

OSD Template Hints

Tom Hahn, MO6 Soil Scientists Workshop, March 2009

1. Range in Characteristics moisture statement – intended to characterize the monthly or seasonal patterns of soil drying and moistening – for soil moisture patterns not for monthly precipitation patterns (climate).

Examples of Good Soil Moisture Statements

Typic Aridic:

The soil moisture control section is usually dry, but intermittently moist for short periods during late summer and early fall.

Aridic Ustic:

The soil moisture control section is usually moist in some part during summer and early fall, and intermittently dry in late fall.

Typic Ustic:

The soil moisture control section is usually moist in some part during late spring to early fall, and intermittently dry in late fall.

Typic Xeric:

The soil moisture control section is usually moist, but is dry in all parts from mid-summer to early fall.

Typic Udic:

The soil moisture control section is usually moist, but is dry in some parts for short periods in late summer.

In the GEOGRAPHIC SETTING, a statement may be included describing the monthly or seasonal patterns of precipitation. This is for describing climate not soil moisture.

2. Lithology of rock fragments. Series can be separated on the lithology of rock fragments. A statement should be put in the Range in characteristics, such as “Lithology of rock fragments: sandstone”; this can be put in the upper part if it applies to the entire soil, or under each horizon as appropriate.

3. Geologic formation. The name of the geologic formation can be useful to help characterize the nature of the parent material. This is particularly important as we develop correlations between parent material and clay mineralogy and CE activity. This goes in the GEOGRAPHIC SETTING sections, such as “A common geologic formation is the Mancos formation.”

4. Competing series

- Compete on soil properties only, not on climate, parent material, or landforms.
- Any soil property used to separate series must be listed in the RIC.
- Don't use typical pedon features (pH, texture, etc) to separate a competitor; only the range of properties given in the RIC can be used.
- Distinguishing properties must be mutually exclusive – no overlaps. It makes no difference if your soil is only at the low end or high end of a competitor's range; if your soil crosses into the range it is not adequately separated.

5. Naming RIC layers. Do not give horizons subdivisions (Bt1, Bt2, Bt3) more significance than is warranted for naming the layers in the Range in Characteristics. Because of individual differences in pedon descriptions (lumpers vs. splitters) one person's Bt2 may

not represent the same soil layer as another person's Bt2. It is better to name these as "Bt horizon, upper part:" and "Bt horizon, lower part:" rather than "Bt1 and Bt2 horizons:", "Bt3 and Bt4 horizons", etc. This applies when there is a significant difference in properties within the entire Bt horizon (fewer rock fragments in upper part than lower part, or higher clay content, etc.) When the entire Bt is homogenous, there would be no need to recognize upper and lower parts in the RIC.