

Guided Notes: Measuring Soil Quality

Objectives

1. Define: _____, _____, and _____.
2. Describe two methods to assess _____.
3. Create a model that represents signs of _____.
4. List and describe causes of _____.
5. Explain the role of _____ in determining soil quality.
6. Determine _____ of a specific land area.
7. Explain how _____ impacts soil.
8. Explain how _____ and _____ impact soil.
9. Identify environmentally _____ areas.
10. Determine when and where to properly _____ soil.
11. Explain guidelines for selecting _____ sites.
12. Explain the need for collecting _____ samples.
13. Use the Nebraska _____ Card.

Soil Quality

- Soil quality integrates the _____, _____, and _____ components of soil and their interactions.
- Two ways to assess soil quality:
 1. Take _____ periodically over time to monitor changes or trends.
 2. Compare measured values to a _____ or reference soil condition.

Field or Site Characterization

- Soil series: the name of soil found in the _____ survey.
- Signs of erosion include: _____, _____, _____, _____.
- Management history includes description of past and present land and _____ management, type and amount of _____, and prior tillage or land _____.

Slope and Topography

- Slope is the _____ of the land, usually measured as a _____.
- Record: hills, knolls, ridges, _____, depressions, etc.
- Location of field: _____ and _____.
- Climatic information: _____ and high/low average _____ for each month.
- Environmentally sensitive areas: _____, creeks, _____, or fragile sites.

Soil Erosion

- Soil erosion involves the _____, detachment, _____, and redistribution of soil particles by _____, wind, or _____.

Soil Sampling

- When to sample? _____ sampling is recommended. Sample when the climate is most _____ and there have been no recent _____.
- Where to sample? Consider _____, soil type, management, plant growth, _____-affected areas, erosion, slope, and _____. Select sites that are _____ of the field. For trouble spot assessment, sample _____ spots. For comparison, sites must have the same _____ type. After management changes, collect samples _____ each change.
- How many samples? Depends on _____ of the field. Take a minimum of _____ samples on any one soil type.