Forest Value Groups (VT)

Caledonia 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
3A	Charles silt loam, 0 to 2 percent slopes, frequently flooded	6	31
4A	Medomak mucky silt loam, 0 to 2 percent slopes, frequently flooded	7	0
6A	Adams loamy fine sand, 0 to 3 percent slopes	2	83
6B	Adams loamy fine sand, 3 to 8 percent slopes	2	83
6C	Adams loamy fine sand, 8 to 15 percent slopes	2	83
6D	Adams loamy fine sand, 15 to 25 percent slopes	3	74
6E	Adams loamy fine sand, 25 to 60 percent slopes	3	74
7B	Salmon very fine sandy loam, 3 to 8 percent slopes	1	100
7C	Salmon very fine sandy loam, 8 to 15 percent slopes	1	100
7D	Salmon very fine sandy loam, 15 to 25 percent slopes	1	100
7E	Salmon very fine sandy loam, 25 to 50 percent slopes	3	74
8A	Nicholville very fine sandy loam, 0 to 3 percent slopes	1	100
8B	Nicholville very fine sandy loam, 3 to 8 percent slopes	1	100
8C	Nicholville very fine sandy loam, 8 to 15 percent slopes	1	100
8D	Nicholville very fine sandy loam, 15 to 25 percent slopes	2	83
9A	Roundabout silt loam, 0 to 3 percent slopes	5	51
11A	Sheepscot gravelly fine sandy loam, 0 to 3 percent slopes	1	100
11B	Sheepscot gravelly fine sandy loam, 3 to 8 percent slopes	1	100
12A	Moosilauke very fine sandy loam, 0 to 3 percent slopes	5	51
14B	Vershire-Lombard complex, 3 to 8 percent slopes, rocky	2	83
14C	Vershire-Lombard complex, 8 to 15 percent slopes, rocky	2	83
14D	Vershire-Lombard complex, 15 to 25 percent slopes, rocky	3	74
14E	Vershire-Lombard complex, 25 to 35 percent slopes, rocky	4	63
16B	Dummerston very fine sandy loam, 3 to 8 percent slopes	3	74
16C	Dummerston very fine sandy loam, 8 to 15 percent slopes	3	74
16D	Dummerston very fine sandy loam, 15 to 25 percent slopes	3	74
16E	Dummerston very fine sandy loam, 25 to 35 percent slopes	4	63
17B	Dummerston very fine sandy loam, 3 to 8 percent slopes, very stony	3	74
17C	Dummerston very fine sandy loam, 8 to 15 percent slopes, very stony	3	74
17D	Dummerston very fine sandy loam, 15 to 35 percent slopes, very stony	4	63
17E	Dummerston very fine sandy loam, 35 to 60 percent slopes, very stony	5	51
20B	Buckland fine sandy loam, 3 to 8 percent slopes	3	74
20C	Buckland fine sandy loam, 8 to 15 percent slopes	3	74
20D	Buckland fine sandy loam, 15 to 25 percent slopes	3	74
21B	Buckland fine sandy loam, 3 to 8 percent slopes, very stony	3	74
21C	Buckland fine sandy loam, 8 to 15 percent slopes, very stony	3	74
21D	Buckland fine sandy loam, 15 to 35 percent slopes, very stony	4	63
21E	Buckland fine sandy loam, 35 to 60 percent slopes, very stony	5	51
22B	Cabot silt loam, 3 to 8 percent slopes	5	51
22C	Cabot silt loam, 8 to 15 percent slopes	5	51
23B	Cabot silt loam, 0 to 8 percent slopes, very stony	5	51
23C	Cabot silt loam, 8 to 15 percent slopes, very stony	5	51
24A	Peacham muck, 0 to 3 percent slopes, very stony	7	0
27A	Bucksport muck, 0 to 2 percent slopes	7	0

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Map symbol	Soil map unit name	Vermont Forest Value Group	Relative value
30A	Ondawa-Sunday complex, 0 to 2 percent slopes, occasionally flooded	4	63
31A	Podunk fine sandy loam, 0 to 2 percent slopes, occasionally flooded	2	83
32A	Colton-Duxbury complex, 0 to 3 percent slopes	2	83
32B	Colton-Duxbury complex, 3 to 8 percent slopes	2	83
32C	Colton-Duxbury complex, 8 to 15 percent slopes	2	83
32D	Colton-Duxbury complex, 15 to 25 percent slopes	3	74
32E	Colton-Duxbury complex, 25 to 60 percent slopes	3	74
38A	Croghan loamy fine sand, 0 to 3 percent slopes	1	100
38B	Croghan loamy fine sand, 3 to 8 percent slopes	1	100
42A	Rumney fine sandy loam, 0 to 2 percent slopes, frequently flooded	5	51
46B	Lamoine silt loam, 3 to 8 percent slopes	5	51
46C	Lamoine silt loam, 8 to 15 percent slopes	5	51
46D	Lamoine silt loam, 15 to 25 percent slopes	6	31
46E	Lamoine silt loam, 25 to 50 percent slopes	6	31
47A	Scantic silt loam, 0 to 3 percent slopes	6	31
50A	Wonsqueak and Pondicherry mucks, 0 to 2 percent slopes	7	0
56B	Vershire-Glover complex, 3 to 8 percent slopes, very rocky	4	63
56C	Vershire-Glover complex, 8 to 15 percent slopes, very rocky	4	63
56D	Vershire-Glover complex, 15 to 35 percent slopes, very rocky	5	51
56E	Vershire-Glover complex, 35 to 60 percent slopes, very rocky	5	51
58B	Tunbridge-Lyman complex, 3 to 8 percent slopes, rocky	4	63
58C	Tunbridge-Lyman complex, 8 to 15 percent slopes, rocky	4	63
58D	Tunbridge-Lyman complex, 15 to 25 percent slopes, rocky	4	63
61B	Tunbridge-Lyman complex, 3 to 8 percent slopes, very rocky	4	63
61C	Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky	4	63
61D	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky	5	51
61E	Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky	5	51
63B	Tunbridge-Monadnock complex, 3 to 8 percent slopes, rocky	2	83
63C	Tunbridge-Monadnock complex, 8 to 15 percent slopes, rocky	2	83
63D	Tunbridge-Monadnock complex, 15 to 25 percent slopes, rocky	3	74
72B	Colonel-Cabot complex, 3 to 8 percent slopes	5	51
72C	Colonel-Cabot complex, 8 to 15 percent slopes	5	51
72D	Colonel-Cabot complex, 15 to 25 percent slopes	5	51
73B	Colonel-Cabot complex, 3 to 8 percent slopes, very stony	5	51
73C	Colonel-Cabot complex, 8 to 15 percent slopes, very stony	5	51
73D	Colonel-Cabot complex, 15 to 35 percent slopes, very stony	6	31
74B	Monadnock fine sandy loam, 3 to 8 percent slopes	2	83
74C	Monadnock fine sandy loam, 8 to 15 percent slopes	2	83
74D	Monadnock fine sandy loam, 15 to 25 percent slopes	3	74
75B	Monadnock fine sandy loam, 3 to 8 percent slopes, very stony	3	74
75C	Monadnock fine sandy loam, 8 to 15 percent slopes, very stony	3	74
75D	Monadnock fine sandy loam, 15 to 35 percent slopes, very stony	4	63
75E	Monadnock fine sandy loam, 35 to 60 percent slopes, very stony	5	51
81D	Ricker-Londonderry-Stratton complex, 15 to 35 percent slopes, very rocky	7	0
81E	Ricker-Londonderry-Stratton complex, 35 to 60 percent slopes, very rocky	7	0
82F	Ricker-Londonderry-Rock outcrop complex, 60 to 90 percent slopes	7	0

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Map symbol	Soil map unit name	Vermont Forest Value Group	Relative value
85C	Dixfield sandy loam, 3 to 15 percent slopes, extremely bouldery	4	63
85D	Dixfield sandy loam, 15 to 35 percent slopes, extremely bouldery	5	51
85E	Dixfield sandy loam, 35 to 60 percent slopes, extremely bouldery	6	31
86C	Cabot silt loam, 3 to 15 percent slopes, extremely bouldery	6	31
87C	Colonel-Cabot complex, 3 to 15 percent slopes, extremely bouldery	5	51
88C	Houghtonville fine sandy loam, 8 to 15 percent slopes, very stony	3	74
92C	Hogback-Rawsonville complex, 8 to 15 percent slopes, very rocky	5	51
92D	Hogback-Rawsonville complex, 15 to 35 percent slopes, very rocky	5	51
92E	Hogback-Rawsonville complex, 35 to 60 percent slopes, very rocky	6	31
93E	Houghtonville fine sandy loam, 15 to 60 percent slopes, rubbly	5	51
94D	Houghtonville fine sandy loam, 15 to 35 percent slopes, very bouldery	4	63
100	Pits, sand and Pits, gravel	7	0
102	Pits, quarry-Dumps, mine complex	7	0
104B	Urban land-Adams-Nicholville complex, 0 to 8 percent slopes	7	0
104C	Urban land-Adams-Nicholville complex, 8 to 15 percent slopes	7	0
104D	Urban land-Adams-Nicholville complex, 15 to 25 percent slopes	7	0
104E	Urban land-Adams-Nicholville complex, 25 to 60 percent slopes	7	0
105D	Lyman-Rock outcrop complex, 15 to 35 percent slopes, very stony	6	31
105E	Lyman-Rock outcrop complex, 35 to 60 percent slopes, very stony	6	31
105F	Lyman-Rock outcrop complex, 60 to 90 percent slopes, very stony	7	0
120A	Moosilauke very fine sandy loam, 0 to 3 percent slopes, very stony	5	51
159B	Dixfield sandy loam, 3 to 8 percent slopes	2	83
159C	Dixfield sandy loam, 8 to 15 percent slopes	2	83
159D	Dixfield sandy loam, 15 to 25 percent slopes	3	74
160B	Dixfield sandy loam, 3 to 8 percent slopes, very stony	3	74
160C	Dixfield sandy loam, 8 to 15 percent slopes, very stony	3	74
160D	Dixfield sandy loam, 15 to 35 percent slopes, very stony	4	63
160E	Dixfield sandy loam, 35 to 60 percent slopes, very stony	5	51
163B	Tunbridge-Monadnock complex, 3 to 8 percent slopes, very stony	3	74
163C	Tunbridge-Monadnock complex, 8 to 15 percent slopes, very stony	3	74
163D	Tunbridge-Monadnock complex, 15 to 35 percent slopes, very stony	4	63
163E	Tunbridge-Monadnock complex, 35 to 60 percent slopes, very stony	5	51
175C	Monadnock fine sandy loam, 3 to 15 percent slopes, extremely bouldery	4	63
175D	Monadnock fine sandy loam, 15 to 35 percent slopes, extremely bouldery	5	51
175E	Monadnock fine sandy loam, 35 to 60 percent slopes, extremely bouldery	6	31
207C	Salmon-Adamant complex, 8 to 15 percent slopes, very rocky	2	83
207D	Salmon-Adamant complex, 15 to 25 percent slopes, very rocky	2	83
207E	Salmon-Adamant complex, 25 to 50 percent slopes, very rocky	2	83
214B	Vershire-Lombard complex, 3 to 8 percent slopes, very stony	3	74
214C	Vershire-Lombard complex, 8 to 15 percent slopes, very stony	3	74
214D	Vershire-Lombard complex, 15 to 35 percent slopes, very stony	4	63
214E	Vershire-Lombard complex, 35 to 60 percent slopes, very stony	5	51
250A	Irasburg loamy fine sand, 0 to 3 percent slopes	1	100
250B	Irasburg loamy fine sand, 3 to 8 percent slopes	1	100
250C	Irasburg loamy fine sand, 8 to 15 percent slopes	1	100
250D	Irasburg loamy fine sand, 15 to 25 percent slopes	2	83

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250E	Irasburg loamy fine sand, 25 to 50 percent slopes	3	74
260F	Udorthents, 60 to 90 percent slopes, very rubbly	7	0
270A	Bucksport peat, 0 to 2 percent slopes	7	0
301C	Tunbridge-Dixfield complex, 3 to 15 percent slopes, extremely bouldery	4	63
301D	Tunbridge-Dixfield complex, 15 to 35 percent slopes, extremely bouldery	5	51
362B	Tunbridge-Dixfield complex, 3 to 8 percent slopes, rocky	2	83
362C	Tunbridge-Dixfield complex, 8 to 15 percent slopes, rocky	2	83
362D	Tunbridge-Dixfield complex, 15 to 25 percent slopes, rocky	3	74
363B	Tunbridge-Dixfield complex, 3 to 8 percent slopes, very stony	3	74
363C	Tunbridge-Dixfield complex, 8 to 15 percent slopes, very stony	3	74
363D	Tunbridge-Dixfield complex, 15 to 35 percent slopes, very stony	4	63
363E	Tunbridge-Dixfield complex, 35 to 60 percent slopes, very stony	5	51
900	Area not Surveyed, Access Denied	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.