MICHIGAN STATE Extension



# **Michigan Soil Health Progress Report**

The Michigan Soil Health Progress Report was developed to assist farmers, agribusinesses, and agency professionals to assess the health of the soil using biological and physical indicators in the field. The progress report is most effective when filled out by the same person over time, according to the suggested assessment timing. It provides the farmer with a qualitative assessment of the soil. The evaluation scores do not represent absolute measures or values, and the progress report does not negate the importance of an analysis at a certified laboratory. Using this progress report and recording values can serve as a guide to evaluate soil health practices implemented over time.

#### 1. Soil Structure After rainfall events or irrigation 2. Biological Activity Early season, mid-season, end of season After harvest and during high-wind 3. Erosion periods or after heavy rain. Also assess after planting. After reviewing soil test data. Assess in 4. Soil Test Organic Matter fall or spring. 5. Soil Compaction Spring to when plants are about 10" tall 6. Plant Health Summer to late summer 7. Residue Post-harvest, pre-plant, growing season 8. Infiltration After rainfall events After soil is at field moisture capacity. 9. Water-Holding Capacity Assess during growing season.

### Suggested Assessment Timing

Adapted from *Nebraska Soil Quality Card* by the United States Department of Agriculture, Natural Resources Conservation Service and the University of Nebraska Cooperative Extension, n.d. <u>https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/health/assessment/?cid=nrcs142p2\_053871</u>

## **Michigan Soil Health Progress Report Recording Sheet**

DATE:\_\_\_\_\_ CROP:\_\_\_\_\_

FIELD LOCATION: \_\_\_\_\_\_ YEAR OF PLANTING: \_\_\_\_\_

SOIL MOISTURE AT TIME OF SAMPLING: \_\_\_\_\_DRY \_\_\_\_ADEQUATE \_\_\_\_WET

Indicator	Observations	Poor-Fair (0-3)	Fair-Good (4-7)	Good-Excellent (8-10)	Score
1. Soil Structure		Hard, no surface residue Powder when dry, crusts easily after a hard rain Large, hard clods, very hard to prepare seed bed	Crumbles with pressure Some residue and organic matter Crust only in areas such as wheel tracks	Very crumbly No crusting, residue prevents surface hardening Mellow, ready to plant	
2. Biological Activity		Very old residue that does not decompose, no sign of soil life (insects, worms, etc.)	Moderate decomposition of residue, few soil organisms (insects or worms)	Rapid decomposition of residue, many soil organism and diverse population	
3. Erosion		Signs of severe wind stress or gullies throughout field	Adequate control after windy period or hard rain	Excellent control after hard wind or hard rain	
4. Soil Test Organic Matter		Downward trend	Static trend	Upward trend	
5. Soil Compaction		Hard pan stops roots, roots grow laterally	Few roots grow through, some grow laterally	Roots grow straight down	

Indicator	Observations	Poor-Fair (0-3)	Fair-Good (4-7)	Good-Excellent (8-10)	Score
6. Plant Health		Yellow, thin stems	Yellow-green, medium stems	Dark green, thick stems	
7. Residue		Little or no surface residue, few roots in subsoil	Moderate surface residue, moderate roots	Heavy surface residue, dense roots, tunnels of decomposed roots	
8. Infiltration		Ponding visible	Some ponding visible after 12-24 hours	No ponding	
9. Water- Holding Capacity		Crops wilt quickly after water events	Crops curl or wilt but quickly come back	Crops tolerate draughty conditions	
Score Results		Poor-Fair 12-36pts	Fair-Good 37-72pts	Good-Excellent 73-108pts	TOTAL

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