

Field Indicators of Hydric Soils in the United States

A guide for Identifying and Delineation Hydric Soils,

Version 7.0, 2010

Errata

Correction on page 5, 2nd paragraph under General Guidance for Using the Indicators. Add indicator F21 to list of indicators that allow chroma 3 deeper than 15 cm (6 inches).

Replace “All mineral layers above ..., except indicators A16, S6, F8, F12, F19, and F20, ...” with “All mineral layers above ..., except indicators A16, S6, F8, F12, F19, F20, and F21,...”

On page 6 replace Lenore Vasilas, Chair address with the following:

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Room 1-2126, Stop Code: 5471

Beltsville, MD 20705-5471

Correction on page 20, 1st paragraph under Loamy and Clayey Soils. Add indicator F21 to list of indicators that allow chroma 3 deeper than 15 cm (6 inches).

Replace “All mineral layers above ..., except for indicators F8, F12, F19, and F20, ...” with “All mineral layers above ..., except indicators F8, F12, F19, F20, and F21,...”

Correction on page 21 in caption for figure 29.

Replace “This soil has value 4 or less ...” with “This soil matrix has value 4 or more ...”

Correction on page 24 in caption for figure 37.

Replace “...40 percent value 4 or more and chroma 2 or less,...” with “...40 percent chroma 2 or less,...”

On page 26 after Figure 40 caption add the following newly approved indicator.

F21. Red Parent Material. *For use in MLRAs 147 and 148 of LRR S and MLRA 127 of LRR N; for testing in all soils derived from red parent materials.* A layer derived from red parent materials (see glossary) that is 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 depletions and/or distinct or prominent redox concentrations occurring as soft masses or pore linings. 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 sediments, 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. The total percentage of all redox concentrations and redox depletions must add up to at least 10% to meet the threshold for this indicator.

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.

On page 28 delete the following.

TF2. Red Parent Material. *For testing in LRRs with red parent material.* In parent material with hue of 7.5YR or redder, a layer at least 10 cm (4 inches) thick with a matrix value and chroma of 4 or less and 2 percent or more redox depletions and/or redox concentrations occurring as soft masses and/or pore linings. The layer is entirely within 30 cm (12 inches) of the soil surface. The minimum thickness requirement is 5 cm (2 inches) if the layer is the mineral surface layer.

User Notes: This indicator was developed for use in areas of red parent material, such as Triassic-Jurassic sediments in the Connecticut River Valley, Permian “red beds” in Kansas, clayey red till and associated lacustrine deposits around the Great Lakes, and Jurassic sediments associated with “hogbacks” on the eastern edge of the Rocky Mountains. This indicator also occurs on “Red River” flood plains, such as those along the Chattahoochee, Congree, Red, and Tennessee Rivers. The most noticeable redox features in red materials are redox depletions and soft manganese masses that are black or dark reddish black (figs. 41 and 42).

Replace with the following.

TF2. Red Parent Material. This test indicator has been deleted. Its concepts have been approved for use as indicator F21 (Red Parent Material).

Correction in caption 41 on page 26.

Replace “Indicator TF2...” with “Indicator F21...”

Figure 41 and 42 relate to indicator F21 (Red Parent Material) and should be moved to the section for loamy and clayey indicators near F21.

Correction on page 34 in caption for Figure 45.

Replace “... two redox concentrations...” with “...2% or more redox concentrations...”

Add the below figure between figure 48 and 49 on page 36.

Upper Threshold for Faint		
Δ Hue	Δ Value	Δ Chroma
0	≤ 2	≤ 1
1	≤ 1	≤ 1
2	0	0
Hue	Value	Chroma
Any	≤ 3	≤ 2

Figure 48.5.—Any feature above the upper threshold for faint features would be considered either distinct or prominent. If an indicator requires distinct or prominent features then those features at or below the faint threshold do not count.

Additions on p. 43, Appendix 1.

Add F21 for use in MLRA 147 and 148 of LRR S and MLRA 127 of LRR N.

Deletions on p. 44, Appendix 2.

Delete TF2 from LRRs G, H, K, L, N, P, R, S, T, V, and Z.