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

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Minnesota Crop Productivity Index

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CW	Cordova-Webster complex	89	52.3	41.7%
GL	Glencoe clay loam, 0 to 1 percent slopes	86	4.5	3.6%
HM	Hamel loam, 0 to 2 percent slopes	94	4.1	3.3%
LA	Le Sueur-Lester complex, 1 to 6 percent slopes	95	40.3	32.1%
LB2	Lester loam, 2 to 6 percent slopes	91	1.7	1.4%
LC	Lester loam, 6 to 10 percent slopes	76	1.6	1.3%
LC2	Lester loam, 6 to 10 percent slopes, moderately eroded	76	14.3	11.4%
LE2	Lester loam, 10 to 22 percent slopes, moderately eroded	34	0.1	0.1%
LS	Le Sueur loam, 1 to 3 percent slopes	97	2.5	2.0%
PM	Klossner muck, 0 to 1 percent slopes	77	4.0	3.2%
Totals for Area of Interest			**125.4**	**100.0%**

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- 34
- 76
- 77
- 86
- 89
- 91
- 94
- 95
- 97
- Not rated or not available

Soil Rating Lines

- 34
- 76
- 77
- 86
- 89
- 91
- 94
- 95
- 97
- Not rated or not available

Soil Rating Points

- 34
- 76
- 77
- 86
- 89
- 91
- 94
- 95
- 97
- Not rated or not available

Water Features

Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

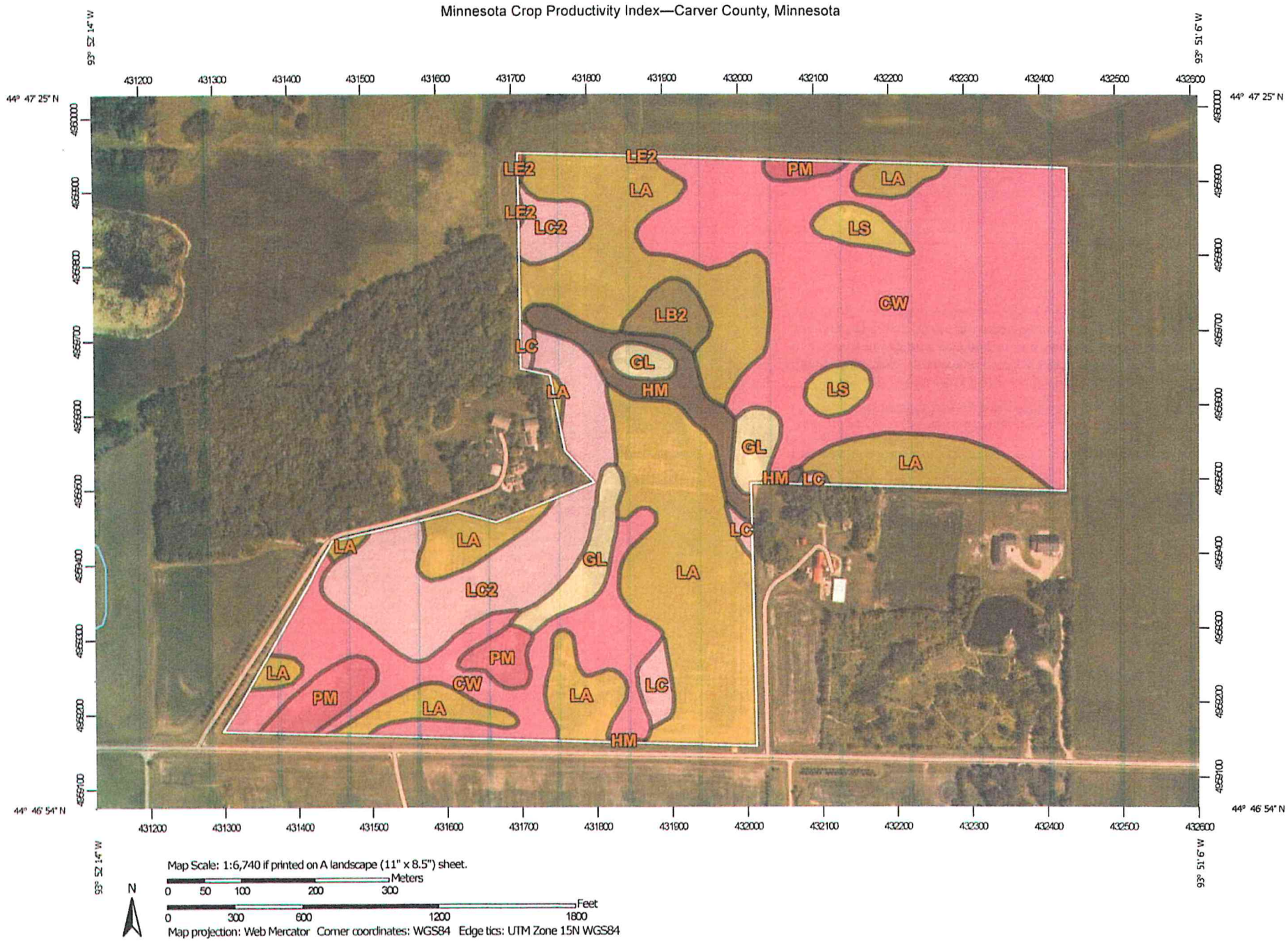
Soil Survey Area: Carver County, Minnesota
Survey Area Data: Version 22, Sep 9, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 29, 2023—Sep 13, 2023

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.

Minnesota Crop Productivity Index—Carver County, Minnesota



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CW	Cordova-Webster complex	52.3	41.7%
GL	Glencoe clay loam, 0 to 1 percent slopes	4.5	3.6%
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LA	Le Sueur-Lester complex, 1 to 6 percent slopes	40.3	32.1%
LB2	Lester loam, 2 to 6 percent slopes	1.7	1.4%
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LC2	Lester loam, 6 to 10 percent slopes, moderately eroded	14.3	11.4%
LE2	Lester loam, 10 to 22 percent slopes, moderately eroded	0.1	0.1%
LS	Le Sueur loam, 1 to 3 percent slopes	2.5	2.0%
PM	Klossner muck, 0 to 1 percent slopes	4.0	3.2%
Totals for Area of Interest		**125.4**	**100.0%**

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

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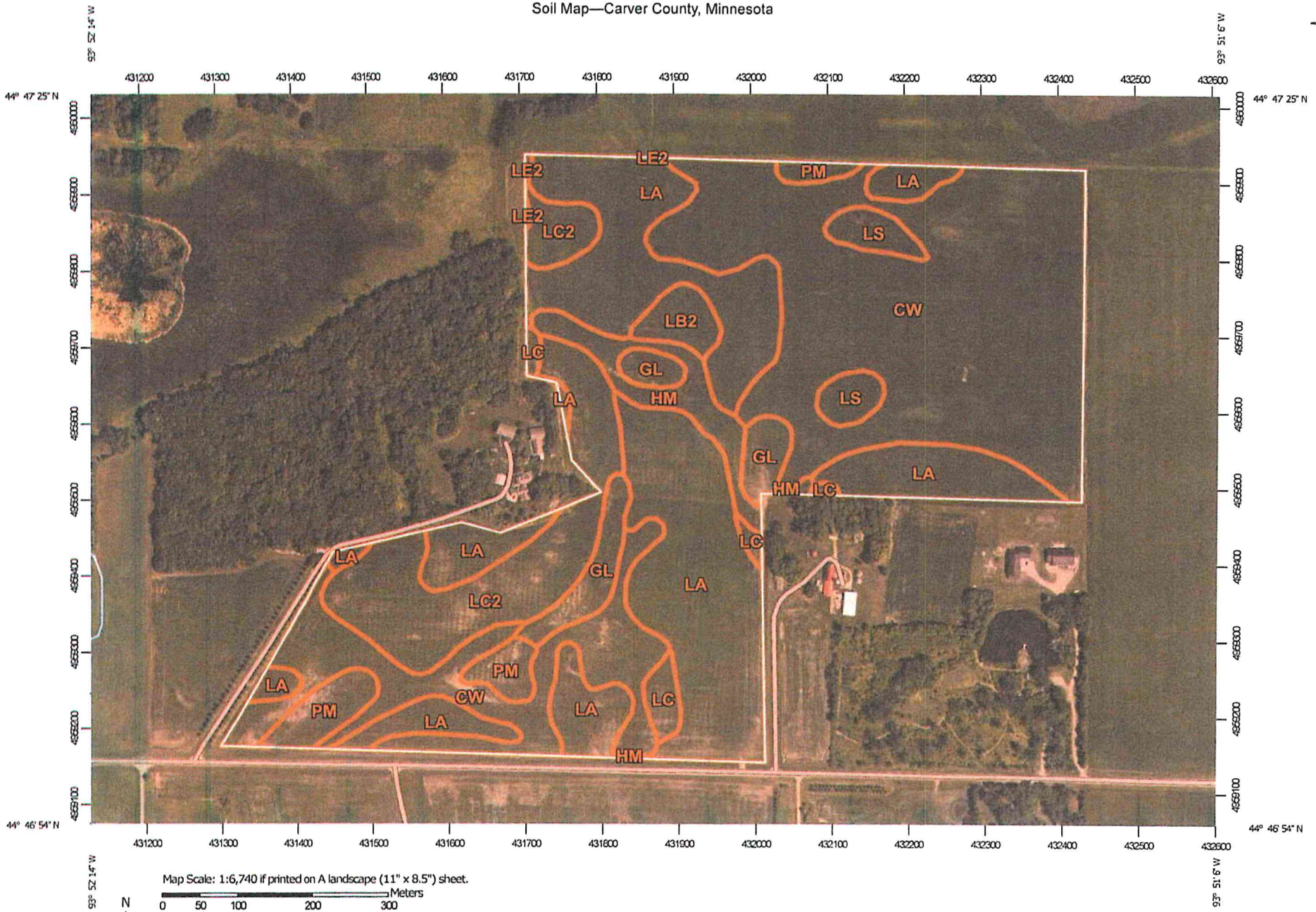
93° 52' 14" W
93° 51' 9" W
44° 47' 25" N
44° 46' 54" N
431200
431300
431400
431500
431600
431700
431800
431900
432000
432100
432200
432300
432400
432500
432600
4960000
4959800
4959700
4959600
4959500
4959400
4959300
4959200
4959100
LE2
LA
PM
LS
LC2
CW
LB2
LC
GL
HM
Map Scale: 1:6,740 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 50 100 200 300
Feet
0 300 600 1200 1800
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84