Field Office Technical Guide

Section II

Definition of Terms Used Throughout Section II of the FOTG

Surface layer and subsoil texture group modifiers

Group modifiers:

- silty -- includes silt loam, silty clay loam texture
- loamy -- includes loam, sandy loam, fine sandy loam, very fine sandy loam, sandy clay loam, and clay loam textures
- clayey -- includes clay, silty clay, and sandy clay textures
- sandy -- includes loamy sand, very fine sand, loamy very fine sand, loamy fine sand, loamycoarse sand, loamy very coarse sand, sand, fine sand, and coarse sand textures

Terms used to describe depth to a limiting layer

Consolidated bedrock, coarse sand, very coarse sand, very gravelly sand or any texture containing more than 85 percent rock fragments, dense till and fragipans are the limiting layers in Indiana.

very shallow	< 10 inches
shallow	10 - 20 inches
moderately deep	20 - 40 inches
deep	40 - 60 inches
very deep	> 60 inches

Terms used to describe permeability rates

very slow	< .06 in/hr
slow	.06 - 0.2 in/hr
moderately slow	0.2 - 0.6 in/hr
moderate	0.6 - 2.0 in/hr
moderately rapid	2.0 - 6.0 in/hr
rapid	6.0 - 20.0 in/hr
very rapid	> 20.0 in/hr

Terms used to describe Available Water Capacity (AWC)

Terms are based on calculations to a depth of 60 inches or bedrock, whichever is shallower.

very low	< 3 inches
low	3 - 6 inches
moderate	6 - 9 inches
high	9 - 12 inches
very high	> 12 inches

Terms used to describe Organic Matter Content (OMC)

very low	< 0.5 %
low	0.5 - 1 %
moderately low	1.0 - 2.0 %
moderate	2.0 - 4.0 %
high	4.0 - 8.0 %
very high	> 8.0 %

Terms used to describe surface layer color

light	moist	value is 4 or more and chroma is 4 or more using Munsell color book
dark	moist	value is 3 or less and chroma is 3 or less using Munsell color book

Terms used to describe soil slope

nearly level	minimum and maximum slope percent added together and divided by 2 is less than 2 percent
gently sloping	minimum and maximum slope percent added together and divided by 2 is greater than 2 percent and less then 6 percent
moderately sloping	minimum and maximum slope percent added together and divided by 2 is greater than 6 percent and less then 12 percent

strongly sloping	minimum and maximum slope percent added together and divided by 2 is greater than 12 percent and less then 18 percent
moderately steep	minimum and maximum slope percent added together and divided by 2 is greater than 18 percent and less then 25 percent
steep	minimum and maximum slope percent added together and divided by 2 is greater than 25 percent and less then 35 percent
very steep	minimum and maximum slope percent added together and divided by 2 is greater than 35 percent

Throughout the Interpretation Tables, one or two word phrases are used to describe restrictive features. The phrases and explanations are listed below:

Factors Affecting ---------- Explanation	
Area reclaim	Borrow areas hard to reclaim
Complex Slope	Slopes short and irregular
Cutbanks cave	Walls of cuts not stable
Deep to water	Deep to permanent water table during dry season
Dense layer	A firm layer difficult to dig
Depth to rock	Bedrock too close to surface
Droughty	Soils cannot hold enough water for plants during dry period
Dusty	Soil particles detach easily and cause dust
Erodes easily	Water erodes soil easily
Excess fines	Contains too much silt and clay
Excess humus	Contains too much organic matter
Excess lime	Carbonates restrict plant growth
Fast intake	Water infiltrates rapidly
Favorable	Features of soil favorable
Flooding	Soil temporarily floods by stream overflow or runoff
Frost action	Freezing can damage structures
Hard to pack	Difficult to compact
Large stones	Rock fragments 10 inches or more across

Low strength	Not enough strength to adequately support the load
No water	Too deep to ground water
Percs slowly	Water moves through the soil too slowly
Piping	Water may form tunnels on pipelike cavities
Ponding	Standing water on soils in closed depressions
Poor filter	Because of rapid permeability the soil may not adequately filter effluent from a waste disposal system
Poor outlets	Difficult or expensive to install outlets for drainage
Rooting depth	Soil is thin over layer that restricts root growth
Seepage	Water moves through soil or fractured bedrock too fast
Shrink-swell	Soil expands significantly on wetting and shrinks on drying
Slippage	Soil mass susceptible to movement downslope when loaded, excavated, or wet
Slope	Slope is too great
Slow intake	Water infiltration restricted
Slow refill	Ponds fill slowly because of restricted soil permeability
Small stones	Contains many rock fragments less than 10 inches across
Soil Blowing	Soil easily moved and deposited by wind
Subsides	Settlement of organic soils or of soils containing semifluid layers
Thin layer	Inadequate thickness of useable soil
Too clayey	Soil slippery and sticky when wet and slow to dry
Too sandy	Soil soft and loose; droughty and low in fertility
Unstable fill	Banks of fills likely to cave or slough
Wetness	Soil wet during period of use