

## Map Unit Cropland Productivity Report (MN)

The Minnesota Crop Productivity Index (CPI) ratings provide a relative ranking of soils based on their potential for intensive row crop production. An index can be used to rate the potential yield of one soil against that of another over a period of time. Ratings range from 0 to 100. The higher numbers indicate higher production potential.

The CPI ratings do not take into account climatic factors, such as the differences in precipitation or growing degree days across Minnesota. The ratings are based on physical and chemical properties of the soils and on such hazards and flooding and ponding. Available water capacity, reaction (pH), slopes, soil moisture status, cation-exchange capacity (CEC), organic matter content, salinity, and surface fragments are the major properties evaluated when CPI ratings are generated. The soil properties selected are those that are important for the production of corn.

All map units in Minnesota were initially evaluated using the Cropland Productivity rule in the National Soil Information System (NASIS). They were assigned a value using an overall CPI based on the combined properties and characteristics of the map unit as a whole, and the values were adjusted based on tacit knowledge of local experts. An individual map unit (for example, Canisteo clay loam, 0 to 2 percent slopes) will have the same CPI value wherever that map unit occurs throughout the state.

When the soils are rated, the following assumptions are made: a) adequate management, b) no irrigation, c) artificial drainage where required, d) no land leveling or terracing, and e) no climatic factors considered.

The map unit CPI was used to update the map unit crop yields for corn and soybeans. Even through predicted average yields will change with time, the productivity indices are expected to remain relatively constant in relation to one another over time.

## Report—Map Unit Cropland Productivity Report (MN)

Map Unit Cropland Productivity Report (MN)—Nobles County, Minnesota		
Map unit symbol	Map unit name	Crop productivity index
1015A	Havelock clay loam, 0 to 2 percent slopes, frequently flooded	20
P12B	Everly silty clay loam, 2 to 6 percent slopes	93
P29A	Rushmore silty clay loam, 0 to 2 percent slopes	94
P43A	Wilmonton silty clay loam, 1 to 3 percent slopes	98
P48A	Allendorf silty clay loam, 0 to 2 percent slopes	75
P48B	Allendorf silty clay loam, 2 to 6 percent slopes	74
P56B	Kanaranzi silt loam, 2 to 6 percent slopes	54

## Data Source Information

Soil Survey Area: Nobles County, Minnesota  
Survey Area Data: Version 14, Sep 19, 2016