

READING GUIDE*

Soil Classification

Soil Survey Division Staff (1993), Chapter 2, p. 15-22, 44-47 (p. 1-6, 22-24)

OBJECTIVE: *To understand role of soil classification systems in organizing our knowledge of soils, and to recognize how soil taxonomic units are used when creating soil maps.*

Soil Systematics

1. Why do repetitive patterns occur at multiple scales in various soil-forming environments? **Describe two such examples.**
2. What are the differences between map units and taxonomic units (taxa)?
3. **Summarize the steps in the process of generating soil maps.**

Pedon and Polypedon

4. What is a *pedon*? What is a *polypedon*? What is purpose of polypedons in soil mapping?
5. What is a soil series? What characteristics are often used to distinguish among soil series?
6. What is the difference between a *variant* and a *taxadjunct*? How do these relate to the named series?
7. What is a *phase* of a taxon? What attributes may be used to distinguish a soil phase? **Why is it often important to specify phases of different taxa?**
8. How are taxonomic units (soil taxa) related to the extent of mapping units on a soil map? What are some reasons for a lack of coincidence between the spatial extent of taxonomic units and map units?
9. **Why is it important that different phases of a taxon differ significantly in behavior?**
10. What are miscellaneous areas? Why are they used instead of soil taxa?

Records and Defining of Taxa

11. How are soil series used in a soil survey? How are soil series used to communicate information on soils within an area?
12. What is the purpose of having official soil series descriptions? What information should be included in an official soil series description? What other information is also often included in an official series description?

SYNTHESIS:

13. What are examples of soil properties that may affect land use interpretations in West Virginia? Explain your answers.

* 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.