

Field Notes

Current field management

(tillage, fertilizer, irrigation, crop rotation, other)

Ideas for changes in field management



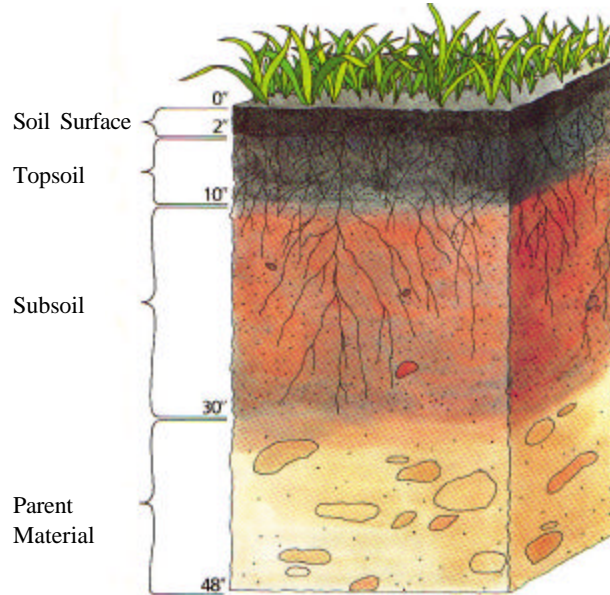
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Nebraska

Soil Quality Card



Developed by:

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

The 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


Date: _____

Crop: _____

Field location: _____

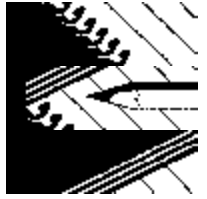
Year of planting: _____

Soil moisture: Good for planting
 Too dry for planting
 Too wet for planting

| Indicator | Preferred  | | | | | | | | | | Observations | Rating the indicator | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|----|--|--|--|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 1 | 5 | 10 |
| 1. Soil Structure | | | | | | | | | | | Hard with no surface residue. Powder when dry, crust 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 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 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 <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 down | |
| 6. Plant Health | | | | | | | | | | | Yellow, thin stalks | Yellow-green, medium 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 | |
| Other | | | | | | | | | | | | | | |

How to use the card

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



2 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.



3 Record your observations. Review and evaluate your scoring.



4 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.

