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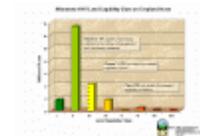


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**Land Capability Classes**

Land Capability Classification (LCC) is a system of grouping soils primarily on the basis of their capability to produce common cultivated crops and pasture plants without deteriorating over a long period of time. Each soil map unit is assigned a capability class of I through VIII, and classes II through VII are assigned a sub-class describing limitations or hazards for agricultural purposes.



**Classes**

Classes I through IV are considered capable of producing cultivated crops with good management and conservation treatment. Classes V through VII are best suited to perennial vegetative species, but may be capable of producing some specialized crops with highly intensive management. Class VIII soils are not suitable for managed vegetative production.

In 1997, 70% of Minnesota cropland was in LCC Class I or II, and another 28% was in Class III and IV. Only 2% was in Class V or higher. Nationally, Class I and II land make up 53% of cropland, Class III and IV comprise 41%, and close to 6% of cropland is Class V or higher.

**Subclasses**

Land capability subclasses represent the dominant limitation for agricultural use. Class I soils do not have limitations for crop production and are not assigned a subclass.

Subclass **e** is made up of soils for which the susceptibility to **erosion** is the dominant problem or hazard affecting their use. Erosion susceptibility and past erosion damage are the major soil factors that affect soils in this subclass.

Subclass **w** is made up of soils for which excess **water** is the dominant hazard or limitation affecting their use. Poor soil drainage, wetness, a high water table, and overflow are the factors that affect soils in this subclass.

Subclass **s** is made up of soils that have **soil limitations** within the rooting zone, such as shallowness of the rooting zone, stones, low moisture-holding capacity, low fertility that is difficult to correct, and salinity or sodium content.

Subclass **c** is made up of soils for which the **climate** (the temperature or lack of moisture) is the major hazard or limitation affecting their use.

Excess water (subclass w) is the most commonly occurring limitation on Minnesota cropland. Forty-three percent of Minnesota cropland is in subclass w. Erosion (subclass e) is the next most common limitation, making up 31% of Minnesota cropland. Seventeen percent is limited by soil characteristics (subclass s) and less than 1% is limited by climate (subclass c). The remainder of Minnesota cropland is in class I and does not have significant limitations.

Land Capability Subclass	Thousands of Acres	Percent of total Cropland
c	9.6	0%
e	6696.6	31%
s	3734.8	17%
w	9300	43%
Class I (no subclass)	1672.7	8%

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