



**A reference manual of annual trend maps and statistics of
U.S. corn: 1969-2018**

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Methodology:

Yield, production, and acreage data were collected from the United States Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) at the national level and for 60 crop reporting districts (CRD's) in the Corn Belt over a fifty year period from 1969 to 2018.

All yield data shown here are for total crop production except in Nebraska, where we considered rainfed production only. This was done to show the effect of drought on yield. Maps with irrigated production in Nebraska can be generated by request. The districts chosen for this reference manual are those with significant portions of them being designated as a major or minor corn area by the USDA.

The trend numbers shown in the statistics and on the maps are based on linear regression. For this reference manual, the trend line encompasses the entire 50-year period plus eight years before (1961-2018). Maps with a different trend line (e.g., 30-year, 20-year) can be completed upon request.

Production data are based on the total numbers from a given season and are listed in terms of billions of bushels. The acreage data shown in the reference manual are based on acres planted in a given season.

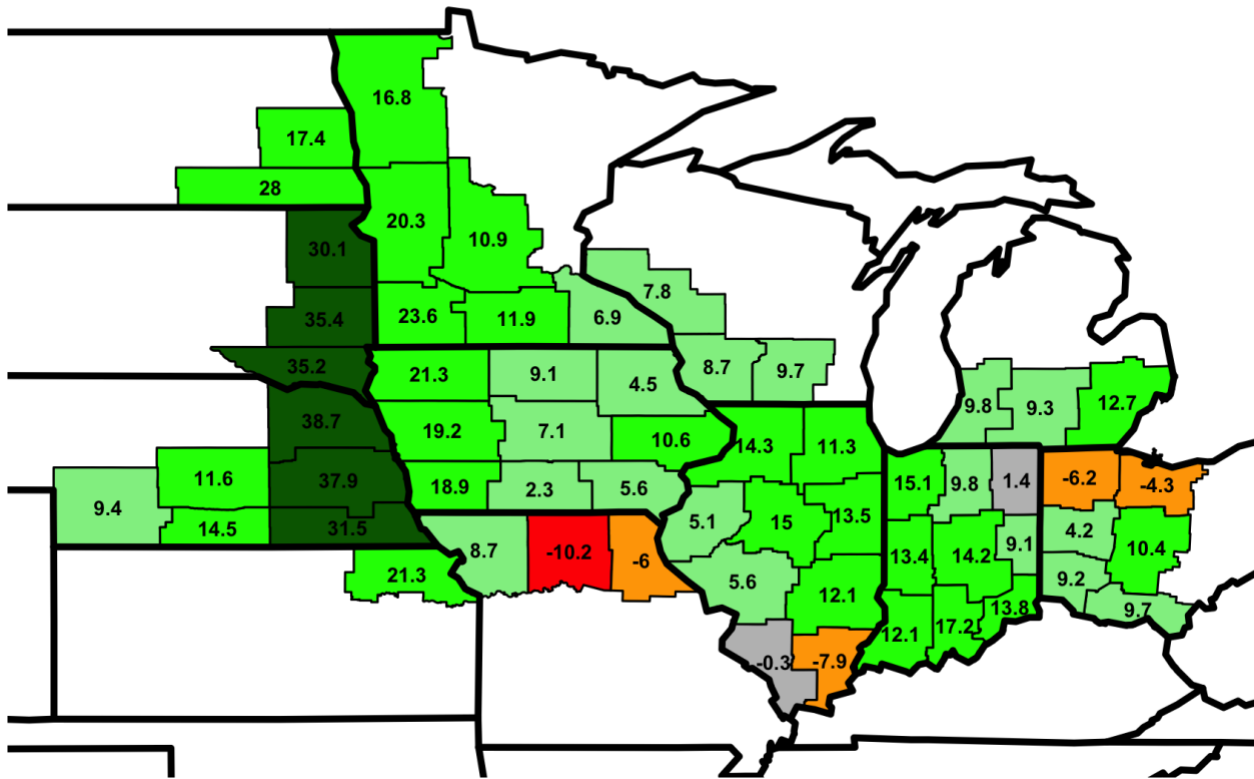
The colors on the maps on pages 1-50 are categorized as follows for each season:

More than 30 points below trend:	dark red
Between 10 and 30 points below trend:	red
Between 2 and 10 points below trend:	orange
Within 2 points of trend (+/-):	gray
Between 2 and 10 points above trend:	light green
Between 10 and 30 points above trend:	green
More than 30 points above trend:	dark green

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1969



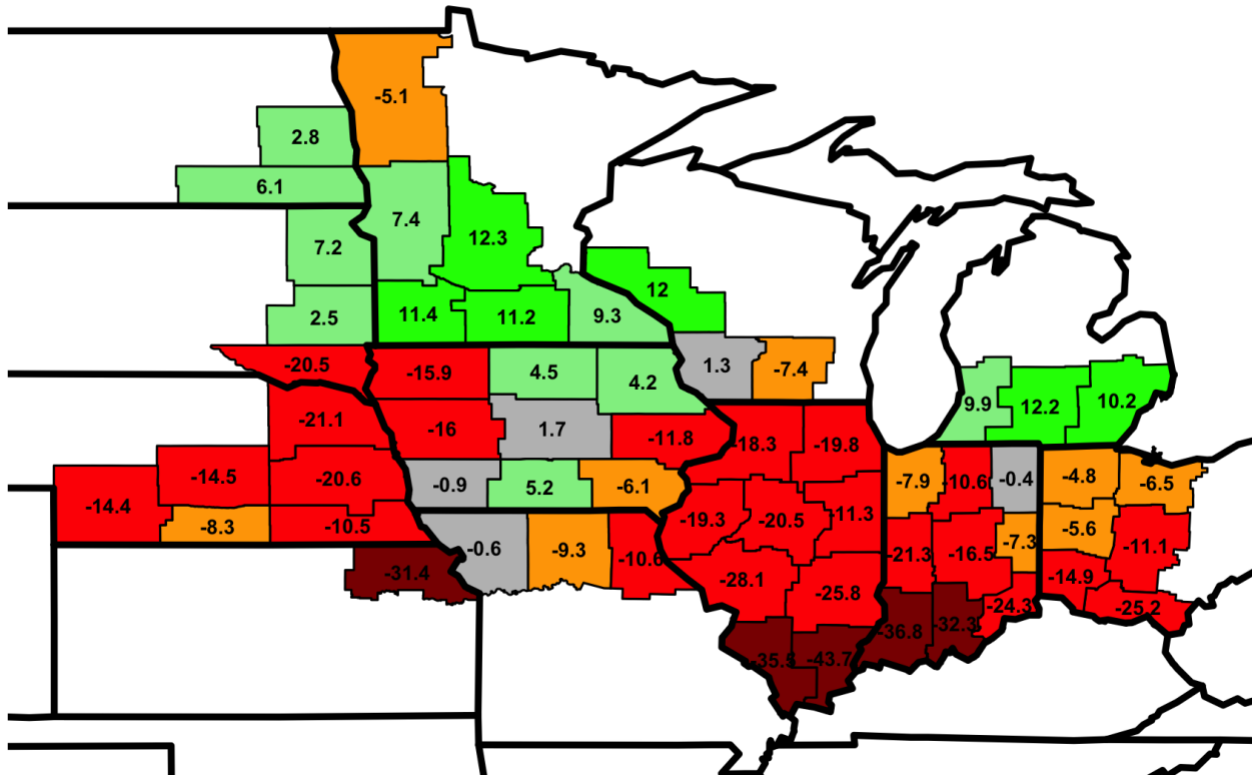
National Statistics:

Observed Yield (bpa):	85.9
Observed Trend (%):	13.5
Production (bil. bushels):	4.69
Planted Acres (millions):	64.26

Corn Belt Statistics:

Median Trend:	11.1
Districts Above Trend:	54

1970



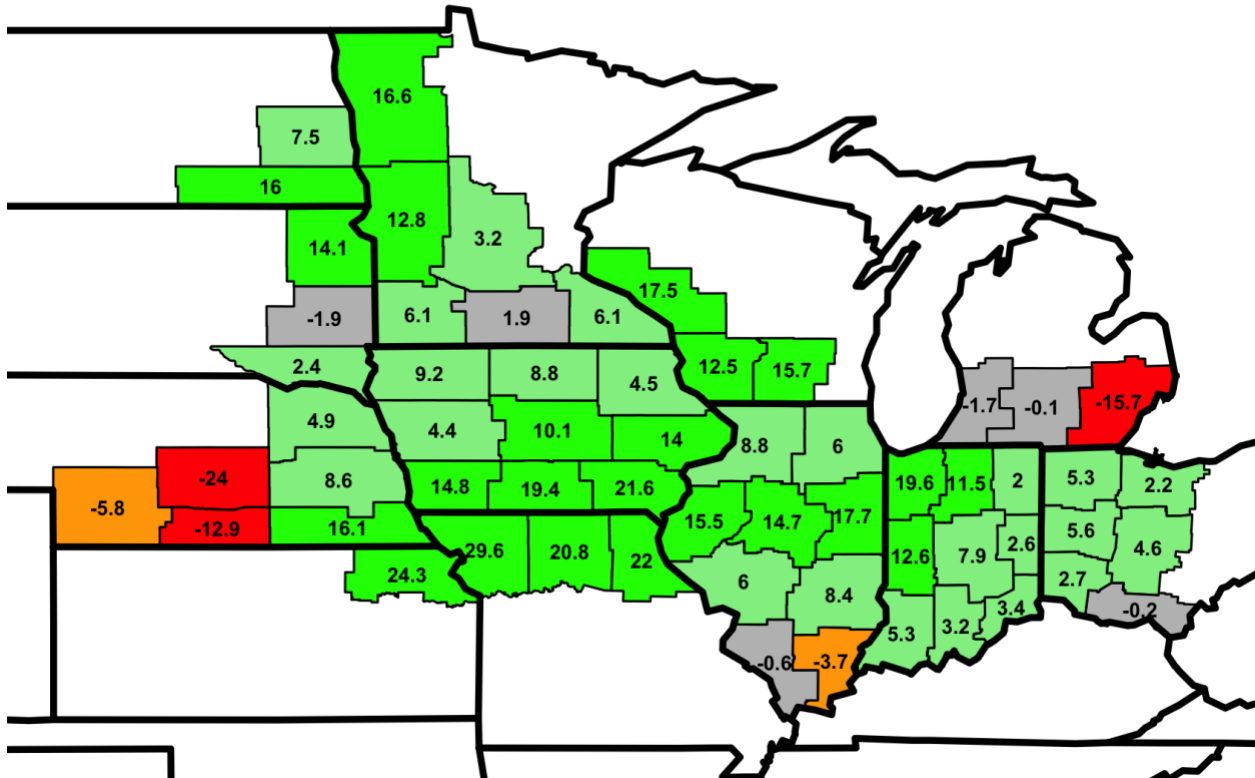
National Statistics:

Observed Yield (bpa):	72.4
Observed Trend (%):	-6.7
Production (bil. bushels):	4.15
Planted Acres (millions):	66.86

Corn Belt Statistics:

Median Trend:	-8.8
Districts Above Trend:	18

1971



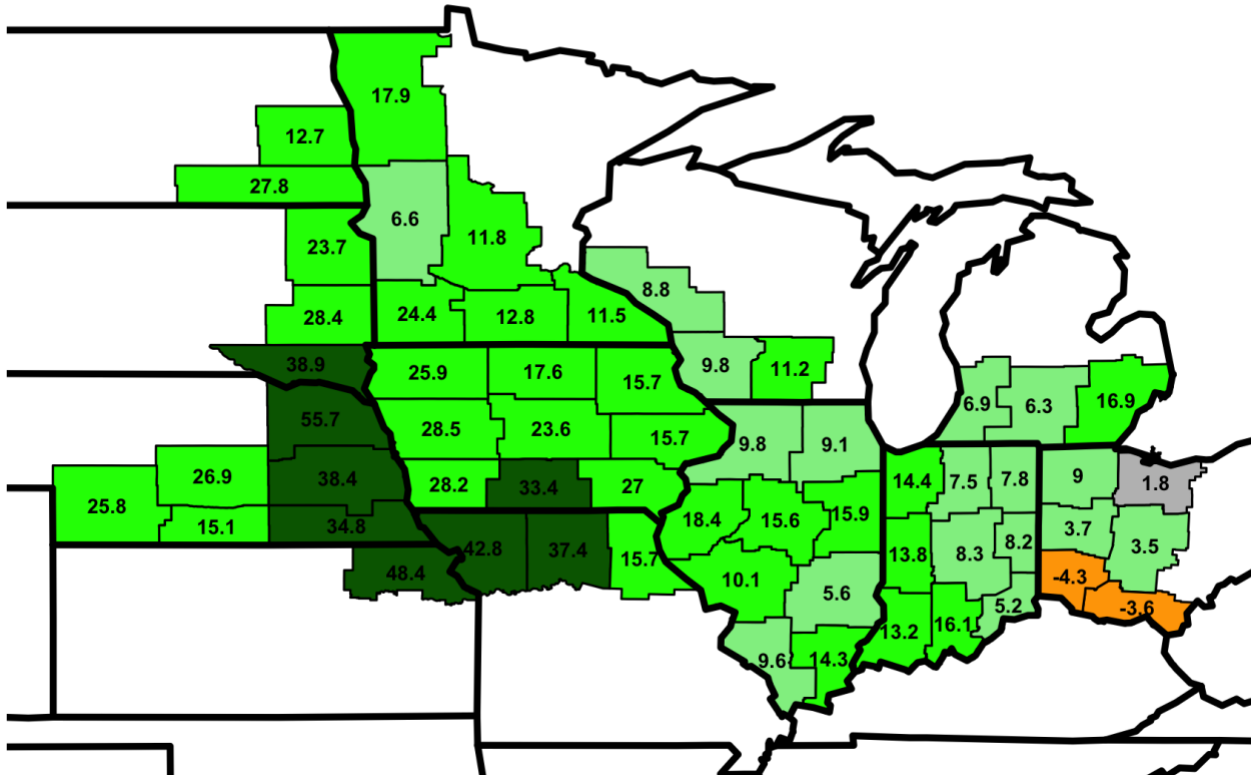
National Statistics:

Observed Yield (bpa):	88.1
Observed Trend (%):	10.7
Production (bil. bushels):	5.64
Planted Acres (millions):	74.17

Corn Belt Statistics:

Median Trend:	6.8
Districts Above Trend:	50

1972



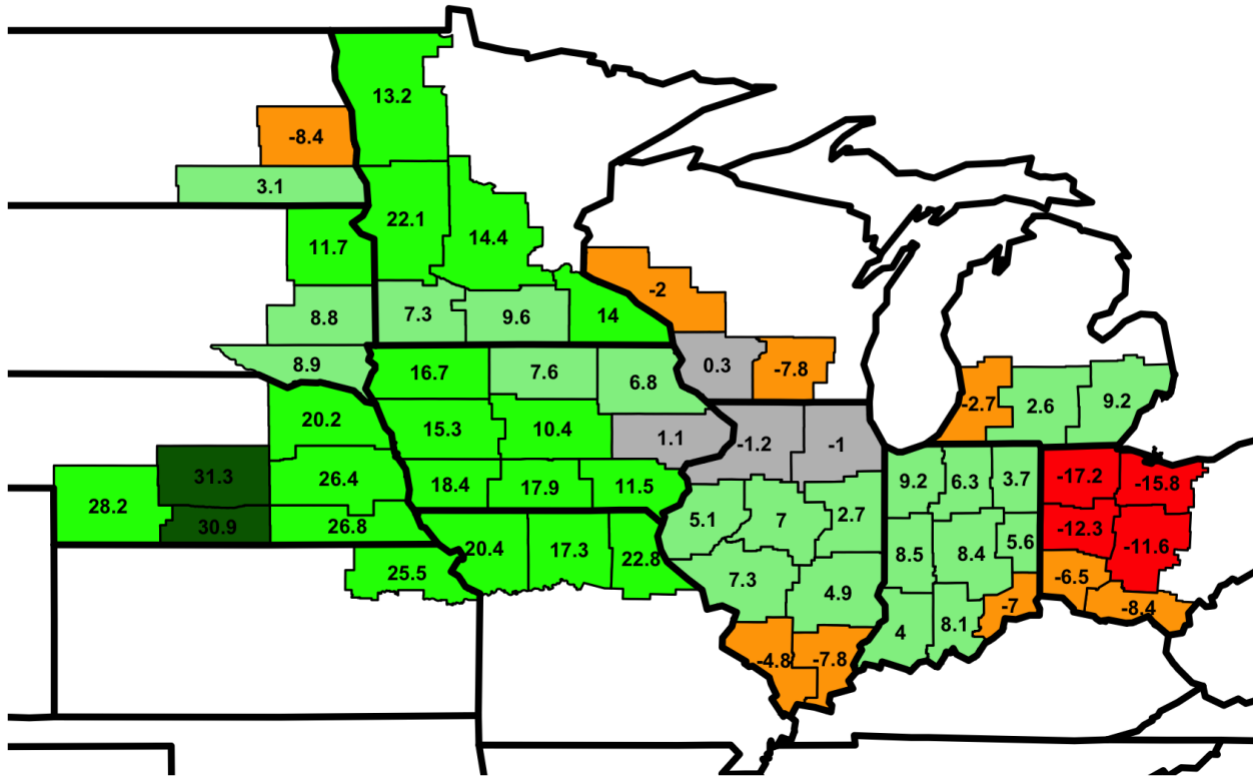
National Statistics:

Observed Yield (bpa):	97.0
Observed Trend (%):	19.1
Production (bil. bushels):	5.57
Planted Acres (millions):	67.12

Corn Belt Statistics:

Median Trend:	14.7
Districts Above Trend:	58

1973



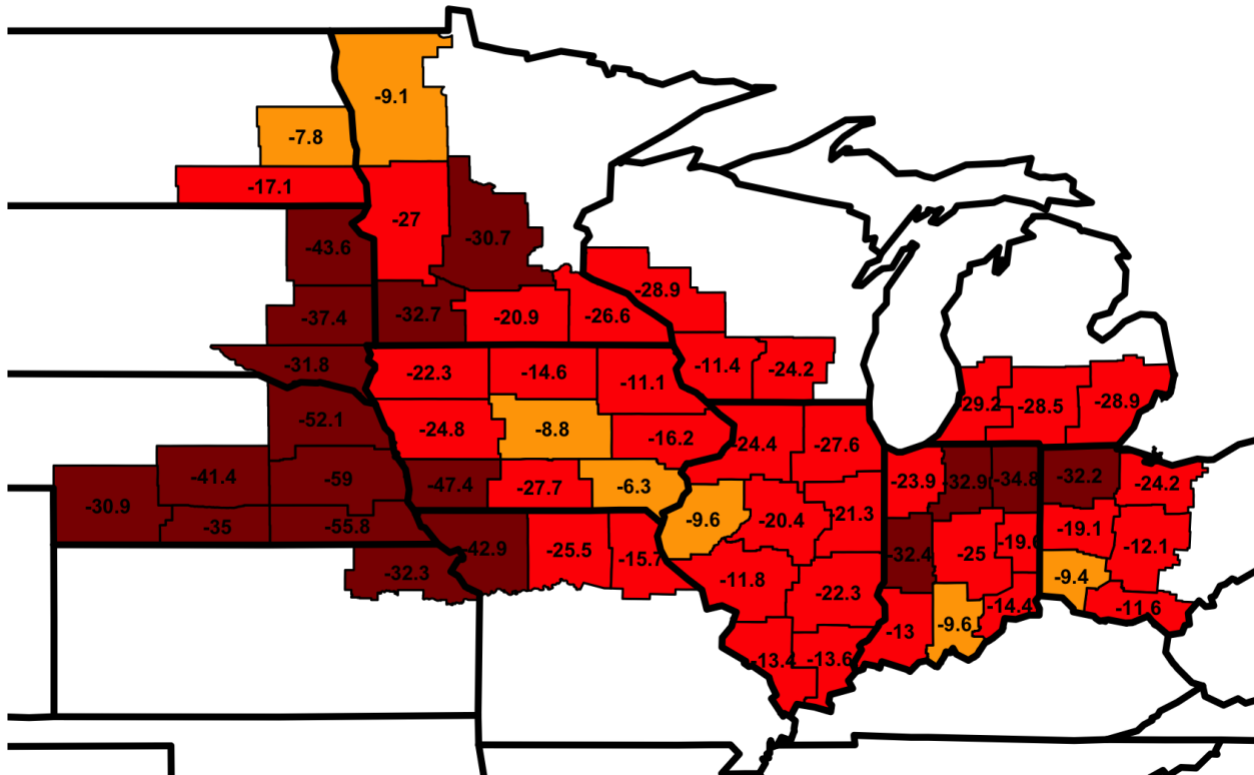
National Statistics:

Observed Yield (bpa):	91.3
Observed Trend (%):	9.4
Production (bil. bushels):	5.67
Planted Acres (millions):	72.25

Corn Belt Statistics:

Median Trend:	7.4
Districts Above Trend:	45

1974



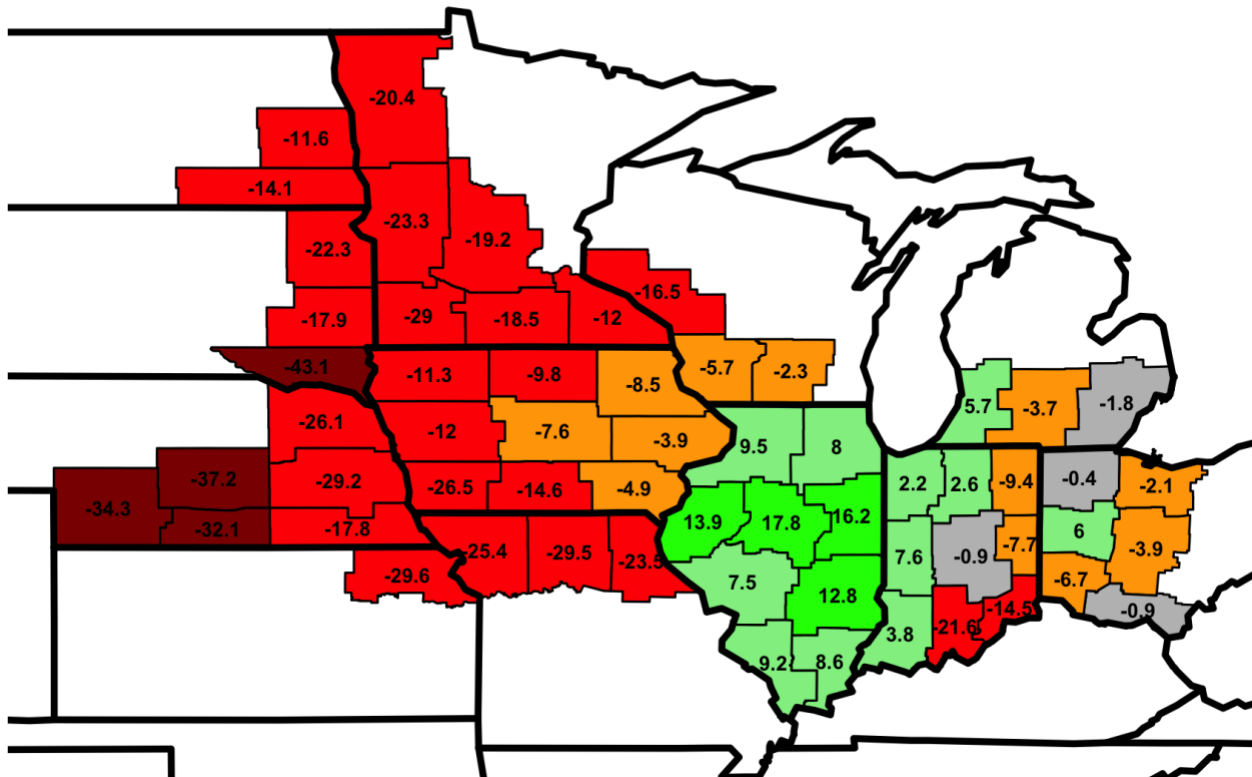
National Statistics:

Observed Yield (bpa):	71.9
Observed Trend (%):	-15.8
Production (bil. bushels):	4.7
Planted Acres (millions):	77.93

Corn Belt Statistics:

Median Trend:	-24.3
Districts Above Trend:	0

1975



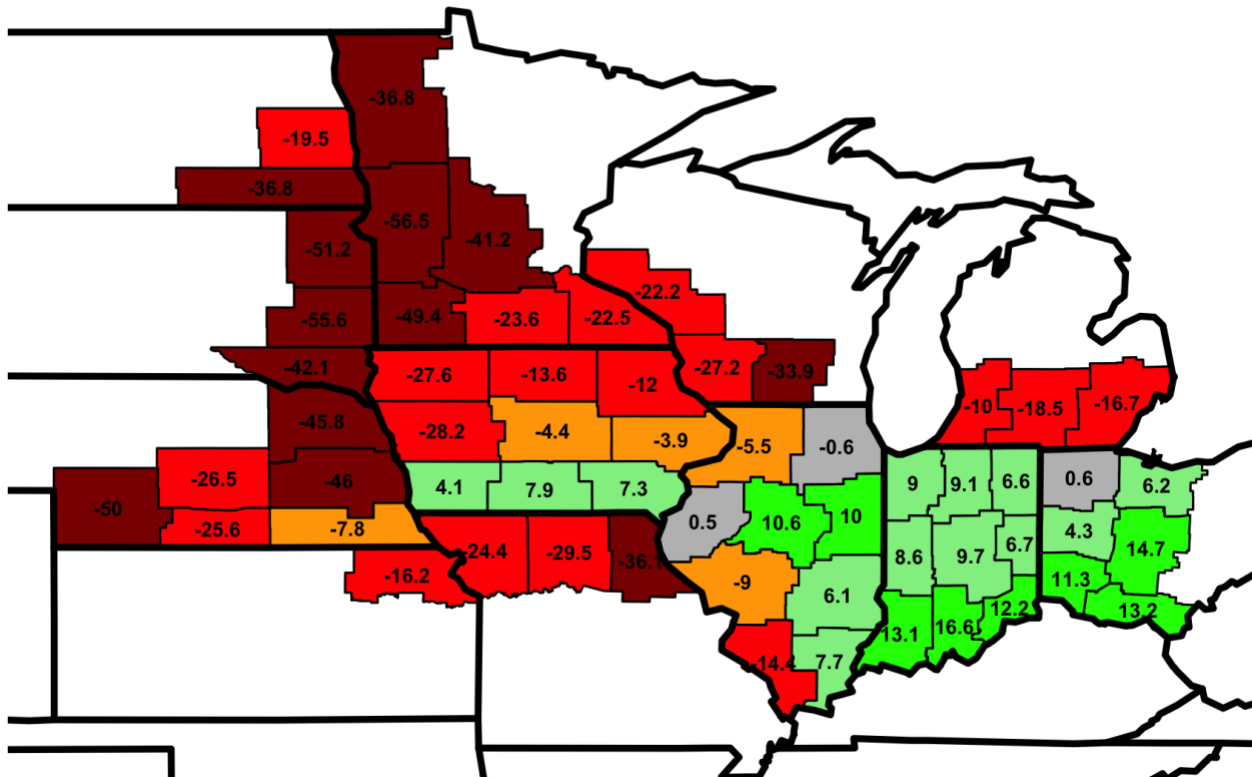
National Statistics:

Observed Yield (bpa):	86.4
Observed Trend (%):	-1.0
Production (bil. bushels):	5.84
Planted Acres (millions):	78.71

Corn Belt Statistics:

Median Trend:	-8.9
Districts Above Trend:	15

1976



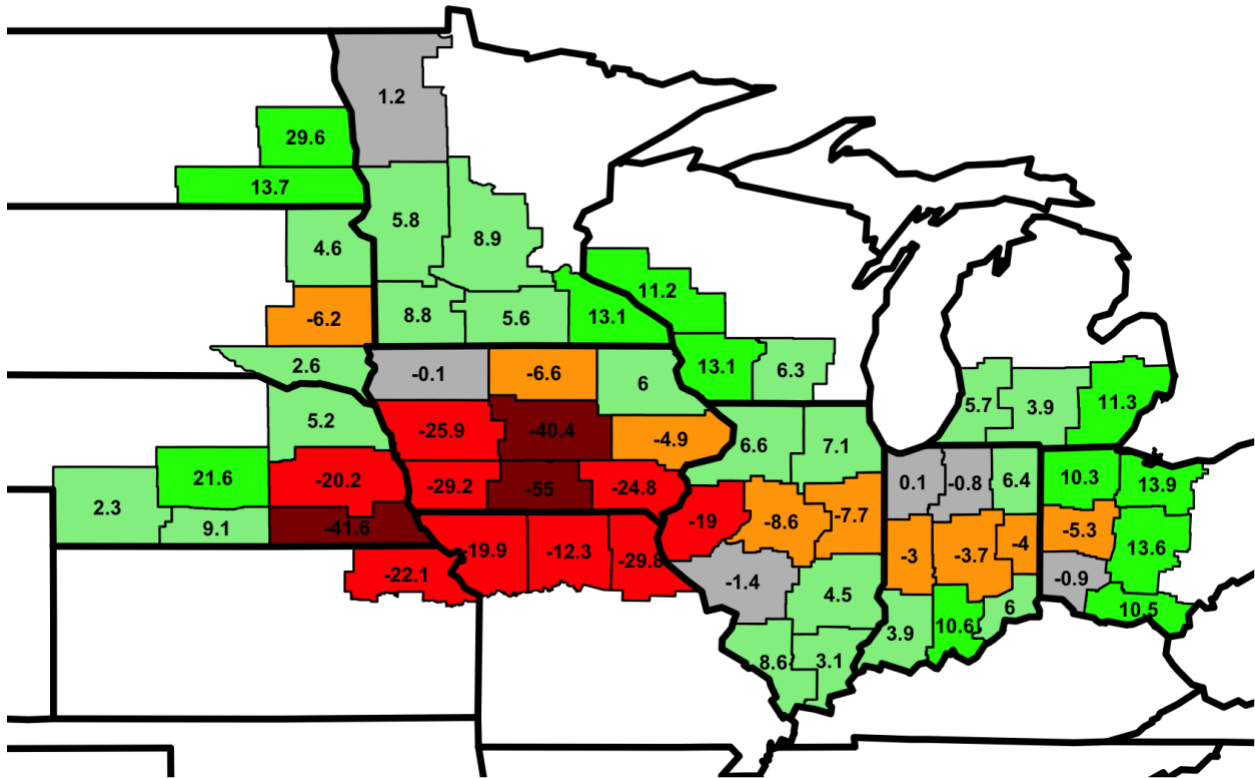
National Statistics:

Observed Yield (bpa):	88.0
Observed Trend (%):	-1.4
Production (bil. bushels):	6.29
Planted Acres (millions):	84.58

Corn Belt Statistics:

Median Trend:	-11.0
Districts Above Trend:	23

1977



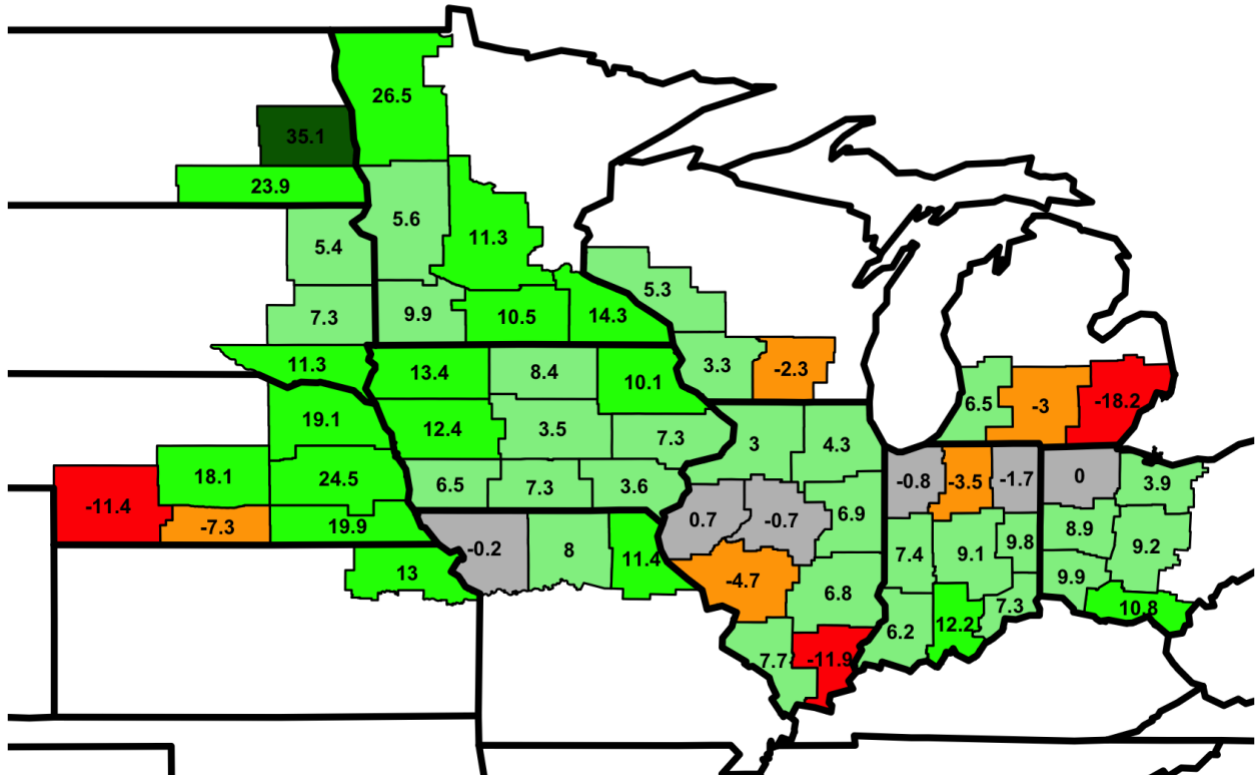
National Statistics:

Observed Yield (bpa):	90.8
Observed Trend (%):	-0.4
Production (bil. bushels):	6.51
Planted Acres (millions):	84.32

Corn Belt Statistics:

Median Trend:	3.5
Districts Above Trend:	35

1978



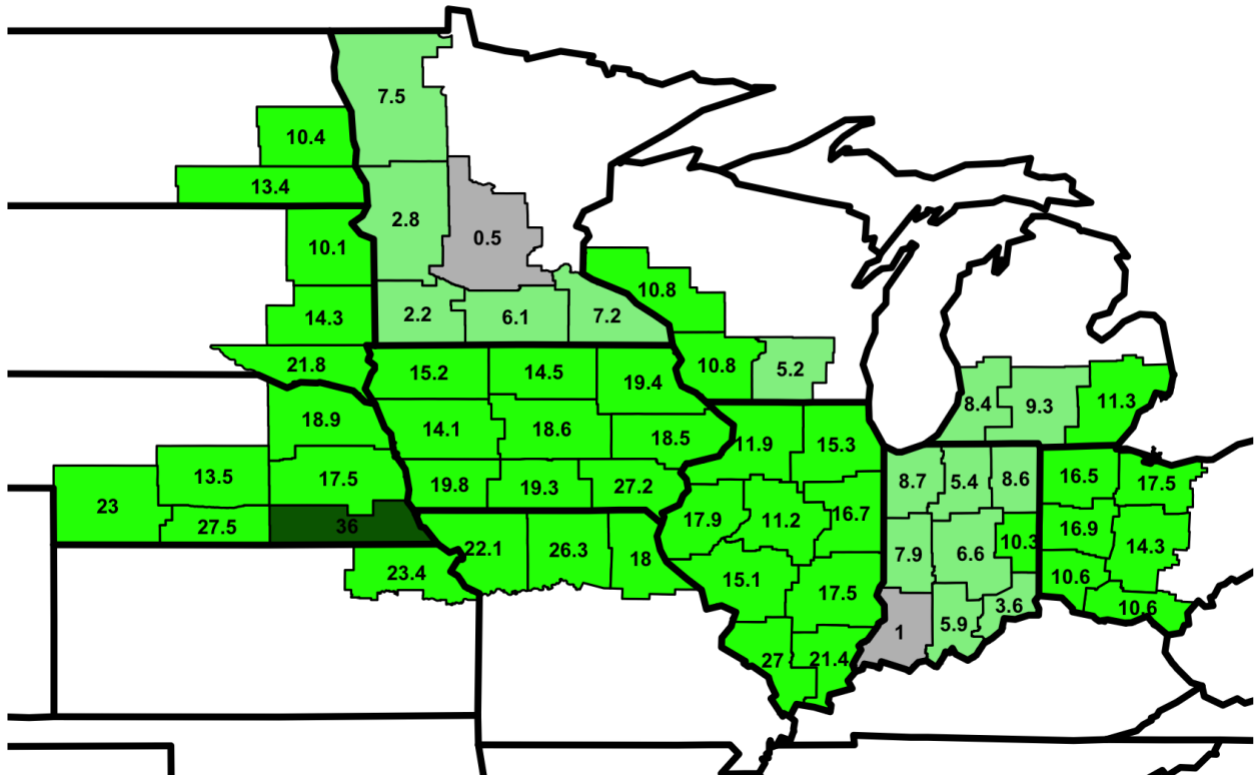
National Statistics:

Observed Yield (bpa):	101.0
Observed Trend (%):	8.5
Production (bil. bushels):	7.27
Planted Acres (millions):	81.67

Corn Belt Statistics:

Median Trend:	7.3
Districts Above Trend:	47

1979



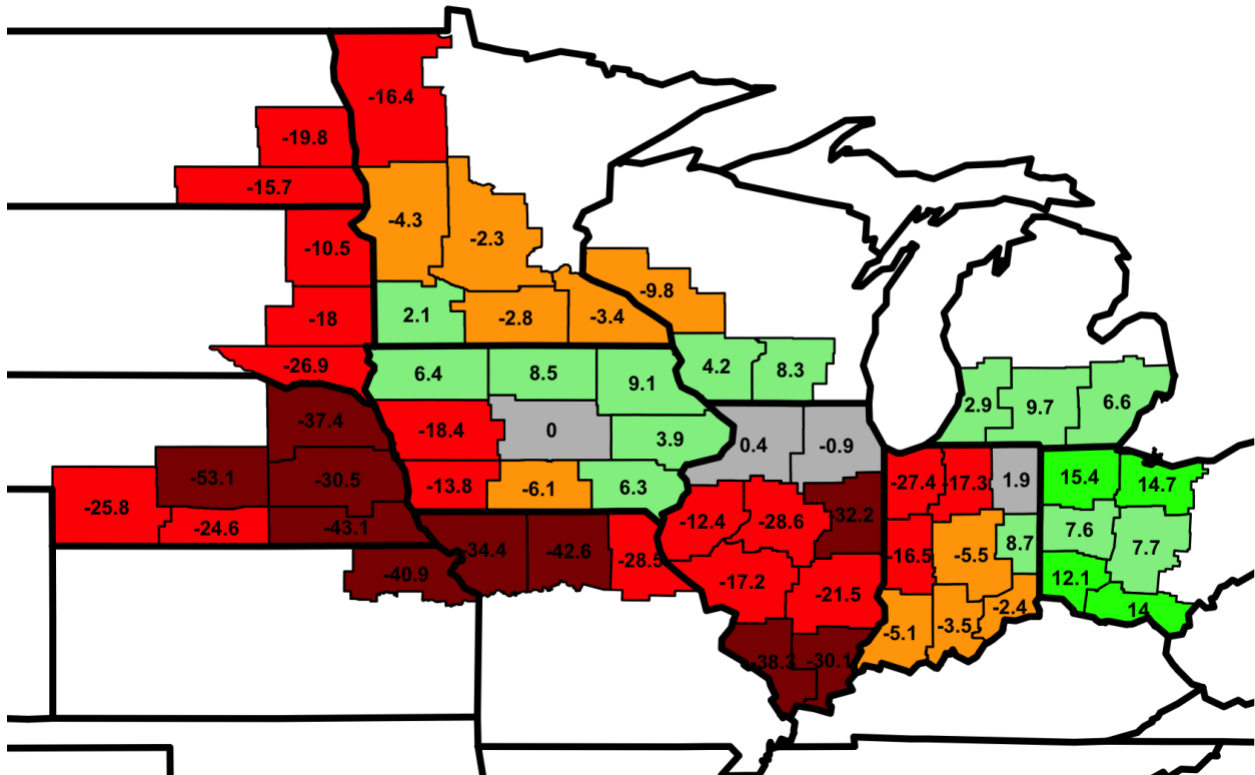
National Statistics:

Observed Yield (bpa):	109.5
Observed Trend (%):	15.2
Production (bil. bushels):	7.92
Planted Acres (millions):	81.39

Corn Belt Statistics:

Median Trend:	14.2
Districts Above Trend:	60

1980



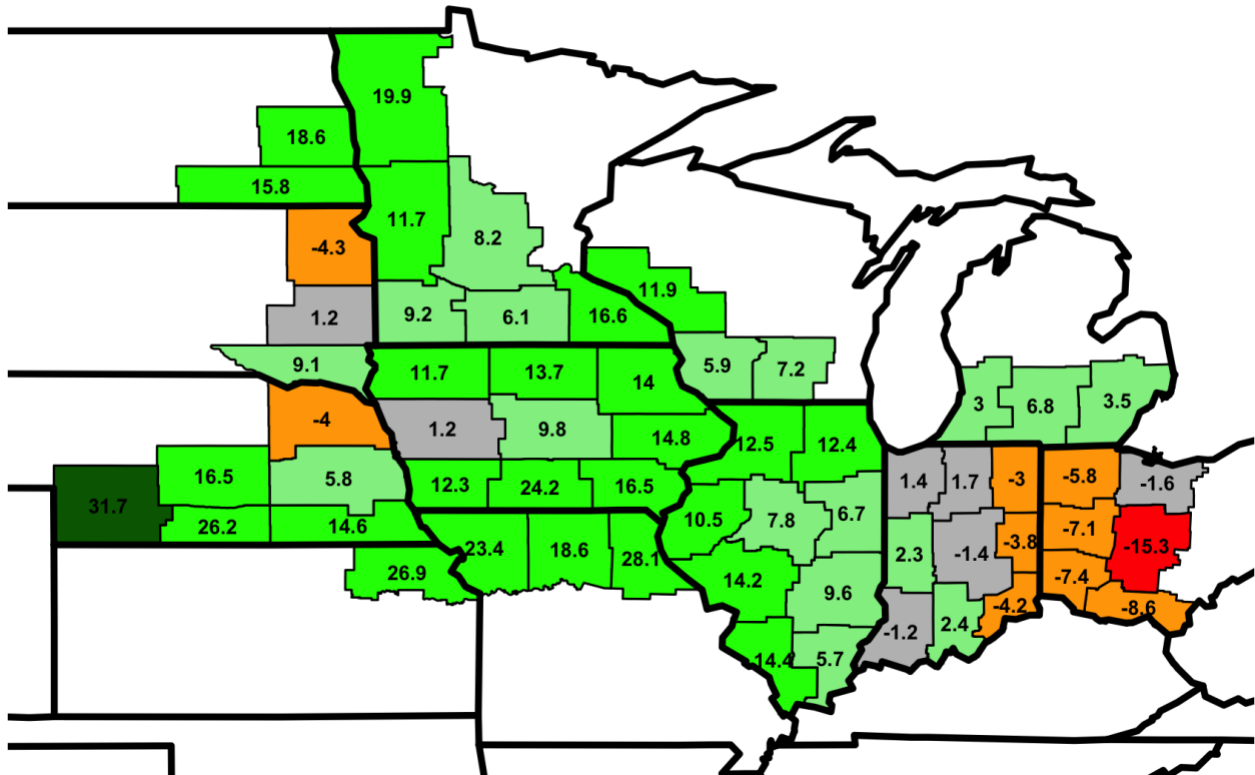
National Statistics:

Observed Yield (bpa):	91.0
Observed Trend (%):	-6.1
Production (bil. bushels):	6.63
Planted Acres (millions):	84.04

Corn Belt Statistics:

Median Trend:	-5.9
Districts Above Trend:	21

1981



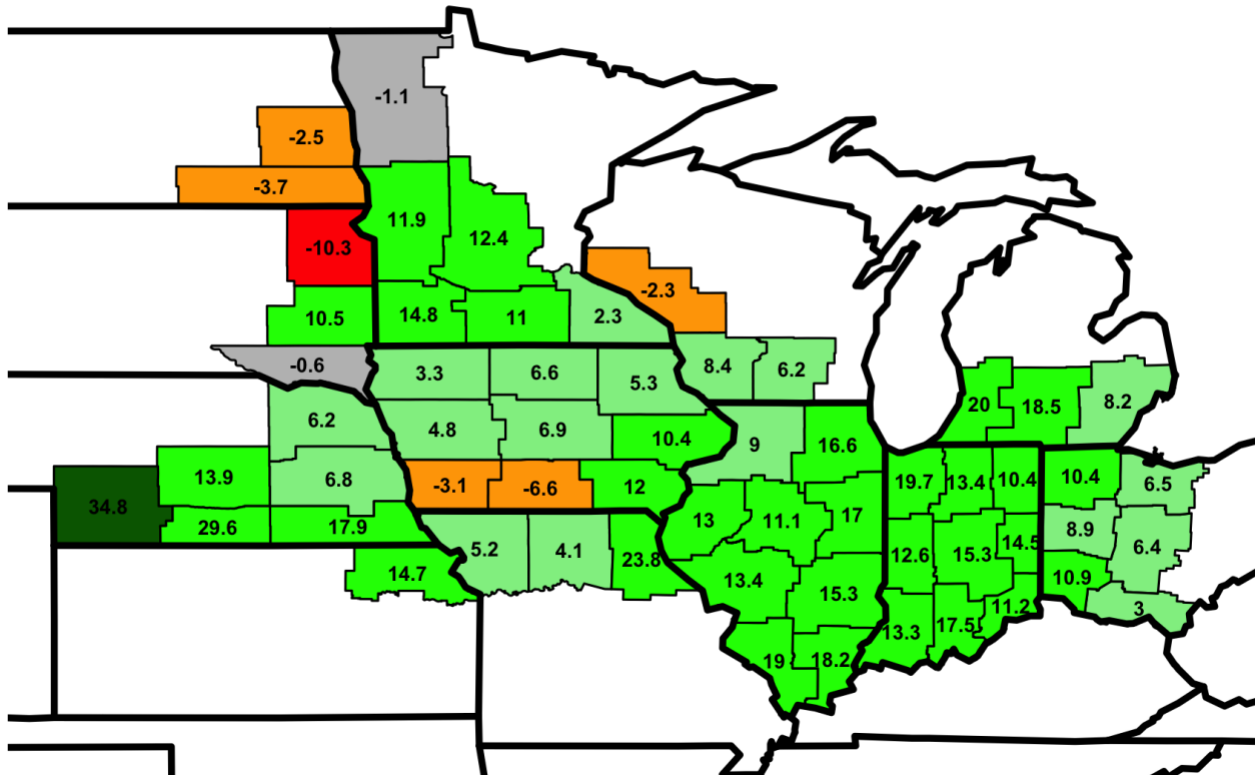
National Statistics:

Observed Yield (bpa):	108.9
Observed Trend (%):	10.1
Production (bil. bushels):	8.11
Planted Acres (millions):	84.09

Corn Belt Statistics:

Median Trend:	8.6
Districts Above Trend:	47

1982



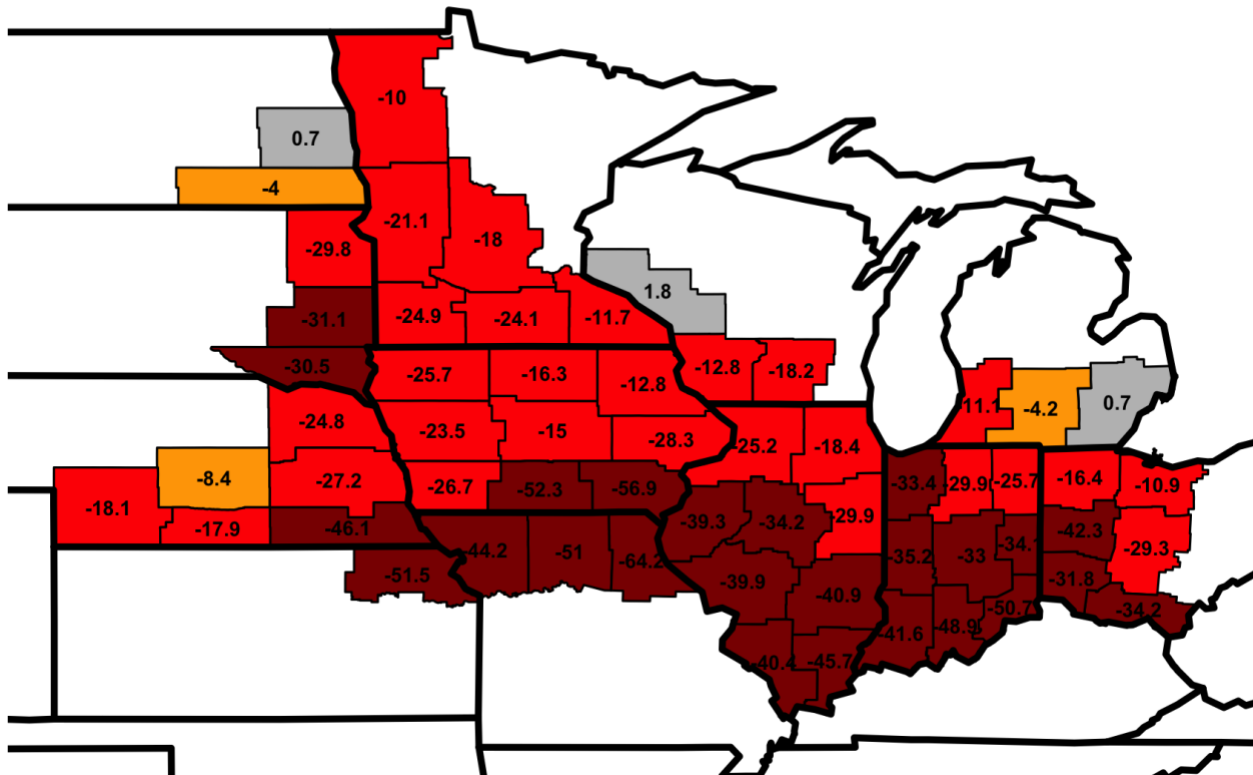
National Statistics:

Observed Yield (bpa):	113.2
Observed Trend (%):	12.3
Production (bil. bushels):	8.23
Planted Acres (millions):	81.86

Corn Belt Statistics:

Median Trend:	10.7
Districts Above Trend:	52

1983



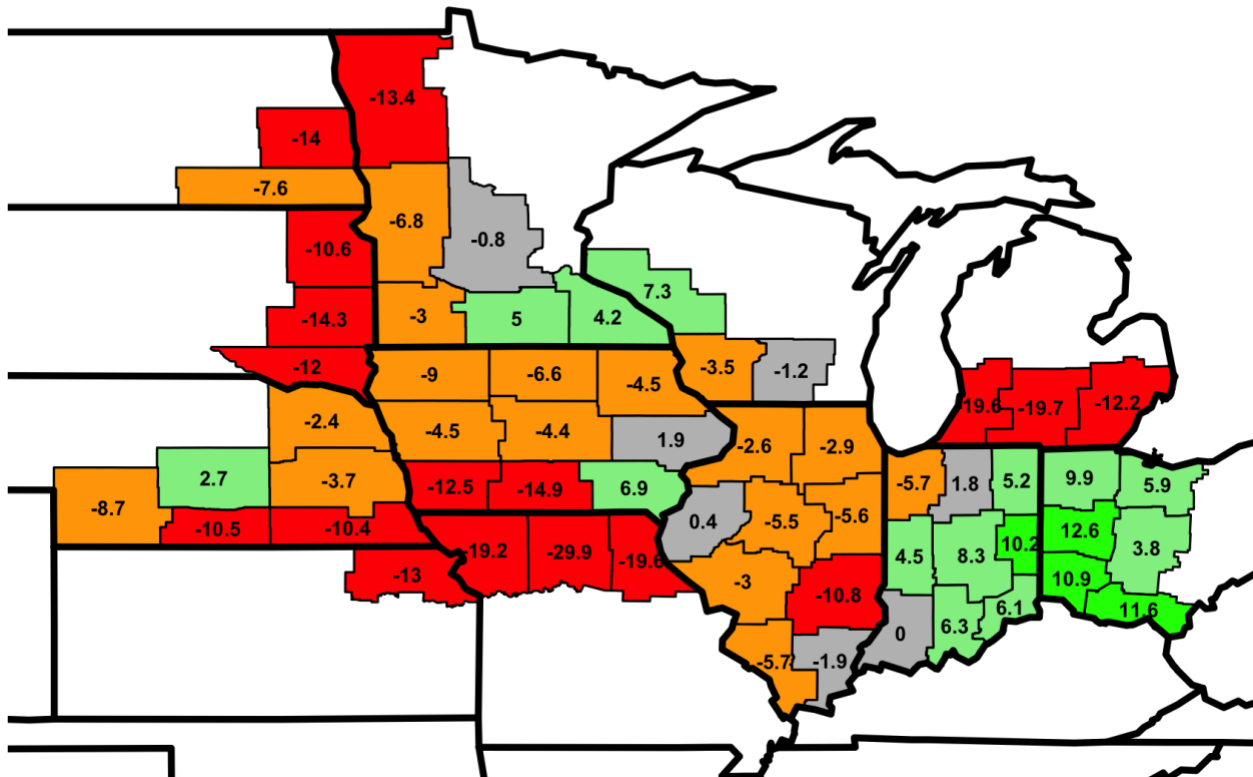
National Statistics:

Observed Yield (bpa):	81.1
Observed Trend (%):	-21.1
Production (bil. bushels):	4.17
Planted Acres (millions):	60.21

Corn Belt Statistics:

Median Trend:	-27.7
Districts Above Trend:	3

1984



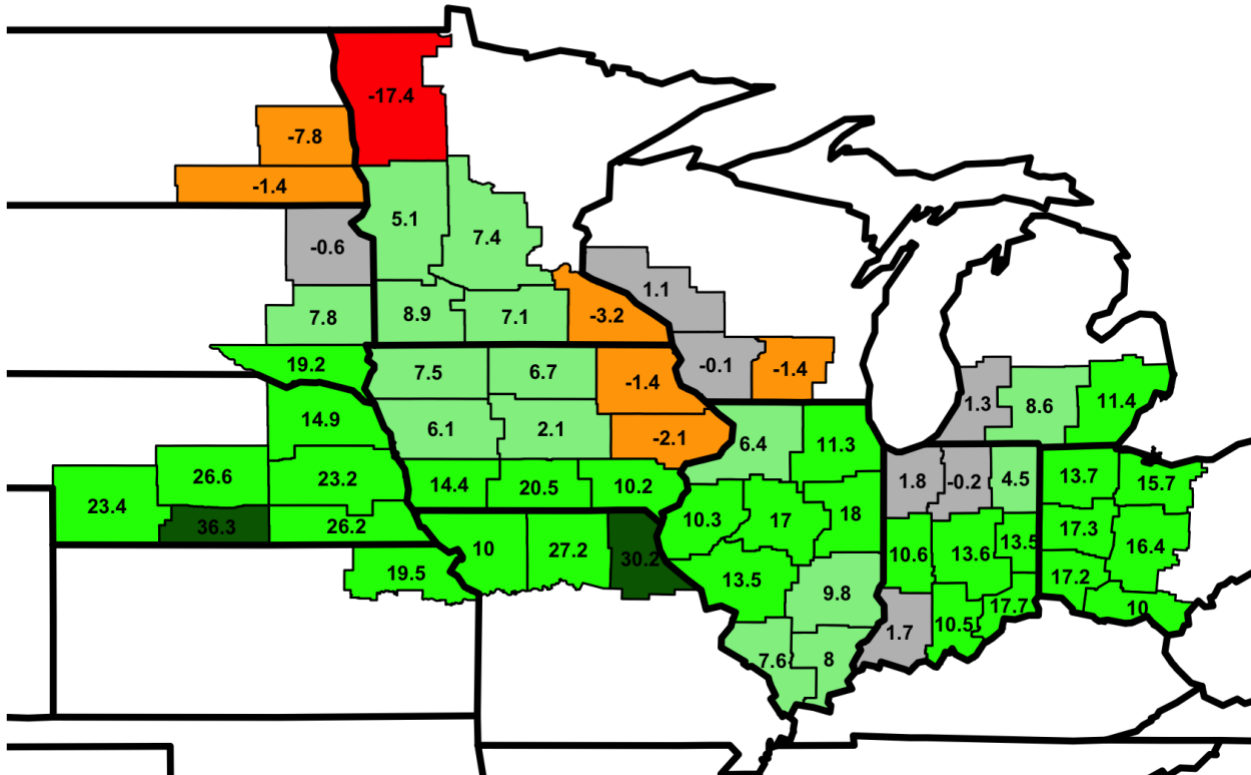
National Statistics:

Observed Yield (bpa):	106.7
Observed Trend (%):	1.9
Production (bil. bushels):	7.67
Planted Acres (millions):	80.52

Corn Belt Statistics:

Median Trend:	-3.6
Districts Above Trend:	20

1985



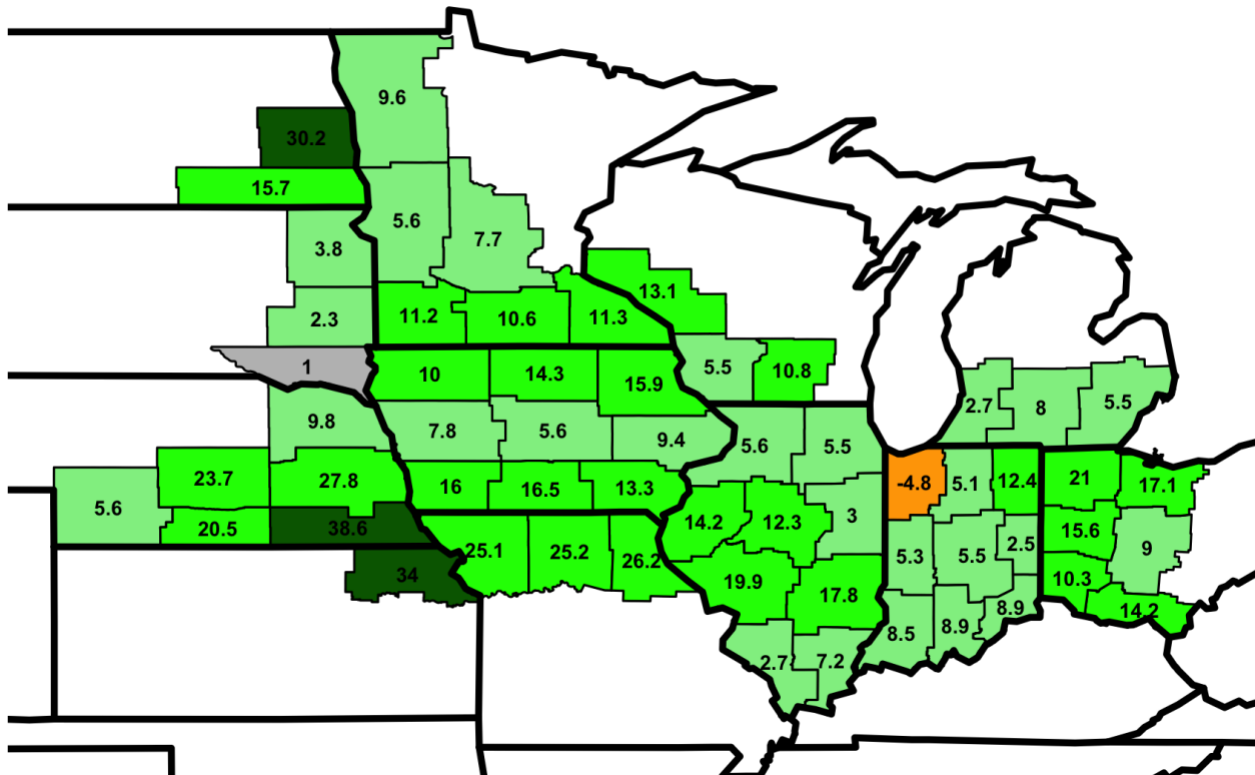
National Statistics:

Observed Yield (bpa):	118.0
Observed Trend (%):	10.7
Production (bil. bushels):	8.87
Planted Acres (millions):	83.39

Corn Belt Statistics:

Median Trend:	10.0
Districts Above Trend:	50

1986



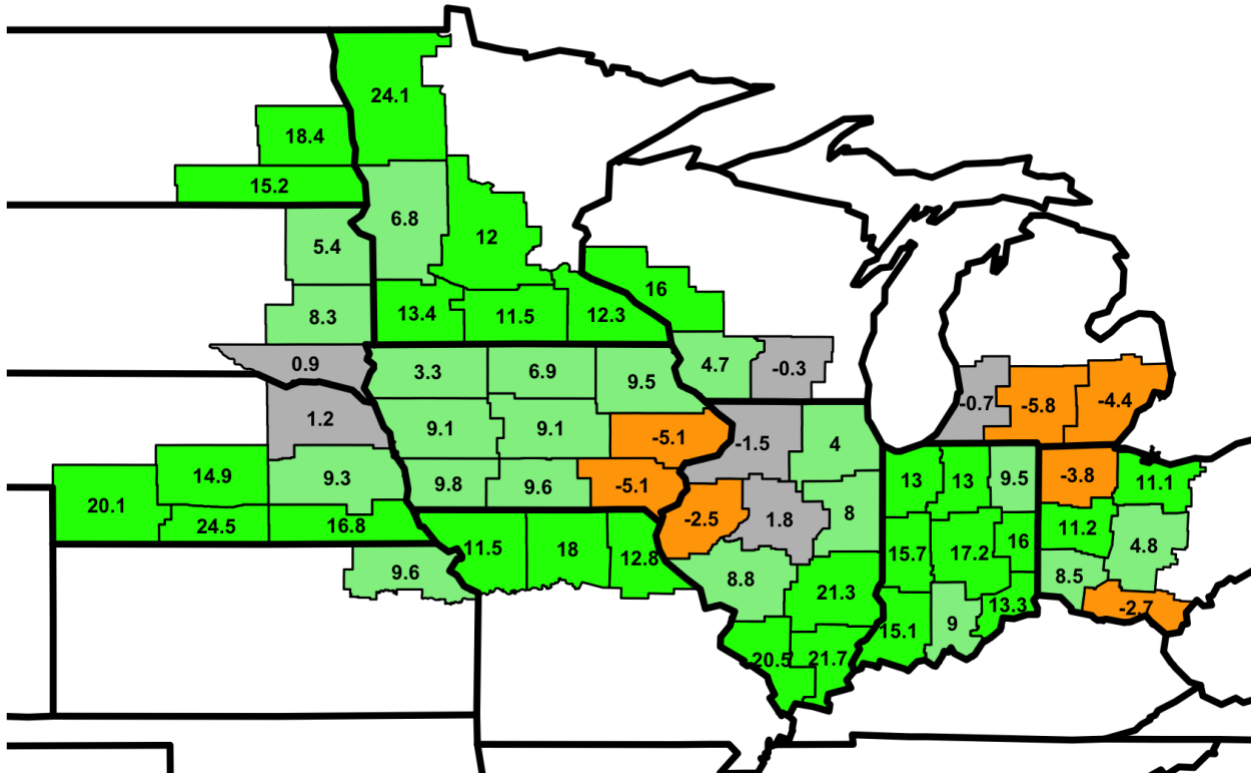
National Statistics:

Observed Yield (bpa):	119.4
Observed Trend (%):	10.2
Production (bil. bushels):	8.26
Planted Acres (millions):	76.58

Corn Belt Statistics:

Median Trend:	10.2
Districts Above Trend:	59

1987



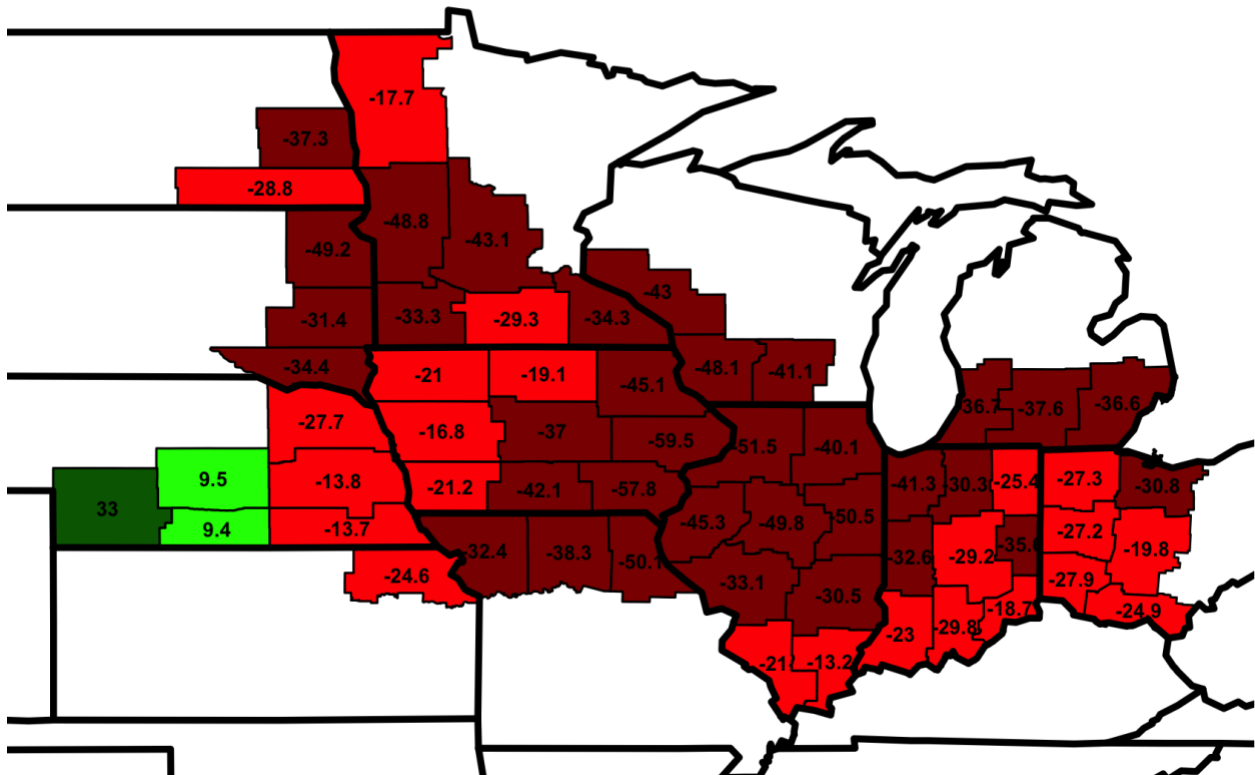
National Statistics:

Observed Yield (bpa):	119.8
Observed Trend (%):	8.4
Production (bil. bushels):	7.13
Planted Acres (millions):	66.2

Corn Belt Statistics:

Median Trend:	9.6
Districts Above Trend:	50

1988



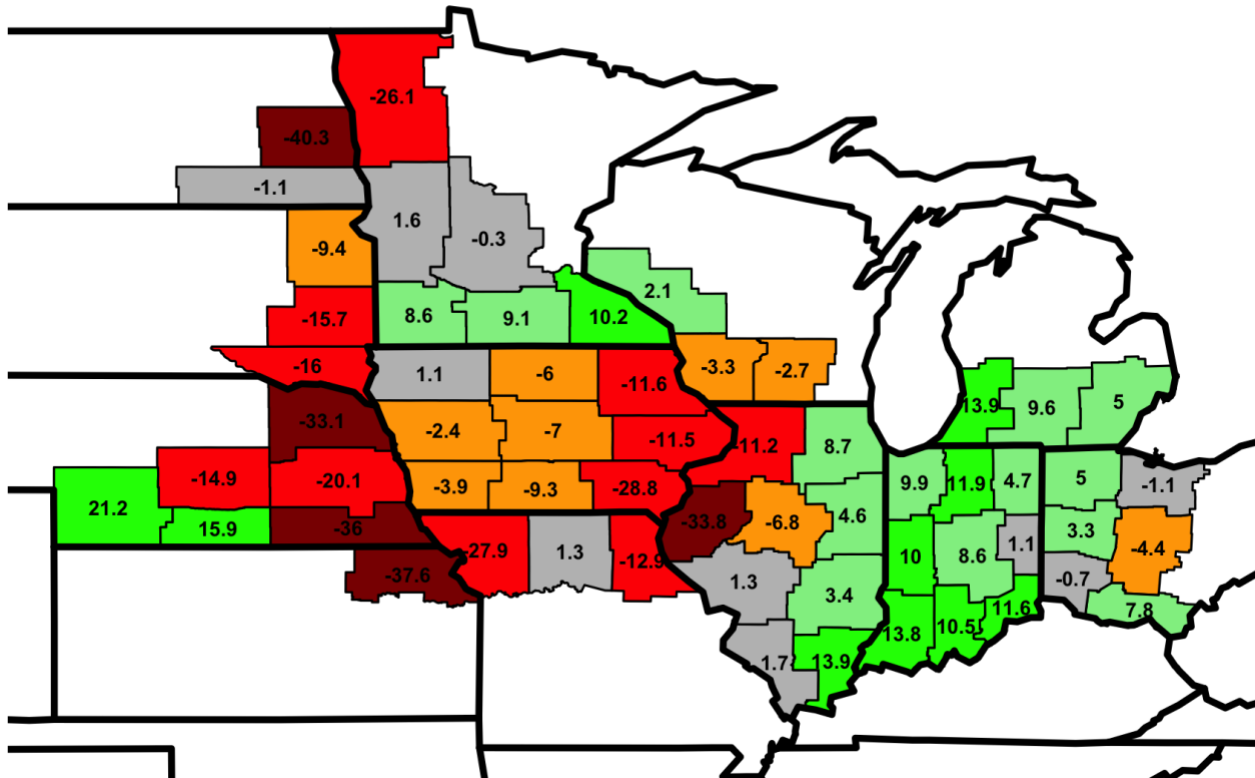
National Statistics:

Observed Yield (bpa):	84.6
Observed Trend (%):	-24.7
Production (bil. bushels):	4.92
Planted Acres (millions):	67.72

Corn Belt Statistics:

Median Trend:	-31.8
Districts Above Trend:	3

1989



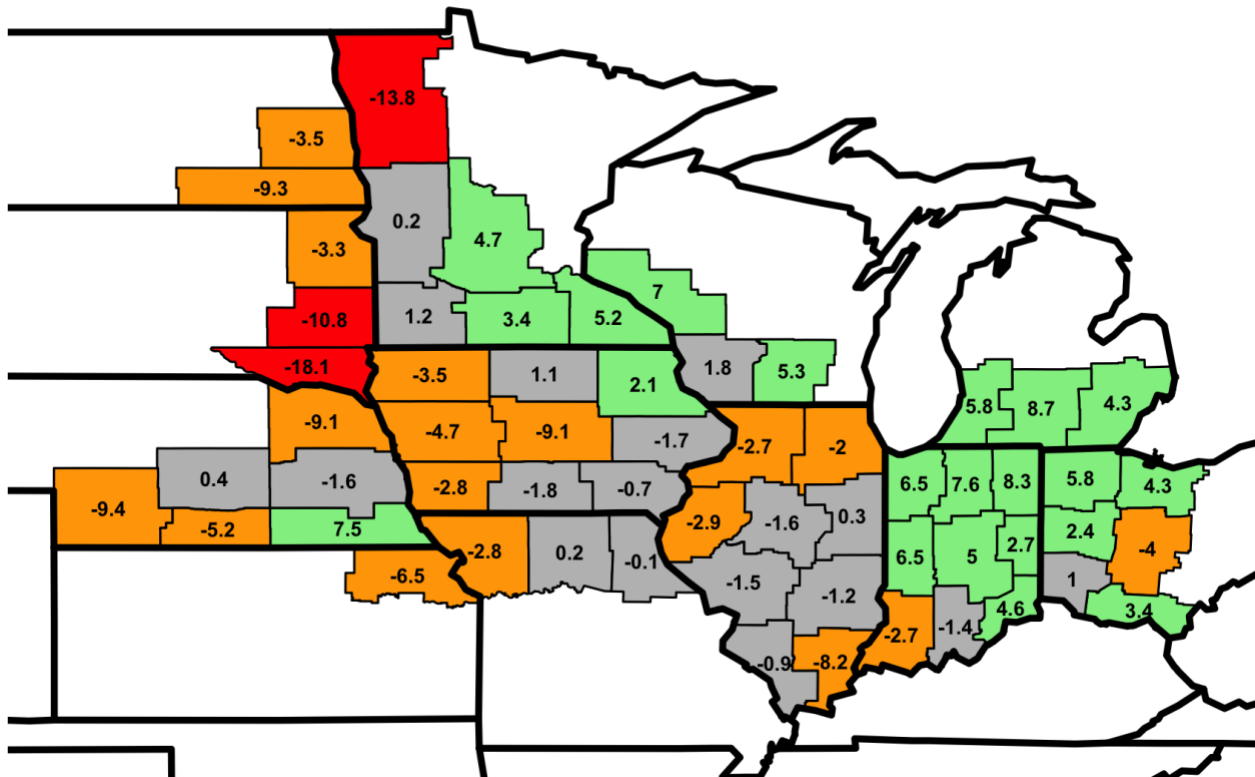
National Statistics:

Observed Yield (bpa):	116.3
Observed Trend (%):	1.7
Production (bil. bushels):	7.53
Planted Acres (millions):	72.32

Corn Belt Statistics:

Median Trend:	0.4
Districts Above Trend:	30

1990



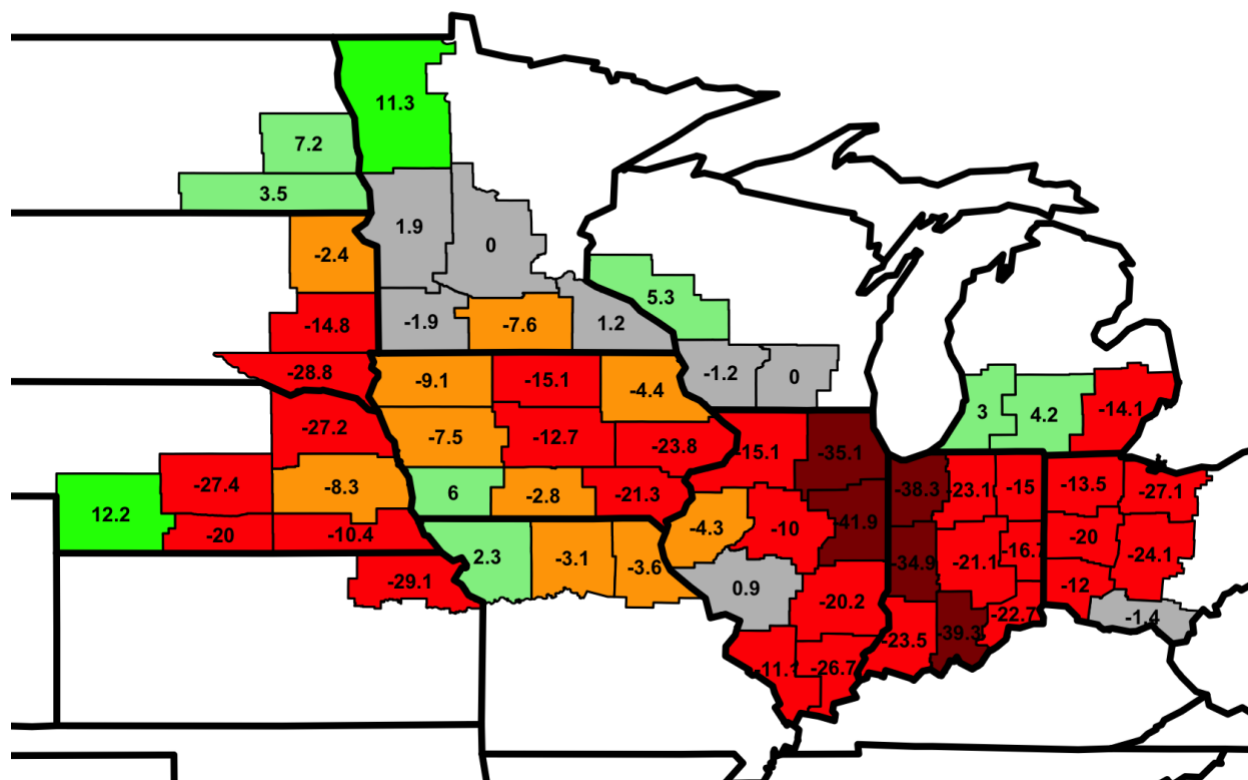
National Statistics:

Observed Yield (bpa):	118.5
Observed Trend (%):	1.9
Production (bil. bushels):	7.93
Planted Acres (millions):	74.16

Corn Belt Statistics:

Median Trend:	-0.4
Districts Above Trend:	29

1991



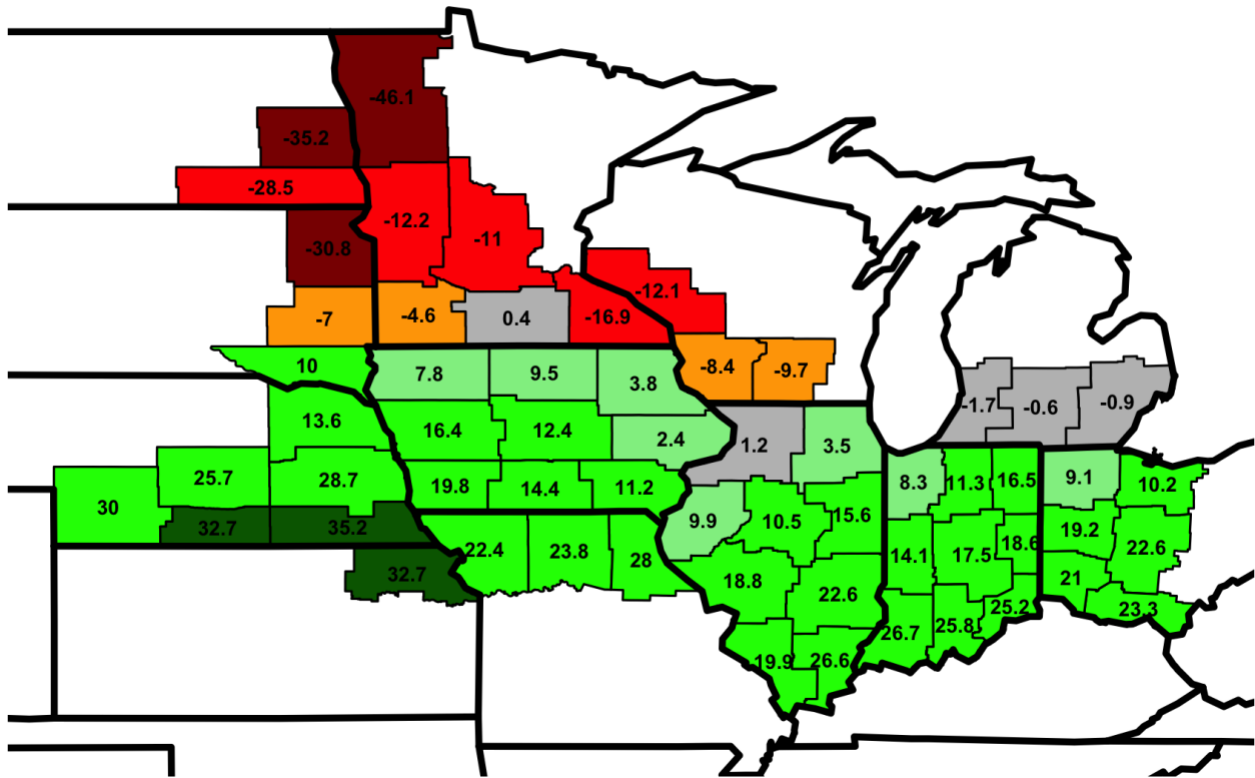
National Statistics:

Observed Yield (bpa):	108.6
Observed Trend (%):	-8.1
Production (bil. bushels):	7.47
Planted Acres (millions):	75.96

Corn Belt Statistics:

Median Trend:	-11.5
Districts Above Trend:	13

1992



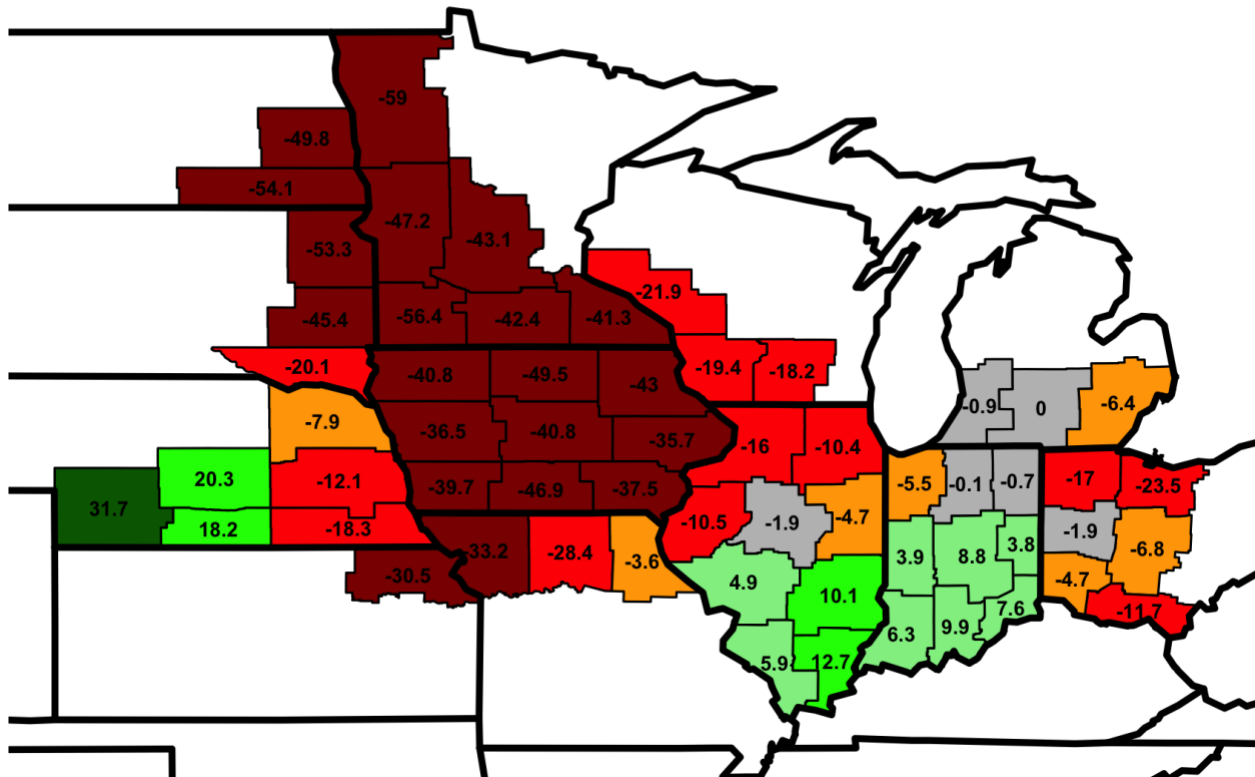
National Statistics:

Observed Yield (bpa):	131.5
Observed Trend (%):	9.4
Production (bil. bushels):	9.47
Planted Acres (millions):	79.31

Corn Belt Statistics:

Median Trend:	11.8
Districts Above Trend:	45

1993



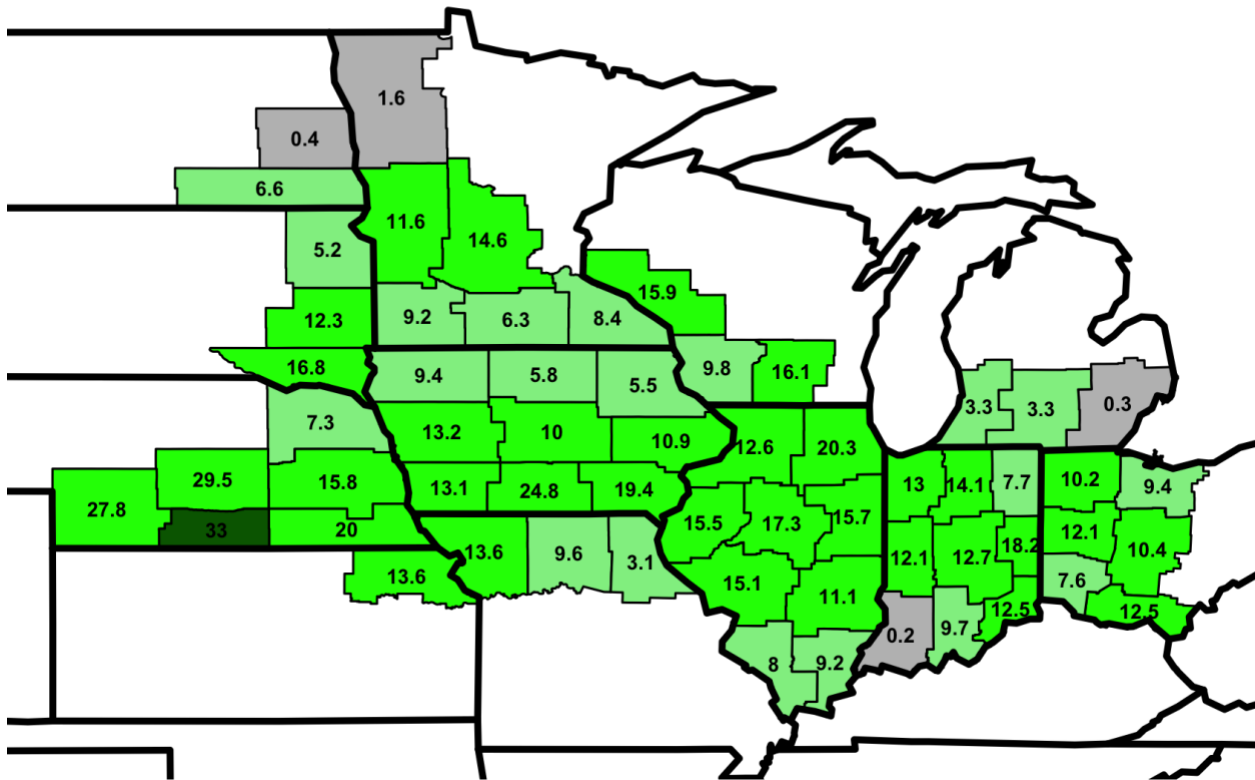
National Statistics:

Observed Yield (bpa):	100.7
Observed Trend (%):	-17.5
Production (bil. bushels):	6.33
Planted Acres (millions):	73.23

Corn Belt Statistics:

Median Trend:	-14.0
Districts Above Trend:	13

1994



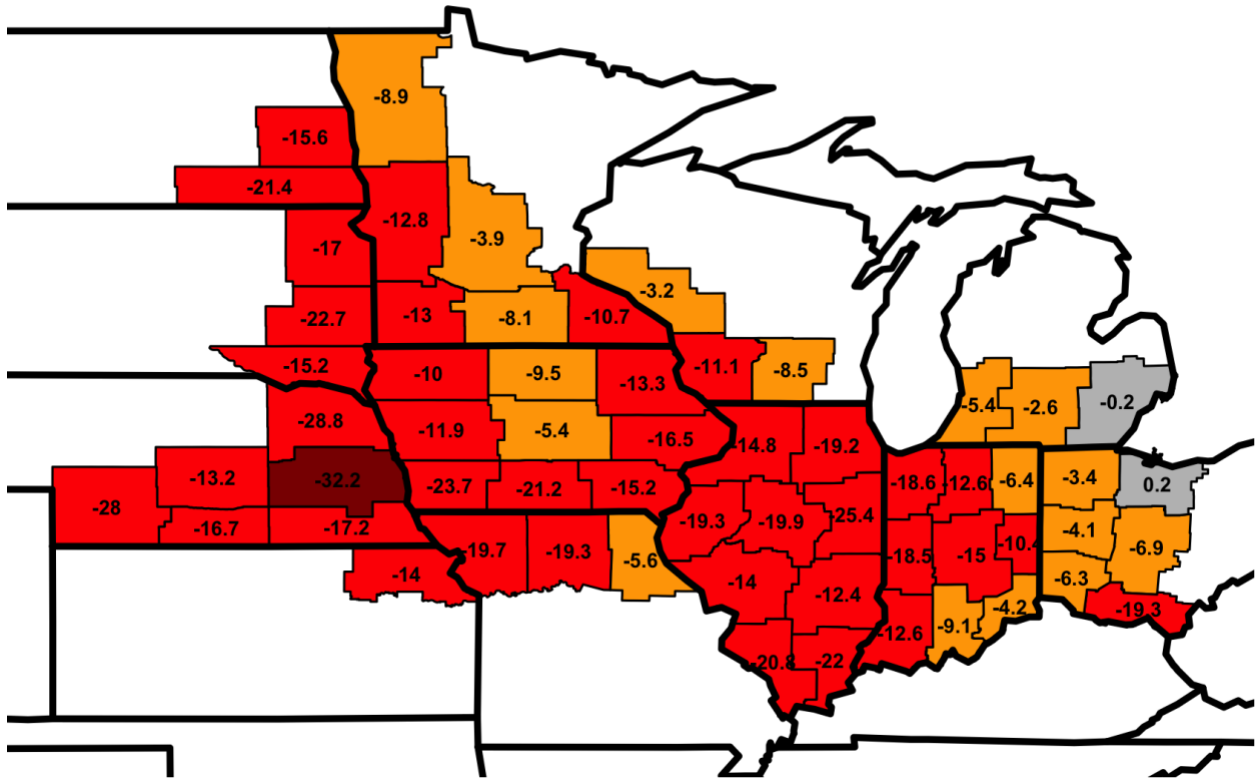
National Statistics:

Observed Yield (bpa):	138.6
Observed Trend (%):	11.8
Production (bil. bushels):	10.05
Planted Acres (millions):	78.92

Corn Belt Statistics:

Median Trend:	11.8
Districts Above Trend:	60

1995



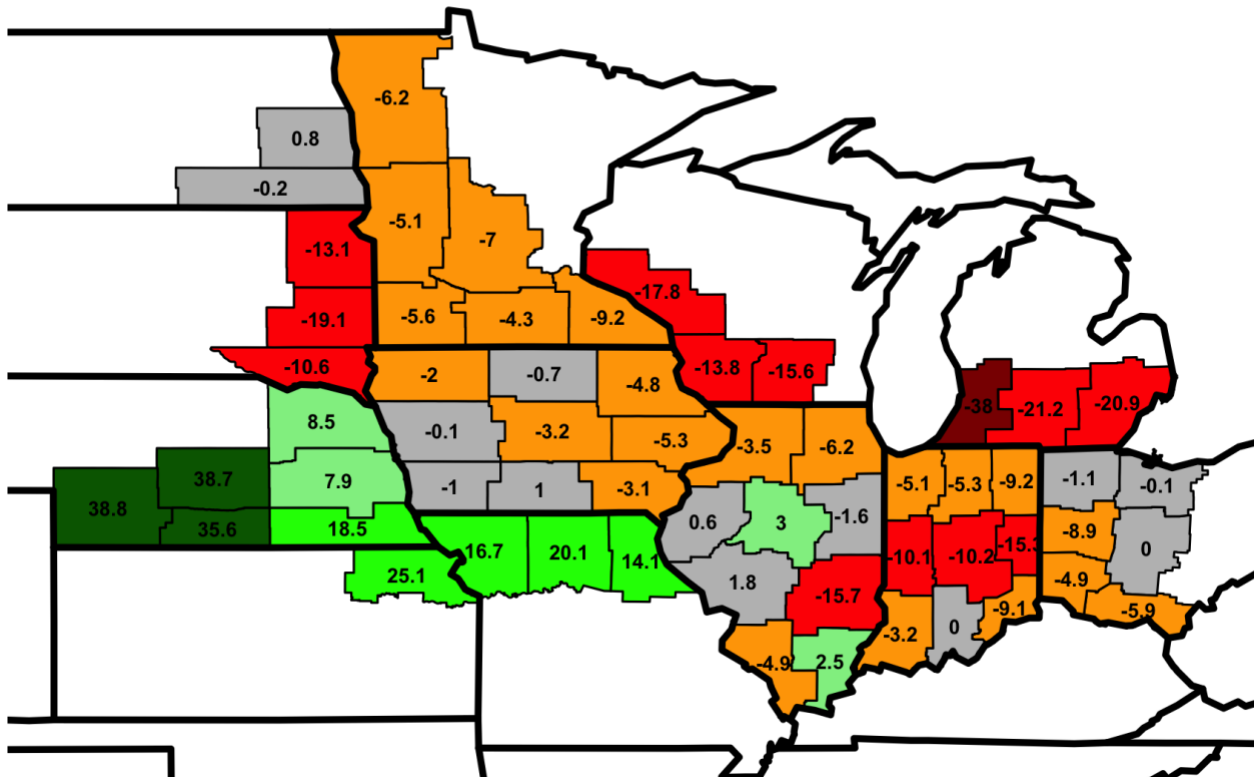
National Statistics:

Observed Yield (bpa):	113.5
Observed Trend (%):	-9.9
Production (bil. bushels):	7.4
Planted Acres (millions):	71.48

Corn Belt Statistics:

Median Trend:	-13.2
Districts Above Trend:	1

1996



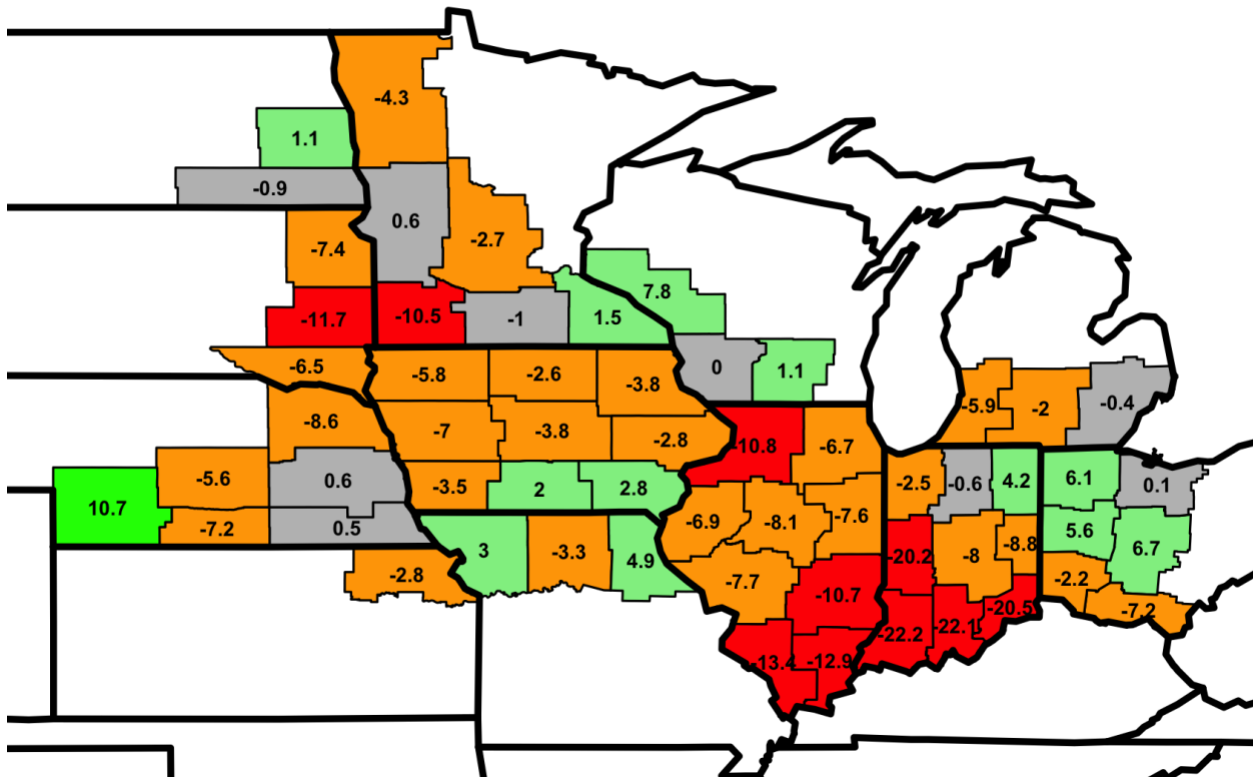
National Statistics:

Observed Yield (bpa):	127.1
Observed Trend (%):	-0.6
Production (bil. bushels):	9.23
Planted Acres (millions):	79.92

Corn Belt Statistics:

Median Trend:	-4.9
Districts Above Trend:	17

1997



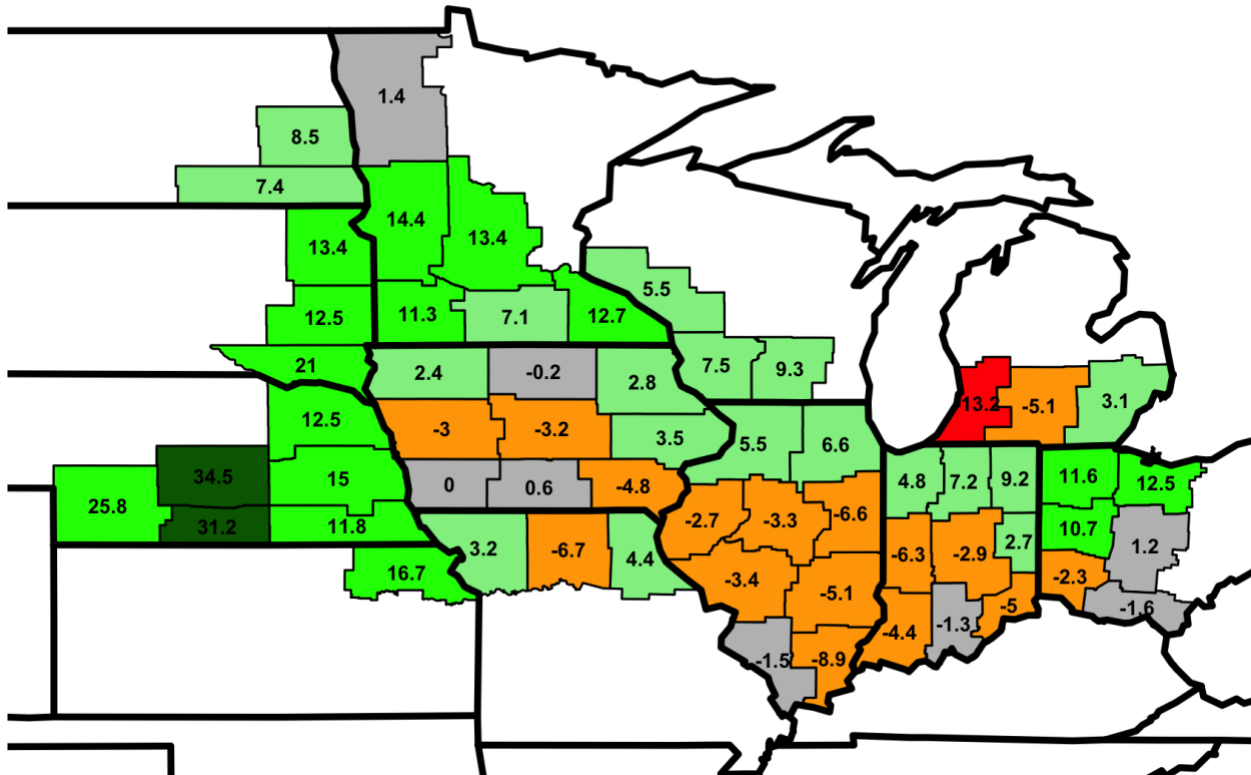
National Statistics:

Observed Yield (bpa):	126.7
Observed Trend (%):	-2.4
Production (bil. bushels):	9.21
Planted Acres (millions):	79.53

Corn Belt Statistics:

Median Trend:	-3.4
Districts Above Trend:	17

1998



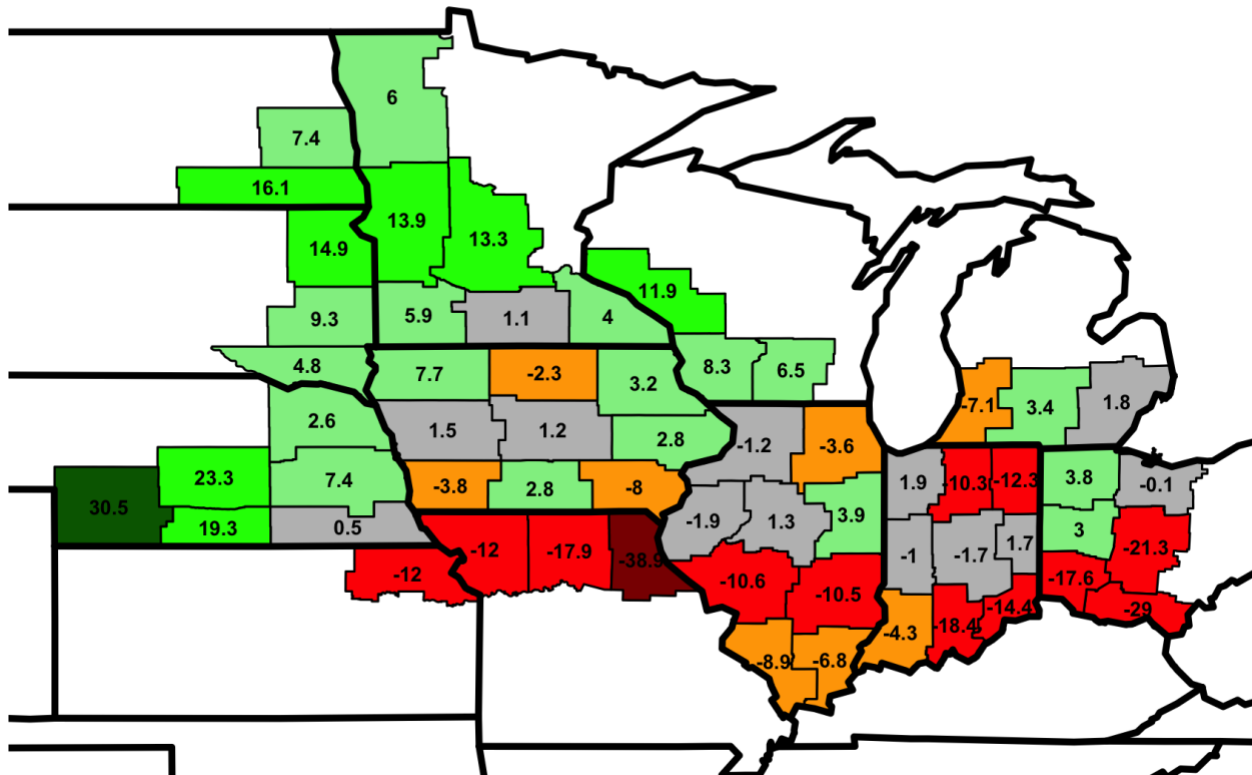
National Statistics:

Observed Yield (bpa):	134.4
Observed Trend (%):	2.0
Production (bil. bushels):	9.76
Planted Acres (millions):	80.17

Corn Belt Statistics:

Median Trend:	3.4
Districts Above Trend:	39

1999



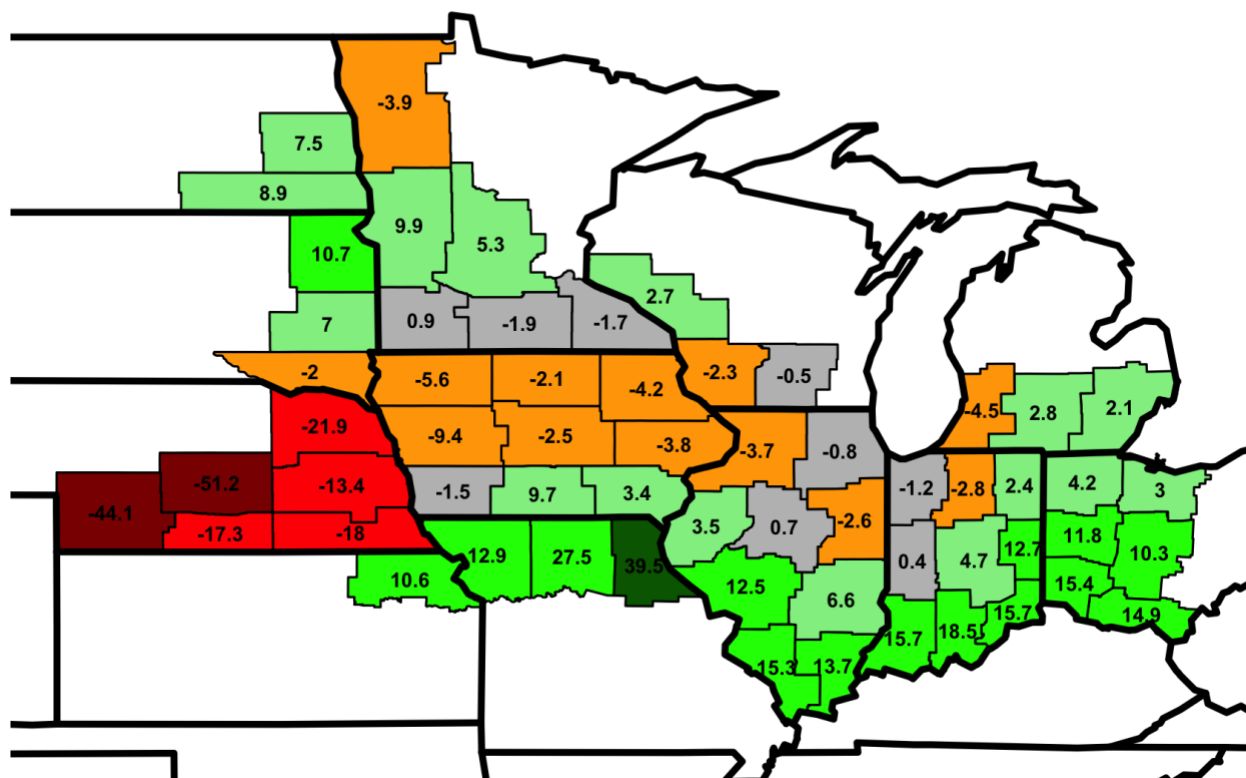
National Statistics:

Observed Yield (bpa):	133.8
Observed Trend (%):	0.1
Production (bil. bushels):	9.43
Planted Acres (millions):	77.38

Corn Belt Statistics:

Median Trend:	1.4
Districts Above Trend:	34

2000



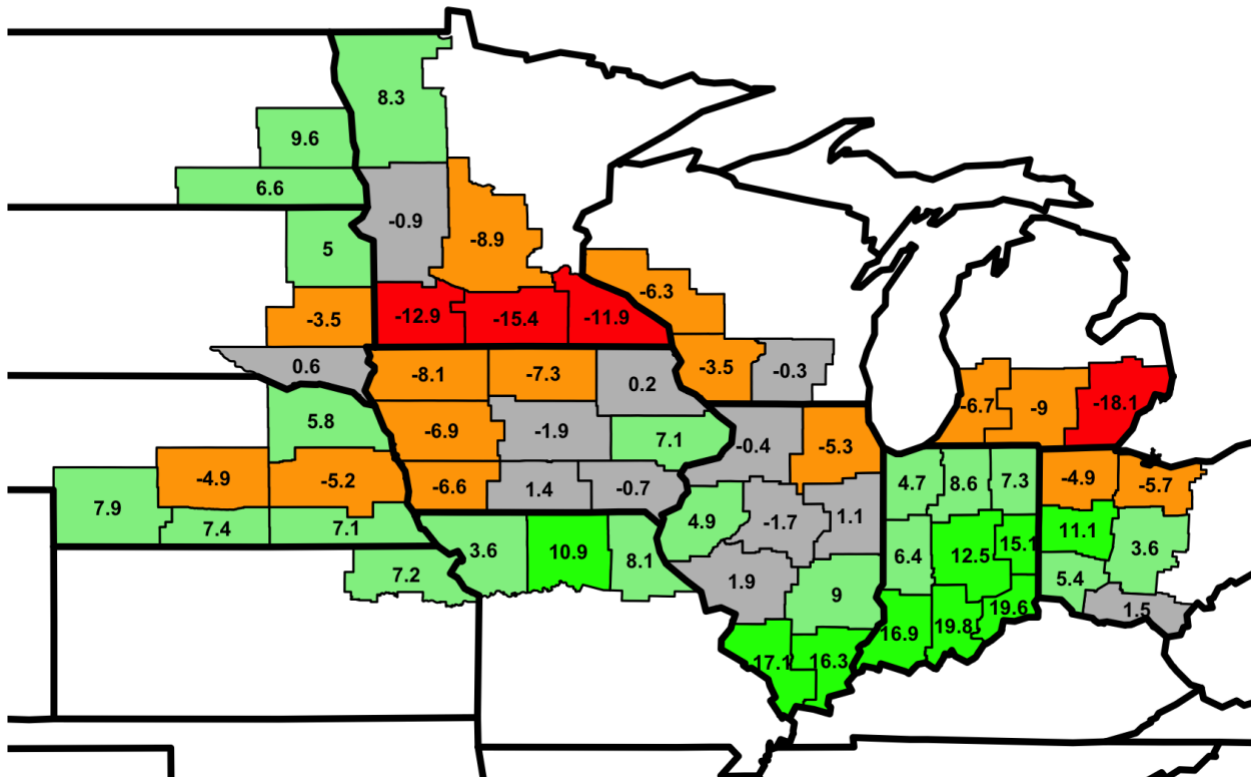
National Statistics:

Observed Yield (bpa):	136.9
Observed Trend (%):	1.0
Production (bil. bushels):	9.91
Planted Acres (millions):	79.55

Corn Belt Statistics:

Median Trend:	2.5
Districts Above Trend:	35

2001



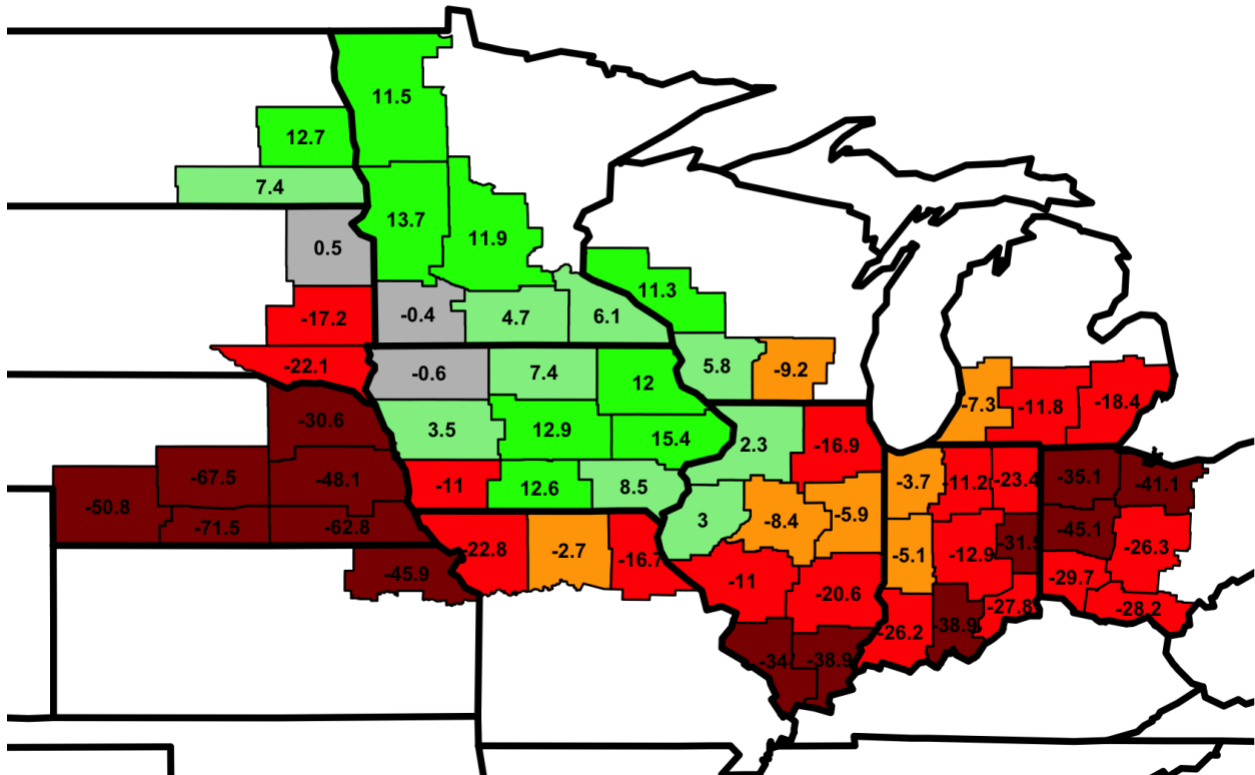
National Statistics:

Observed Yield (bpa):	138.2
Observed Trend (%):	0.5
Production (bil. bushels):	9.5
Planted Acres (millions):	75.7

Corn Belt Statistics:

Median Trend:	1.7
Districts Above Trend:	35

2002



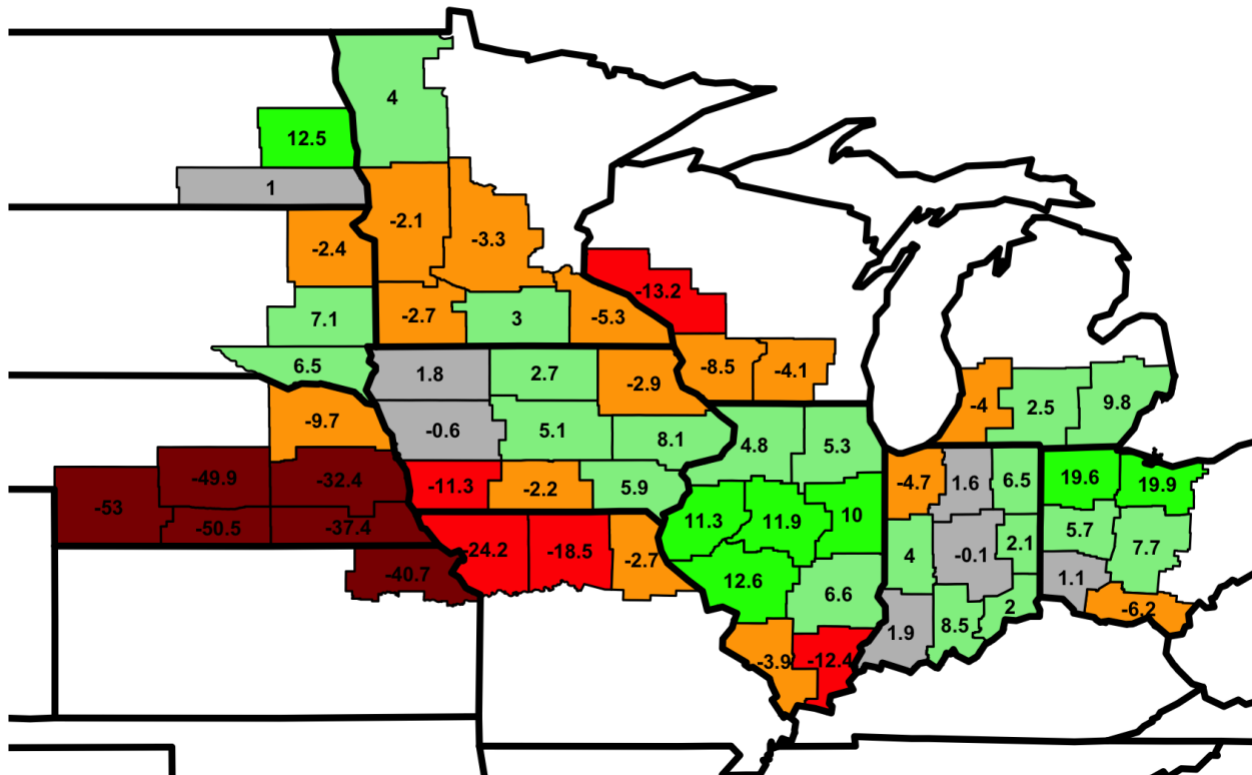
National Statistics:

Observed Yield (bpa):	129.3
Observed Trend (%):	-7.3
Production (bil. bushels):	8.97
Planted Acres (millions):	78.89

Corn Belt Statistics:

Median Trend:	-11.1
Districts Above Trend:	19

2003



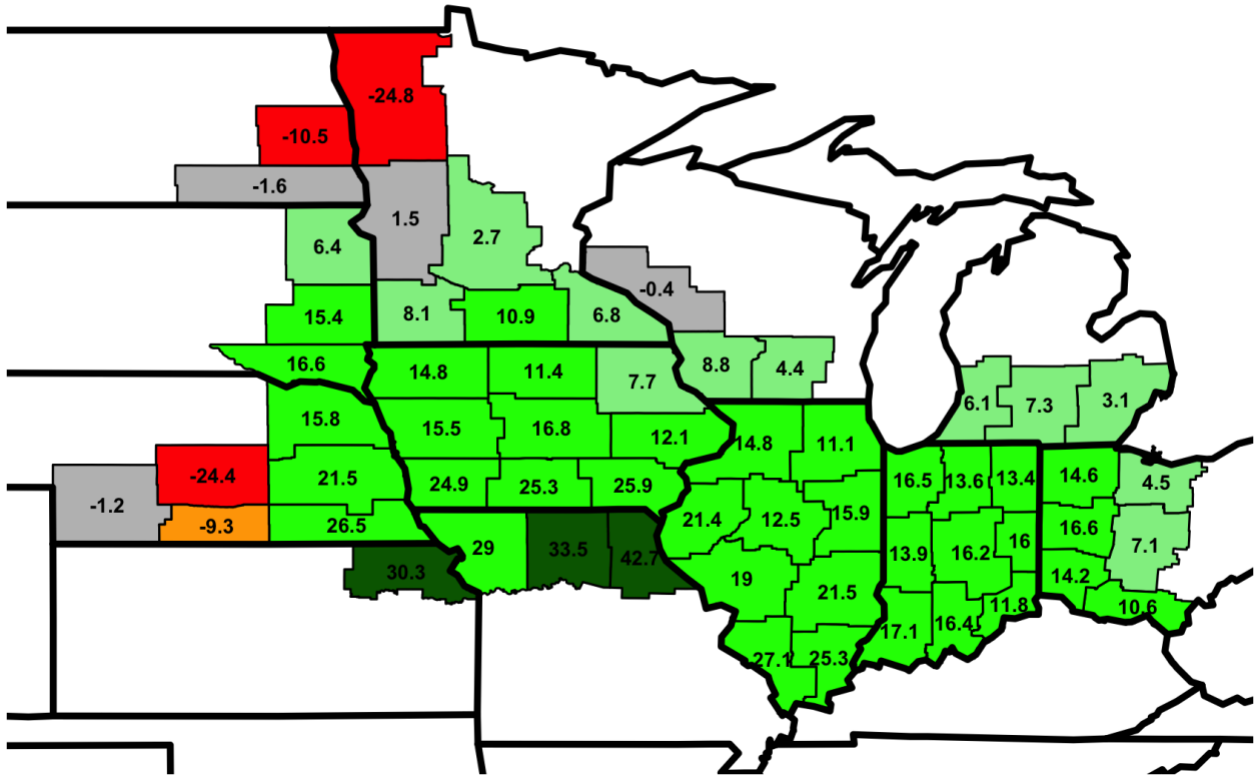
National Statistics:

Observed Yield (bpa):	142.2
Observed Trend (%):	0.6
Production (bil. bushels):	10.09
Planted Acres (millions):	78.6

Corn Belt Statistics:

Median Trend:	1.4
Districts Above Trend:	32

2004



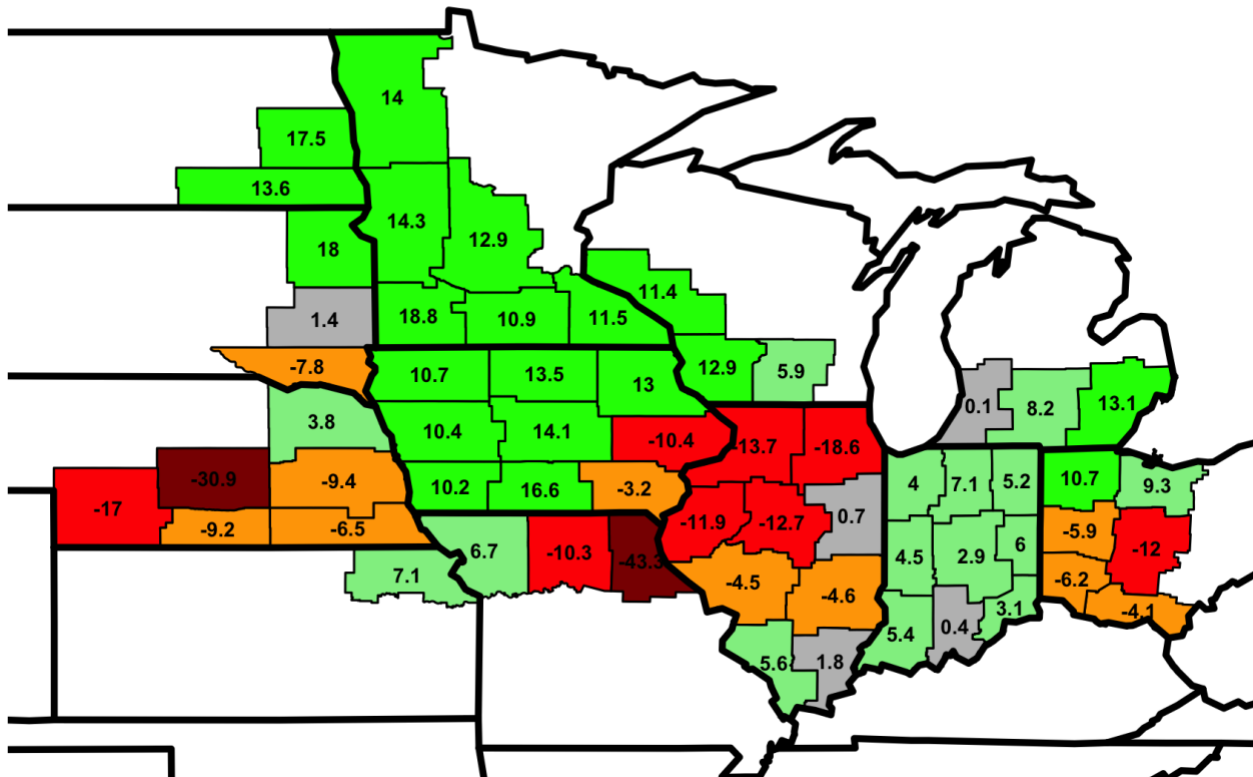
National Statistics:

Observed Yield (bpa):	160.3
Observed Trend (%):	11.8
Production (bil. bushels):	11.8
Planted Acres (millions):	80.93

Corn Belt Statistics:

Median Trend:	14.1
Districts Above Trend:	53

2005



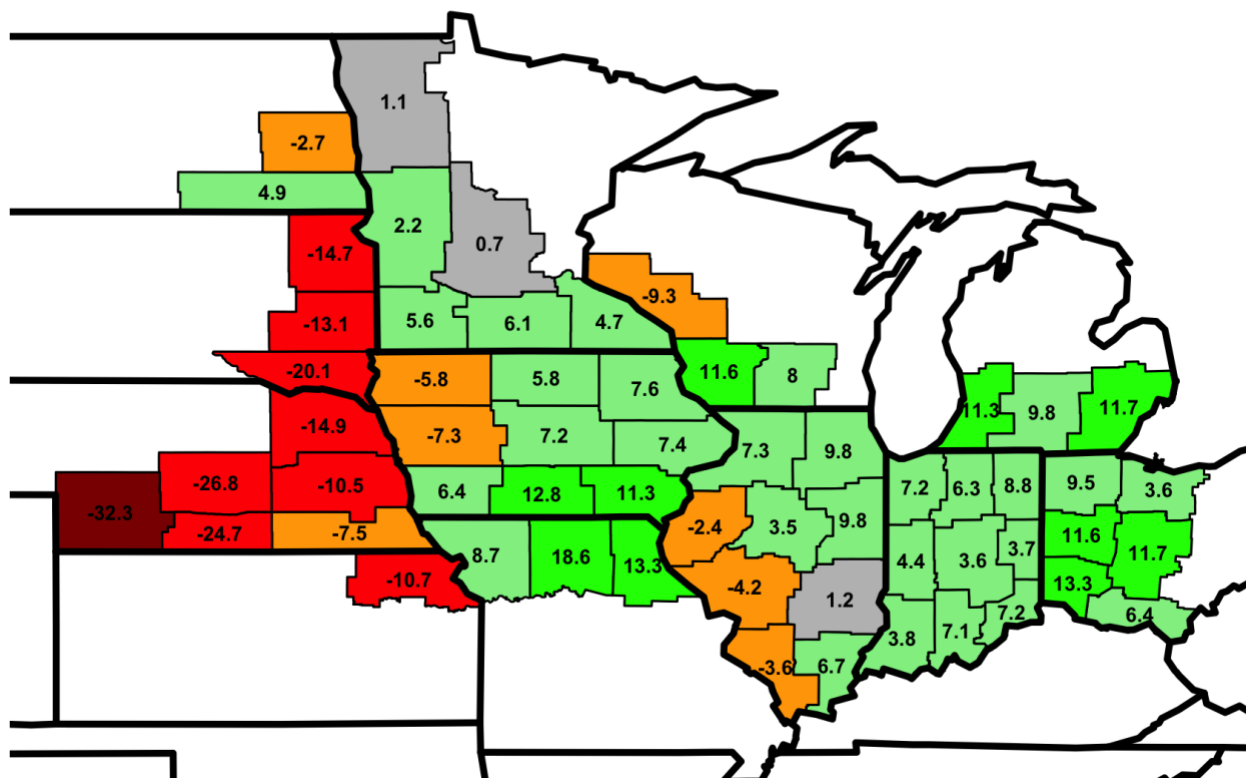
National Statistics:

Observed Yield (bpa):	147.9
Observed Trend (%):	1.8
Production (bil. bushels):	11.11
Planted Acres (millions):	81.78

Corn Belt Statistics:

Median Trend:	4.8
Districts Above Trend:	40

2006



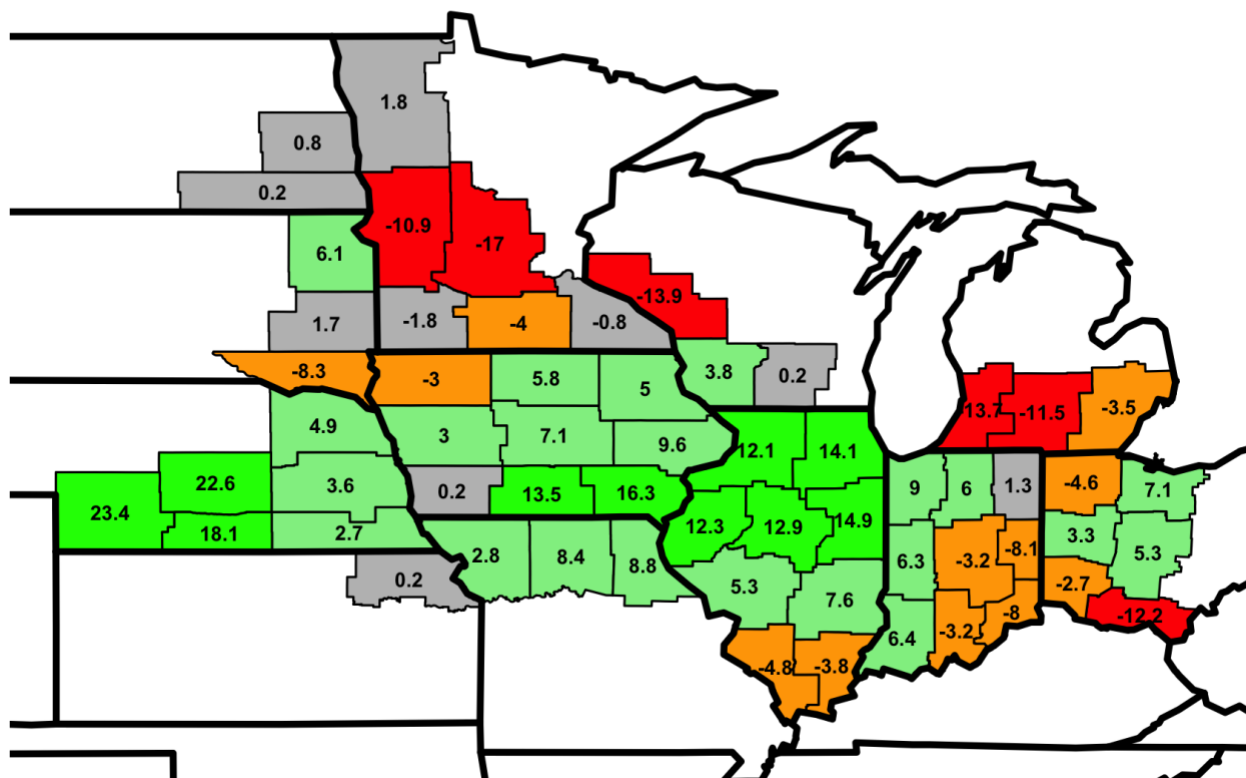
National Statistics:

Observed Yield (bpa):	149.1
Observed Trend (%):	1.3
Production (bil. bushels):	10.53
Planted Acres (millions):	78.33

Corn Belt Statistics:

Median Trend:	5.7
Districts Above Trend:	43

2007



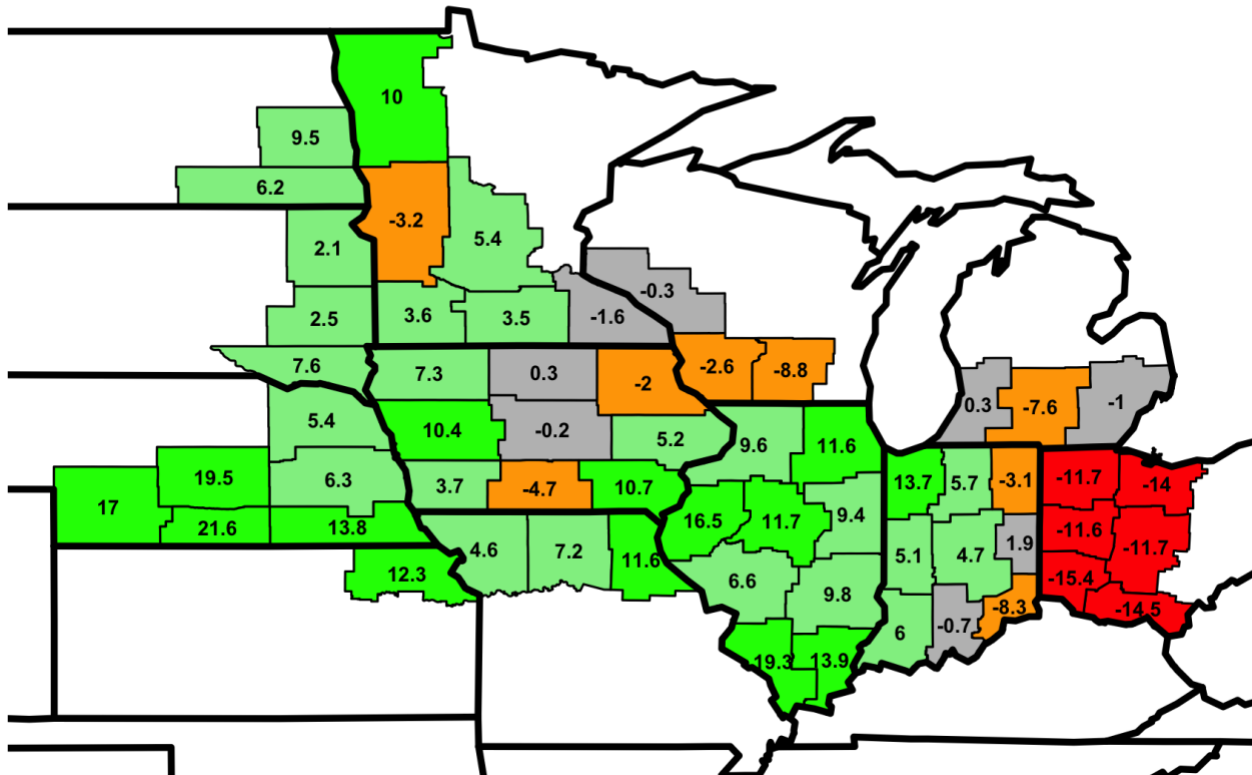
National Statistics:

Observed Yield (bpa):	150.7
Observed Trend (%):	1.1
Production (bil. bushels):	13.03
Planted Acres (millions):	93.53

Corn Belt Statistics:

Median Trend:	2.9
Districts Above Trend:	40

2008



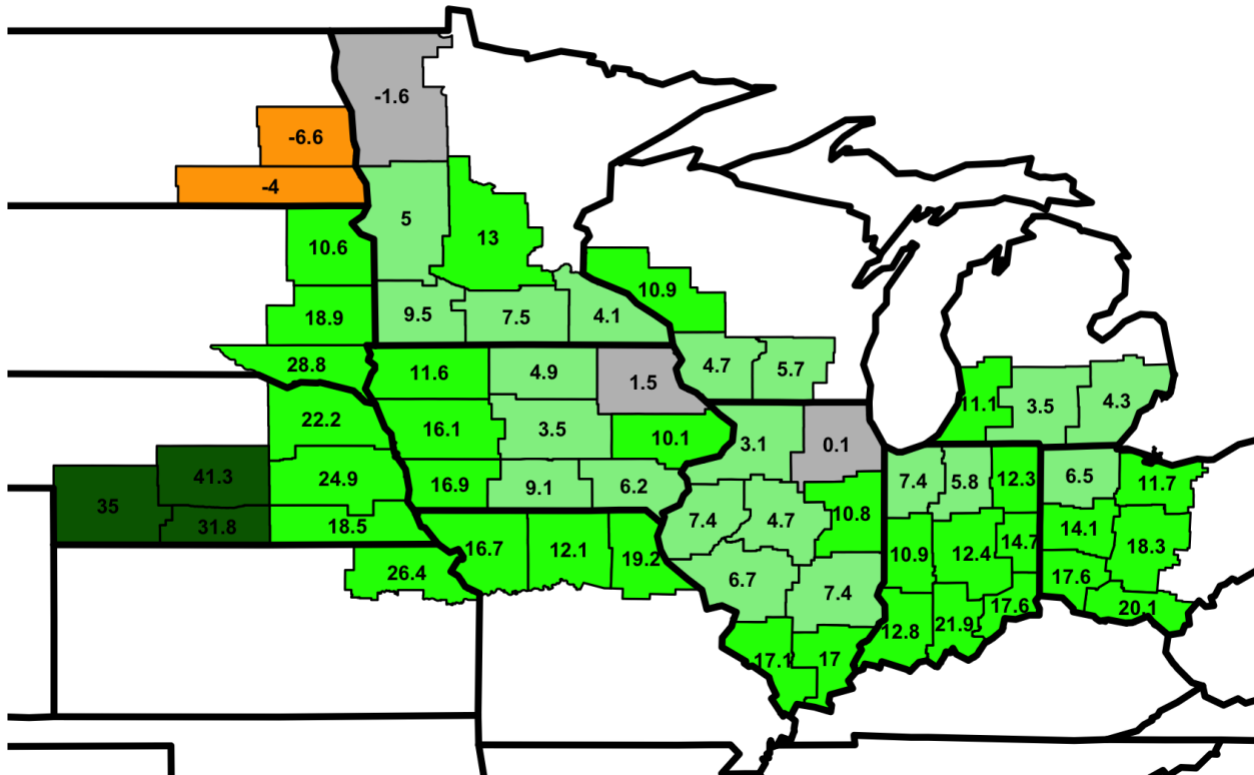
National Statistics:

Observed Yield (bpa):	153.3
Observed Trend (%):	1.5
Production (bil. bushels):	12.04
Planted Acres (millions):	85.98

Corn Belt Statistics:

Median Trend:	5.2
Districts Above Trend:	41

2009



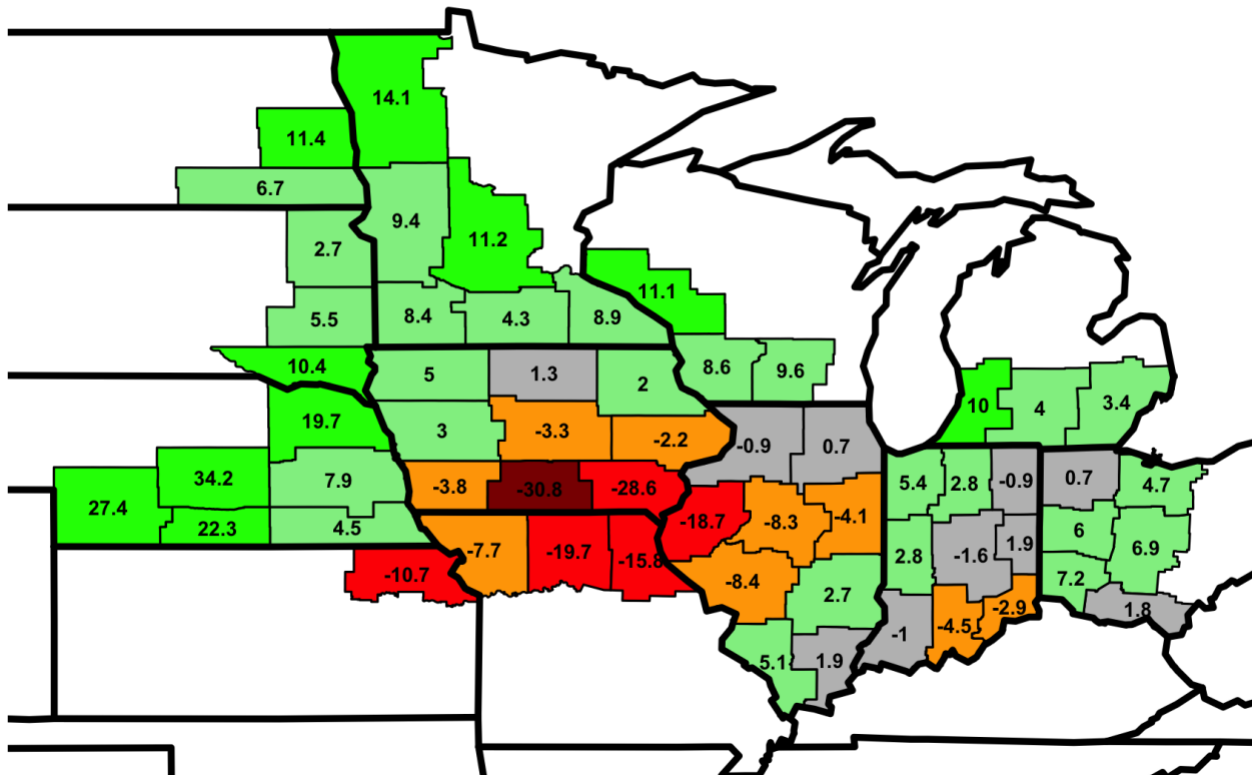
National Statistics:

Observed Yield (bpa):	164.4
Observed Trend (%):	7.5
Production (bil. bushels):	13.07
Planted Acres (millions):	86.38

Corn Belt Statistics:

Median Trend:	11.0
Districts Above Trend:	57

2010



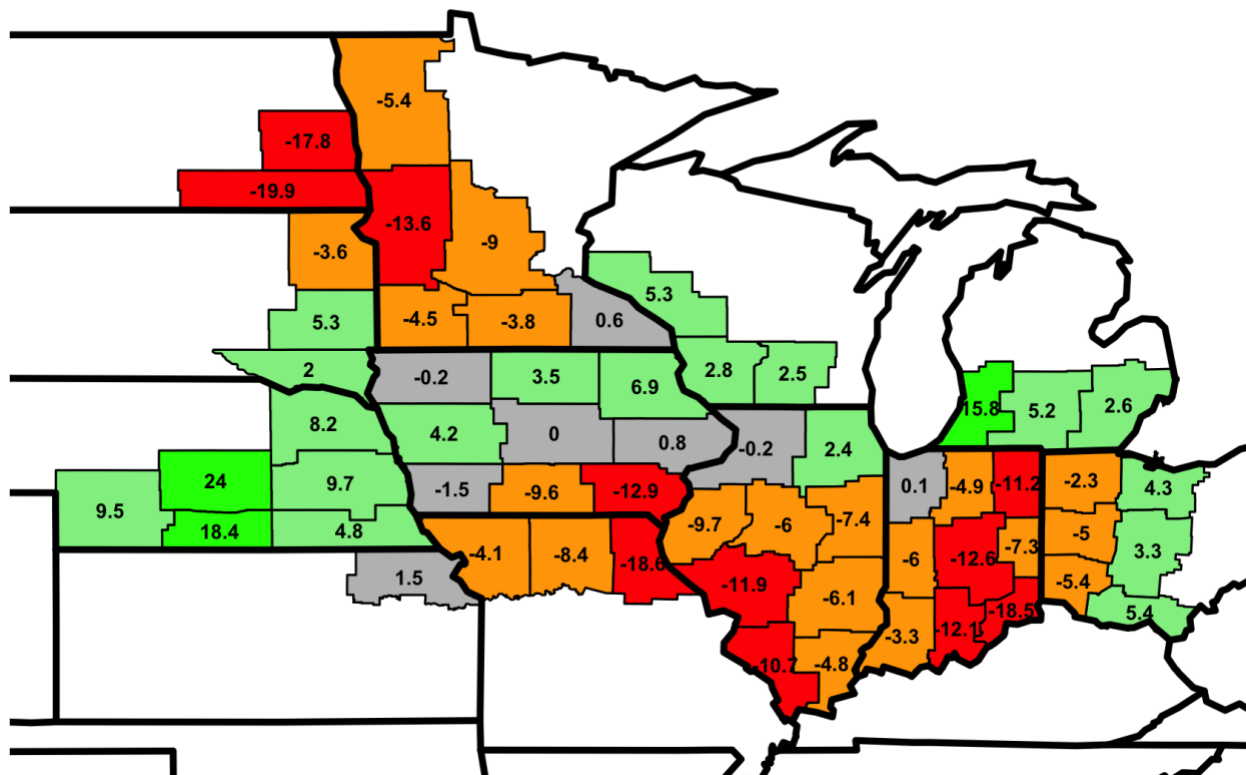
National Statistics:

Observed Yield (bpa):	152.6
Observed Trend (%):	-1.5
Production (bil. bushels):	12.42
Planted Acres (millions):	88.19

Corn Belt Statistics:

Median Trend:	2.9
Districts Above Trend:	41

2011



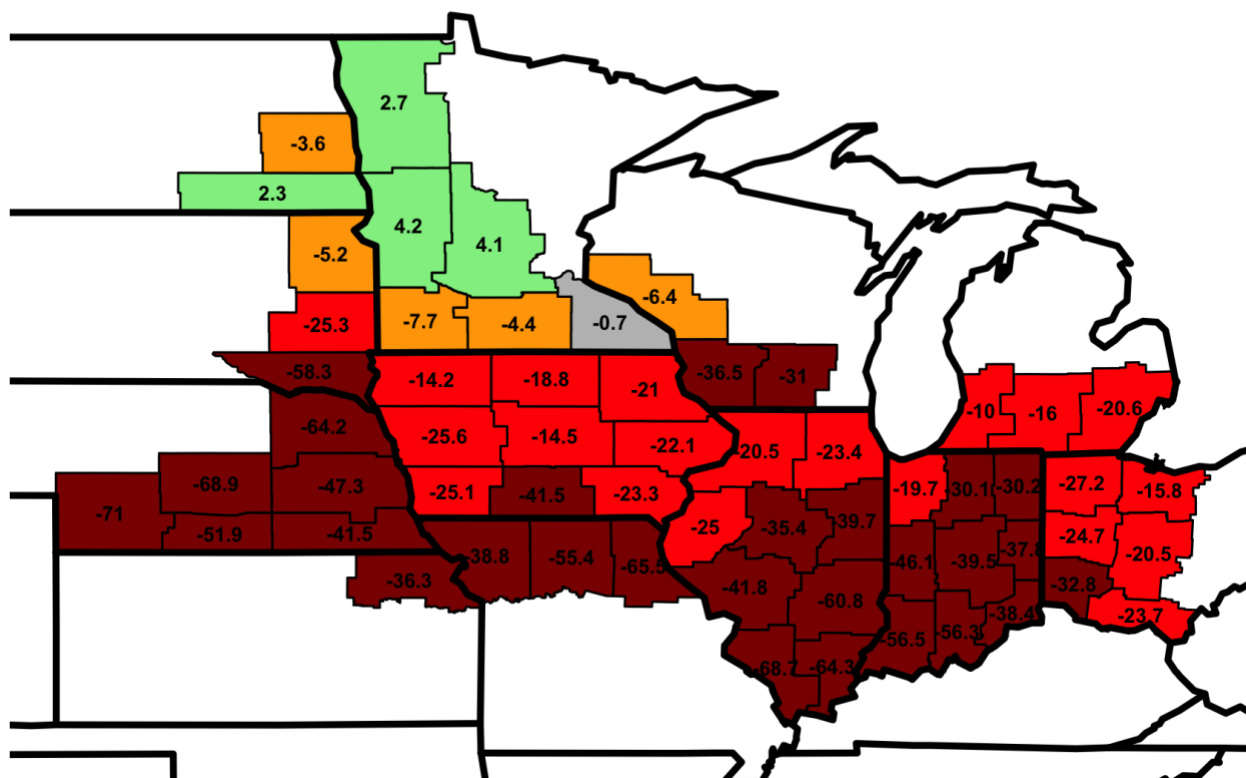
National Statistics:

Observed Yield (bpa):	146.8
Observed Trend (%):	-6.4
Production (bil. bushels):	12.32
Planted Acres (millions):	91.36

Corn Belt Statistics:

Median Trend:	-2.8
Districts Above Trend:	26

2012



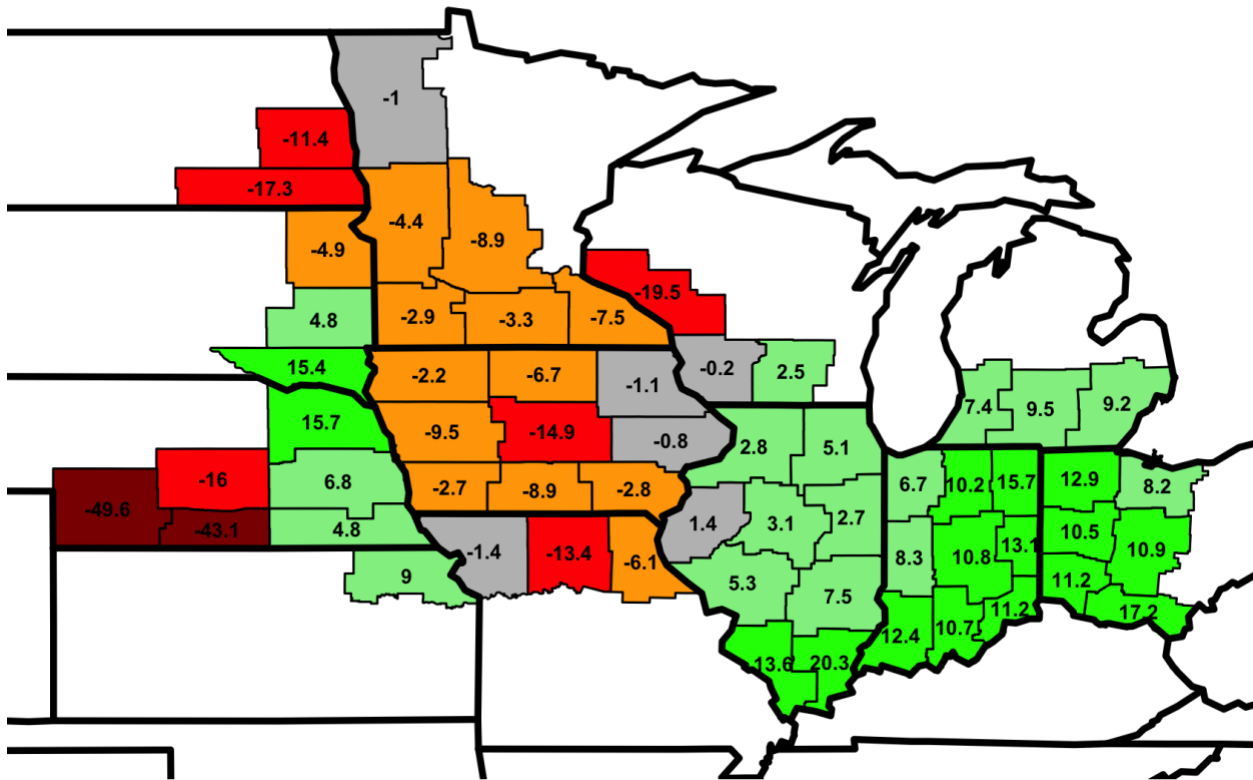
National Statistics:

Observed Yield (bpa):	123.1
Observed Trend (%):	-22.4
Production (bil. bushels):	10.76
Planted Acres (millions):	97.29

Corn Belt Statistics:

Median Trend:	-26.4
Districts Above Trend:	4

2013



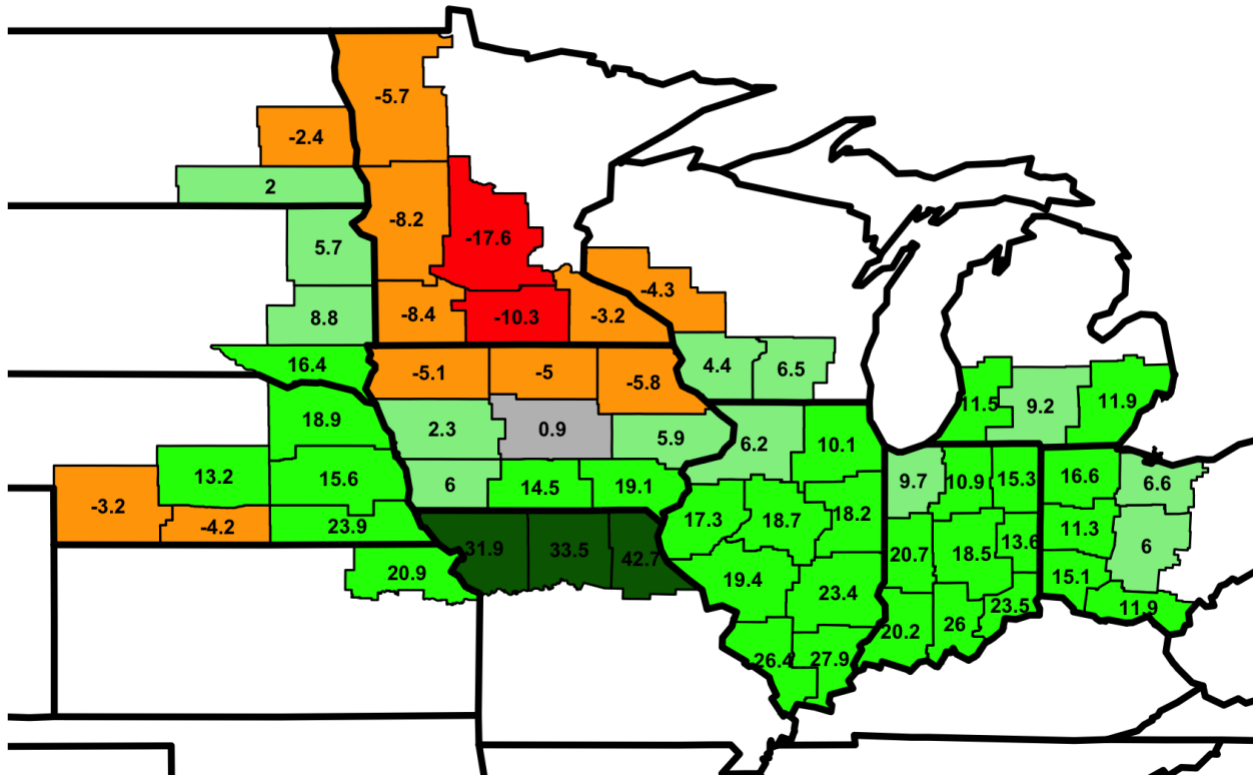
National Statistics:

Observed Yield (bpa):	158.1
Observed Trend (%):	-1.6
Production (bil. bushels):	13.83
Planted Acres (millions):	95.36

Corn Belt Statistics:

Median Trend:	2.9
Districts Above Trend:	34

2014



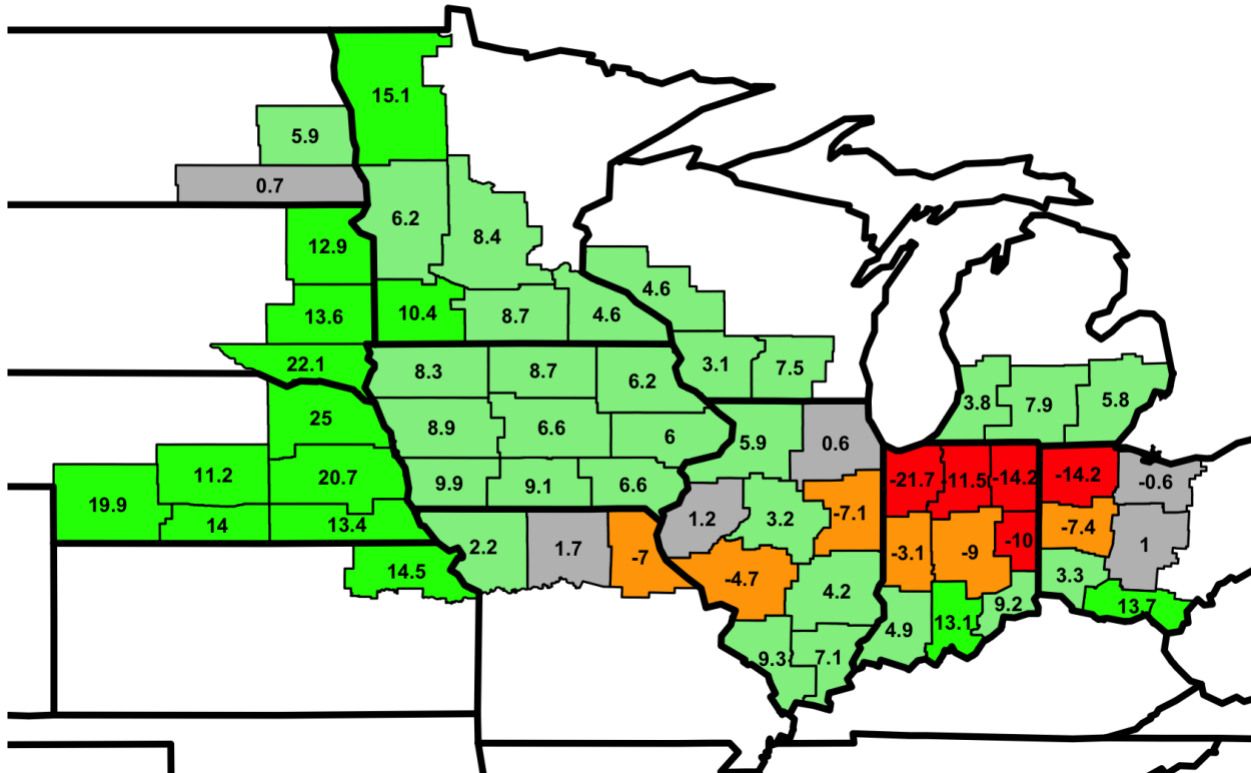
National Statistics:

Observed Yield (bpa):	171.0
Observed Trend (%):	5.1
Production (bil. bushels):	14.21
Planted Acres (millions):	90.6

Corn Belt Statistics:

Median Trend:	11.4
Districts Above Trend:	47

2015



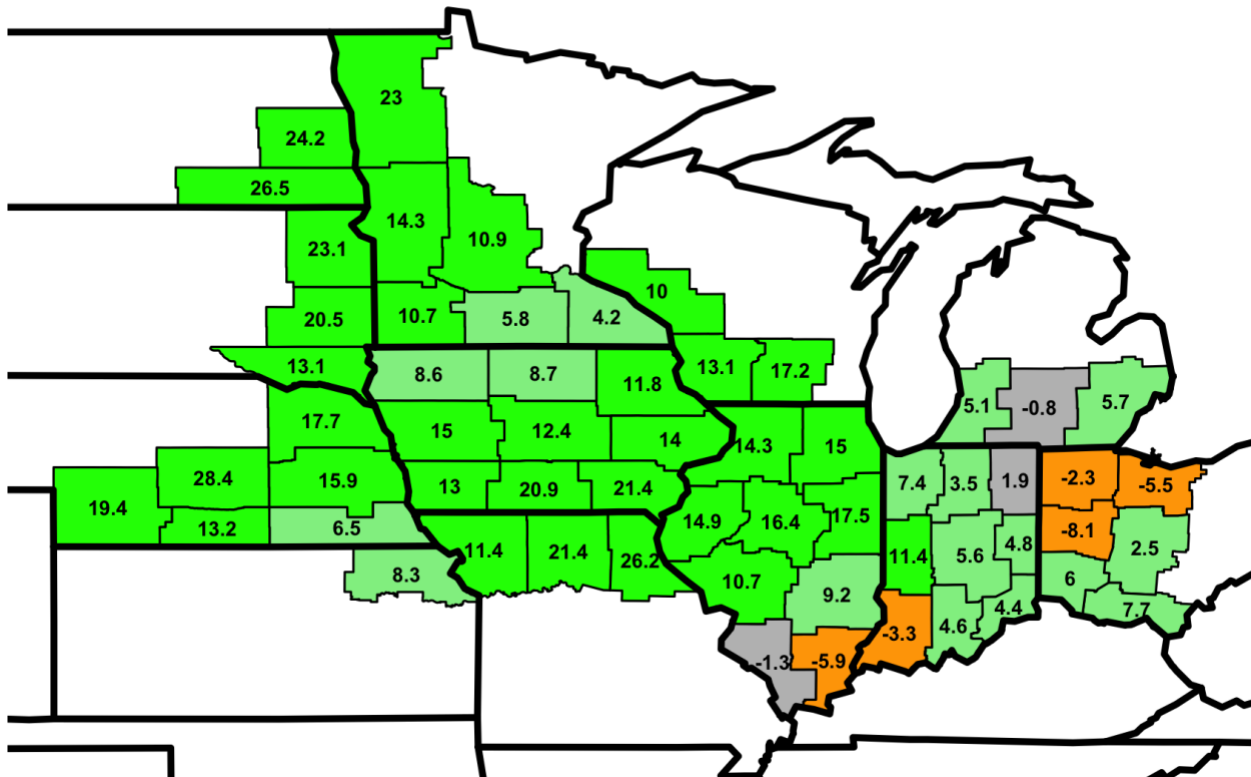
National Statistics:

Observed Yield (bpa):	168.4
Observed Trend (%):	2.3
Production (bil. bushels):	13.6
Planted Acres (millions):	88.01

Corn Belt Statistics:

Median Trend:	6.1
Districts Above Trend:	48

2016



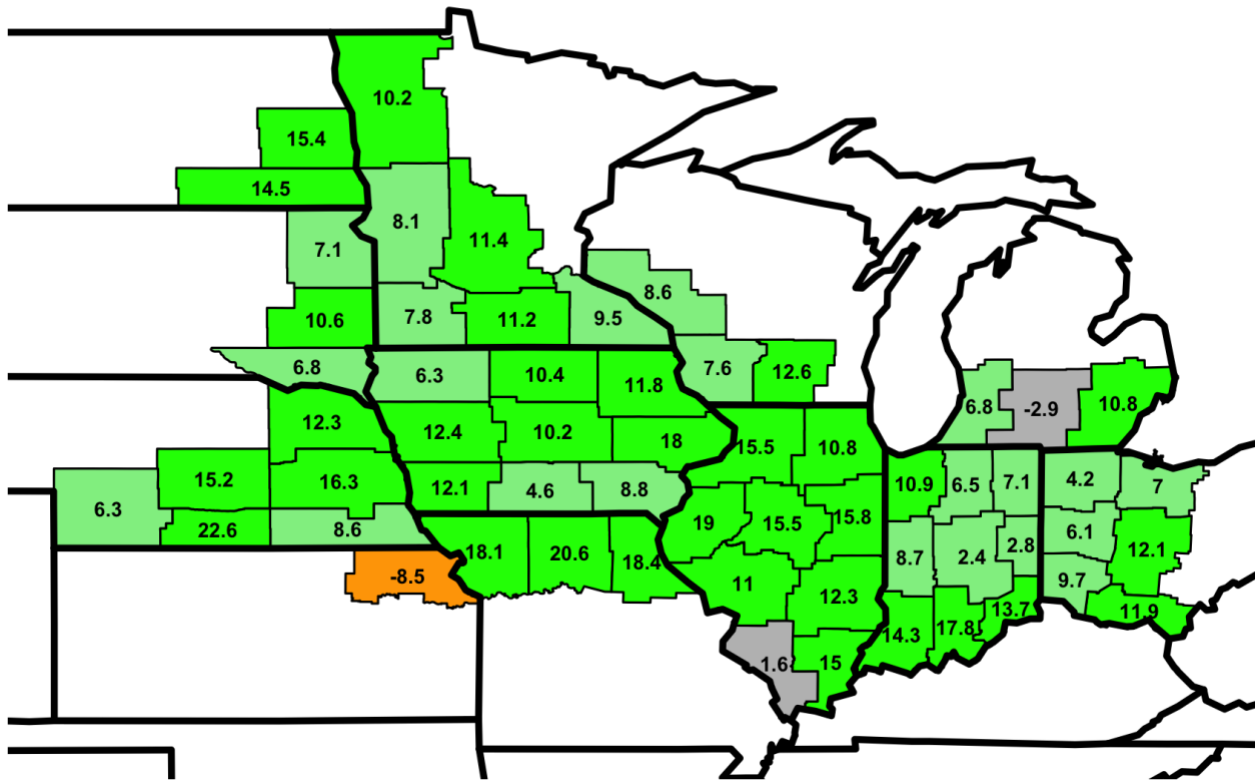
National Statistics:

Observed Yield (bpa):	174.6
Observed Trend (%):	4.9
Production (bil. bushels):	15.1
Planted Acres (millions):	94.01

Corn Belt Statistics:

Median Trend:	11.2
Districts Above Trend:	53

2017



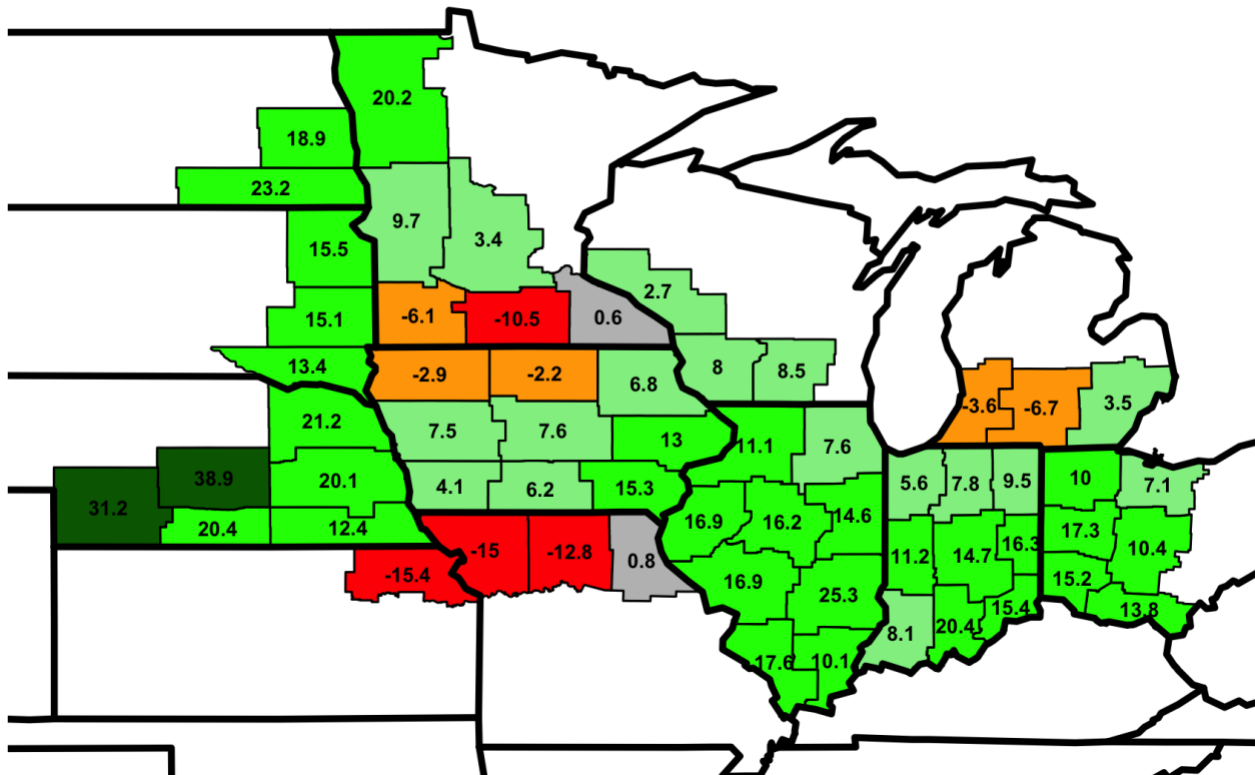
National Statistics:

Observed Yield (bpa):	176.6
Observed Trend (%):	4.8
Production (bil. bushels):	14.61
Planted Acres (millions):	90.17

Corn Belt Statistics:

Median Trend:	10.8
Districts Above Trend:	58

2018



National Statistics:

Observed Yield (bpa):	176.4
Observed Trend (%):	3.5
Production (bil. bushels):	14.42
Planted Acres (millions):	89.13

Corn Belt Statistics:

Median Trend:	10.3
Districts Above Trend:	51

Top 4 Producing States (1969-2018)

Year	1st	2nd	3rd	4th
1969	Illinois	Iowa	Indiana	Nebraska
1970	Iowa	Illinois	Minnesota	Indiana
1971	Iowa	Illinois	Indiana	Minnesota
1972	Iowa	Illinois	Indiana	Nebraska
1973	Iowa	Illinois	Indiana	Nebraska
1974	Iowa	Illinois	Indiana	Nebraska
1975	Illinois	Iowa	Indiana	Nebraska
1976	Illinois	Iowa	Indiana	Nebraska
1977	Illinois	Iowa	Indiana	Nebraska
1978	Iowa	Illinois	Nebraska	Indiana
1979	Iowa	Illinois	Nebraska	Indiana
1980	Iowa	Illinois	Indiana	Minnesota
1981	Iowa	Illinois	Nebraska	Minnesota
1982	Iowa	Illinois	Indiana	Minnesota
1983	Iowa	Illinois	Nebraska	Minnesota
1984	Iowa	Illinois	Nebraska	Indiana
1985	Iowa	Illinois	Nebraska	Indiana
1986	Iowa	Illinois	Nebraska	Indiana
1987	Iowa	Illinois	Nebraska	Indiana
1988	Iowa	Nebraska	Illinois	Indiana
1989	Iowa	Illinois	Nebraska	Indiana
1990	Iowa	Illinois	Nebraska	Minnesota
1991	Iowa	Illinois	Nebraska	Minnesota
1992	Iowa	Illinois	Nebraska	Indiana
1993	Illinois	Iowa	Nebraska	Indiana
1994	Iowa	Illinois	Nebraska	Minnesota
1995	Iowa	Illinois	Nebraska	Minnesota
1996	Iowa	Illinois	Nebraska	Minnesota
1997	Iowa	Illinois	Nebraska	Minnesota
1998	Iowa	Illinois	Nebraska	Minnesota
1999	Iowa	Illinois	Nebraska	Minnesota
2000	Iowa	Illinois	Minnesota	Nebraska
2001	Iowa	Illinois	Nebraska	Indiana
2002	Iowa	Illinois	Minnesota	Nebraska
2003	Iowa	Illinois	Nebraska	Minnesota
2004	Iowa	Illinois	Nebraska	Minnesota
2005	Iowa	Illinois	Minnesota	Nebraska
2006	Iowa	Illinois	Minnesota	Nebraska
2007	Iowa	Illinois	Nebraska	Minnesota
2008	Iowa	Illinois	Nebraska	Minnesota
2009	Iowa	Illinois	Nebraska	Minnesota
2010	Iowa	Illinois	Nebraska	Minnesota
2011	Iowa	Illinois	Nebraska	Minnesota
2012	Iowa	Minnesota	Illinois	Nebraska
2013	Iowa	Illinois	Nebraska	Minnesota
2014	Iowa	Illinois	Nebraska	Minnesota
2015	Iowa	Illinois	Nebraska	Minnesota
2016	Iowa	Illinois	Nebraska	Minnesota
2017	Iowa	Illinois	Nebraska	Minnesota
2018	Iowa	Illinois	Nebraska	Minnesota

Table of National Statistics (1969-2018)

YEAR	Yield (bpa)	Acres Planted (mil)	Production (bil. bu)	Yield Trend
1969	85.9	64.26	4.69	13.5
1970	72.4	66.86	4.15	-6.7
1971	88.1	74.18	5.65	10.7
1972	97.0	67.13	5.58	19.0
1973	91.3	72.25	5.67	9.4
1974	71.9	77.94	4.70	-15.8
1975	86.4	78.72	5.84	-1.0
1976	88.0	84.59	6.29	-1.4
1977	90.8	84.33	6.51	-0.4
1978	101.0	81.68	7.27	8.5
1979	109.5	81.39	7.93	15.2
1980	91.0	84.04	6.64	-6.1
1981	108.9	84.10	8.12	10.1
1982	113.2	81.86	8.24	12.3
1983	81.1	60.21	4.17	-21.1
1984	106.7	80.52	7.67	1.9
1985	118.0	83.40	8.88	10.7
1986	119.4	76.58	8.23	10.0
1987	119.8	66.20	7.13	8.4
1988	84.6	67.72	4.93	-24.7
1989	116.3	72.32	7.53	1.7
1990	118.5	74.17	7.93	1.9
1991	108.6	75.96	7.47	-8.1
1992	131.5	79.31	9.48	9.5
1993	100.7	73.24	6.34	-17.5
1994	138.6	78.92	10.05	11.8
1995	113.5	71.48	7.40	-9.9
1996	127.1	79.23	9.23	-0.6
1997	126.7	79.54	9.21	-2.4
1998	134.4	80.17	9.76	2.0
1999	133.8	77.39	9.43	0.1
2000	136.9	79.55	9.92	1.0
2001	138.2	75.70	9.50	0.5
2002	129.3	78.89	8.97	-7.3
2003	142.2	78.60	10.09	0.6
2004	160.3	80.93	11.81	11.8
2005	147.9	81.78	11.11	1.8
2006	149.1	78.33	10.53	1.3
2007	150.7	93.53	13.04	1.1
2008	153.3	85.98	12.04	1.5
2009	164.4	86.38	13.07	7.5
2010	152.6	88.19	12.43	-1.5
2011	146.8	91.94	12.31	-6.4
2012	123.1	97.29	10.76	-22.5
2013	158.1	95.37	13.83	-1.6
2014	171.0	90.60	14.22	5.1
2015	168.4	88.02	13.60	2.3
2016	174.6	94.00	15.15	4.9
2017	176.6	90.17	14.61	4.8
2018	176.4	89.13	14.42	3.5

About the author:



Dr. Eric Hunt is an agricultural climatologist from Lincoln, NE and has several members of his extended family actively farming in Illinois and Nebraska. Eric has been with AER since 2012 and received his Ph.D. from the University of Nebraska. Among other activities, he is currently working on NASA funded projects to study the evolution of flash drought. He routinely blogs about agriculture and weather on the AER website.

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