

## MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) 100 1:20.000. Area of Interest (AOI) 76 Soils Warning: Soil Map may not be valid at this scale. **Soil Rating Polygons** Enlargement of maps beyond the scale of mapping can cause 85 100 misunderstanding of the detail of mapping and accuracy of soil 86 line placement. The maps do not show the small areas of 76 contrasting soils that could have been shown at a more detailed 89 77 85 Please rely on the bar scale on each map sheet for map 92 measurements. 99 Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Not rated or not available Coordinate System: Web Mercator (EPSG:3857) **Water Features** Maps from the Web Soil Survey are based on the Web Mercator Streams and Canals projection, which preserves direction and shape but distorts 99 distance and area. A projection that preserves area, such as the Transportation Not rated or not available Albers equal-area conic projection, should be used if more Rails --accurate calculations of distance or area are required. Soil Rating Lines Interstate Highways This product is generated from the USDA-NRCS certified data as **US Routes** of the version date(s) listed below. 76 Major Roads Soil Survey Area: Big Stone County, Minnesota Survey Area Data: Version 17, Oct 9, 2018 Local Roads 85 Soil map units are labeled (as space allows) for map scales Background 1:50.000 or larger. Aerial Photography Date(s) aerial images were photographed: Aug 22, 2013—Nov 14. 2016 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. Not rated or not available Soil Rating Points

## Minnesota Crop Productivity Index: Edit notes (CropProd)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
26	Aazdahl clay loam, 1 to 4 percent slopes	100	12.7	5.1%
34	Parnell silty clay loam, occasionally ponded, 0 to 1 percent slopes	86	11.4	4.6%
36	Lakepark-Parnell, occasionally ponded, complex, 0 to 2 percent slopes	92	3.0	1.2%
171B	Formdale clay loam, 1 to 6 percent slopes	99	12.7	5.1%
184A	Balaton-Hamerly complex, 1 to 4 percent slopes	89	3.1	1.3%
344	Bigstone silty clay loam	77	6.4	2.6%
494B	Darnen loam, 1 to 6 percent slopes	99	9.0	3.6%
900	Hamerly-Aazdahl- Lindaas complex	91	8.1	3.3%
915B	Formdale-Buse complex, 2 to 6 percent slopes	92	100.1	40.3%
915C2	Buse-Formdale clay loams, 6 to 12 percent slopes, eroded	76	33.3	13.4%
1916	Lindaas silty clay loam	85	48.5	19.5%
Totals for Area of Interest			248.4	100.0%

## **Description**

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.

## **Rating Options**

Edit notes: Edit notes
CropProd: CropProd

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower