

USDA Natural Resources



Crop Productivity Index—Pembina County, North Dakota

USDA Natural Resources Conservation Service

Crop Productivity Index

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
F2A	Tonka silt loam, 0 to 1 percent slopes	42	5.2	0.0%
F143D	Barnes-Buse-Langhei loams, 9 to 15 percent slopes	41	411.3	0.1%
F203A	Waukon loam, 0 to 3 percent slopes	80	2,694.2	0.4%
F203B	Waukon loam, 3 to 6 percent slopes	76	491.3	0.1%
F203C	Waukon loam, 6 to 9 percent slopes	64	115.0	0.0%
F309B	Brantford-Vang loams, 2 to 6 percent slopes	52	2.6	0.0%
F393A	Inkster loam, 0 to 2 percent slopes	72	109.1	0.0%
F561A	La Prairie loam, 0 to 2 percent slopes, occasionally flooded	85	9.1	0.0%
F563A	Fluvaquents, channeled- Fairdale complex, 0 to 2 percent slopes, frequently flooded	37	28.3	0.0%
F567A	Fairdale loam, 0 to 2 percent slopes, occasionally flooded	79	49.5	0.0%
F590F	Olga silty clay loam, 15 to 35 percent slopes	28	377.3	0.1%
F591F	Olga-Kloten complex, 9 to 75 percent slopes	12	1,857.1	0.3%
F594D	Olga silty clay loam, 9 to 15 percent slopes	48	240.2	0.0%
F641F	Udarents loamy, earthen dam, 1 to 75 percent slopes	0	20.5	0.0%
F997	Water, intermittent	3	3.7	0.0%
I111A	Wheatville very fine sandy loam, 0 to 2 percent slopes	83	3,983.2	0.6%
I119A	Bearden silty clay loam, 0 to 2 percent slopes	90	79,300.7	11.1%
I123A	Bearden-Colvin silty clay loams, 0 to 2 percent slopes	86	1,905.9	0.3%
I130A	Hegne-Fargo silty clays, 0 to 1 percent slopes	82	86,080.2	12.0%

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I149E	Cashel-Fluvaquents, channeled complex, 0 to 25 percent slopes, frequently flooded	32	1,427.9	0.2%
I161A	Vang loam, 0 to 2 percent slopes	65	1,997.8	0.3%
1162C	Walsh loam, 6 to 9 percent slopes	68	193.8	0.0%
I162D	Walsh loam, 9 to 15 percent slopes	51	1,207.6	0.2%
I164C	Zell-Gardena silt loams, 6 to 9 percent slopes	61	662.7	0.1%
I176A	Ojata silty clay loam, 0 to 1 percent slopes	25	494.4	0.1%
I187A	Egeland loam, 0 to 2 percent slopes	76	901.6	0.1%
I192A	Bearden silt loam, silty substratum, 0 to 2 percent slopes	92	46,329.0	6.5%
I201A	Glyndon silt loam, 0 to 2 percent slopes	92	93,857.3	13.1%
1202A	Gardena silt loam, 0 to 2 percent slopes	95	96.2	0.0%
1202D	Zell-Eckman silt loams, 9 to 15 percent slopes	46	258.0	0.0%
I213A	Embden fine sandy loam, 0 to 2 percent slopes	74	7,781.4	1.1%
I213B	Embden fine sandy loam, 2 to 6 percent slopes	68	248.0	0.0%
1226A	Gardena silt loam, clayey substratum, 0 to 2 percent slopes	96	277.9	0.0%
1229A	Fargo silty clay, 0 to 1 percent slopes	86	36,341.9	5.1%
I231A	Dovray silty clay, 0 to 1 percent slopes	64	4,818.8	0.7%
I234B	Nutley-Fargo, dry, silty clays, 2 to 6 percent slopes	76	1,002.3	0.1%
I242A	Ryan-Fargo silty clays, 0 to 1 percent slopes	49	11,376.4	1.6%
I248A	Wahpeton silty clay, 0 to 2 percent slopes, occasionally flooded	90	15,351.6	2.1%
I248B	Wahpeton silty clay, 2 to 6 percent slopes, occasionally flooded	88	757.3	0.1%

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1248C	Wahpeton silty clay, 6 to 9 percent slopes, occasionally flooded	77	437.3	0.1%
I256B	La Prairie-Fluvaquents, channeled complex, 0 to 6 percent slopes, frequently flooded	60	3,761.4	0.5%
1257A	McDonaldsville silty clay, 0 to 1 percent slopes	85	3,243.2	0.5%
1260A	Rifle mucky peat, 0 to 1 percent slopes	9	210.5	0.0%
I293B	Cashel silty clay, 0 to 6 percent slopes, occasionally flooded	77	7,941.1	1.1%
1305A	Hecla-Garborg fine sandy loams, 0 to 2 percent slopes	59	2,168.9	0.3%
I307A	Tiffany fine sandy loam, 0 to 1 percent slopes	72	1,407.1	0.2%
1309A	Arveson loam, 0 to 1 percent slopes	61	13,602.6	1.9%
I310A	Arveson fine sandy loam, 0 to 1 percent slopes	52	14,279.9	2.0%
I311A	Arveson loam, 0 to 1 percent slopes, frequently ponded	51	5,351.6	0.7%
I318A	Borup silt loam, 0 to 1 percent slopes	72	9,919.4	1.4%
1334A	Hegne silty clay, moderately saline, 0 to 1 percent slopes	49	1,154.6	0.2%
1356A	Ulen fine sandy loam, 0 to 2 percent slopes	58	1.4	0.0%
1359A	Hamar loamy fine sand, 0 to 1 percent slopes	50	12,391.5	1.7%
1360A	Hamar fine sandy loam, 0 to 1 percent slopes	59	10,683.5	1.5%
I362B	Maddock-Hecla loamy fine sands, 2 to 6 percent slopes	49	2,348.8	0.3%
1362E	Maddock loamy fine sand, 9 to 25 percent slopes	20	3,394.6	0.5%
1363A	Hecla-Garborg loamy fine sands, 0 to 2 percent slopes	50	1,907.8	0.3%
I370A	Rauville silty clay loam, 0 to 1 percent slopes, frequently flooded	33	2,623.5	0.4%

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1376A	Colvin silty clay loam, 0 to 1 percent slopes	68	22,567.1	3.1%
1383A	Overly silty clay loam, 0 to 2 percent slopes	96	7,934.8	1.1%
1394A	Lamoure silt loam, 0 to 1 percent slopes, occasionally flooded	65	1,980.9	0.3%
1400A	Gilby loam, 0 to 2 percent slopes	78	1,076.5	0.2%
1405A	Antler clay loam, 0 to 2 percent slopes	83	2.6	0.0%
I410A	La Prairie silt loam, 0 to 2 percent slopes, occasionally flooded	86	1,092.2	0.2%
I413A	Lankin loam, 0 to 2 percent slopes	91	3,257.2	0.5%
1422A	Renshaw loam, 0 to 2 percent slopes	50	901.8	0.1%
1424A	Embden loam, 0 to 2 percent slopes	84	28.4	0.0%
I447B	Fairdale-Fluvaquents, channeled complex, wooded, 0 to 6 percent slopes, frequently flooded	48	42.3	0.0%
1460A	Nahon silt loam, 0 to 1 percent slopes	55	1,093.5	0.2%
1463B	Sioux-Renshaw complex, 2 to 6 percent slopes	29	65.1	0.0%
1467A	Bearden silt loam, 0 to 2 percent slopes	89	41.6	0.0%
1468A	Divide loam, 0 to 2 percent slopes	59	1,137.5	0.2%
1472A	Perella silty clay loam, 0 to 1 percent slopes	88	7,409.0	1.0%
1476A	Glyndon silt loam, moderately saline, 0 to 2 percent slopes	54	2,677.6	0.4%
I479B	Fairdale-Fluvaquents, channeled complex, 0 to 6 percent slopes, frequently flooded	62	95.6	0.0%
I481B	Hecla-Maddock fine sandy loams, 2 to 6 percent slopes	58	10.7	0.0%
I483A	Vang-Brantford loams, 0 to 2 percent slopes	58	0.1	0.0%

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I495B	Egeland-Embden fine sandy loams, 2 to 6 percent slopes	67	140.7	0.0%
I517A	Walsh clay loam, 0 to 2 percent slopes	89	3,546.7	0.5%
I534A	Overly silty clay, 0 to 2 percent slopes	95	21.1	0.0%
I535A	Marysland loam, 0 to 1 percent slopes	55	1,252.0	0.2%
I557A	Walsh-Vang loams, 0 to 2 percent slopes	85	3,585.4	0.5%
I557B	Walsh-Vang loams, 2 to 6 percent slopes	77	384.6	0.1%
I559A	La Prairie silty clay loam, 0 to 2 percent slopes, occasionally flooded	95	8,360.3	1.2%
I559B	La Prairie silty clay loam, 2 to 6 percent slopes, occasionally flooded	95	595.5	0.1%
I561A	Neche silty clay loam, 0 to 1 percent slopes, occasionally flooded	85	4,171.8	0.6%
I562A	Neche silty clay, 0 to 1 percent slopes, occasionally flooded	80	3,969.0	0.6%
I564B	Renshaw loam, 0 to 6 percent slopes, very stony	26	1,714.4	0.2%
I566A	Swenoda fine sandy loam, stratified substratum, 0 to 3 percent slopes	77	754.2	0.1%
I568A	Lankin-Gilby loams, 0 to 2 percent slopes, stony	86	4,694.5	0.7%
I569B	Aylmer loamy sand, 0 to 6 percent slopes	21	4,110.5	0.6%
I572B	Corliss loamy coarse sand, 2 to 6 percent slopes	24	4,388.6	0.6%
I573A	Cormant loamy sand, 0 to 1 percent slopes	39	4,251.0	0.6%
I574A	Maddock loamy sand, 0 to 2 percent slopes	46	3,572.6	0.5%
1575A	Maddock sandy loam, 0 to 2 percent slopes	56	2,023.7	0.3%
I575B	Maddock sandy loam, 2 to 6 percent slopes	53	1,276.9	0.2%

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I576A	Poppleton loamy sand, 0 to 2 percent slopes	40	6,104.8	0.9%
1578A	Brantford loam, 0 to 2 percent slopes	52	2,844.7	0.4%
I578B	Brantford loam, 2 to 6 percent slopes	49	884.4	0.1%
1578C	Brantford loam, 6 to 9 percent slopes	39	240.9	0.0%
I581A	Gardena very fine sandy loam, 0 to 2 percent slopes	95	5,935.4	0.8%
1585A	Fairdale silty clay loam, 0 to 2 percent slopes, occasionally flooded	84	8,697.2	1.2%
I585B	Fairdale silty clay loam, 2 to 6 percent slopes, occasionally flooded	84	3,814.4	0.5%
I587A	Rolette clay loam, 0 to 3 percent slopes	86	2,070.7	0.3%
I587B	Rolette clay loam, 3 to 6 percent slopes	80	415.6	0.1%
I589B	Olga silty clay loam, 3 to 6 percent slopes	74	1,375.2	0.2%
1589F	Olga silty clay loam, wooded, 15 to 35 percent slopes	35	102.2	0.0%
1590C	Vang-Coe complex, 6 to 9 percent slopes	44	28.2	0.0%
1595E	Coe-Binford complex, 6 to 25 percent slopes	24	166.1	0.0%
I601A	Bearden silty clay loam, moderately saline, 0 to 2 percent slopes	52	11,085.9	1.5%
1607D	Serden sand, 6 to 15 percent slopes	11	1,589.2	0.2%
I625B	Zell, fine-silty-LaDelle silty clay loams, 1 to 6 percent slopes	76	800.2	0.1%
1644A	Grano silty clay, plane, 0 to 1 percent slopes	63	27,647.2	3.9%
1645A	Grano silty clay, moderately saline, 0 to 1 percent slopes	36	931.0	0.1%
1659A	Binford sandy loam, 0 to 2 percent slopes	45	2,845.8	0.4%
1659B	Binford sandy loam, 2 to 6 percent slopes	43	773.9	0.1%
1661A	Colvin silt loam, 0 to 1 percent slopes, frequently ponded	61	1,692.8	0.2%

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1662A	Colvin silt loam, moderately saline, 0 to 1 percent slopes, frequently ponded	33	1,210.3	0.2%
1847A	Glyndon loamy very fine sand, 0 to 2 percent slopes	78	26,234.4	3.7%
1906F	Orthents-Aquents-Urban Land, highway complex, 0 to 35 percent slopes	32	1,633.8	0.2%
IGp	Pits, gravel and sand	2	571.8	0.1%
IM-W	Miscellaneous water	0	422.6	0.1%
IWa	Water	0	3,304.3	0.5%
Totals for Area of Interest			717,546.2	100.0%

Description

Crop productivity index ratings provide a relative ranking of soils based on their potential for intensive 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 rating is not crop specific. Minnesota inquiries must use the 'Map Unit Cropland Productivity Report (MN)' soils report from the Soil Reports tab under 'Vegetative Productivity'.

When the soils are rated, the following assumptions are made: a) adequate management, b) natural weather conditions (no irrigation), c) artificial drainage where required, d) no frequent flooding on the lower lying soils, and e) no land leveling or terracing. Even though 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: Weighted Average Component Percent Cutoff: None Specified Tie-break Rule: Higher Interpret Nulls as Zero: Yes