



# N-Sense Details Field Name

## Field 1 Stats

Date: 2-2-2023

Location: Marshall County, IA

Bounding Coordinates: 42.0338 N, 42.0416 N, -93.1948 W, -93.1845 W

Total Acres = 120.38







# N-Sense Details Field Name

## Tillable Acres

Tillable Acres = 103.65

Non-Tillable Acres = 16.73

CSR2 of Tillable Acres = 69.89







# N-Sense Details Field Name

## Satellite History - 1

Date: 08/19/2021



Date: 08/19/2021



NAIP Digital Ortho Georectified Image: This data set contains imagery from the National Agriculture Imagery Program (NAIP). The NAIP program is administered by USDA FSA.

Date: 07/30/2019



Date: 07/30/2019



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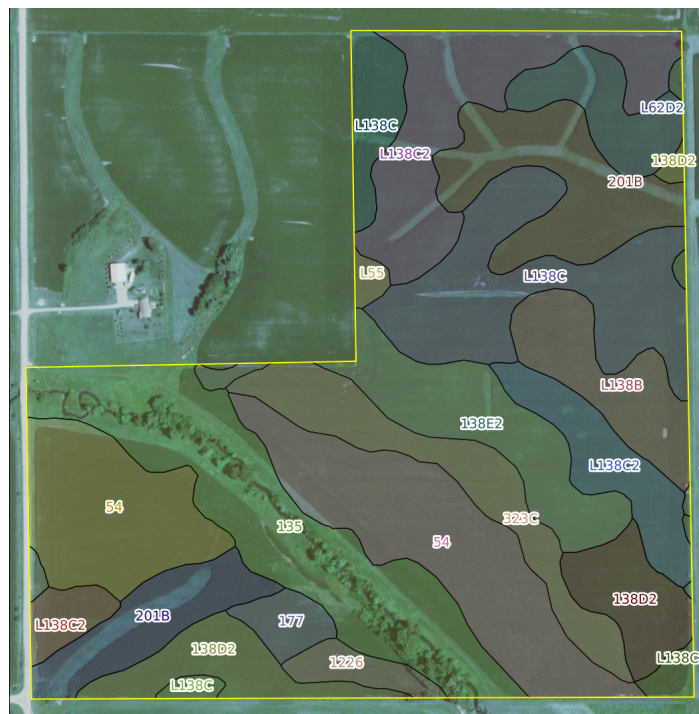
# N-Sense Details Field Name

## USDA-NRCS Soil Survey Map

Soil MU Symbols/Names:

Name	Code	Acres	CSR2	Slope Class	Drainage Class	Flooding Frequency	Depth to Free Carbonates(in)	Available Water Capacity (in)	LCC
Clarion loam	138C	15.7	84	C 5-9%	W	NONE	24-40	11.34	3E
Clarion loam	138D2	8.38	56	D 9-14%	W	NONE	24-40	11.34	3E
Clarion loam	138E2	8.07	44	E 14-18%	W	NONE	24-40	11.34	4E
Storden loam	62D2	4.11	41	D 9-14%	W	NONE	7-12	11.04	3E
Coland-Terril complex	201B	13.07	75	B 2-5%	P	NONE	>60	11.4	2W
Coland clay loam	135	16.27	73	A 0-2%	P	COMMON	>60	11.4	2W
Clarion loam	138C2	16.2	83	C 5-9%	W	NONE	24-40	11.34	3E
Lawler loam	1226	1.73	59	A 0-2%	SP	NONE	>60	Missing	2S
Saude loam	177	1.66	60	A 0-2%	W	NONE	>60	6.56	2S
Clarion loam	138B	5.54	88	B 2-5%	W	NONE	24-40	11.34	2E
Terril loam	323C	7.25	75	C 5-9%	MW	NONE	>60	9.79	3E
Nicollet loam	55	0.59	91	A 0-2%	SP	NONE	24-40	10.51	1
Zook silty clay loam	54	21.65	62	A 0-2%	P	COMMON	>60	9.2	2W
Waukee loam	178	0.24	69	A 0-2%	W	NONE	>60	7.59	1

[Excel spreadsheet with full dataset will be available separately](#)





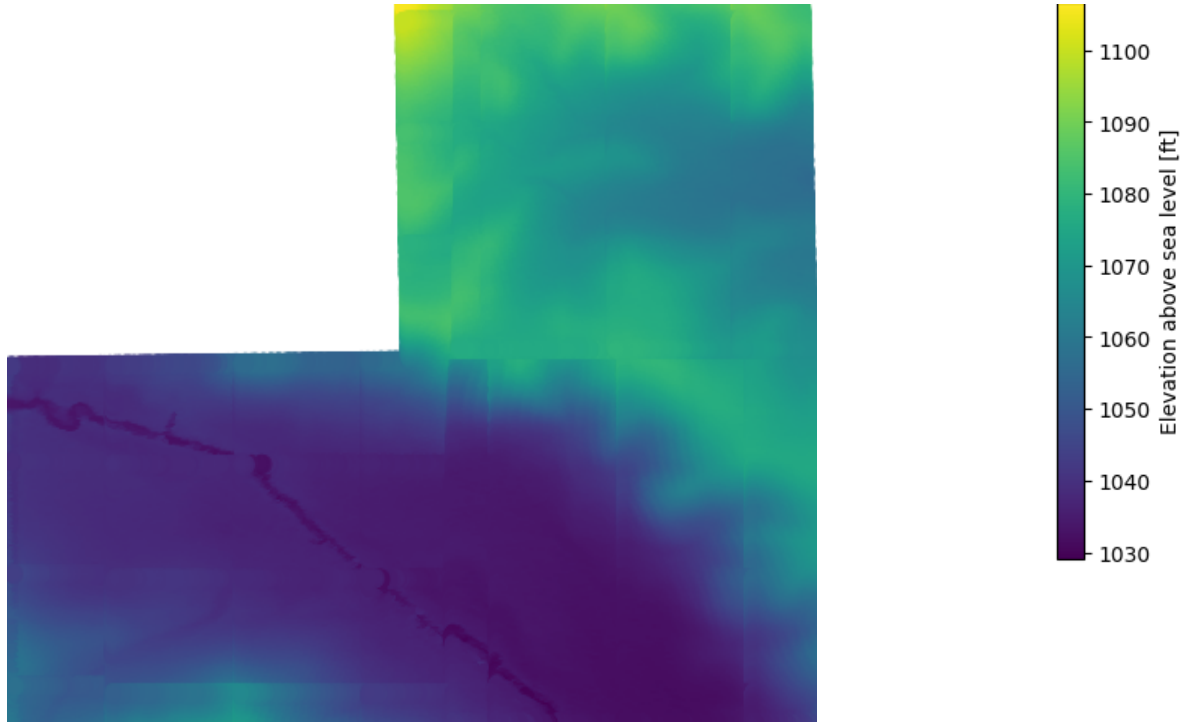


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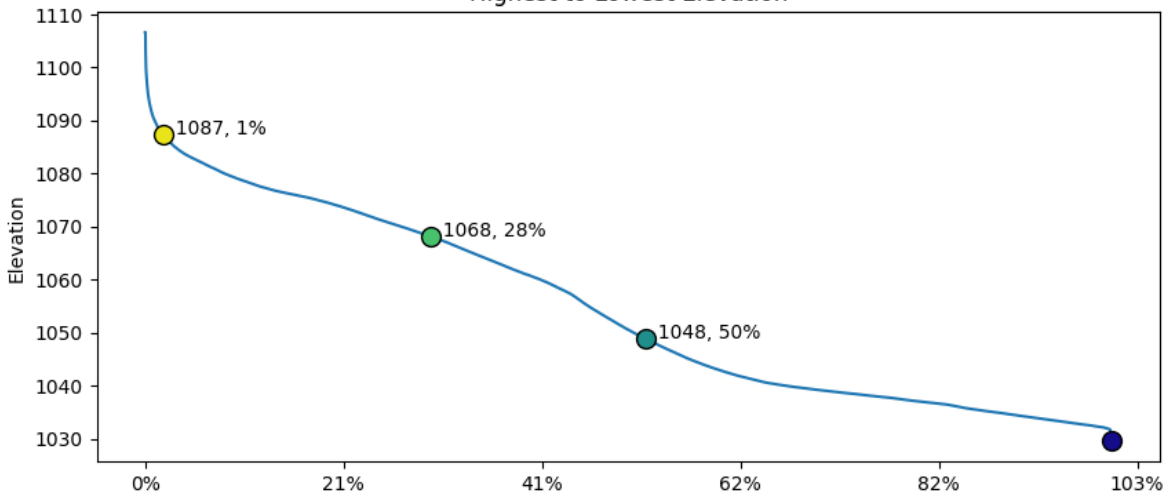
## Elevation Map

Description: Height above sea level in Feet.

yellow = high, green = medium high, turquoise = medium low, blue = low



Highest to Lowest Elevation



## Elevation Quartile Statistics

Color	Range (feet)	Acres	Field %	Avg Slope	Dominant Soil	Avg CSR2
Yellow	1087 - 1106	2.3	1.9	10.0	Clarion loam	51.1
Green	1068 - 1087	33.4	27.7	8.3	Clarion loam	65.3
Turquoise	1048 - 1068	26.7	22.2	5.0	Clarion loam	75.1
Blue	1029 - 1048	58.0	48.2	2.5	Zook silty clay loam	71.7

Soil abbreviation codes: cl. =clay, st. cl. = silty clay, st. cl. l. = silty clay loam, cl. l. = clay loam, l. = loam, st. l. = silt loam, st. = silt, sd. l. = sandy loam, sd. cl. l. = sandy clay loam, sd. l. = sandy loam, l. sd. = loamy sand, and sd. = sand.



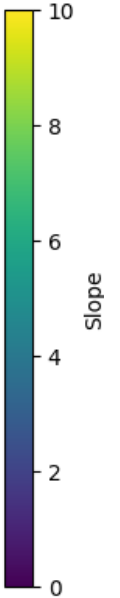
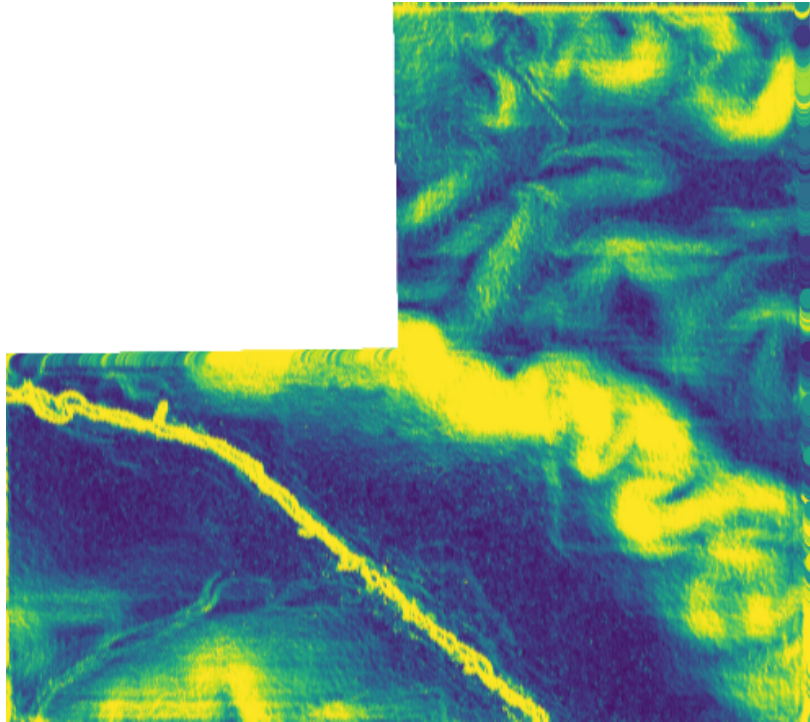


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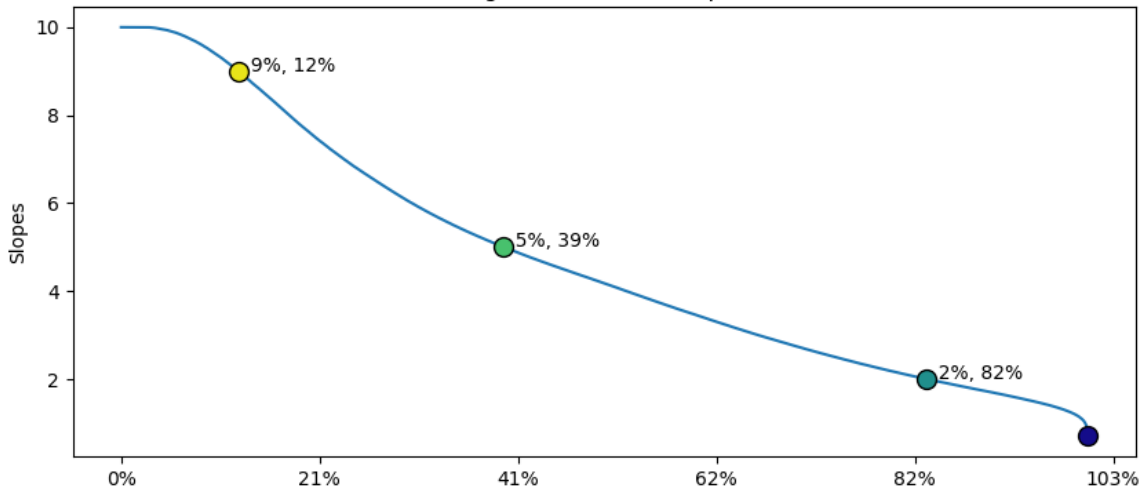
## Slope Map

Description: Slope of the land surface in percent.

yellow = steep slope, green = slight slope, blue = little to no slope



Highest to Lowest Slopes



## Slope Quartile Statistics

Color	Range (%)	Acres	Field %	Avg Slope	Dominant Soil	Avg CSR2
Yellow	> 9	14.6	12.1	9.7	Clarion loam	58.6
Green	5 - 9	33.1	27.5	6.7	Clarion loam	70.5
Teal	2 - 5	52.6	43.7	3.4	Clarion loam	74.6
Blue	0 - 2	20.1	16.7	1.6	Zook silty clay loam	67.3

Soil abbreviation codes: *cl.* =clay, *st. cl.* = silty clay, *st. cl. l.* = silty clay loam, *cl. l.* = clay loam, *l.* = loam, *st. l.* = silt loam, *st.* = silt, *sd. l.* = sandy loam, *sd. cl. l.* = sandy clay loam, *sd. l.* = sandy loam, *l. sd.* = loamy sand, and *sd.* = sand.



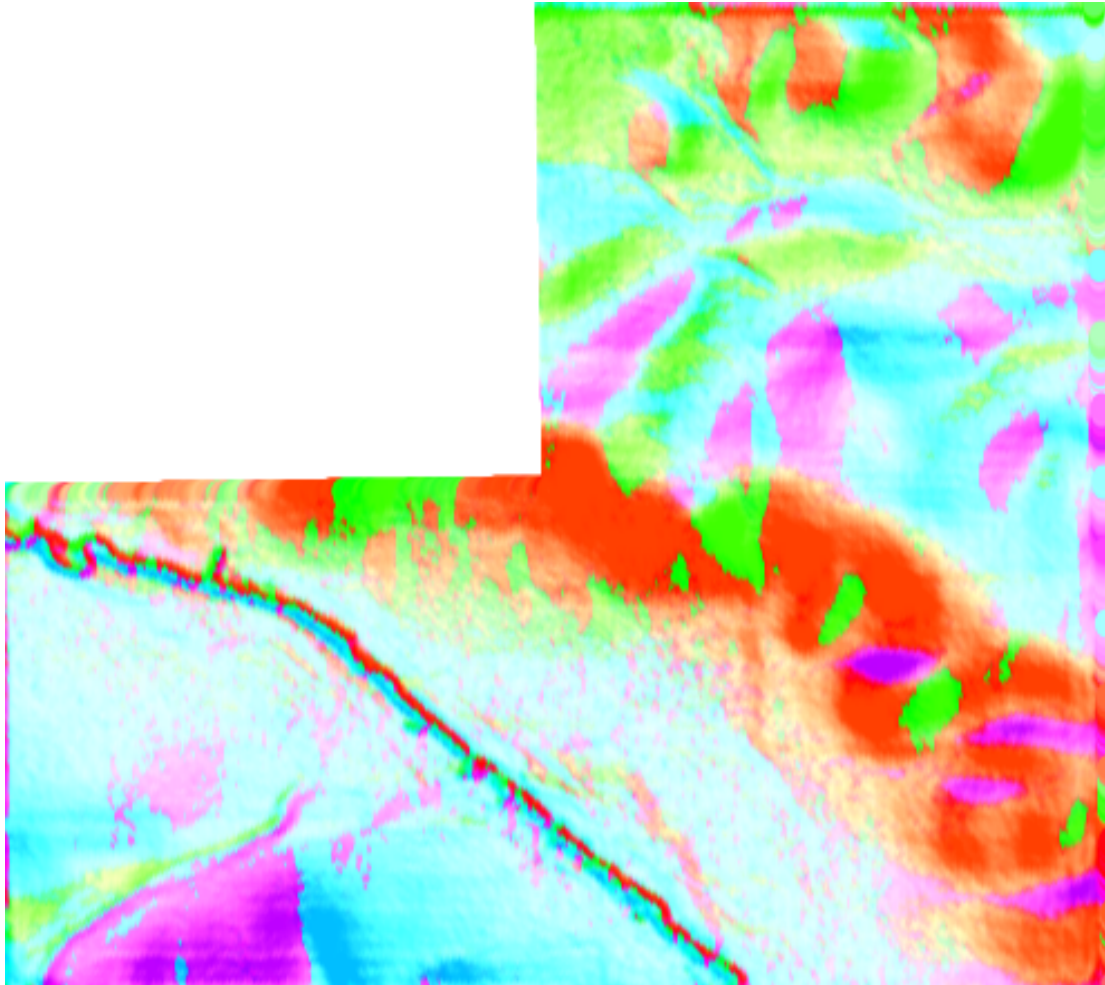


# N-Sense Details

## Field Name

### Slope Direction Map

Description: The map below shows the direction the slope is facing (aspect). Darker colors are steeper slopes and lighter colors are flatter.



### Slope Direction Statistics

Color	Direction	Acres	Field %	Avg Slope	Dominant Soil	Avg CSR2
Blue	N: Blue	0.0	0.0	-	None	-
Turquoise	NE: Turquoise	28.8	23.9	4.1	Zook silty clay loam	72.8
Green	E: Green	21.4	17.8	2.8	Zook silty clay loam	70.6
Jade	SE: Jade	23.9	19.9	5.1	Clarion loam	71.1
Yellow	S: Yellow	0.0	0.0	-	None	-
Orange	SW: Orange	28.7	23.8	6.6	Clarion loam	65.9
Red	W: Red	4.6	3.8	3.8	Coland clay loam	68.7
Purple	NW: Purple	12.6	10.5	5.1	Clarion loam	73.7
White	Flat: White	0.3	0.2	0.9	Zook silty clay loam	62.8

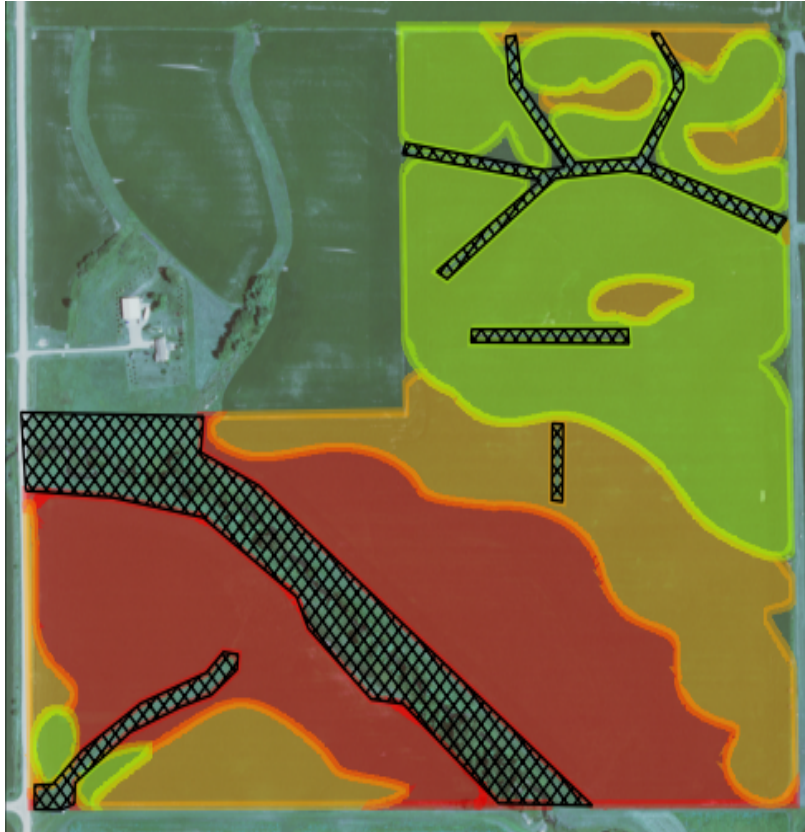
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# N-Sense Details Field Name

## Management Units



Non-Tillable



## Management Unit Statistics

Color	Group	Acres	Field %	Avg Slope	Dominant Soil	Avg CSR2
Red	Red	44.8	37.2	2.7	Zook silty clay loam	66.0
Orange	Orange	33.6	27.9	6.3	Clarion loam	61.8
Green	Green	42.0	34.9	3.9	Clarion loam	80.5

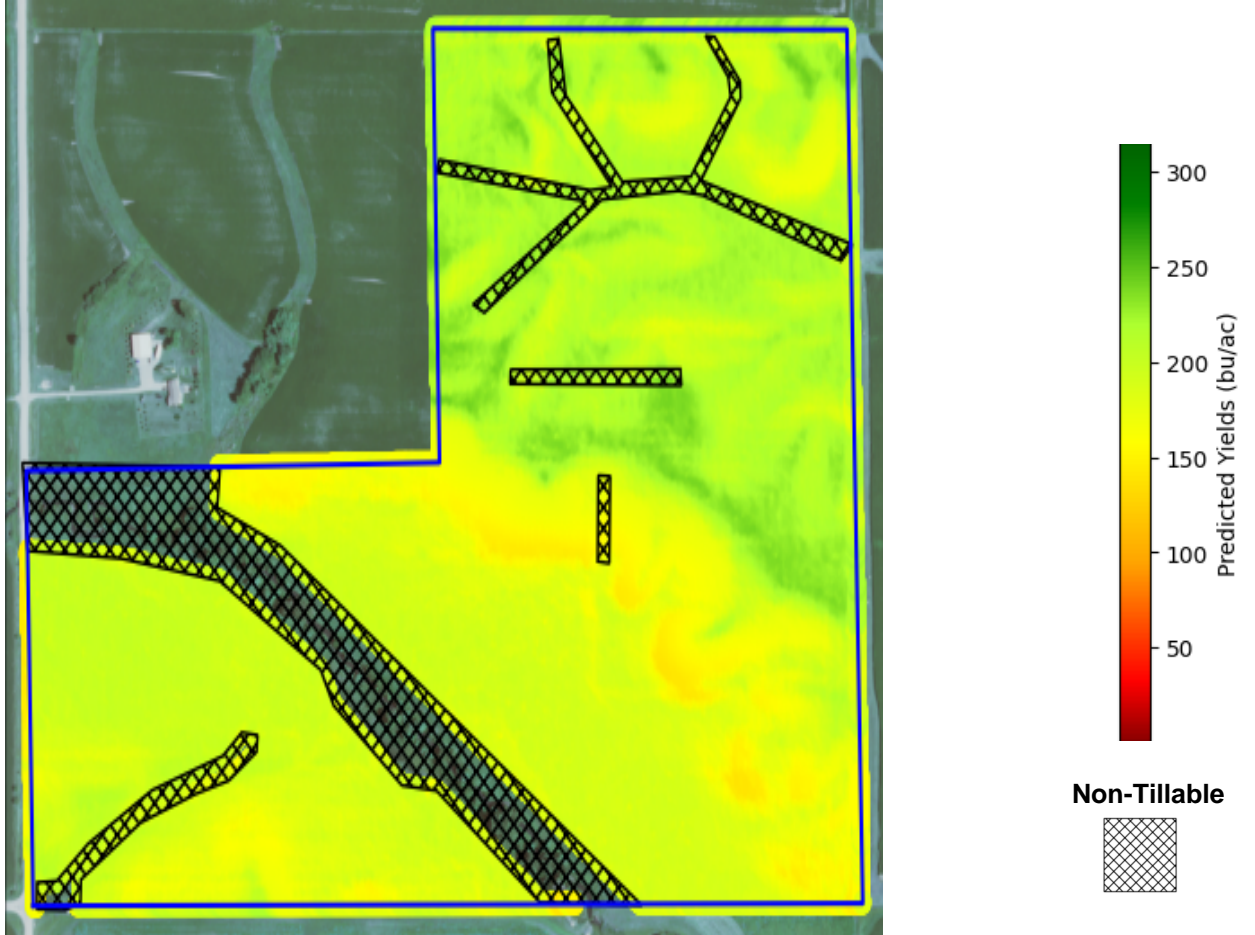
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# N-Sense Details Field Name

## Corn Yield - Great Year

Description: The map below shows predicted corn yields (bu/ac) for a great year.



### Yield Statistics - Overall Yield: 166 bu/ac

Color	Range (%)	Acres	Field %	Avg Yield	Dominant Soil	Avg CSR2
	90 - 100	0.6	0.5	239	Clarion loam	85.4
	80 - 90	5.2	4.3	231	Clarion loam	85.6
	70 - 80	11.9	9.9	220	Clarion loam	81.5
	60 - 70	12.4	10.3	210	Clarion loam	79.5
	50 - 60	16.8	14.0	198	Zook silty clay loam	70.0
	40 - 50	25.8	21.4	188	Zook silty clay loam	67.1
	30 - 40	14.0	11.6	178	Terril loam	65.0
	20 - 30	10.1	8.4	167	Clarion loam	60.5
	10 - 20	5.7	4.7	157	Clarion loam	54.2
	0 - 10	1.4	1.2	147	Clarion loam	51.7

Soil abbreviation codes: cl. =clay, st. cl. = silty clay, st. cl. l. = silty clay loam, cl. l. = clay loam, l. = loam, st. l. = silt loam, st. = silt, sd. l. = sandy loam, sd. cl. l. = sandy clay loam, sd. l. = sandy loam, l. sd. = loamy sand, and sd. = sand.

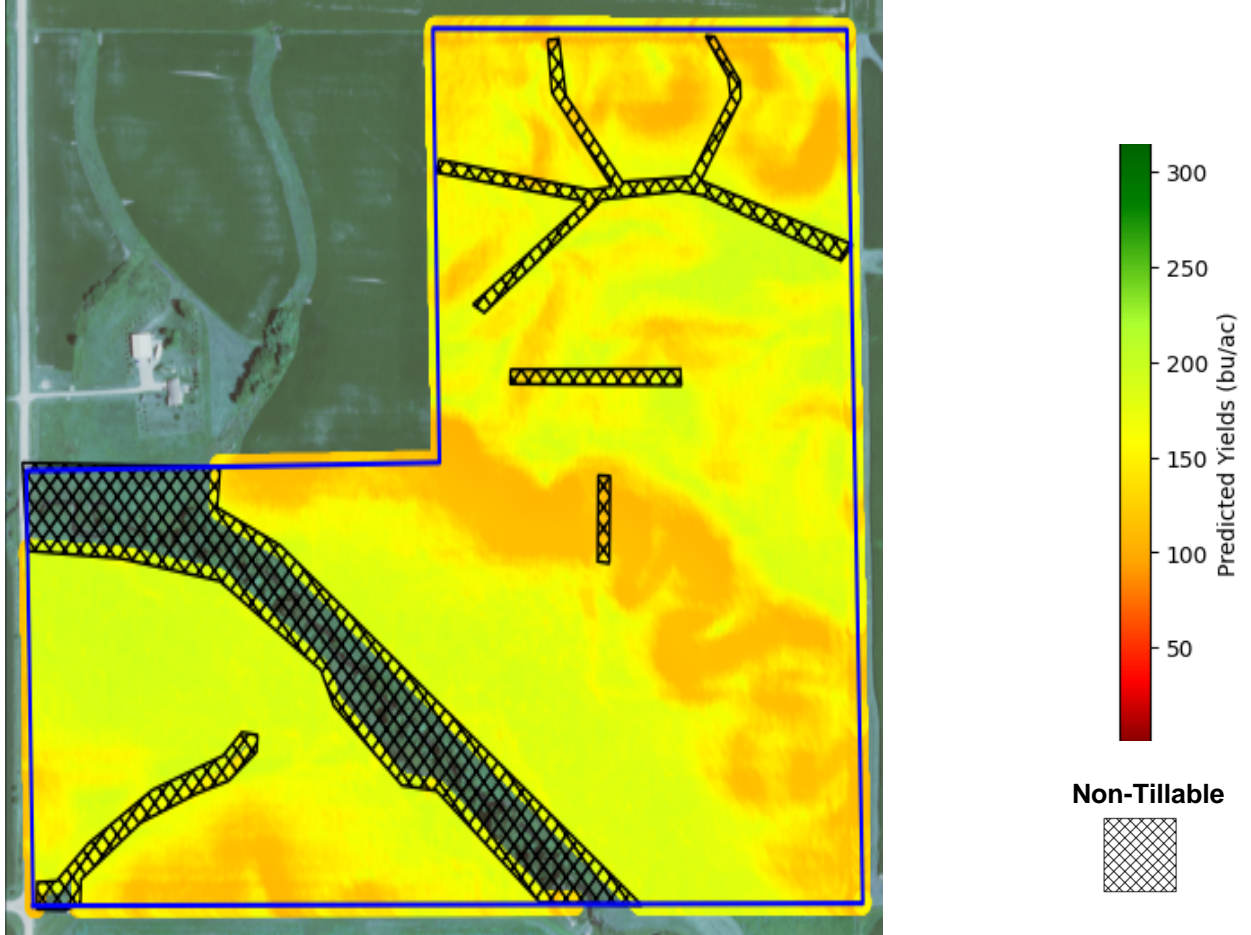




# N-Sense Details Field Name

## Corn Yield - Dry Year

Description: The map below shows predicted corn yields (bu/ac) for a dry year.



### Yield Statistics - Overall Yield: 135 bu/ac

Color	Range (%)	Acres	Field %	Avg Yield	Dominant Soil	Avg CSR2
	90 - 100	4.3	3.6	189	Zook silty clay loam	67.0
	80 - 90	19.5	16.2	182	Zook silty clay loam	68.3
	70 - 80	16.9	14.0	174	Zook silty clay loam	73.1
	60 - 70	14.3	11.9	165	Clarion loam	75.8
	50 - 60	12.0	10.0	156	Clarion loam	75.8
	40 - 50	8.8	7.3	147	Clarion loam	73.1
	30 - 40	7.5	6.2	138	Clarion loam	70.2
	20 - 30	6.1	5.1	129	Clarion loam	66.7
	10 - 20	6.4	5.3	119	Clarion loam	61.0
	0 - 10	8.1	6.7	112	Clarion loam	55.1

Soil abbreviation codes: cl. =clay, st. cl. = silty clay, st. cl. l. = silty clay loam, cl. l. = clay loam, l. = loam, st. l. = silt loam, st. = silt, sd. l. = sandy loam, sd. cl. l. = sandy clay loam, sd. l. = sandy loam, l. sd. = loamy sand, and sd. = sand.

#### **Disclaimer**

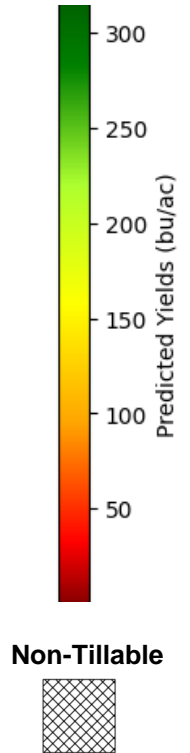
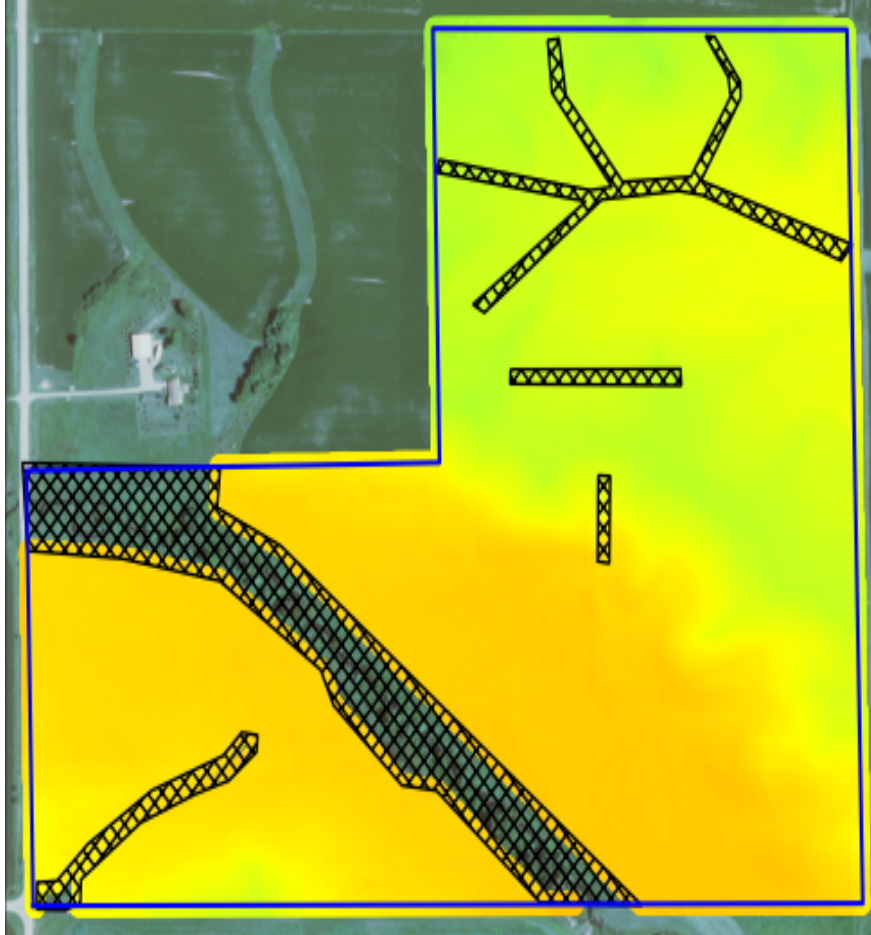
This map is a prediction of yield potential under specific weather conditions. Actual corn yields will be influenced by management, pests, weeds, and other factors in addition to weather. Therefore N-Sense does not guarantee that these yields will be achieved.



# N-Sense Details Field Name

## Corn Yield - Wet Year

Description: The map below shows predicted corn yields (bu/ac) for a wet year.



### Yield Statistics - Overall Yield: 137 bu/ac

Color	Range (%)	Acres	Field %	Avg Yield	Dominant Soil	Avg CSR2
	90 - 100	1.5	1.2	220	Clarion loam	83.5
	80 - 90	6.7	5.6	209	Clarion loam	82.5
	70 - 80	12.6	10.5	199	Clarion loam	80.7
	60 - 70	10.3	8.6	188	Clarion loam	75.8
	50 - 60	10.7	8.9	176	Clarion loam	75.2
	40 - 50	6.1	5.1	167	Coland-Terril complex	67.1
	30 - 40	5.5	4.6	154	Clarion loam	61.3
	20 - 30	8.4	7.0	143	Clarion loam	61.1
	10 - 20	25.3	21.0	132	Zook silty clay loam	64.3
	0 - 10	16.6	13.8	124	Zook silty clay loam	65.1

Soil abbreviation codes: cl. =clay, st. cl. = silty clay, st. cl. l. = silty clay loam, cl. l. = clay loam, l. = loam, st. l. = silt loam, st. = silt, sd. l. = sandy loam, sd. cl. l. = sandy clay loam, sd. l. = sandy loam, l. sd. = loamy sand, and sd. = sand.

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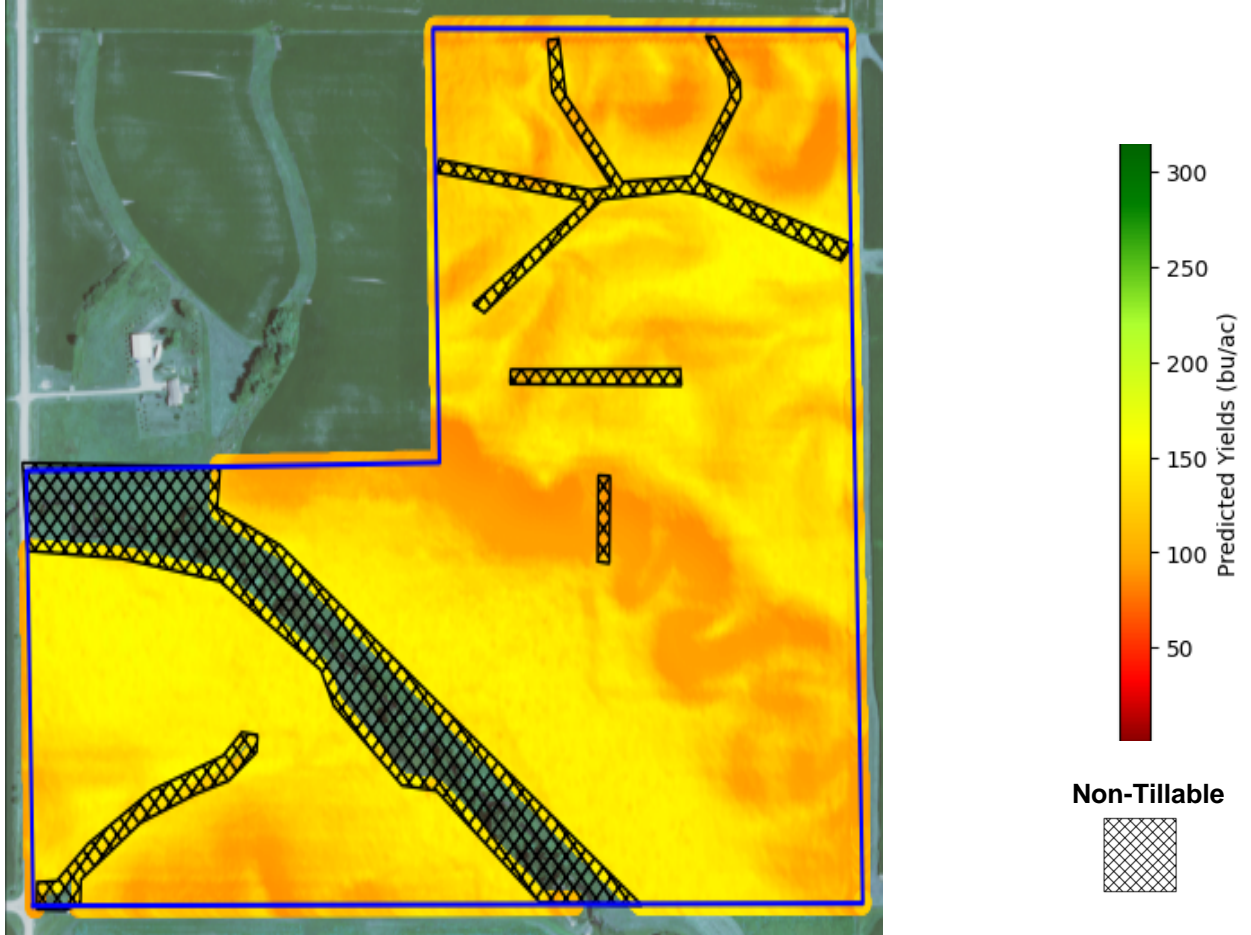




# N-Sense Details Field Name

## Corn Yield - Drought Year

Description: The map below shows predicted corn yields (bu/ac) for a drought year.



### Yield Statistics - Overall Yield: 111 bu/ac

Color	Range (%)	Acres	Field %	Avg Yield	Dominant Soil	Avg CSR2
	90 - 100	5.9	4.9	156	Zook silty clay loam	66.1
	80 - 90	19.9	16.5	150	Zook silty clay loam	67.9
	70 - 80	15.7	13.0	143	Zook silty clay loam	73.9
	60 - 70	14.2	11.8	135	Clarion loam	75.9
	50 - 60	11.8	9.8	127	Clarion loam	75.9
	40 - 50	8.9	7.4	120	Clarion loam	72.9
	30 - 40	7.7	6.4	112	Clarion loam	70.5
	20 - 30	6.3	5.2	104	Clarion loam	66.1
	10 - 20	8.6	7.1	96	Clarion loam	57.1
	0 - 10	4.9	4.1	89	Clarion loam	58.6

Soil abbreviation codes: cl. =clay, st. cl. = silty clay, st. cl. l. = silty clay loam, cl. l. = clay loam, l. = loam, st. l. = silt loam, st. = silt, sd. l. = sandy loam, sd. cl. l. = sandy clay loam, sd. l. = sandy loam, l. sd. = loamy sand, and sd. = sand.

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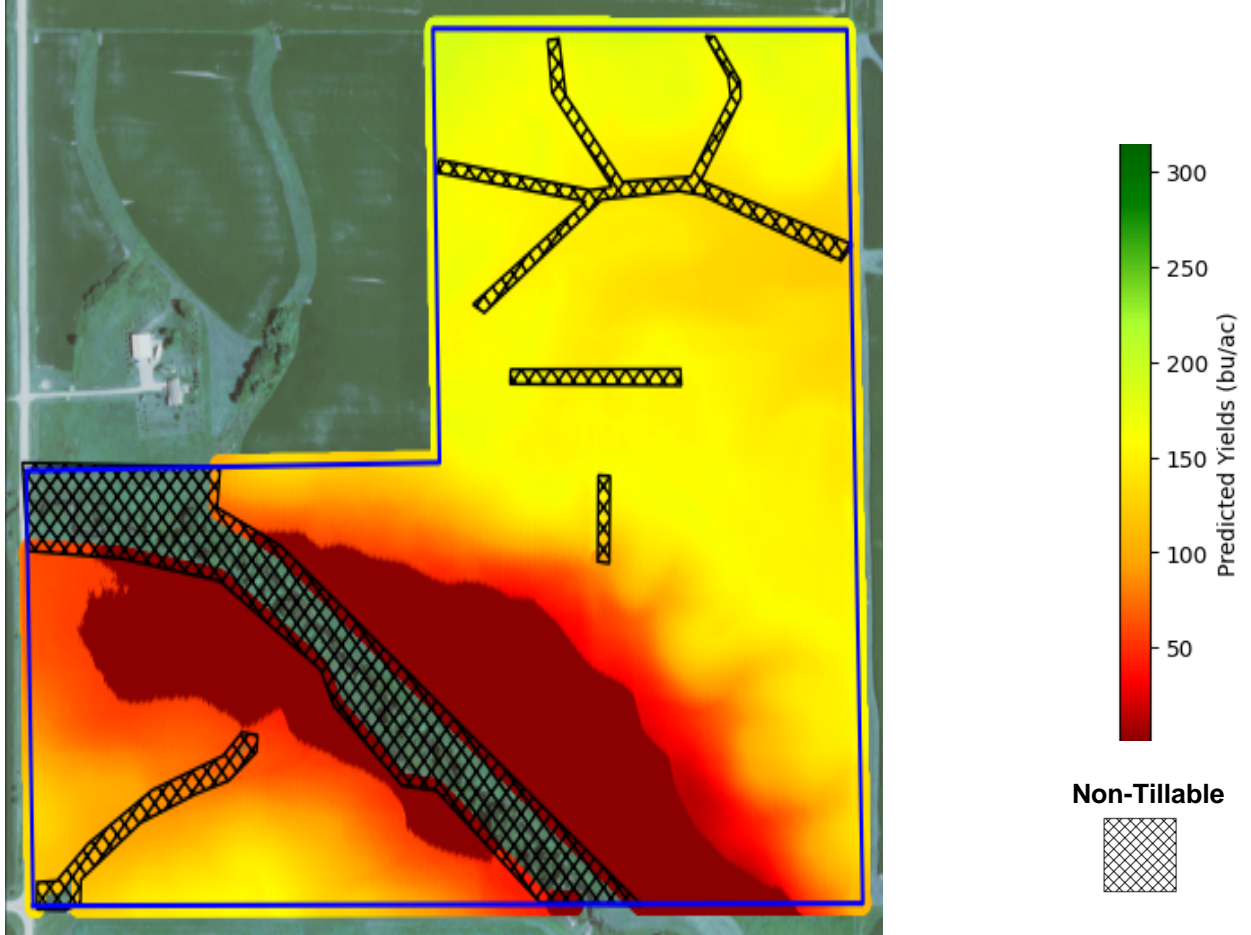
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# N-Sense Details Field Name

## Corn Yield - Flood Year no Drainage

Description: The map below shows predicted corn yields (bu/ac) for a flood year.



### Yield Statistics - Overall Yield: 87 bu/ac

Color	Range (%)	Acres	Field %	Avg Yield	Dominant Soil	Avg CSR2
	90 - 100	3.0	2.5	176	Clarion loam	81.8
	80 - 90	26.2	21.8	159	Clarion loam	77.1
	70 - 80	18.1	15.0	145	Clarion loam	73.9
	60 - 70	8.8	7.3	127	Coland-Terril complex	63.3
	50 - 60	5.7	4.7	107	Clarion loam	63.1
	40 - 50	5.6	4.7	89	Clarion loam	63.3
	30 - 40	7.3	6.1	70	Zook silty clay loam	64.8
	20 - 30	5.9	4.9	56	Zook silty clay loam	66.2
	10 - 20	1.9	1.6	36	Terril loam	73.1
	0 - 10	21.2	17.6	1	Zook silty clay loam	64.8

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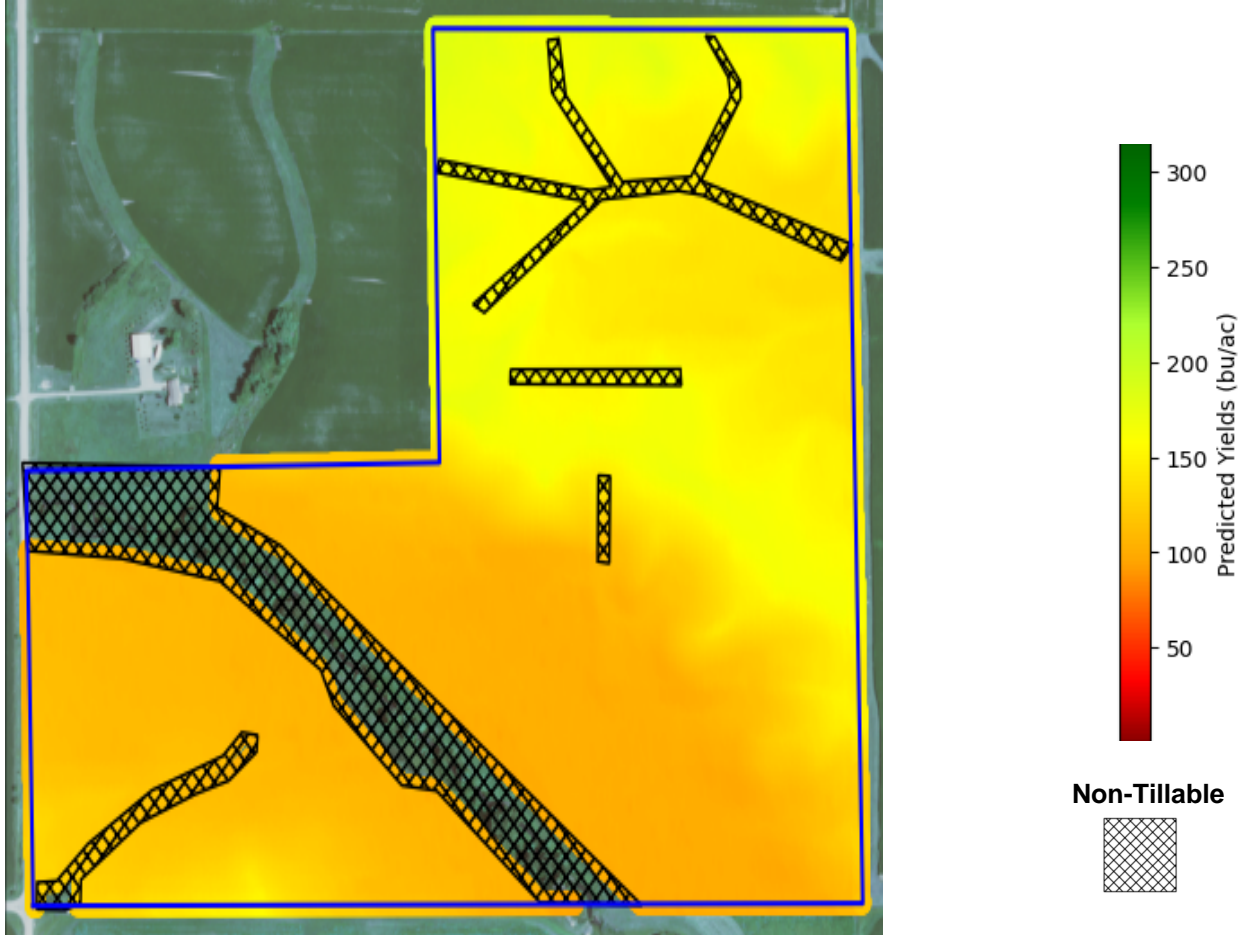




# N-Sense Details Field Name

## Corn Yield - Flood Year with Drainage

Description: The map below shows predicted corn yields on a tile drained flood.



### Yield Statistics - Overall Yield: 112 bu/ac

Color	Range (%)	Acres	Field %	Avg Yield	Dominant Soil	Avg CSR2
	90 - 100	0.3	0.2	181	Clarion loam	83.9
	80 - 90	3.6	3.0	173	Clarion loam	82.6
	70 - 80	11.9	9.9	165	Clarion loam	82.7
	60 - 70	11.9	9.9	156	Clarion loam	77.0
	50 - 60	11.0	9.1	147	Clarion loam	75.3
	40 - 50	8.5	7.1	139	Coland-Terril complex	69.9
	30 - 40	5.5	4.6	128	Clarion loam	62.4
	20 - 30	8.7	7.2	119	Clarion loam	60.8
	10 - 20	26.1	21.7	110	Zook silty clay loam	64.2
	0 - 10	16.4	13.6	103	Zook silty clay loam	65.1

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# N-Sense Details Field Name

## Summary

### 10-Year Analysis

10 year average corn yield with one disaster year (Drought/Flood): 148 bu/ac

10 year average corn yield with no disaster years: 154 bu/ac

Drought Risk: Up to 33% corn yield loss

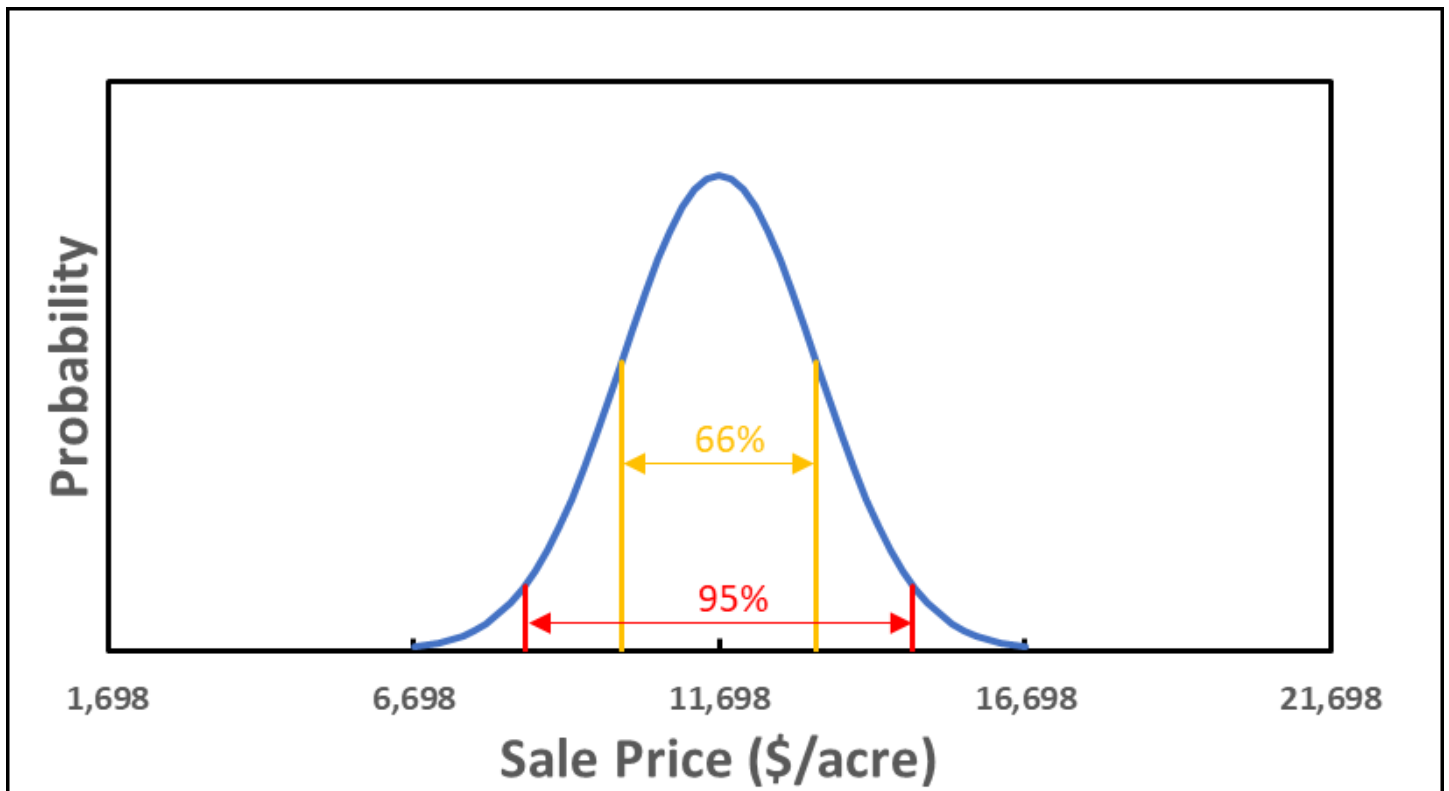
Flood Risk: Up to 32% corn yield loss

Medium estimated sale price: \$1,408,154 @ \$11,697 per acre

There is a 66% probability that the sale price will be \$10,109 to \$13,286 per acre.

There is a 95% probability that the sale price will be \$8,521 to \$14,874 per acre.

The graph below shows the probability distribution for the sale price of the farm if the auction were held 2-2-2023.



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