

## READING GUIDE\*

### Epipedons

see Buol et al. (2011), Chapter 2, p. 51-57

**OBJECTIVE:** To understand the various diagnostic soil materials identified within Soil Taxonomy, and recognize the different epipedons that may be present and the criteria on which they are defined.

1. What are *diagnostic soil materials and horizons*?
2. **How do diagnostic soil materials and horizons differ from soil horizon designations used to complete field descriptions of soil profiles?**
3. How are *mineral soil materials* distinguished from *organic soil materials*?
4. What are *albic materials*? What specific criteria are used to define albic materials? What processes are inferred by the presence of albic materials?
5. What are *andic materials*? What laboratory data are needed to determine the presence of andic soil properties?
6. What are *gelic materials*?
7. What are paralithic materials? **What is isovolumetric weathering?**
8. What are *spodic materials*? What specific criteria are used to define spodic materials? **What processes are inferred by the presence of spodic materials?**
9. What are *fibers*? How are *fibric, hemic, and sapric soil materials* distinguished from each other?
10. What is an *epipedon*? What horizons may be included in the epipedon?
11. What is a *mollic epipedon*? What specific criteria are used to define the mollic epipedon? How does the *umbric epipedon* differ from the mollic epipedon?
12. What is a *histic epipedon*? What specific criteria are used to define the histic epipedon?
13. What is an *ochric epipedon*? What specific criteria are used to define the ochric epipedon? How does it compare to the mollic and umbric epipedons?

**SYNTHESIS:**

14. What epipedon is most likely to be found in most West Virginia soils? Why? In what environments in West Virginia might other epipedons be found? Explain your answer.

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\* 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.