

Land Capability Classification

The land capability classification system is used to show, in a general way, the suitability of soils for cropland. It is a three-category interpretative system. The two highest categories, class and subclass, give broad perspective of the suitability of map units for certain crops or pasture. These categories indicate the degree and kinds of limitations for these uses. The system evaluates soils for mechanized farming systems that produce the more common cultivated field crops, such as corn, small grains, cotton, hay, and field grown vegetables.

Capability Class

The highest category of the system is the capability class. The capability classes are groups of soils that have the same general suitability for the broad kinds of use common on farms and ranches. There are eight classes designated by Roman numerals I through VIII.

Classes I, II, III, and IV are suitable for mechanized production of common field crops if properly managed, and for production of pasture and woodland. The degree of limitation for production of cultivated crops increases progressively for class I to class IV. Limitations may affect production as well as the risk of permanent soil deterioration, as by erosion.

Classes V, VI, and VII are generally not suited to mechanized production of common field crops without special management, but are suitable for permanent cover such as grasses and trees. The severity of the soil limitations for crops increases from class V to class VII. Areas in class VIII are generally not suitable for crops, pasture, or wood products without management that is impractical. Class VIII areas may have potential for other uses, such as recreation or wildlife habitat.

Capability Subclass

The subclass identifies the dominant kind of limitation in the class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, IIe. The letter e shows that the main limitation is risk of erosion unless a close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class I because the soils of this class have few limitations. The soils in class V are subject to little or no erosion, but they have other limitations that restrict their use mainly to pasture, woodland, wildlife habitat, or recreation. Class V contains only the subclasses indicated by w, s, or c.

Capability Unit

The lowest category of the capability system is the capability unit. Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Units are designated by Arabic numerals, for example IIe-2. This category is not used in all soil surveys.

Crop Yield Estimates

The average yields per acre that can be expected of the principal crops under a high level of management are presented in the following table. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, or green manure crops; and harvesting that insures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change. Absence of a yield indicates that the soil is not suited to the crop or the crop is generally not grown on the soil.

Land Capability and Yields per Acre of Crops

Somerset County, Maine, Southern Part

Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.

Map Symbol and Soil Name	Land Capability	Apples	Corn Silage	Irish Potatoes	Oats
		Bu	Tons	Cwt	Bu
AaB: Adams	3s	---	16.00	---	45.00
AaC: Adams	4e	---	16.00	---	40.00
AaD: Adams	6e	---	---	---	---
BaB: Bangor	2e	750.00	18.00	330.00	70.00
BaC2: Bangor	3e	800.00	16.00	270.00	60.00
BgB: Bangor	6s	750.00	---	---	---
BgC: Bangor	6s	800.00	---	---	---
BgD: Bangor	6s	---	---	---	---
BhB: Berkshire	2e	750.00	22.00	330.00	70.00
BhC: Berkshire	3e	800.00	20.00	300.00	60.00
BkB: Berkshire	6s	750.00	---	---	---
BkC: Berkshire	6s	800.00	---	---	---
BkE: Berkshire	7s	---	---	---	---
Bo: Biddeford	5w	---	---	---	---
BuB: Buxton	3w	---	22.00	---	60.00
BuC2: Buxton	4e	---	18.00	---	60.00
CnC: Colton	4e	---	---	---	45.00

Land Capability and Yields per Acre of Crops - Continued

Somerset County, Maine, Southern Part

Map Symbol and Soil Name	Land Capability	Apples	Corn Silage	Irish Potatoes	Oats
		Bu	Tons	Cwt	Bu
CnD: Colton	6e	---	---	---	---
CnE: Colton	7e	---	---	---	---
DxB: Dixmont	2w	500.00	25.00	300.00	65.00
DxC: Dixmont	3e	500.00	18.00	240.00	60.00
DyB: Dixmont	6s	500.00	---	---	---
DyC: Dixmont	6s	500.00	---	---	---
Dz: Dune Land	8e	---	---	---	---
Ha: Hadley	1	---	26.00	330.00	80.00
Lc: Leicester	7s	---	---	---	---
Lk: Limerick	4w	---	16.00	---	50.00
LyB: Lyman	3e	450.00	14.00	300.00	55.00
LyC: Lyman	4e	450.00	12.00	300.00	55.00
LzC: Lyman	6s	---	---	---	---
LzE: Lyman	7s	---	---	---	---
MbB: Madawaska	2w	---	22.00	270.00	60.00
MeB: Melrose	2e	---	24.00	330.00	70.00
Mn: Mixed Alluvial Land	6w	---	---	---	---
Mo: Monarda	4w	---	---	---	40.00

Land Capability and Yields per Acre of Crops - Continued

Somerset County, Maine, Southern Part

Map Symbol and Soil Name	Land Capability	Apples	Corn Silage	Irish Potatoes	Oats
		Bu	Tons	Cwt	Bu
Mr: Monarda	7s	---	---	---	---
Pa: Peat	8w	---	---	---	---
Muck	8w	---	---	---	---
PcB: Peru	2e	500.00	20.00	270.00	60.00
PdB: Peru	6s	500.00	---	---	---
PdC: Peru	6s	500.00	---	---	---
PgB: Plaisted	2e	750.00	22.00	330.00	60.00
PgC: Plaisted	3e	800.00	20.00	300.00	50.00
PrB: Plaisted	6s	---	---	---	---
PrC: Plaisted	6s	---	---	---	---
PrD: Plaisted	6s	---	---	---	---
RtC: Rock Land	8s	---	---	---	---
Thorndike	6s	---	---	---	---
Lyman	7s	---	---	---	---
RtE: Rock Land	8s	---	---	---	---
Thorndike	7s	---	---	---	---
Lyman	7s	---	---	---	---
Sc: Scantic	4w	---	---	---	---
Sk: Skowhegan	2w	---	14.00	240.00	---
StB: Stetson	2s	---	16.00	270.00	60.00

Land Capability and Yields per Acre of Crops - Continued

Somerset County, Maine, Southern Part

Map Symbol and Soil Name	Land Capability	Apples	Corn Silage	Irish Potatoes	Oats
		Bu	Tons	Cwt	Bu
SuC2: Suffield	4e	---	18.00	---	55.00
SuD2: Suffield	6e	---	---	---	---
TkC: Thorndike	6s	---	---	---	---
TkD: Thorndike	6s	---	---	---	---
TpB: Thorndike	2s	---	16.00	270.00	---
Plaisted	2e	700.00	22.00	330.00	60.00
TpC: Thorndike	3e	---	14.00	240.00	---
Plaisted	3e	700.00	20.00	300.00	60.00
TpD: Thorndike	4e	---	---	---	---
Plaisted	4e	---	---	---	---
TtB: Thorndike	2s	---	16.00	270.00	---
Bangor	2e	750.00	18.00	330.00	60.00
TtC: Thorndike	3e	---	14.00	240.00	---
Bangor	3e	800.00	16.00	270.00	60.00
TtD: Thorndike	4e	---	---	---	---
Bangor	4e	---	---	---	---
Wa: Walpole	4w	---	---	---	---
Wn: Winooski	2w	---	25.00	310.00	70.00