Field Notes

USDA NRCS



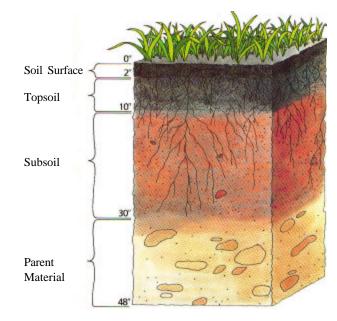
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Nebraska

Soil Quality Card



Developed by:

- ◆Nebraska Farmers
- ◆Natural Resources Districts (NRD)
- ◆Nebraska Cooperative Extension
- ◆ **Soils Staff** of the Natural Resources Conservation Service (NRCS)

he soil quality assessment card was developed by farmers in collaboration with the Natural Resources Conservation Service (NRCS), Natural Resources Districts (NRD), and the University Nebraska Lincoln. It has been locally adapted by Nebraska NRCS as a field tool for Nebraska farmers, educators, and agricultural support professionals such as soil conservationists, Cooperative Extension educators, or agriculture industry personnel.

Regular use will allow you to assess current soil quality conditions, record changes

in soil quality, and compare fields and management practices. The card is most effective when filled out by the same person over time. It provides you with a qualitative assessment of the soil. Evaluation scores do not represent absolute measures or values. Use the card in more than one spot on your field to obtain a more representative assessment.

For help in using this card or if you have any questions regarding it, please contact your local NRCS Office:

Telephone # _____
Fax # _____

Suggested Assessment Calendar					
1. Soil Structure	After rainfall events or irrigation				
2. Biological Activity	At planting				
3. Erosion	After harvest and during highwind periods or after heavy rain. Also assess after planting.				
4. Soil Test Organic Matter	After reviewing soil test data. Assess in 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.				
9. Water Holding Capacity	After soil is at field moisture capacity. Assess during growing season.				
10. Other					
11. Other					

NRCS Soil	
Quality Card	

			Good for planting
Date:	Crop:		Too dry for planting
Field location:	Year of planting:	Soil moisture:	Too wet for planting

Indicator	\longrightarrow	Preferred Observations				Rating the indicato	r
1 2	2 3 4 5 6	5 7 8 9	10		1	5	10
1. Soil Structure					Hard with no surface residue. Powder when dry, crust easily after a hard rain.	Crumbles with pressure. Some residue and organic matter. Crust only in areas such	Very crumbly. No crusting, residue prevents surface hardenin Mellow, ready to plant.
2. Biological Activity					Large, hard clods, very hard to prepare seed bed. Very old residue that doesn't 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 organi 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 hawind or hard rain.
4. Soil Test Organic Matter					Downward trend <0.6% organic matter	Static trend 0.8% to 1.2% organic matter	Upward trend 2.0% or above organic matter
5. Soil Compaction					Hard pan stops roots, roots grow laterally	Few roots grow through, some grow laterally	Roots grow straight dow
6. Plant Health					Yellow, thin stalks	Yellow-green, mediium stalks	Dark green, thick stalks
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 hrs.	No ponding
9. Water Holding Capacity					Crops wilt quickly after water events	Crops curl or wilt but come back quickly	Crops tolerate droghty conditions

How to use the card

Enter date, location crop, and soil moisture level in the assessed field.



Use a shovel or a soil probe to probe the soil. Rate each indicator on a scale from 1 to 10. Refer to the rating guide to determine the score for each indicator.



Record your observations. Review and evaluate your scoring.



On the back page, write down current management practices. Record ideas for changes in management that you will implement as a result of your assessment.

