

**F21. Red Parent Material.** *For use in MLRA 147 and 148 of LRR S; for testing in all soils derived from red parent materials. A layer at least 10 cm (4 inches) thick, starting within 25 cm (10 inches) of the soil surface with a hue of 7.5YR or redder. The matrix has a value and chroma greater than 2 and less than or equal to 4. The layer must contain 10 percent or more distinct or prominent redox concentrations occurring as soft masses or pore linings and/or depletions. Redox depletions should differ in color by having:*

- a. Value one or more higher and chroma one or more lower than the matrix, or
- b. Value of 4 or more and chroma of 2 or less.

User Notes: This indicator was developed for use in areas of red parent material, such as residuum in the Piedmont Province Triassic lowlands section or the Paleozoic “red beds” of the Appalachian Mountains, and in alluvium or colluvium derived from these materials. In glaciated areas, the indicator may form in glacial till, outwash, deltaic sediment, or glaciolacustrine sediments derived from similar red lithologies. In order to confirm that it is appropriate to apply this indicator to particular soils, soils formed from similar parent materials in the area should have been evaluated to determine their Color Change Propensity Index (CCPI) and be shown to have CCPI values below 30 (Rabenhorst and Parikh, 2000.) It cannot be assumed that sediment overlying red colored bedrock is derived solely from that bedrock.

This indicator is typically found at the boundary between hydric and non-hydric soils. Users that encounter a depleted matrix in the upper part should consider F3-Depleted Matrix. F3 is often found in sites that are anaerobic for a longer period. Users that encounter a dark soil surface (value 3 or less and chroma 2 or less) should consider F6-Redox Dark Surface or F7-Depleted Dark Surface. If the site is in a closed depression subject to ponding users should consider F8-Redox Depressions. See glossary for definition of Red Parent Material.