

Forest Value Groups (VT)

Addison 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
AdA	Adams loamy fine sand, 0 to 5 percent slopes	2	83
AdB	Adams loamy fine sand, 5 to 12 percent slopes	2	83
AdD	Adams loamy fine sand, 12 to 30 percent slopes	3	74
AdE	Adams loamy fine sand, 30 to 50 percent slopes	3	74
AmB	Amenia stony loam, 0 to 8 percent slopes	1	100
AmC	Amenia stony loam, 8 to 15 percent slopes	1	100
AsC	Amenia extremely stony loam, 0 to 15 percent slopes	3	74
AsD	Amenia extremely stony loam, 15 to 25 percent slopes	4	63
BeA	Berkshire and Marlow stony loams, 0 to 3 percent slopes	2	83
BeB	Berkshire and Marlow stony loams, 3 to 12 percent slopes	2	83
BeC	Berkshire and Marlow stony loams, 12 to 25 percent slopes	3	74
BsC	Berkshire and Marlow extremely stony loams, 3 to 20 percent slopes	4	63
BsE	Berkshire and Marlow extremely stony loams, 20 to 50 percent slopes	5	51
BuC	Buckland extremely stony loam, 3 to 15 percent slopes	4	63
BuD	Buckland extremely stony loam, 15 to 25 percent slopes	5	51
CaB	Cabot stony loam, 0 to 8 percent slopes	5	51
CbC	Cabot extremely stony loam, 0 to 15 percent slopes	6	31
CiC	Calais and Glover soils, 5 to 20 percent slopes	4	63
CiE	Calais and Glover soils, 20 to 50 percent slopes	6	31
Cn	Canandaigua silt loam	7	0
Co	Cobbly alluvial land	7	0
CtA	Colton gravelly sandy loam, 0 to 5 percent slopes	2	83
CtB	Colton gravelly sandy loam, 5 to 12 percent slopes	2	83
CtD	Colton gravelly sandy loam, 12 to 30 percent slopes	3	74
CtE	Colton gravelly sandy loam, 30 to 50 percent slopes	3	74
Cv	Covington silty clay, flooded	6	31
Cw	Covington and Panton silty clays	6	31
DaA	Duane fine sandy loam, 0 to 5 percent slopes	1	100
DaB	Duane fine sandy loam, 5 to 12 percent slopes	1	100
DcB	Dutchess stony loam, 3 to 8 percent slopes	3	74
DcC	Dutchess stony loam, 8 to 15 percent slopes	3	74
DcD	Dutchess stony loam, 15 to 25 percent slopes	3	74
DsC	Dutchess extremely stony loam, 3 to 15 percent slopes	4	63
DsE	Dutchess extremely stony loam, 15 to 50 percent slopes	6	31
EiB	Elmwood fine sandy loam, coarse variant, 0 to 8 percent slopes	2	83
EiC	Elmwood fine sandy loam, coarse variant, 8 to 15 percent slopes	2	83
FaC	Farmington extremely rocky silt loam, 5 to 20 percent slopes	6	31
FaE	Farmington extremely rocky silt loam, 20 to 50 percent slopes	6	31
FdB	Farmington stony silt loam, moderately deep variant, 3 to 8 percent slopes	3	74
FdC	Farmington stony silt loam, moderately deep variant, 8 to 15 percent slopes	3	74
FdD	Farmington stony silt loam, moderately deep variant, 15 to 25 percent slopes	3	74
FdE	Farmington stony silt loam, moderately deep variant, 25 to 50 percent slopes	4	63
FnB	Farmington-Nellis rocky complex, 5 to 12 percent slopes	3	74
FnC	Farmington-Nellis rocky complex, 12 to 20 percent slopes	3	74

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FnD	Farmington-Nellis rocky complex, 20 to 30 percent slopes	3	74
Fw	Fresh water marsh	7	0
Gp	Gravel pits	7	0
Hf	Hadley very fine sandy loam	1	100
Hh	Hadley very fine sandy loam, frequently flooded	1	100
Le	Limerick silt loam	6	31
Lf	Limerick silt loam, very wet	6	31
Lh	Livingston clay	7	0
Lk	Livingston clay, flooded	7	0
LmB	Lyman-Berkshire rocky complex, 5 to 12 percent slopes	4	63
LmC	Lyman-Berkshire rocky complex, 12 to 20 percent slopes	4	63
LxC	Lyman-Berkshire very rocky complex, 5 to 20 percent slopes	5	51
LxE	Lyman-Berkshire very rocky complex, 20 to 50 percent slopes	6	31
MaA	Massena stony silt loam, 0 to 3 percent slopes	4	63
MnB	Massena extremely stony silt loam, 0 to 8 percent slopes	5	51
MrA	Melrose fine sandy loam, 0 to 3 percent slopes	4	63
MrB	Melrose fine sandy loam, 3 to 8 percent slopes	4	63
MrC	Melrose fine sandy loam, 8 to 15 percent slopes	4	63
MrD	Melrose fine sandy loam, 15 to 25 percent slopes	4	63
MrE	Melrose fine sandy loam, 25 to 50 percent slopes	5	51
Mv	Muck and Peat	7	0
NaB	Nassau-Dutchess rocky complex, 3 to 8 percent slopes	4	63
NaC	Nassau-Dutchess rocky complex, 8 to 15 percent slopes	4	63
NaD	Nassau-Dutchess rocky complex, 15 to 25 percent slopes	4	63
NdC	Nassau extremely rocky silt loam, 3 to 25 percent slopes	6	31
NeB	Nellis stony loam, 3 to 8 percent slopes	1	100
NeC	Nellis stony loam, 8 to 15 percent slopes	1	100
NeD	Nellis stony loam, 15 to 25 percent slopes	2	83
NsC	Nellis extremely stony loam, 3 to 15 percent slopes	3	74
NsD	Nellis extremely stony loam, 15 to 50 percent slopes	4	63
PeA	Peru stony loam, 0 to 5 percent slopes	3	74
PeB	Peru stony loam, 5 to 12 percent slopes	3	74
PeC	Peru stony loam, 12 to 20 percent slopes	3	74
PsC	Peru extremely stony loam, 0 to 20 percent slopes	4	63
PsD	Peru extremely stony loam, 20 to 50 percent slopes	5	51
Qu	Quarry	7	0
RaB	Raynham silt loam, 0 to 6 percent slopes	6	31
RaC	Raynham silt loam, 6 to 12 percent slopes	6	31
RaD	Raynham silt loam, 12 to 25 percent slopes	6	31
Rk	Rock land	7	0
RL	Rubble land	7	0
SaB	Salmon very fine sandy loam, 2 to 6 percent slopes	1	100
SaC	Salmon very fine sandy loam, 6 to 12 percent slopes	1	100
SaE	Salmon very fine sandy loam, 12 to 50 percent slopes	3	74
StA	Stetson gravelly fine sandy loam, 0 to 5 percent slopes	1	100
StB	Stetson gravelly fine sandy loam, 5 to 12 percent slopes	1	100

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StD	Stetson gravelly fine sandy loam, 12 to 30 percent slopes	1	100
StE	Stetson gravelly fine sandy loam, 30 to 50 percent slopes	3	74
Sw	Swanton fine sandy loam	4	63
VgB	Vergennes clay, 2 to 6 percent slopes	3	74
VgC	Vergennes clay, 6 to 12 percent slopes	3	74
VgD	Vergennes clay, 12 to 25 percent slopes	4	63
VgE	Vergennes clay, 25 to 50 percent slopes	4	63
VrB	Vergennes rocky clay, moderately shallow variant, 2 to 6 percent slopes	4	63
VrC	Vergennes rocky clay, moderately shallow variant, 6 to 12 percent slopes	4	63
VrD	Vergennes rocky clay, moderately shallow variant, 12 to 25 percent slopes	5	51
W	Water	7	0
Wa	Walpole silt loam	5	51
Wo	Winooski very fine sandy loam	1	100

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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.