

## READING GUIDE\*

### Horizon Designations

see Buol et al. (2011), Chapter 2, p. 45-51

**OBJECTIVE:** *To understand the nomenclature used to identify and describe the vertical arrangement of horizons within a soil profile, and to recognize the significance of these designations.*

1. What is the purpose of providing a soil horizon designation?
2. What are the seven recognized *master horizons and layers*? What are the defining characteristics of each? **What are the morphological properties of each that help us to differentiate them in the field?**
3. What are *transitional horizons*? How are they designated? **What is the difference between an AB horizon and a BA horizon?** What are combination horizons? How are they designated? When are transitional or combination horizons used?
4. Why are *subordinate distinctions* used for some master horizons and layers? How many different subordinate distinctions are currently recognized?
5. What are the defining characteristics of the following subordinate distinctions: a, b, d, e, g, h, i, k, m, o, p, r, s, t, w, x?
6. What are some of the ordering conventions for when more than one subordinate distinction is to be used?
7. What do numerical suffixes indicate when added to the end of a horizon designation, e.g., A-Bw1-Bw2-C?
8. What is the proper method to number the following soil horizon sequence where vertical subdivisions occur within one or more horizons: Ap\_\_\_-Bt\_\_\_-Bt\_\_\_-2Bt\_\_\_-2Btg\_\_\_-3Btg\_\_\_-BCg\_\_\_
9. What is a *discontinuity*? How are most discontinuities manifested in a soil profile? How are discontinuities specified when creating horizon designations?
10. When is the prime used with a soil horizon designation? What is the term used to refer to such soils with a primer horizon?

**SYNTHESIS:**

11. Why is it most appropriate to determine the soil horizon designation after the morphological characteristics of each horizon are described?
12. An O horizon, A horizon, and Bh horizon all are characterized by an accumulation of organic matter. What are the significant differences among these three horizons? How are they distinguished morphologically?

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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.