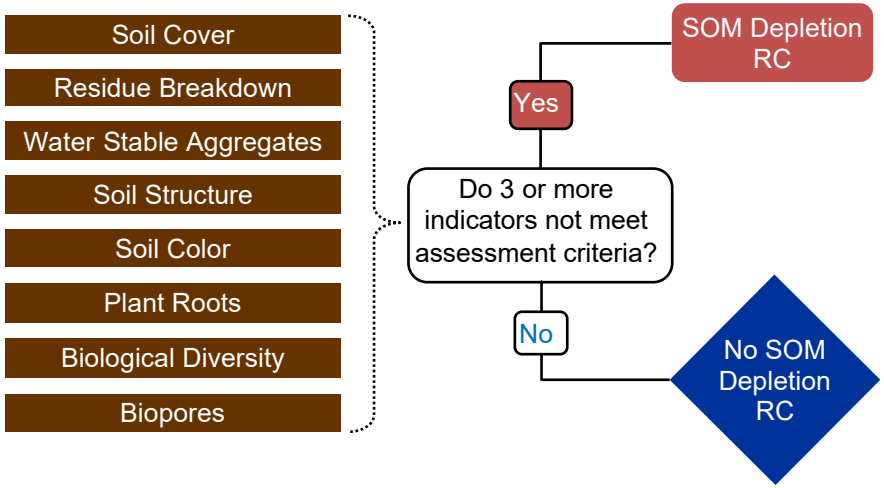
Soil Organism Habitat Loss or Degradation

Circle the indicators that do not meet assessment criteria during the evaluation and follow decision tree below to determine if the given resource concern (RC) is present. Document on worksheet.



Soil Organic Matter Depletion

Circle the indicators that do not assessment criteria during the evaluation and follow decision tree below to determine if the given resource concern (RC) is present. Document on worksheet.



Aggregate Instability

Circle the indicators that do not meet assessment criteria during the evaluation and follow decision tree below to determine if the given resource concern (RC) is present. Document on worksheet.