Forest Value Groups (VT)

Washington County, Vermont

[These ratings are based on the report "Forest Value Groups and Forest Soil Potential Study for Vermont Soils", revised December 12, 2003, by the USDA-NRCS. This report is available in the Statewide folder under Soils Information in Section II of the Vermont electronic Field Office Technical Guide (eFOTG). Website www.nrcs.usda.gov/technical/efotg/]

Map symbol	Soil map unit name	Vermont Forest Value Group	Relative value
2A	Ondawa fine sandy loam, 0 to 3 percent slopes	4	63
3A	Rumney fine sandy loam, 0 to 2 percent slopes	5	51
3A	Rumney fine sandy loam, 0 to 2 percent slopes	5	51
3A	Rumney fine sandy loam, 0 to 2 percent slopes	5	51
3A	Rumney fine sandy loam, 0 to 2 percent slopes	5	51
4A	Sunny silt loam, 0 to 2 percent slopes	6	31
9A	Rifle muck, 0 to 2 percent slopes, ponded	7	0
9A	Rifle muck, 0 to 2 percent slopes, ponded	7	0
9A	Rifle muck, 0 to 2 percent slopes, ponded	7	0
9A	Rifle muck, 0 to 2 percent slopes, ponded	7	0
14B	Colonel fine sandy loam, 3 to 8 percent slopes	5	51
14C	Colonel fine sandy loam, 8 to 15 percent slopes	5	51
14D	Colonel fine sandy loam, 15 to 25 percent slopes	5	51
17A	Cabot silt loam, 0 to 3 percent slopes	5	51
17B	Cabot silt loam, 3 to 8 percent slopes	5	51
17C	Cabot silt loam, 8 to 15 percent slopes	5	51
18B	Cabot silt loam, 0 to 8 percent slopes, very stony	5	51
18C	Cabot silt loam, 8 to 15 percent slopes, very stony	5	51
19B	Colonel fine sandy loam, 3 to 8 percent slopes, very stony	5	51
19C	Colonel fine sandy loam, 8 to 15 percent slopes, very stony	5	51
19D	Colonel fine sandy loam, 15 to 35 percent slopes, very stony	6	31
20A	Peacham muck, 0 to 5 percent slopes	7	0
21A	Sunday fine sand, 0 to 3 percent slopes	5	51
26A	Adams loamy fine sand, 0 to 3 percent slopes	2	83
26B	Adams loamy fine sand, 3 to 8 percent slopes	2	83
26C	Adams loamy fine sand, 8 to 15 percent slopes	2	83
26D	Adams loamy fine sand, 15 to 25 percent slopes	3	74
26E	Adams loamy fine sand, 25 to 60 percent slopes	3	74
33A	Machias fine sandy loam, 0 to 3 percent slopes	1	100
33B	Machias fine sandy loam, 3 to 8 percent slopes	1	100
33C	Machias fine sandy loam, 8 to 15 percent slopes	1	100
37B	Stetson loam, 3 to 8 percent slopes	1	100
37C	Stetson loam, 8 to 15 percent slopes	1	100
37D	Stetson loam, 15 to 25 percent slopes	1	100
37E	Stetson loam, 25 to 60 percent slopes	3	74
39A	Colton gravelly loamy sand, 0 to 3 percent slopes	2	83
39B	Colton gravelly loamy sand, 3 to 8 percent slopes	2	83
39C	Colton gravelly loamy sand, 8 to 15 percent slopes	2	83
39D	Colton gravelly loamy sand, 15 to 25 percent slopes	3	74
39E	Colton gravelly loamy sand, 25 to 60 percent slopes	3	74
41D	Buxton silt loam, 15 to 25 percent slopes	5	51
41E	Buxton silt loam, 25 to 45 percent slopes	5	51
43B	Salmon very fine sandy loam, 3 to 8 percent slopes	1	100
43C	Salmon very fine sandy loam, 8 to 15 percent slopes	1	100

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Washington County, Vermont

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43D	Salmon very fine sandy loam, 15 to 25 percent slopes	1	100
43E	Salmon very fine sandy loam, 25 to 50 percent slopes	3	74
44B	Lamoine silt loam, 3 to 8 percent slopes	5	51
44C	Lamoine silt loam, 8 to 15 percent slopes	5	51
45A	Scantic silt loam, 0 to 3 percent slopes	6	31
55B	Nicholville silt loam, 3 to 8 percent slopes	1	100
58A	Grange silt loam, 0 to 3 percent slopes	6	31
59A	Waitsfield silt loam, 0 to 3 percent slopes	3	74
60A	Weider very fine sandy loam, 0 to 3 percent slopes	3	74
62B	Berkshire fine sandy loam, 3 to 8 percent slopes	2	83
62C	Berkshire fine sandy loam, 8 to 15 percent slopes	2	83
62D	Berkshire fine sandy loam, 15 to 25 percent slopes	3	74
63B	Berkshire fine sandy loam, 3 to 8 percent slopes, very stony	3	74
63C	Berkshire fine sandy loam, 8 to 15 percent slopes, very stony	3	74
63D	Berkshire fine sandy loam, 15 to 35 percent slopes, very stony	4	63
63E	Berkshire fine sandy loam, 35 to 60 percent slopes, very stony	5	51
64C	Salmon-Adamant complex, 8 to 15 percent slopes, very rocky	2	83
64D	Salmon-Adamant complex, 15 to 25 percent slopes, very rocky	2	83
64E	Salmon-Adamant complex, 25 to 50 percent slopes, very rocky	2	83
66B	Vershire-Dummerston complex, 3 to 8 percent slopes, rocky	2	83
66C	Vershire-Dummerston complex, 8 to 15 percent slopes, rocky	2	83
66D	Vershire-Dummerston complex, 15 to 25 percent slopes, rocky	3	74
66E	Vershire-Dummerston complex, 25 to 60 percent slopes, rocky	4	63
67C	Glover-Vershire complex, 8 to 15 percent slopes, very rocky	4	63
67D	Glover-Vershire complex, 15 to 35 percent slopes, very rocky	5	51
67E	Glover-Vershire complex, 35 to 60 percent slopes, very rocky	5	51
68D	Stratton-Glebe complex, 15 to 35 percent slopes, very rocky	7	0
68E	Stratton-Glebe complex, 35 to 60 percent slopes, very rocky	7	0
69D	Sisk-Glebe complex, 15 to 35 percent slopes, very bouldery	7	0
69E	Sisk-Glebe complex, 35 to 60 percent slopes, very bouldery	7	0
71C	Tunbridge-Lyman complex, 3 to 15 percent slopes, rocky	4	63
72B	Tunbridge-Lyman complex, 3 to 8 percent slopes, very rocky	4	63
72C	Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky	4	63
72D	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky	5	51
72E	Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky	5	51
76C	Berkshire fine sandy loam, 8 to 15 percent slopes, very bouldery	3	74
76D	Berkshire fine sandy loam, 15 to 35 percent slopes, very bouldery	4	63
76E	Berkshire fine sandy loam, 35 to 60 percent slopes, very bouldery	5	51
77B	Peru gravelly fine sandy loam, 3 to 8 percent slopes	2	83
77C	Peru gravelly fine sandy loam, 8 to 15 percent slopes	2	83
77D	Peru gravelly fine sandy loam, 15 to 25 percent slopes	3	74
78C	Peru gravelly fine sandy loam, 8 to 15 percent slopes, very stony	3	74
78D	Peru gravelly fine sandy loam, 15 to 35 percent slopes, very stony	4	63
78E	Peru gravelly fine sandy loam, 35 to 60 percent slopes, very stony	5	51
79A	Markey and Wonsqueak mucks, 0 to 2 percent slopes, ponded	7	0
82A	Peacham muck, 0 to 5 percent slopes, extremely bouldery	7	0

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Washington County, Vermont

Map symbol	Soil map unit name	Vermont Forest Value Group	Relative value
85E	Ricker-Londonderry-Stratton complex, 35 to 60 percent slopes, very rocky	7	0
86F	Ricker-Londonderry-Rock outcrop complex, 35 to 70 percent slopes	7	0
88D	Houghtonville fine sandy loam, 15 to 35 percent slopes, very bouldery	4	63
89E	Houghtonville fine sandy loam, 15 to 60 percent slopes, rubbly	5	51
90B	Dummerston fine sandy loam, 3 to 8 percent slopes	2	83
90C	Dummerston fine sandy loam, 8 to 15 percent slopes	2	83
90D	Dummerston fine sandy loam, 15 to 25 percent slopes	3	74
91C	Dummerston fine sandy loam, 8 to 15 percent slopes, very stony	3	74
91D	Dummerston fine sandy loam, 15 to 35 percent slopes, very stony	4	63
92B	Buckland silt loam, 3 to 8 percent slopes	3	74
92C	Buckland silt loam, 8 to 15 percent slopes	3	74
92D	Buckland silt loam, 15 to 25 percent slopes	3	74
93B	Buckland silt loam, 3 to 8 percent slopes, very stony	3	74
93C	Buckland silt loam, 8 to 15 percent slopes, very stony	3	74
93D	Buckland silt loam, 15 to 35 percent slopes, very stony	4	63
96D	Peru gravelly fine sandy loam, 15 to 35 percent slopes, extremely bouldery	5	51
98B	Cabot silt loam, 3 to 8 percent slopes, extremely bouldery	6	31
98C	Cabot silt loam, 8 to 15 percent slopes, extremely bouldery	6	31
99C	Colonel fine sandy loam, 3 to 15 percent slopes, extremely bouldery	5	51
99D	Colonel fine sandy loam, 15 to 35 percent slopes, extremely bouldery	6	31
100	Pits, Sand, and Pits, gravel	7	0
102	Pits, quarry-Dumps, mine complex	7	0
103	Udorthents, loamy	7	0
104	Urban land-Udipsamments complex, occasionally flooded	7	0
116B	Mundal fine sandy loam, 3 to 8 percent slopes, very stony	2	83
116C	Mundal fine sandy loam, 8 to 15 percent slopes, very stony	2	83
116D	Mundal fine sandy loam, 15 to 35 percent slopes, very stony	3	74
151F	Hogback-Rock outcrop-Rawsonville complex, 35 to 70 percent slopes	6	31
162D	Houghtonville-Rawsonville complex, 15 to 35 percent slopes, very bouldery	4	63
162E	Houghtonville-Rawsonville complex, 35 to 60 percent slopes, very bouldery	5	51
163C	Houghtonville fine sandy loam, 8 to 15 percent slopes, very stony	3	74
163D	Houghtonville fine sandy loam, 15 to 35 percent slopes, very stony	4	63
163E	Houghtonville fine sandy loam, 35 to 60 percent slopes, very stony	5	51
168C	Hogback-Rawsonville complex, 8 to 15 percent slopes, very rocky	5	51
168D	Hogback-Rawsonville complex, 15 to 35 percent slopes, very rocky	5	51
168E	Hogback-Rawsonville complex, 35 to 60 percent slopes, very rocky	6	31
172F	Taconic-Hubbardton-Rock outcrop complex, 60 to 80 percent slopes	6	31
W	Water	7	0

Forest Value Groups (VT)

This table shows, for the map units in this survey area, the Vermont Forest Value Groups and relative values for woodland production and management. These groups are intended to provide information for planners and decision makers about the relative potential of individual soils for woodland management. Forest Value Group ratings do not constitute a recommendation for land use.

The potential for producing and harvesting timber is very high in Forest Value Group 1, high in Forest Value Group 2, moderate in Forest Value Group 3, moderately low in Forest Value Group 4, low in Forest Value Group 5, and very low in Forest Value Group 6. Forest Value Group 7 has very limited potential for commercial forestry.

The Forest Value Groups are based on index numbers called "relative values." These numbers do not represent dollar net returns for a given forestry use. They do not show the absolute profitability of woodland production on a specific map unit, but they can be used to compare the potential profitability of woodland production on different soils.

A forest soil potential study led by the Natural Resources Conservation Service (NRCS) and detailed in the report "Forest Value Groups and Forest Soil Potential Study for Vermont Soils" formed the basis for the development of the Forest Value Groups and relative values. This study determined the relative costs associated with overcoming various soil limitations as applied to woodland productivity and management. The criteria used in the study include the following:

• Sugar maple was used as the indicator species for northern hardwoods on most of the map units.

• For soils that formed in glaciofluvial deposits (generally sandy and/or gravelly soils), eastern white pine, which tends to dominate northern hardwoods, was used as the indicator species.

• Several hundred map units were considered to have very limited potential for commercial forestry. These map units were given a relative value of 0 and were assigned to Forest Value Group 7. When necessary, the potential of these map units should be evaluated on a case-by-case basis. The map units with a relative value of 0 are made up primarily of:

Organic soils (Histosols);
Soils with a cryic soil temperature regime (generally above an elevation of 2,500 to 3,000 feet);
Miscellaneous areas (e.g., urban land, quarries, sand pits, and gravel pits);
Very poorly drained mineral soils; and
Soils with slopes of more than 60 percent.

• The forest soil potential ratings are based on the integration of numerous data derived from the literature and from the technical expertise of specialists in the field of silviculture in Vermont. Some of these data are estimates. Potential yields on specific map units are examples of estimates used in the report. The forest soil potential ratings are only as accurate as the estimates used to derive them. The estimates and the ratings are subject to change as more precise data become available.

• Monetary benefits and costs associated with potential yields and corrective measures can change as a result of inflation, fluctuations in market value, or technological advances. Such changes can affect the forest soil potential ratings and thereby warrant an update of the study.

The Forest Value Group designations can be used for many resource management activities, including:

• Design and implementation of Forest Land Evaluation and Site Assessment (FLESA) systems;
• Evaluation of primary and secondary forest soils under criterion 9C of Vermont's Land Use and Development Law, Act 250;
• Rating of forest soils for appraisal under Vermont's Use Value Program of Agricultural and Forest Land;
• Assessment of forest soils by private land trusts, landowners, bankers, and real estate agents; and
• Broad resource planning by State agencies and town and regional planning commissions.

With the exception of broad planning activities, onsite investigations are recommended when the information in this table is used. These investigations are needed:

• to identify variations in site conditions (e.g., stoniness, aspect, rock outcrops, and wetness)within a map unit delineation that may affect tree growth;

• to identify areas within a map unit that may be unsuitable for timber harvesting because they have slopes of 25 to 60 percent;

• to identify the unique landscape characteristics of a map unit delineation. For example, there are numerous delineations of Lyman-Tunbridge complex, 3 to 8 percent slopes, throughout the State. In some instances, however, these delineations may be inaccessible because of irregular slope patterns or because of large streams and drainageways. These site characteristics can result in small, inefficient tract sizes; may hamper the use of logging equipment; and can make a site poorly suited to forestry without expensive land shaping.