

Forest Value Groups (VT)

Rutland 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
1B	Marlow fine sandy loam, 3 to 8 percent slopes	2	83
1C	Marlow fine sandy loam, 8 to 15 percent slopes	2	83
1D	Marlow fine sandy loam, 15 to 25 percent slopes	3	74
2C	Marlow fine sandy loam, 8 to 15 percent slopes, very stony	3	74
2D	Marlow fine sandy loam, 15 to 35 percent slopes, very stony	4	63
2E	Marlow fine sandy loam, 35 to 60 percent slopes, very stony	5	51
3B	Peru gravelly fine sandy loam, 3 to 8 percent slopes	2	83
3C	Peru gravelly fine sandy loam, 8 to 15 percent slopes	2	83
4B	Peru gravelly fine sandy loam, 3 to 8 percent slopes, very stony	3	74
4C	Peru gravelly fine sandy loam, 8 to 15 percent slopes, very stony	3	74
4D	Peru gravelly fine sandy loam, 15 to 25 percent slopes, very stony	4	63
6A	Cabot gravelly fine sandy loam, 0 to 8 percent slopes, very stony	5	51
7C	Brayton loam, 8 to 15 percent slopes, very stony	5	51
9	Pits-Dumps complex	7	0
11C	Taconic-Hubbardton complex, 8 to 25 percent slopes, very rocky	6	31
12F	Taconic-Hubbardton-Macomber complex, 25 to 80 percent slopes, very rocky	6	31
13B	Hinckley gravelly loamy fine sand, 0 to 8 percent slopes	2	83
13C	Hinckley gravelly loamy fine sand, 8 to 15 percent slopes	2	83
13D	Hinckley gravelly loamy fine sand, 15 to 25 percent slopes	3	74
13E	Hinckley gravelly loamy fine sand, 25 to 40 percent slopes	3	74
14A	Sudbury fine sandy loam, 0 to 3 percent slopes	1	100
14B	Sudbury fine sandy loam, 3 to 8 percent slopes	1	100
15A	Walpole fine sandy loam, 0 to 5 percent slopes	5	51
18B	Windsor loamy sand, 3 to 8 percent slopes	2	83
18C	Windsor loamy sand, 8 to 15 percent slopes	2	83
18D	Windsor loamy sand, 15 to 25 percent slopes	3	74
18E	Windsor loamy sand, 25 to 60 percent slopes	3	74
21	Rippowam fine sandy loam	5	51
22	Saco mucky silt loam	7	0
23	Adrian muck	7	0
24	Pinnebog muck	7	0
25A	Belgrade silt loam, 0 to 3 percent slopes	3	74
25B	Belgrade silt loam, 3 to 8 percent slopes	3	74
25C	Belgrade silt loam, 8 to 15 percent slopes	3	74
26A	Raynham silt loam, 0 to 4 percent slopes	6	31
28	Udifluvents and Fluvaquents, nearly level	7	0
29	Histosols and Aquepts, ponded	7	0
30B	Paxton fine sandy loam, 2 to 8 percent slopes	2	83
30C	Paxton fine sandy loam, 8 to 15 percent slopes	2	83
30D	Paxton fine sandy loam, 15 to 25 percent slopes	3	74
31B	Paxton fine sandy loam, 2 to 8 percent slopes, very stony	3	74
31C	Paxton fine sandy loam, 8 to 15 percent slopes, very stony	3	74
31D	Paxton fine sandy loam, 15 to 25 percent slopes, very stony	4	63
31E	Paxton fine sandy loam, 25 to 35 percent slopes, very stony	4	63

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Map symbol	Soil map unit name	Vermont Forest Value Group	Relative value
38A	Tisbury silt loam, 0 to 3 percent slopes	3	74
39B	Galway-Nellis-Farmington complex, 3 to 8 percent slopes	3	74
40C	Galway-Nellis-Farmington complex, 8 to 15 percent slopes, rocky	3	74
40D	Galway-Nellis-Farmington complex, 15 to 25 percent slopes, rocky	4	63
41C	Farmington-Galway-Galoo complex, 5 to 25 percent slopes, very rocky	6	31
41E	Farmington-Galway-Galoo complex, 25 to 50 percent slopes, very rocky	6	31
42C	Macomber-Taconic complex, 8 to 15 percent slopes, rocky	5	51
42D	Macomber-Taconic complex, 15 to 25 percent slopes, rocky	6	31
42F	Macomber-Taconic complex, 25 to 80 percent slopes, rocky	6	31
43C	Taconic-Macomber complex, 8 to 25 percent slopes, very rocky	6	31
44B	Dutchess silt loam, 3 to 8 percent slopes	3	74
44C	Dutchess silt loam, 8 to 15 percent slopes	3	74
44D	Dutchess silt loam, 15 to 25 percent slopes	3	74
47B	Dutchess silt loam, 3 to 8 percent slopes, very stony	3	74
47C	Dutchess silt loam, 8 to 15 percent slopes, very stony	3	74
47D	Dutchess silt loam, 15 to 25 percent slopes, very stony	4	63
47E	Dutchess silt loam, 25 to 60 percent slopes, very stony	5	51
50A	Massena silt loam, 0 to 8 percent slopes	4	63
52B	Macomber-Dutchess complex, 3 to 8 percent slopes	3	74
53	Elvers silt loam	7	0
54A	Ninigret fine sandy loam, 0 to 4 percent slopes	1	100
56B	Colton-Duxbury complex, 2 to 8 percent slopes, very stony	3	74
56C	Colton-Duxbury complex, 8 to 15 percent slopes, very stony	3	74
56D	Colton-Duxbury complex, 15 to 25 percent slopes, very stony	4	63
56E	Colton-Duxbury complex, 25 to 50 percent slopes, very stony	5	51
57B	Duxbury-Colton complex, 2 to 8 percent slopes	1	100
58C	Colton-Duxbury complex, 8 to 15 percent slopes	2	83
58D	Colton-Duxbury complex, 15 to 25 percent slopes	3	74
59A	Deerfield loamy sand, 0 to 4 percent slopes	2	83
61A	Eldridge fine sandy loam, 0 to 3 percent slopes	1	100
61B	Eldridge fine sandy loam, 3 to 8 percent slopes	1	100
62	Enosburg loamy fine sand	5	51
64B	Stockbridge gravelly silt loam, 3 to 8 percent slopes	3	74
64C	Stockbridge gravelly silt loam, 8 to 15 percent slopes	3	74
64D	Stockbridge gravelly silt loam, 15 to 25 percent slopes	3	74
65B	Stockbridge gravelly silt loam, 3 to 8 percent slopes, very stony	3	74
65C	Stockbridge gravelly silt loam, 8 to 15 percent slopes, very stony	3	74
65D	Stockbridge gravelly silt loam, 15 to 25 percent slopes, very stony	4	63
65E	Stockbridge gravelly silt loam, 25 to 45 percent slopes, very stony	5	51
66B	Georgia and Amenia soils, 3 to 8 percent slopes	3	74
66C	Georgia and Amenia soils, 8 to 15 percent slopes	3	74
67B	Georgia and Amenia soils, 3 to 8 percent slopes, very stony	3	74
67C	Georgia and Amenia soils, 8 to 15 percent slopes, very stony	3	74
67D	Georgia and Amenia soils, 15 to 25 percent slopes, very stony	4	63
68A	Massena silt loam, 0 to 8 percent slopes, very stony	4	63
71A	Castile gravelly fine sandy loam, 0 to 3 percent slopes	2	83

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Map symbol	Soil map unit name	Vermont Forest Value Group	Relative value
72A	Fredon gravelly loam, 0 to 3 percent slopes	5	51
73	Scarboro muck	7	0
80A	Kingsbury silty clay loam, 0 to 3 percent slopes	5	51
80B	Kingsbury silty clay loam, 3 to 8 percent slopes	5	51
81	Livingston silty clay loam	7	0
82B	Vergennes clay, 3 to 8 percent slopes	3	74
82C	Vergennes clay, 8 to 15 percent slopes	3	74
82D	Vergennes clay, 15 to 25 percent slopes	4	63
82E	Vergennes clay, 25 to 50 percent slopes	4	63
86	Linwood muck	7	0
88	Birdsall muck	7	0
90B	Hartland silt loam, 3 to 8 percent slopes	1	100
90C	Hartland silt loam, 8 to 15 percent slopes	1	100
90D	Hartland silt loam, 15 to 25 percent slopes	2	83
95	Udorthents loamy	7	0
96	Udipsamments, nearly level	7	0
97A	Warwick-Quonset complex, 0 to 3 percent slopes	1	100
97B	Warwick-Quonset complex, 3 to 8 percent slopes	1	100
97C	Warwick-Quonset complex, 8 to 15 percent slopes	1	100
97D	Warwick-Quonset complex, 15 to 25 percent slopes	2	83
98E	Quonset-Warwick complex, 25 to 45 percent slopes	3	74
99B	Copake gravelly fine sandy loam, 2 to 8 percent slopes	1	100
104B	Groton gravelly loam, 2 to 8 percent slopes	2	83
105	Tioga fine sandy loam	1	100
106	Middlebury loam	1	100
108	Hamlin silt loam	1	100
109	Teel silt loam, sandy substratum	3	74
110	Limerick silt loam	6	31
111	Livingston silty clay loam, frequently flooded	7	0
118C	Adams loamy fine sand, 8 to 15 percent slopes	2	83
122B	Lyme fine sandy loam, 2 to 8 percent slopes, very stony	5	51
122C	Lyme fine sandy loam, 8 to 15 percent slopes, very stony	5	51
123B	Sheepscot fine sandy loam, 2 to 8 percent slopes	1	100
123C	Sheepscot fine sandy loam, 8 to 15 percent slopes	1	100
124B	Sunapee fine sandy loam, 3 to 8 percent slopes, very stony	2	83
124C	Sunapee fine sandy loam, 8 to 15 percent slopes, very stony	2	83
124D	Sunapee fine sandy loam, 15 to 35 percent slopes, very stony	3	74
124E	Sunapee fine sandy loam, 35 to 50 percent slopes, very stony	3	74
125B	Berkshire gravelly fine sandy loam, 3 to 8 percent slopes, very stony	3	74
125C	Berkshire gravelly fine sandy loam, 8 to 15 percent slopes, very stony	3	74
125D	Berkshire gravelly fine sandy loam, 15 to 35 percent slopes, very stony	4	63
125E	Berkshire gravelly fine sandy loam, 35 to 50 percent slopes, very stony	5	51
127C	Houghtonville gravelly fine sandy loam, 8 to 15 percent slopes, very stony	3	74
127D	Houghtonville gravelly fine sandy loam, 15 to 35 percent slopes, very stony	4	63
127E	Houghtonville gravelly fine sandy loam, 35 to 60 percent slopes, very stony	5	51
128C	Rawsonville-Houghtonville complex, 8 to 15 percent slopes, rocky	4	63

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128D	Rawsonville-Houghtonville complex, 15 to 35 percent slopes, rocky	5	51
128E	Rawsonville-Houghtonville complex, 35 to 60 percent slopes, rocky	5	51
129D	Killington-Rawsonville complex, 15 to 35 percent slopes, very rocky	6	31
129F	Killington-Rawsonville complex, 35 to 70 percent slopes, very rocky	6	31
130B	Tunbridge-Berkshire complex, 3 to 8 percent slopes, rocky	3	74
130C	Tunbridge-Berkshire complex, 8 to 15 percent slopes, rocky	3	74
130D	Tunbridge-Berkshire complex, 15 to 35 percent slopes, rocky	4	63
130E	Tunbridge-Berkshire complex, 35 to 60 percent slopes, rocky	5	51
131D	Lyman-Tunbridge-Rock outcrop complex, 15 to 35 percent slopes, very stony	6	31
131E	Lyman-Tunbridge-Rock outcrop complex, 35 to 60 percent slopes, very stony	6	31
132C	Glebe-Stratton complex, 8 to 25 percent slopes, very stony	7	0
132E	Glebe-Stratton complex, 25 to 60 percent slopes, very stony	7	0
134F	Stratton-Londonderry-Ricker complex, 15 to 80 percent slopes, very rocky	7	0
135D	Mundal loam, 15 to 35 percent slopes, very stony	3	74
135E	Mundal loam, 35 to 60 percent slopes, very stony	3	74
138C	Berkshire gravelly fine sandy loam, 8 to 15 percent slopes	2	83
139B	Sunapee fine sandy loam, 3 to 8 percent slopes	1	100
139C	Sunapee fine sandy loam, 8 to 15 percent slopes	1	100
140C	Benson very channery loam, 3 to 15 percent slopes	5	51
140D	Benson very channery loam, 15 to 25 percent slopes	6	31
140E	Benson very channery loam, 25 to 50 percent slopes	6	31
148B	Bomoseen and Pittstown soils, 2 to 8 percent slopes	3	74
148C	Bomoseen and Pittstown soils, 8 to 15 percent slopes	3	74
148D	Bomoseen and Pittstown soils, 15 to 25 percent slopes	3	74
149B	Bomoseen and Pittstown soils, 3 to 8 percent slopes, very stony	3	74
149C	Bomoseen and Pittstown soils, 8 to 15 percent slopes, very stony	3	74
149D	Bomoseen and Pittstown soils, 15 to 25 percent slopes, very stony	4	63
149E	Bomoseen and Pittstown soils, 25 to 40 percent slopes, very stony	4	63
150A	Peacham muck, 0 to 8 percent slopes	7	0
152	Lyons silt loam	6	31
161A	Elmridge sandy loam, 0 to 3 percent slopes	2	83
161B	Elmridge sandy loam, 3 to 8 percent slopes	2	83
163	Canandaigua silt loam	7	0
175	Wappinger silt loam	1	100
177	Pawling silt loam	1	100
202E	Rawsonville-Killington association, very hilly, very rocky	6	31
203D	Peru-Marlow association, hilly, very stony	4	63
205D	Tunbridge-Berkshire-Marlow association, hilly, rocky	4	63
213E	Glebe-Stratton association, very hilly, very rocky	7	0
221F	Tunbridge-Berkshire association, very steep, very stony	5	51
402D	Tunbridge-Lyman association, hilly, rocky	5	51
403C	Brayton-Cabot-Pinnebog association, rolling, very stony	5	51
405D	Tunbridge-Berkshire association, hilly, very rocky	4	63
505D	Berkshire-Colton association, hilly, stony	4	63
702F	Killington-Ricker-Rock outcrop association, very steep, very stony	6	31
703D	Mundal-Cabot association, hilly, very stony	5	51

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705D	Rawsonville-Houghtonville association, hilly, rocky	5	51
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.