

READING GUIDE*

Soil & Soil Survey

Soil Survey Division Staff (1993), Chapter 1, p. 1-13 (p. 1-13)

OBJECTIVE: *To understand the basic principles of soil survey, and the role of soil science in guiding proper land use and management.*

Concepts

1. What kind of information does a soil survey contain, and how is this information used?
2. When did the federal soil survey program begin in the United States? How were early soil surveys in the US used?
3. **How did the ideas put forth by the Russian school of soil science transform our understanding of soils, soil properties, and soil formation?**
4. How have the applications of soil surveys changed over time? Give specific examples. **How have these changes influenced the soil survey program in the United States?**

Soils and Soil-Landscape Relationships

5. What are the necessary requirements for a material to be considered *soil*? Give examples of what is soil and what is not. Be able to justify these answers.
6. What are the five factors of soil formation? Explain the importance of each.
7. **What is the driving force that leads to the interrelationships among landforms?**
8. What are the differences between (and/or relationships among) landforms, physiographic units, geomorphic units, and morphogenetic regions?

Soil Survey

9. What is the *National Cooperative Soil Survey* (NCSS)?
10. How have soil surveys been used over the years? Give specific examples. **How has the soil survey program adapted to these changes in user requirements?**
11. **What are the advantages and disadvantages of maps that depict the spatial variation of individual soil properties (as opposed to a basic soil map that uses soil map units)?**

SYNTHESIS:

12. What is the difference between a soil map and a soil survey?
13. How does soil classification aid in the production of soil maps and soil surveys?
14. How does an understanding of the factors of soil formation aid in the production of soil maps and soil surveys?

* Questions in plain type represent basic facts and concepts. Questions in **bold** type are those that are answered in the text but require more careful consideration. The Synthesis questions at the end help you apply the facts and concepts to a relevant issue.