

Idaho Forestry Best Management Practices

Forms and Tables: Soil best management practices

Soil Best Management Practices			
Soil Characteristic	Field Identification	Meaning of Soil Attribute	Best Management Practice
Mineral soil texture	Coarse feel; sandy.	Low water holding capacity; high load bearing.	<ul style="list-style-type: none"> Any ground-based harvesting method is acceptable year round. Manage forest floor disturbances and use slash mats on skid trails to reduce soil erosion.
	Even mix of coarse and fine soil particles.	Moderate water-holding capacity; more susceptible to compaction.	<ul style="list-style-type: none"> Use slash mats on skid trails and/or plan a late July-early September harvest to reduce soil compaction or rutting of wet soils.
	Smooth feel when wet; not gritty.	High water holding capacity; easily compacted when wet; high load-bearing capacity when dry.	<ul style="list-style-type: none"> Avoid any harvest operations when soils are wet. If unavoidable, manual felling is preferred, allowing soils to dry out before forwarding equipment is used. Use of thick slash mats a must if mechanical harvesting before late July.
Topsoil organic matter	Soil color very dark brown to black.	Soil rich in plant essential nutrients; typically found in forests with a high component of grass understory.	<ul style="list-style-type: none"> Any ground-based harvest method acceptable. Fertilization not necessary to maintain soil nutrient status. Minimize forest floor disturbance.
	Soil color reddish brown to brown.	Typical forest soil color; indicative of a moderate supply of plant essential nutrients.	<ul style="list-style-type: none"> Bole-only harvesting recommended. Whole-tree harvesting acceptable. Post-harvest fertilization has shown positive tree growth increases on nutrient-poor soils. Minimize forest floor disturbance.
	Soil color white to light tan.	Soil very low in plant essential nutrients.	<ul style="list-style-type: none"> Bole-only harvesting recommended. Post-harvest fertilization showing positive tree growth increases. Maintain the forest floor - minimize removal of branches, twigs, and dead wood.
This table was modified from: Kimsey, M., Jr.; Page-Dumroese, D.; Coleman, M. 2011. "Assessing Bioenergy Harvest Risks: Geospatially Explicit Tools for Maintaining Soil Productivity in Western US Forests." <i>Forests</i> 2011, 2, 797-813.			

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