

Farmland Classification Systems for Vermont Soils

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Cover photo of Addison County, Vermont, from Mt. Defiance, NY, by Steve Gourley

INTRODUCTION

This report describes several farmland classification systems in use in Vermont. It provides information that can be used in making Important Farmland evaluations and ACT 250 Primary Agricultural Soils (criteria 9B) and Productive Forest Soils (criteria 9C) evaluations.

This edition updates the definitions of ACT 250 Primary Agricultural Soils (criteria 9B) and Productive Forest Soils (criteria 9C) that were signed into law in May, 2006.

NRCS soil mapping is still ongoing in several counties in the Northeast Kingdom (see table 2). The information for these ongoing surveys is subject to change.

IMPORTANT FARMLANDS

Important Farmland ratings help to identify soil map units that represent the best land for producing food, feed, fiber, forage, and oilseed crops. Important Farmland inventories identify soil map units that are Prime Farmland, Unique Farmland, Additional Farmland of Statewide Importance, and Additional Farmland of Local Importance.

Important Farmland ratings are listed under each county's folder in the electronic Field Office Technical Guide (eFOTG), on county Soil Fact Sheets, and on *Vermont Important Farmlands CD*. Important farmland maps can be downloaded from the Web Soil Survey (<http://websoilsurvey.usda.gov>) for most counties in Vermont.

Prime Farmland (Prime)

The national definition of Prime Farmland was modified to include information that applies to soils in Vermont. The national definition can be found in the Code of Federal Regulations (7CFR657).

Soil map units are Prime Farmland if they have the best combination of physical and chemical characteristics for producing food, feed fiber, forage, and oilseed crops and are also available for these uses. The present land use may be cropland, pasture, forestland, or other land uses, but not urban and built-up or water. Location, tract size, and accessibility to markets and support industries are not considered when making a Prime Farmland determination.

Prime Farmland has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed according to acceptable farming methods. These soils have an adequate and dependable water supply from precipitation, a favorable temperature and growing season, acceptable acidity or alkalinity, and few or no surface stones or boulders. They are permeable to

water and air, are not excessively erodible or saturated with water for a long period of time, and don't flood frequently or are protected from flooding.

To qualify as a Prime Farmland soil map unit, the dominant soils must meet all of the following conditions:

- Soil temperature and growing season are favorable.
- Soil moisture is adequate to sustain commonly grown crops throughout the growing season in 7 or more years out of 10.
- Water moves readily through the soil and root-restricting layers are absent within 20 inches of the surface.
- Less than 10 percent of the surface layer consists of rock fragments larger than 3 inches in diameter.
- The soils are neither too acid nor too alkaline, or the soils respond readily to additions of lime.
- The soils are not frequently flooded (less often than once in 2 years) and have no water table, or the water table can be maintained at a sufficient depth during the growing season to allow for the growth of commonly grown crops.
- Slope is favorable (generally less than 8 percent) and the soils are not subject to serious erosion.
- The soils are typically deep (greater than 40 inches to bedrock), but include moderately deep soils (20 to 40 inches) with adequate available water capacity.

Unique Farmland (Unique)

There is currently no Unique Farmland identified in Vermont.

Unique Farmland is land other than Prime Farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods.

Specific characteristics of Unique Farmland are:

- It is used for high value food or fiber.

- Has a moisture supply that is adequate for the specific crop. The supply is from stored moisture, precipitation, or a developed irrigation system.
- Combines favorable factors of soil quality, growing season, temperature, humidity, air drainage, elevation, aspect, or other conditions, such as nearness to market, that favor the growth of a specific food or fiber crop.

Many crops that could fall under the definition of Unique Farmland are currently grown on Prime or Statewide soil map units. Other crops such as maple sugarbushes are commonly grown on soil map units in Agricultural Value Groups 8, 9, and 10, on land that is not Important Farmland.

For more information about the status of Unique Farmland in Vermont, see the contacts listed below.

Additional Farmland of Statewide Importance (Statewide)

This is land in addition to Prime and Unique Farmland that is of Statewide importance for the production of food, feed, fiber, forage, and oilseed crops. In Vermont, criteria for defining and delineating Farmland of Statewide Importance was determined by the appropriate state agencies, working with the Natural Resources Conservation Service.

The dominant soils in these soil map units have limitations resulting from one or more of the following conditions:

- Excessive slope and erosion hazard,
- Excessive wetness or slow permeability,
- A flooding hazard,
- Shallow depth (less than 20 inches) to bedrock or to other layers that limit the rooting zone and available water capacity,
- Moderately low to very low available water capacity.

Additional Farmland of Local Importance (Local)

In some areas, there is a need to identify additional farmland for the production of food, feed, fiber, forage, and oilseed crops that has not been identified by the other categories in the Important Farmland system. These lands can be identified as Additional Farmland of Local Importance by the appropriate local agencies. In places, Additional Farmland of Local Importance may include tracts of land that have been designated for agriculture by local ordinance.

In Vermont, a few soil map units in some counties have been identified as Additional Farmland of Local Importance. Soil map units in Agricultural Value Group 8 could potentially be Additional Farmland of Local Importance. These soil map units have limitations for crop production that can be overcome. Many areas of these soil map units are currently being used for hay or pasture.

The local Natural Resources Conservation Districts make these designations, with assistance from local NRCS personnel and concurrence by the NRCS State Conservationist.

The following soil map units are considered Additional Farmland of Local Importance:

Addison County

Adams Loamy Fine Sand, 5 To 12 Percent Slopes
Colton Gravelly Sandy Loam, 5 To 12 Percent Slopes
Raynham Silt Loam, 6 To 12 Percent Slopes

Franklin County

Missisquoi Loamy Sand, 8 To 15 Percent Slopes

Rutland County

Adams Loamy Fine Sand, 8 To 15 Percent Slopes
Hinckley Gravelly Loamy Fine Sand, 8 To 15 Percent Slopes
Windsor Loamy Sand, 8 To 15 Percent Slopes

Important Farmland Determinations for USDA programs

An Important Farmland classification of *Prime*, *Statewide*, or *Local* is assigned to soil map units based on the characteristics of the dominant soils in the soil map unit. Determinations of *Unique* are based on the specific crop and are not directly related to the soil map unit.

In most cases, Important Farmland determinations for USDA programs are made on a *soil map unit basis*. For example, if the area in question is a delineation of a Prime soil map unit, the whole area is considered Prime regardless of any map unit inclusions within the delineation. Important Farmland determinations are never made for individual components of a soil map unit delineation.

The Important Farmland designation of individual delineations of a soil map unit cannot be changed without an on-site investigation and a change in the Official Copy of the soil map where the area is located. This would only occur after an evaluation of a representative sample of all delineations of the specific soil map unit within the soil survey area.

There are exceptions. Prime, Statewide, and Local soil map units cannot be urban or

built-up areas. A delineation of a Prime, Statewide, or Local soil map unit which has been converted to urban land or build-up areas should no longer be considered Important Farmland.

Delineations of some soil map units that are Prime, Statewide, or Local have limitations, such as excessive wetness, limited depth to bedrock, or slope. These soil map units are footnoted on county Important Farmland lists. It is assumed that delineations of these map units are Prime, Statewide, or Local, unless an on-site determination finds that the delineation should not be Important Farmland. A determination that the delineation is not Important Farmland doesn't require a change of the soil map unit symbol. See the FOOTNOTES section for more details.

ACT 250 -PRIMARY AGRICULTURAL SOILS and PRODUCTIVE FOREST SOILS

Primary Agricultural Soils and Productive Forest Soils are defined in Vermont's Land Use and Development Law, Act 250.

Criteria 9B - Primary Agricultural Soils

The definition of Primary Agricultural Soils can be found in ACT 250, Vermont's Land Use Development Law, 10 V.S.A. section, 601 (15) as revised in May 2006 with the passage of Senate Bill 142.

“Primary agricultural soils” means soil map units with the best combination of physical and chemical characteristics that have a potential for growing food, feed, and forage crops, have sufficient moisture and drainage, plant nutrients or responsiveness to fertilizers, few limitations for cultivation or limitations which may be easily overcome and an average slope that does not exceed 15 percent. Present uses may be cropland, pasture, regenerating forests, forestland, or other agricultural or silvicultural uses. However, the soils must be of a size and location, relative to adjoining land uses, so that those soils will be capable, following removal of any identified limitations, of supporting or contributing to an economic or commercial agricultural operation. Unless contradicted by the qualifications stated in this subdivision, primary agricultural soils shall include important farmland soils map units with a rating of prime, statewide, or local importance as defined by the Natural Resources Conservation Service (N.R.C.S.) of the United States Department of Agriculture (U.S.D.A.).

Soil map units with an Important Farmland rating of Prime, Statewide, or Local meet the criteria contained in the definition of Primary Agricultural Soils, subject to a determination of whether such land is of a size capable of supporting or contributing to an economic or commercial agricultural operation. Determination of whether the size criteria is met is not made by NRCS.

Any soil map unit in Agricultural Value Groups 1 through 7 and those soil map units in

Agricultural Value Group 8 that are rated as Local qualify as Primary Agricultural Soils. Soil map units in Agricultural Value Group 12 have never been mapped and require an on-site investigation to determine the presence of Primary Agricultural Soils.

Criteria 9C - Productive Forest Soils

The definition of Productive Forest Soils can be found in ACT 250, Vermont's Land Use and Development Law, 10 V.S.A. section 601 (8) as revised in May 2006 with the passage of Senate Bill 142.

“Productive forest soils” means those soils which are not primary agricultural soils but which have a reasonable potential for commercial forestry and which have not been developed. In order to qualify as productive forest soils, the land containing such soils shall be of a size and location, relative to adjoining land uses, natural condition, and ownership patterns so that those soils will be capable of supporting or contributing to a commercial forestry operation. Land use on those soils may include commercial timber harvesting and specialized forest uses, such as maple sugar or Christmas tree production.

Reasonable potential for commercial forestry is not defined in ACT 250. Because it is not defined, criteria for the determination of *reasonable potential* of the soil map units is not included in this document.

Location and *ownership patterns* are site-specific and are not related to soils. Determination of whether *location* or *ownership patterns* criteria are met is not made by NRCS.

Forestland Management and Productivity Tables and databases, found in soil surveys, can be useful in helping to determine if the *natural condition* of the land has potential for commercial forestry or other specialized forest uses, such as sugarbushes or Christmas trees.

Primary Agricultural Soils and Productive Forest Soils Determinations

1. NRCS soil maps can be used to determine the presence and extent of Primary Agricultural Soils on a plot of land.
2. NRCS soil maps can be useful in determining the presence and extent of Productive Forest Soils on a plot of land but cannot be used as the sole determining factor. Until further guidance on this issue is developed, the landowner should consult with the VT county forester or private foresters.

AGRICULTURAL VALUE GROUPS

In October, 1985, the Natural Resources Conservation Service published “Agricultural Value Groups for Vermont Soils.” This publication was revised in March 1995, August 1999, and November 2002.

During the late 1980's, a number of county Agricultural Value Group studies were completed. These reports ranked the potential of soil map units within a specific county for crop production. The information in these reports can only be used within the specified county.

This report replaces all previous editions of statewide and county reports.

Agricultural value groups are a land classification system that can be used to compare the "relative value" for crop production of one soil map unit to another. They can be a useful tool in administering national, state, and local land use programs and regulations.

This report contains Agricultural Value Group rankings for all soil map units in Vermont as of March 2003. The soil map units are listed by county soil survey legend in separate eFOTG county soils folders. Because soil survey mapping is still ongoing in some soil surveys, this report will continue to be updated on a regular basis. See Table 2 for the status of county soil surveys in Vermont.

Preparation of Agricultural Value Groups

The Agricultural Value Groups were derived by integrating three land classification systems: land capability classification, Important Farmland classification, and soil potential ratings. Other factors were also considered, including slope, parent material, and general knowledge of the use and management of specific soils. Soil map unit acreage was used to help derive the relative value of each group.

Relative Values

The relative value assigned to each Agricultural Value Group is a weighted average for the group and was derived using the soil potential indices (SPI's) (see Soil Potential Study) and the acreage of each soil map unit (see table 1). Acres represent the estimated acreage of each soil map unit.

• Soil map units with a relative value of 0

Over 300 different soil map units were considered to have a very limited potential for crop production and were assigned to Agricultural Value Group 11 and given a relative value of 0. These map units include the following types of soils:

1. soils with an extremely stony, very bouldery, or extremely bouldery surface,
 2. very poorly drained organic soils,
 3. very shallow soils (less than 10 inches to bedrock),
 4. soils with slopes greater than 25 percent,
 5. soils above 2500 feet elevation (soils in the cryic soil temperature regime),
- and

6. miscellaneous land types (beaches, escarpments, gravel pits, urban areas, etc.).

• **Soil map units with no relative value assigned**

Some soil map units within a digitized or published soil survey have never been mapped because of restricted access or because they are in urban areas that were outside the scope of the soil survey at the time. These soil map units are assigned to Agricultural Value Group 12 and not assigned a relative value.

• **The following soil map units are in Agricultural Value Group 12:**

Caledonia County

900 - Denied Access

Chittenden County

BUR - Burlington (Limit of Soil Survey)

MTFA - Military Test Firing Area

Essex County

900 - Denied Access

Results

In 1985, all soils were rated and placed into one of eleven Agricultural Value Groups. Relative values for each group were developed on a scale of 0 to 100, with 100 representing the highest agricultural value.

In 1999, Agricultural Value Groups were assigned to each soil map unit in Vermont. Soil map units that consisted of a phase of one major soil (for example, Berkshire fine sandy loam, 0 to 3 percent slopes) were assigned the relative value of that soil phase based on the 1985 report. Soil map units that consisted of phases of 2 or more major soils (for example, Tunbridge-Lyman complex, 3 to 8 percent slopes) were assigned one relative value based on the relative values and extent of each soil phase in the 1985 report. The results for Agricultural Value Groups are listed by county soil survey legend. Relative values are listed in table 1.

As of May, 2006, the soil surveys in Caledonia and Essex counties are ongoing and the soil survey legends are subject to change. When using the information from these soil surveys, one should verify that the information is up-to-date with the contacts listed in this report.

Interpretation and Use

Soil map units were placed in their respective Agricultural Value Groups assuming that it was feasible to apply the corrective measures needed to overcome the soil limitations identified in the soil potential study. Soil map units associated with bedrock or wetness are identified by footnotes, defined in the section Footnotes, and are listed on the soil survey legends. Users of this report are encouraged to consider the footnotes and the need for on-site investigations.

Agricultural Value Groups Descriptions

Agricultural Value Groups consist of soil map units that have similar characteristics, limitations, management requirements, and potential for crop production. Soil map units in Group 1 have the most potential for crop production and soil map units in Groups 11 and 12 have the least potential for crop production. The description and makeup of the Agricultural Value Groups are as follows:

- 1 – These soil map units have an Important Farmland rating of Prime. Most of the soil map units are in Land Capability Class 1 or 2. Their relative value is 100.
- 2 – These soil map units have an Important Farmland rating of Statewide. Most of the soil map units are in Land Capability Class 2. Their relative value is 97.
- 3 – These soil map units have an Important Farmland rating of Prime. Most of the soil map units are in Land Capability Class 2 or 3. Their relative value is 84.
- 4 – These soil map units have an Important Farmland rating of Statewide. Most of the soil map units are in Land Capability Class 2, 3, or 4. Their relative value is 82.
- 5- These soil map units have an Important Farmland rating of Statewide. Most of the soil map units are in Land Capability Class 3. Their relative value is 69.
- 6- These soil map units have an Important Farmland rating of Statewide. Most of the soil map units are in Land Capability Class 2, 3, or 4. Their relative value is 63.
- 7- These soil map units have an Important Farmland rating of Statewide. Most of the soil map units are in Land Capability Class 3. Their relative value is 57.
- 8- The major limitations for crop production include low available water capacity, erosion, and slope. This group includes a few soil map units that have an Important Farmland rating of Local. Most of the soil map units are in Land Capability Class 4 or 6. Their relative value is 52.
- 9- The major limitations for crop production include slope, wetness, surface stones, and bedrock outcrops. On-site investigations are recommended to determine the feasibility of installing corrective measures and using these soils for crop

production. If it is determined that corrective measures can't be installed successfully, then the area in question should be placed in Agricultural Value Group 11. Normally, the cost of overcoming corrective measures and laws governing the installation of corrective measures should not be considered when making this determination. In some situations, if laws prevent the installation of corrective measures, the area in question should be placed in Agricultural Value Group 11. Most of the soil map units are in Land Capability Class 5, 6, or 7. Their relative value is 43.

10- The major limitations for crop production include slope, wetness, surface stones, and bedrock outcrops. They can be used as cropland only after intensive and expensive installation of various corrective measures. On-site investigations are strongly recommended to determine feasibility of installing corrective measures and using these soils for crop production. . If corrective measures can't be installed then the area in question should be placed in Agricultural Value Group 11. Normally, the cost of overcoming corrective measures and laws governing the installation of corrective measures should not be considered when making this determination. In some situations, if laws prevent the installation of corrective measures, the area in question should be placed in Agricultural Value Group 11. Most of the soil map units are in Land Capability Class 5, 6, or 7. Their relative value is 22.

11- These soil map units are considered to have very limited potential for crop production. Most of the soil map units are in Land Capability Class 7 or 8. Only in rare situations, and usually after great expense, are these soil map units converted for crop production. Their relative value is 0.

12- These soil map units are areas within a digitized or published soil survey that have never been mapped because of restricted access or the policy on not mapping urban areas that was in place at the time of the survey. An on-site investigation should be conducted to determine if areas of these soil map units should be assigned to a different Agricultural Value Group. No relative value is assigned.

Possible Uses

Agricultural Value Groups and relative values may be useful in many state and local programs, including:

- design and implementation of Agricultural Land Evaluation and Site Assessment (LESA) systems;
- implementation of Public Law 97-98, the Farmland Protection Policy Act (FPPA);

- rating of agricultural soils for appraisal under Vermont's Use Value Program of Agricultural and Forest Land;
- rating of agricultural soils for appraisal under Town Tax Stabilization Programs;
- assessment of agricultural soils by land trusts, landowners, bankers, realtors; and
- broad resource planning by state agencies and town and regional planning commissions.

Note that the relative values are only index numbers and do not represent dollar net returns for a given agricultural use. Determinations of the absolute profitability of agricultural production on a given soil map unit is not possible from these relative values. However, relative values may be used to compare the relative profitability of farming on various soil map units.

The user must consider the appropriate footnotes. With the exception of broad planning activities, on-site investigations are recommended when using this report because of the following needs:

- To assess wetness, surface stones and boulders, and bedrock limitations.
- To assess the steepness of soils on slopes ranging from 15 percent to at least 25 percent. The steeper areas may be unsuitable for crop production.
- To assess landscape pattern limitations. Some areas with good potential may be non-farmable because of irregular slope patterns and the presence of small streams and drainage ways. Landscape patterns can result in small inefficient tract sizes, hamper the operation of farm equipment, and make a site unproductive without additional and expensive land shaping activities.

Definitions

1) Land Capability Classification System

The Land Capability Classification system shows the suitability of soils for most agricultural uses. Soils are grouped according to their limitations for agricultural crops, the risk of damage when they are used, and the way they respond to management. The grouping does not consider major, and generally expensive, landforming activities that would change slope, depth, or other characteristics of the soils, nor does it consider major land reclamation projects.

Soils are grouped at three levels: capability class, subclass, and unit. Classes and

subclasses have been used in this study. Capability classes are designated by Roman numerals I through VIII in older soil survey reports, and by Arabic numerals 1 through 8 in newer soil survey reports. The numerals indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

- Class 1 soils have few limitations that restrict their use.
- Class 2 soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.
- Class 3 soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.
- Class 4 soils have very severe limitations that reduce the choice of plants or require very careful management, or both.
- Class 5 soils are not likely to erode but have other limitations, impractical to remove, that limit their use.
- Class 6 soils have severe limitations that make them generally unsuitable for crop production.
- Class 7 soils have very severe limitations that make them unsuitable for crop production.
- Class 8 soils and miscellaneous land areas have limitations that nearly preclude their use for crop production.

Capability subclasses indicate the major kinds of limitations within each capability class. Within most capability classes there can be up to four subclasses. Adding a small letter e, w, s, or c, to the class numeral indicates the subclass. An example is 2e.

- The letter **e** represents a risk of erosion,
- **w** means that water in or on the soil will interfere with plant growth or crop production,
- **s** represents a shallow, droughty, or surface stoniness limitation, and
- **c** represents a climate limitation that is very cold or very dry.

2) Soil Potential Study

A soil potential study conducted by NRCS formed the numerical basis for developing the Agricultural Value Groups and their relative values. Soil potential ratings are expressed by a soil potential index (SPI), which is a numerical rating of a soil's relative potential for

crop production.

The soil potential ratings are based on the integration of numerous data derived from literature and the knowledge of technical specialists. Some of this data was estimated based on the knowledge and judgment of the technical specialists. Crop yields on specific soils are examples of such estimates. The estimates and ratings are subject to change when more precise data becomes available.

Monetary benefits and costs associated with crop yields and soil corrective measures may change due to inflation and/or technology changes. Such changes may affect the soil potential ratings and thereby warrant an update of this report.

The SPI is used to rank soils from very high potential to very low potential and is derived from indices of soil performance, cost of corrective measures, and costs of continuing limitations. The SPI indicates a soil's agricultural profitability potential relative to other soils in the study area. The SPI is expressed by the equation:

$SPI = P - CM - CL$, where:

P = performance index (P is determined by a soil's estimated corn silage yield/acre converted to dollars)

CM = index of costs of corrective measures needed to overcome or minimize the effects of soil limitations (CM is expressed in dollars/acre/year)

CL = index of costs resulting from continuing limitations (CL is expressed as maintenance costs of reduced yields converted to dollars)

DIGITAL INFORMATION

Agricultural Value Groups and Important Farmland Ratings for most counties are available as part of the TOP20 attribute data table. TOP20 is available through the Vermont Center for Geographic Information (<http://www.vcgi.org/>) or from NRCS (<http://www.vt.nrcs.usda.gov/soils/>).

FOOTNOTES

Listed below are the footnotes for the county Agricultural Value Groups and Important Farmland rankings in the county soil survey legends.

a - For this soil map unit, one of two qualifications apply: 1) if the upper slope limit is between 9 and 15 percent, then the areas of the soil map unit that exceed 8 percent slope do not qualify as Prime Farmland or Farmland of Statewide Importance; or 2) if the upper slope limit exceeds 15 percent, then the areas of the soil map unit that exceed 15 percent

slope do not qualify as Prime Farmland or Farmland of Statewide Importance.

b - One or more of the soils in this soil map unit have a severe wetness limitation due to the presence of a shallow water table during the cropping season. Areas of this soil map unit do not qualify as Prime Farmland or Farmland of Statewide Importance if artificial drainage is not installed.

c - Bedrock outcrops commonly cover more than 2 percent of the surface. Areas of this soil map unit will not qualify as Prime Farmland or Farmland of Statewide Importance if bedrock outcrops are extensive enough to prohibit efficient farming.

d- The soils in this soil map unit have a wetness limitation that may not be feasible to overcome. Agricultural Value Group assignments are based on the assumption that installing artificial drainage is feasible. Feasible means it is possible to install artificial drainage. Areas of this soil map unit where artificial drainage is not feasible should be placed in Agricultural Value Group 11. Normally, the cost of installing artificial drainage and laws governing the installation of artificial drainage should not be considered when making this determination. In some situations, if laws prevent the installation of corrective measures, the area in question should be placed in Agricultural Value Group 11. This footnote is assigned to Agricultural Value Groups 1 through 8.

e - Bedrock outcrops cover more than 2 percent of the surface. Areas of this soil map unit should be placed in Agricultural Value Group 11 if bedrock outcrops are extensive enough to prohibit efficient farming. This footnote is assigned to Agricultural Value Groups 1 through 8.

f - The soils in this soil map unit are frequently flooded. Flooding is likely to occur often under usual weather conditions, and there is more than a 50 percent chance of flooding in any year. Typically, however, flooding occurs outside of the growing season. During the growing season, flooding is expected infrequently under usual weather conditions, with a 5 to 50 percent chance of flooding in any year.

CONTACT INFORMATION

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For an update on the work in on-going soil surveys:

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To obtain the Important Farmland CD:

Caroline Alves, Soil Scientist/GIS Specialist
USDA-NRCS
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Link to the eFOTG web site:

<http://www.nrcs.usda.gov/technical/efotg/>

For instruction on how to use the site go to the soils section of the VT NRCS web site:

http://www.vt.nrcs.usda.gov/soils/so_databases.html

Table 1. Agricultural Value Groups of Vermont Soils by Important Farmland Rating, Acres, Percentage of State Land Area, and Relative Value compiled in 1985.

Agricultural Value Group	Important Farmland Rating	Acres (1985)	Percentage of State	Relative Value
1	Prime	91,983	1.56	100
2	Statewide	10,919	0.18	97
3	Prime	289,654	4.88	84
4	Statewide	81,568	1.37	82
5	Statewide	115,386	1.94	69
6	Statewide	469,321	7.92	63
7	Statewide	284,026	4.80	57
8		436,916	7.37	52
9		302,716	5.11	43
10		1,496,360	25.25	22
11		2,348,101	39.62	0
Total		5,926,950	100.0	

The acreage figure used to generate this table is based on estimated acres mapped in 1985 for the original report.

Table 2. Status of Soil Surveys in Vermont

County Soil Survey	Available on WEB Soil Survey	Available on CD	Soil Survey is ongoing
Addison	yes	yes	
Bennington	yes	yes	
Caledonia	2007		yes
Chittenden	2006		
Essex	2010		yes
Franklin	yes	2006	
Grand Isle	yes	yes	
Lamoille	yes		
Orange	yes		
Orleans	yes		
Rutland	yes		
Washington	yes	yes	
Windham	yes		
Windsor	yes		