The Palouse and Nezperce Prairies Soil Quality Indicator Card

	Indicator	Preferred ----------> 1	2	3	4	5	6	7	8	9	10	Observations	Rating the Indicator 1	5	10
1	Infiltration												Water ponds or runs off field following most rains; long wait to get on the field following rain; soil surface crusted.	Water drains slowly with some ponding.	Soil drains well after rain; little or no ponding or runoff following rain; can get into field after rain.
2	Compaction												High resistance to penetrations by soil probe, shovel, wire flag, tillage implement, etc.; tillage pan present.	Some resistance to penetration by soil probe, wire flag, tillage implement, etc.	Little resistance to penetration by soil probe, shovel, wire flag, tillage implement, etc. No tillage pan present.
3	Tilth and Structure												Soil has a cloddy, powdery, massive or flaky structure with no visible crumbs.	Soil has some crumb structure. Crumbs break under only slight pressure and are fragile after wetting.	Soil is crumbly with a definite crumb structure. Aggregates maintain shape with pressure.
4	Organic Matter												Light colored surface soil; surface color similar to subsoil color. Visible organic material in soil; no smell; soil test shows low organic matter	Soil surface closer to subsoil color, shows medium organic matter levels on soil test.	Dark colored soil surface; visible organic materials, earthy smell; soil test shows high organic matter. Topsoil defined, darker than subsoil.
5	Plant Residue												No visible residue. Residue does not decompose.	Some plant residue slowly decomposing.	Noticeable residue in all stages of decomposit-ion; earthy, sweet smell.
6	Earthworms												0-1 worms in shovelful of top foot of soil. No worm casts or holes. Few insects or fungi.	2-10 worms in shovelful. Few casts, holes or worms. Some insects and fungi.	10+ worms in top foot of soil. Lots of casts and holes in tilled clods. Birds behind tillage. Many insects and fungi.
7	Erosion												Large gullies over 2" deep joined to others, thin or no topsoil, rapid runoff with dark colored water.	Few rills or gullies, gullies up to two inches deep. Some swift runoff, lighter colored water.	No gullies or rills, clear water or no runoff.
8	Seedling Emergence												Slow and uneven emergence.	Some variability in emergence.	Rapid and even emergence.
9	Plant Growth												Uneven color, variable height and population, poor growth, visible evidence of plant stress.	Some variation in color, height and population; moderate growth; mild stress.	Uniform deep-green color, rapid growth, even stand (height and population), no visible signs of stress.
10	Rooting Systems												Few or no roots present; roots short & coarse, not uniformly distributed; roots growing sideways; obvious restrictions.	Roots present in profile; some misshaped roots; some restriction to root growth.	Robust, large, deep, well-dispersed root system; no obvious restriction to root growth; many fine roots.

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Instructions: Fill out the field information below. Draw a rough map of the field so that you can mark special areas for further attention. Use the worksheet on the reverse side to guide in your assessment of the soil quality in this field. Note the best time for making each assessment. A shovel and tape measure will be useful in making some of the assessments. Check the appropriate rating or insert a score and note any observations that might help interpret the results. If you have other indicators, be sure to include them. Evaluate the ratings for each indicator based on the properties of the soil from the soil survey and the management information below. Determine where changes can be made to improve your soil management. A recommended use of this worksheet is to periodically assess soil quality in your fields to determine if conditions are dramatically changing and to adjust management accordingly.

Field Map (Mark areas for special attention)

Date _____
Field ID (name) _____
Acres _____
Current Crop _____
Growth Stage _____
Cover Crop _____
Tillage _____
Fertilizer Application _____
Estimated Yield _____
Observations/Notes/Recommendations _____
_____
_____
_____
_____
Completed By _____

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