



Producer:	Date & Time:	County:	Tract and Field #:	GPS:
Data collectors:	Current crop and canopy cover %:	Soil surface texture:	Surface Clay %:	Soil Map Unit: Photo (Y or N)

Tier 1 - Obtained in the field. Dig a hole to a depth of 18-24" for observations.

	Indicator	Observations	Site Rating	Indicator Values		
			1 - 5	least desired 1	3	most preferred 5
Physical	Soil Structure/Tilth (surface horizon)			Little to no structure; massive or single grain; no visible aggregates; powdery when dry; crusting; platy structure or blocky in surface horizon; no pores	Some granular structure and no platiness; some aggregates; crust only in areas such as wheel tracks; subangular blocky, some pores	Granular structure and no platiness; many aggregates; "cottage cheese" structure; no crusting observed on surface; multiple pores and root channels throughout
	Compaction			Visible compacted layer in either surface or subsurface horizon. Blocky, platy or massive structure. Little vertical root growth and water movement.	Some visible compaction, including noticeable plow layer. Some roots grow laterally, a few roots grow through compaction. Water movement is slowed.	No visible compacted or plow layer in either surface or subsurface horizon. Roots grow and water moves vertically and throughout the profile.
	Infiltration (visual only, with producer input)			Water ponds; excessive runoff	Water ponds for short period; some runoff	No water ponding or runoff; water moves easily through soil
	Soil Erosion (current, not historic)			Some gullies or rills >2" deep joined to others; any field with tillage/low residue and furrow irrigation; thin or no topsoil; wind-scoured areas with pebbles or coarse material on surface or drift-like appearance in fields; soil deposition at field borders; abrasion damage to plants; noticeably lighter soil on hilltops; average annual erosion ≥ T	Few rills or gullies < 2" deep; some colored sediment runoff; wind crusting; soil accumulation on snowbanks; some lighter soil on hill tops; any field with furrow irrigation and reduced tillage/high residue; average annual erosion = 1/2 T	No gullies or rills; clear or no runoff; no sediment deposition at field borders or on snowbanks; no furrow irrigation; soil is being built and protected; average annual erosion = 0
Biological	Soil Surface Color (moist)			Light brown, tan, gray, or yellow	Medium brown	Dark brown or black
	Crop Residue			0-20% of surface covered	40-60% of surface covered	80-100% of surface covered
	Soil Temperature*			≥ 20 °F difference	10-15 °F difference	≤ 5 °F difference
	Soil Smell			Swampy, stagnant smell	Little or no smell	Fresh, deep, earthy smell
	Crop Condition (optional, depending on time of year)			Uneven stand with poor yields; crop color light green to yellow	Fair growth, spots in field different, medium green color	Excellent growth across field; healthy looking crop, dark green color
	Worms and Bugs			No worms in soil profile and no casts or wormholes observed; no beneficial insect species observed; damaging insects present (wireworms, cutworms, sawfly, etc.)	One or more worms, or a few worm signs (holes and casts) observed; ≥ 2 beneficial insect species or < 10 individual beneficial insects observed. No damaging insects.	Many worms, or large amounts of worm sign (holes and casts) observed; ≥ 3 beneficial insect species or ≥ 10 individual beneficial insects observed (beetles, pollinators, ladybugs, etc.).

*Difference between the top 1" of crop soil and nearby undisturbed soil with perennial vegetation. Measure only when air temp is 80F or greater.

Tier 2 - Obtained by running the appropriate NRCS testing method or from laboratory test results.

	Indicator	Observations	Site Rating	Indicator Values		
			1 - 5	least desired 1	3	most preferred 5
Physical	Slake Test (dried ped from top 3")			0-20% of ped remains after 5 minutes	40-60% of ped remains after 5 minutes	80-100% of ped remains after 5 minutes
Chemical	Soil pH	pH measurement: _____ Depth _____		pH ≤ 5.5 or pH ≥ 8.5	pH > 5.5 and < 6.5; or pH > 8.0 and < 8.5	pH 6.5 - 8.0
	Adequate N-P-K soil tests levels	N _____ P _____ K _____		One or more soil test levels are deficient or excessive for planned crops and yield goals; may see signs of plant nutrient deficiency.	One or more soil test levels are less than adequate for planned crops and yield goals; no visible signs of plant nutrient deficiency.	Soil test levels are adequate but not excessive for planned crops and yield goals; no visible signs of plant nutrient deficiency.
	EC**	EC: _____ dS/m Depth _____		Salt tolerant weeds may be present. Concentrated salt deposits on soil surface or in subsoil; sparse or no plant growth; EC ≥ 4 dS/m at any depth.	Salt-tolerant weeds (ex.kochia, foxtail barley) may be present; few visible salts on surface; EC ≥ 1 and < 4 dS/m at any depth.	No visible salts on soil surface and crop growth is not impeded; EC < 1 dS/m at all depths.
	Sodium Adsorption Ratio (SAR)	SAR: _____; Depth _____ <i>SAR determined by lab methods only.</i>	N/A	≥ 15; Field indicators may include columnar structure, "black alkali" dispersion of OM, poor infiltration, and slicked surface.	<i>No values for moderate or preferred levels.</i>	
Biological	Organic Matter (%)			< 1.5%	2 - 2.5%	> 3%
	Microbial Respiration	Result: _____ Method used: _____	N/A			

**Standard EC values are given based on the saturated paste method. Be aware that other methods exist. To convert from 1:1 method to saturated paste method, multiply by 2.26.

Soil health management assessment. Conversation with producer.

Management	Tillage Intensity			Any use of moldboard plow or other primary inversion tillage, or multiple tillage passes, with average annual STIR > 80.	Mulch tillage, including chisel plow, tandem disk, vertical tillage, ridge till, or strip till. No use of moldboard plow or other primary inversion tillage implements. Average annual STIR > 20 and ≤ 80.	No-till with minimal disturbance. All drills and planters use disc openers, not hoes. No full width tillage at any time. STIR ≤ 20.
	High Residue Crops in Rotation [†]			0-20%	40-60%	80-100%
	Crop Intensity			A crop is grown every other year; crop-fallow.	A crop is grown more than every other year and less than every year.	A crop is grown every year, plus some shoulder seasons are maximized with cover crops or perennials in the rotation.
	Crop Diversity [‡]			Monoculture	Two functional plant groups	All four functional plant groups are present in the rotation. If present in a cover crop mix, it must be a dominant functional group to be counted.
	Livestock Integration			Livestock are either not grazed or are managed resulting in additional degraded resources and negative SCI.	Livestock are occasionally grazed and are managed resulting in only maintenance of OM trend (SCI=0).	Livestock are routinely grazed and are managed in a grazing system that meets NRCS prescribed grazing standard and a positive SCI.

[†] Assumes all crop residue is left on the field, or is properly grazed. If residue is removed via any method other than proper grazing (baling, silage, burning, haying, etc.), no credit is given for that crop.

[‡] The four functional plant groups include: cool season grasses, cool season broadleaves, warm season grasses, and warm season broadleaves.