

Forest Value Groups (VT)

Windham 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
1A	Unadilla silt loam, 0 to 3 percent slopes	1	100
1B	Unadilla silt loam, 3 to 8 percent slopes	1	100
1C	Unadilla silt loam, 8 to 15 percent slopes	1	100
1D	Unadilla silt loam, 15 to 25 percent slopes	1	100
1E	Udorthents, steep	7	0
2A	Belgrade silt loam, 0 to 3 percent slopes	3	74
3B	Quonset and Warwick soils, 2 to 8 percent slopes	2	83
3C	Quonset and Warwick soils, 8 to 15 percent slopes	2	83
3D	Quonset and Warwick soils, 15 to 25 percent slopes	2	83
3E	Quonset and Warwick soils, 25 to 70 percent slopes	3	74
5B	Windsor loamy fine sand, 2 to 8 percent slopes	2	83
5C	Windsor loamy fine sand, 8 to 15 percent slopes	2	83
5D	Windsor loamy fine sand, 15 to 25 percent slopes	3	74
5E	Windsor loamy fine sand, 25 to 60 percent slopes	3	74
9B	Deerfield fine sandy loam, 2 to 8 percent slopes	2	83
10A	Agawam very fine sandy loam, 0 to 3 percent slopes	3	74
10B	Agawam very fine sandy loam, 3 to 8 percent slopes	3	74
11B	Berkshire and Monadnock fine sandy loams, 3 to 8 percent slopes	2	83
11C	Berkshire and Monadnock fine sandy loams, 8 to 15 percent slopes	2	83
11D	Berkshire and Monadnock fine sandy loams, 15 to 25 percent slopes	3	74
12C	Stratton-Glebe complex, 8 to 15 percent slopes, very rocky	7	0
12D	Stratton-Glebe complex, 15 to 25 percent slopes, very rocky	7	0
12E	Stratton-Glebe complex, 25 to 50 percent slopes, very rocky	7	0
16B	Adams loamy fine sand, 2 to 8 percent slopes	2	83
16C	Adams loamy fine sand, 8 to 15 percent slopes	2	83
16D	Adams loamy fine sand, 15 to 25 percent slopes	3	74
16E	Adams loamy fine sand, 25 to 50 percent slopes	3	74
17B	Worden loam, 3 to 8 percent slopes	4	63
17C	Worden loam, 8 to 15 percent slopes	4	63
18B	Worden loam, 3 to 8 percent slopes, very bouldery	4	63
18C	Worden loam, 8 to 15 percent slopes, very bouldery	4	63
18D	Worden loam, 15 to 25 percent slopes, very bouldery	4	63
20B	Tunbridge-Lyman fine sandy loams, 3 to 8 percent slopes, very rocky	4	63
20C	Tunbridge-Lyman fine sandy loams, 8 to 15 percent slopes, very rocky	4	63
20D	Tunbridge-Lyman fine sandy loams, 15 to 25 percent slopes, very rocky	5	51
20E	Tunbridge-Lyman fine sandy loams, 25 to 50 percent slopes, very rocky	5	51
21B	Marlow fine sandy loam, 3 to 8 percent slopes	2	83
21C	Marlow fine sandy loam, 8 to 15 percent slopes	2	83
21D	Marlow fine sandy loam, 15 to 25 percent slopes	3	74
22B	Marlow fine sandy loam, 3 to 8 percent slopes, very stony	3	74
22C	Marlow fine sandy loam, 8 to 15 percent slopes, very stony	3	74
22D	Marlow fine sandy loam, 15 to 25 percent slopes, very stony	4	63
22E	Marlow fine sandy loam, 25 to 50 percent slopes, very stony	5	51
23	Ondawa fine sandy loam	4	63

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Map symbol	Soil map unit name	Vermont Forest Value Group	Relative value
24	Podunk fine sandy loam	2	83
25B	Westbury fine sandy loam, 3 to 8 percent slopes	4	63
25C	Westbury fine sandy loam, 8 to 15 percent slopes	4	63
26B	Westbury fine sandy loam, 3 to 8 percent slopes, very stony	4	63
26C	Westbury fine sandy loam, 8 to 15 percent slopes, very stony	4	63
26D	Westbury fine sandy loam, 15 to 25 percent slopes, very stony	5	51
29	Walpole fine sandy loam	5	51
31B	Wilmington very fine sandy loam, 2 to 8 percent slopes, very stony	6	31
33	Rumney fine sandy loam	5	51
34C	Lyman-Rock outcrop complex, 8 to 15 percent slopes	6	31
34D	Lyman-Rock outcrop complex, 15 to 25 percent slopes	6	31
34E	Lyman-Rock outcrop complex, 25 to 50 percent slopes	6	31
37	Hadley silt loam	1	100
39	Winooski silt loam	1	100
40	Limerick silt loam	6	31
41D	Londonderry-Stratton silt loams, 8 to 25 percent slopes, very rocky	7	0
41E	Londonderry-Stratton silt loams, 25 to 70 percent slopes, very rocky	7	0
43B	Mundal fine sandy loam, 3 to 8 percent slopes	1	100
43C	Mundal fine sandy loam, 8 to 15 percent slopes	1	100
43D	Mundal fine sandy loam, 15 to 25 percent slopes	2	83
44B	Mundal fine sandy loam, 3 to 8 percent slopes, very stony	2	83
44C	Mundal fine sandy loam, 8 to 15 percent slopes, very stony	2	83
44D	Mundal fine sandy loam, 15 to 25 percent slopes, very stony	3	74
44E	Mundal fine sandy loam, 25 to 50 percent slopes, very stony	3	74
46B	Berkshire and Monadnock fine sandy loams, 3 to 8 percent slopes, very stony	3	74
46C	Berkshire and Monadnock fine sandy loams, 8 to 15 percent slopes, very stony	3	74
46D	Berkshire and Monadnock fine sandy loams, 15 to 25 percent slopes, very stony	4	63
46E	Berkshire and Monadnock fine sandy loams, 25 to 50 percent slopes, very stony	5	51
47	Lupton mucky peat	7	0
48B	Rawsonville-Hogback fine sandy loams, 3 to 8 percent slopes rocky	5	51
48C	Rawsonville-Hogback fine sandy loams, 8 to 15 percent slopes, rocky	5	51
48D	Rawsonville-Hogback fine sandy loams, 15 to 25 percent slopes, rocky	5	51
48E	Rawsonville-Hogback fine sandy loams, 25 to 50 percent slopes, rocky	6	31
49B	Houghtonville-Rawsonville fine sandy loams, 3 to 8 percent slopes, very bouldery	3	74
49C	Houghtonville-Rawsonville fine sandy loams, 8 to 15 percent slopes, very bouldery	3	74
49D	Houghtonville-Rawsonville fine sandy loams, 15 to 25 percent slopes, very bouldery	4	63
49E	Houghtonville-Rawsonville fine sandy loams, 25 to 50 percent slopes, very bouldery	5	51
50B	Colton loamy fine sand, 2 to 8 percent slopes	2	83
50C	Colton loamy fine sand, 8 to 15 percent slopes	2	83
50D	Colton loamy fine sand, 15 to 25 percent slopes	3	74
50E	Colton loamy fine sand, 25 to 60 percent slopes	3	74
52A	Sheepscot fine sandy loam, 0 to 3 percent slopes	1	100
52B	Sheepscot fine sandy loam, 3 to 8 percent slopes	1	100
56B	Monadnock fine sandy loam, 3 to 8 percent slopes, very stony	3	74
56C	Monadnock fine sandy loam, 8 to 15 percent slopes, very stony	3	74
56D	Monadnock fine sandy loam, 15 to 25 percent slopes, very stony	4	63

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56E	Monadnock fine sandy loam, 25 to 50 percent slopes, very stony	5	51
60B	Houghtonville fine sandy loam, 3 to 8 percent slopes	2	83
60C	Houghtonville fine sandy loam, 8 to 15 percent slopes	2	83
60D	Houghtonville fine sandy loam, 15 to 25 percent slopes	3	74
61B	Houghtonville fine sandy loam, 3 to 8 percent slopes, very stony	3	74
61C	Houghtonville fine sandy loam, 8 to 15 percent slopes, very stony	3	74
61D	Houghtonville fine sandy loam, 15 to 25 percent slopes, very stony	4	63
61E	Houghtonville fine sandy loam, 25 to 50 percent slopes, very stony	5	51
62	Markey muck	7	0
63C	Berkshire-Tunbridge fine sandy loams, 8 to 15 percent slopes, very stony	4	63
63D	Berkshire-Tunbridge fine sandy loams, 15 to 25 percent slopes, very stony	5	51
63E	Berkshire-Tunbridge fine sandy loams, 25 to 50 percent slopes, very stony	6	31
64	Udfluvents, loamy	7	0
65C	Hogback-Rawsonville fine sandy loams, 8 to 15 percent slopes, very rocky	5	51
65D	Hogback-Rawsonville fine sandy loams, 15 to 25 percent slopes, very rocky	5	51
65E	Hogback-Rawsonville fine sandy loams, 25 to 50 percent slopes, very rocky	6	31
66B	Houghtonville-Rawsonville fine sandy loams, 3 to 8 percent slopes, rocky	2	83
66C	Houghtonville-Rawsonville fine sandy loams, 8 to 15 percent slopes, rocky	2	83
67B	Berkshire-Tunbridge fine sandy loams, 3 to 8 percent slopes, rocky	2	83
67C	Berkshire-Tunbridge fine sandy loams, 8 to 15 percent slopes, rocky	2	83
68D	Taconic-Hubbardton-Rock outcrop complex, 8 to 25 percent slopes	6	31
68E	Taconic-Hubbardton-Rock outcrop complex, 25 to 70 percent slopes	6	31
69C	Macomber-Taconic complex, 8 to 15 percent slopes, very rocky	5	51
69D	Macomber-Taconic complex, 15 to 25 percent slopes, very rocky	6	31
69E	Macomber-Taconic complex, 25 to 70 percent slopes, very rocky	6	31
70C	Dummerston-Macomber complex, 8 to 15 percent slopes, very stony	3	74
70D	Dummerston-Macomber complex, 15 to 25 percent slopes, very stony	4	63
70E	Dummerston-Macomber complex, 25 to 70 percent slopes very stony	5	51
71B	Dummerston silt loam, 3 to 8 percent slopes	3	74
71C	Dummerston silt loam, 8 to 15 percent slopes	3	74
71D	Dummerston silt loam, 15 to 25 percent slopes	3	74
72C	Dummerston silt loam, 8 to 15 percent slopes, very stony	3	74
72D	Dummerston silt loam, 15 to 25 percent slopes, very stony	4	63
72E	Dummerston silt loam, 25 to 70 percent slopes, very stony	5	51
73B	Fullam silt loam, 3 to 8 percent slopes	3	74
73C	Fullam silt loam, 8 to 15 percent slopes	3	74
73D	Fullam silt loam, 15 to 25 percent slopes	3	74
74B	Fullam silt loam, 3 to 8 percent slopes, very stony	3	74
74C	Fullam silt loam, 8 to 15 percent slopes, very stony	3	74
74D	Fullam silt loam, 15 to 25 percent slopes, very stony	4	63
74E	Fullam silt loam, 25 to 35 percent slopes, very stony	4	63
75B	Brayton silt loam, 2 to 8 percent slopes, very stony	5	51
76B	Dummerston-Macomber complex, 3 to 8 percent slopes, rocky	3	74
76C	Dummerston-Macomber complex, 8 to 15 percent slopes, rocky	3	74
W	Water	7	0

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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.