

Forest Value Groups (VT)

Lamoille 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
AdB	Adams loamy fine sand, 2 to 8 percent slopes	2	83
AdC	Adams loamy fine sand, 8 to 15 percent slopes	2	83
AdD	Adams loamy fine sand, 15 to 25 percent slopes	3	74
AdE	Adams loamy fine sand, 25 to 50 percent slopes	3	74
AeC	Adams-Adams variant loamy fine sands, rocky, 8 to 15 percent slopes	2	83
AeD	Adams-Adams variant loamy fine sands, rocky, 15 to 25 percent slopes	2	83
AeE	Adams-Adams variant loamy fine sands, rocky, 25 to 50 percent slopes	3	74
AgB	Allagash very fine sandy loam, 2 to 8 percent slopes	4	63
BeB	Berkshire fine sandy loam, 3 to 8 percent slopes	2	83
BeC	Berkshire fine sandy loam, 8 to 15 percent slopes	2	83
BeD	Berkshire fine sandy loam, 15 to 25 percent slopes	3	74
BkB	Berkshire very stony fine sandy loam, 3 to 8 percent slopes	3	74
BkC	Berkshire very stony fine sandy loam, 8 to 15 percent slopes	3	74
BkD	Berkshire very stony fine sandy loam, 15 to 25 percent slopes	4	63
BrB	Berkshire-Tunbridge fine sandy loams, rocky, 3 to 8 percent slopes	2	83
BrC	Berkshire-Tunbridge fine sandy loams, rocky, 8 to 15 percent slopes	2	83
BrD	Berkshire-Tunbridge fine sandy loams, rocky, 15 to 25 percent slopes	3	74
BtE	Berkshire and Marlow soils, 25 to 50 percent slopes	5	51
BuB	Boothbay silt loam, 3 to 8 percent slopes	4	63
BuC	Boothbay silt loam, 8 to 15 percent slopes	4	63
BuD	Boothbay silt loam, 15 to 25 percent slopes	5	51
Bx	Borochemists, deep	7	0
By	Borochemists, moderately deep over loamy substratum	7	0
CoB	Colton-Duxbury complex, 2 to 8 percent slopes	2	83
CoC	Colton-Duxbury complex, 8 to 15 percent slopes	2	83
CoD	Colton-Duxbury complex, 15 to 25 percent slopes	3	74
CoE	Colton-Duxbury complex, 25 to 50 percent slopes	3	74
CrB	Croghan loamy fine sand, 2 to 8 percent slopes	1	100
FrB	Fragiaquepts and Haplaquepts, 0 to 8 percent slopes	7	0
Ha	Hamlin silt loam	1	100
Hs	Histic Fluvaquents, frequently flooded	7	0
Le	Limerick variant silt loam	6	31
LoE	Londonderry-Stratton complex, 25 to 60 percent slopes	7	0
LyB	Lyman-Tunbridge fine sandy loams, very rocky, 3 to 8 percent slopes	5	51
LyC	Lyman-Tunbridge fine sandy loams, very rocky, 8 to 15 percent slopes	5	51
LyD	Lyman-Tunbridge fine sandy loams, very rocky, 15 to 25 percent slopes	5	51
LyE	Lyman-Tunbridge fine sandy loams, very rocky, 25 to 60 percent slopes	6	31
MaB	Marlow fine sandy loam, 3 to 8 percent slopes	2	83
MaC	Marlow fine sandy loam, 8 to 15 percent slopes	2	83
MaD	Marlow fine sandy loam, 15 to 25 percent slopes	3	74
MrB	Marlow very stony fine sandy loam, 3 to 8 percent slopes	3	74
MrC	Marlow very stony fine sandy loam, 8 to 15 percent slopes	3	74
MrD	Marlow very stony fine sandy loam, 15 to 25 percent slopes	4	63
On	Ondawa fine sandy loam	4	63

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Map symbol	Soil map unit name	Vermont Forest Value Group	Relative value
PaA	Peacham stony muck, 0 to 5 percent slopes	7	0
PeB	Peru fine sandy loam, 3 to 8 percent slopes	2	83
PeC	Peru fine sandy loam, 8 to 15 percent slopes	2	83
PeD	Peru fine sandy loam, 15 to 25 percent slopes	3	74
PfB	Peru very stony fine sandy loam, 3 to 8 percent slopes	3	74
PfC	Peru very stony fine sandy loam, 8 to 15 percent slopes	3	74
PfD	Peru very stony fine sandy loam, 15 to 25 percent slopes	4	63
Po	Podunk fine sandy loam	2	83
PtB	Potsdam silt loam, 3 to 8 percent slopes	1	100
PtC	Potsdam silt loam, 8 to 15 percent slopes	1	100
PtD	Potsdam silt loam, 15 to 25 percent slopes	2	83
RkE	Ricker peat, very rocky, 15 to 80 percent slopes	7	0
Ru	Rumney fine sandy loam	5	51
SaB	Salmon very fine sandy loam, 3 to 8 percent slopes	1	100
SaB2	Salmon very fine sandy loam, 3 to 8 percent slopes, eroded	1	100
SaC	Salmon very fine sandy loam, 8 to 15 percent slopes	1	100
SaC2	Salmon very fine sandy loam, 8 to 15 percent slopes, eroded	1	100
SaD	Salmon very fine sandy loam, 15 to 25 percent slopes	1	100
SaD2	Salmon very fine sandy loam, 15 to 25 percent slopes, eroded	1	100
SaE2	Salmon very fine sandy loam, 25 to 50 percent slopes, eroded	3	74
SdC	Salmon variant-Salmon very fine sandy loams, rocky, 8 to 15 percent slopes	1	100
SdD	Salmon variant-Salmon very fine sandy loams, rocky, 15 to 25 percent slopes	1	100
SdE	Salmon variant-Salmon very fine sandy loams, rocky, 25 to 50 percent slopes	3	74
SeD	Scantic variant bouldery silt loam, 8 to 25 percent slopes	6	31
SeE	Scantic variant bouldery silt loam, 25 to 50 percent slopes	6	31
Sr	Searsport muck	7	0
StC	Stratton-Londonderry complex, 8 to 25 percent slopes	7	0
SwA	Swanville silt loam, 0 to 6 percent slopes	5	51
Te	Teel silt loam	3	74
TuB	Tunbridge-Lyman fine sandy loams, rocky, 3 to 8 percent slopes	4	63
TuC	Tunbridge-Lyman fine sandy loams, rocky, 8 to 15 percent slopes	4	63
TuD	Tunbridge-Lyman fine sandy loams, rocky, 15 to 25 percent slopes	4	63
TuE	Tunbridge-Lyman fine sandy loams, rocky, 25 to 60 percent slopes	5	51
Ud	Udfluvents, frequently flooded	7	0
W	Water	7	0
WaA	Walpole fine sandy loam, 0 to 6 percent slopes	5	51

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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.