



**National Agricultural Statistics Service**

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**Illinois State Statistician**

**NLRS Results  
October 2020  
AWQPF Meeting**





# Mark Schleusener

- ▶ **Mark.schleusener@usda.gov**
- **30+ years with USDA – NASS**
- **29 years as analyst and supervisor of analysts**
- **State Statistician since November 2013**
  - **Communication and outreach**
  - **College recruiting**



# Mission Statement

**NASS provides timely,  
accurate, and useful  
statistics in service to U.S.  
agriculture.**

# Basic Survey Details

- <sup>2</sup> Reference year is 2019
- Sampling
  - Cropland > 100 acres but < 5,000 acres
  - 1,097 total farms
- Two mailings
  - January 2020
  - February 2020 (just the non-respondents)
- Calling non-respondents
  - Mid-April

# More Survey Details

- Funding from NREC
- Margins of error
  - For common items like cropland or tilled acres, one standard error is less than 10%.
  - For less common items like cover crops, one standard error is 20% or more.
  - Some items, like bioreactors are very rare and the margins of error very large
- Response rate better than last two surveys



# Results





## Nitrogen Management Strategy

	Acres in 2017	Acres in 2019
NASS corn planted acres	11,200,000	<b>10,500,000</b>
Acres where an MRTN (Maximum Return To Nitrogen) strategy was used to determine application rates	3,730,000 or 33% of planted acres	<b>3,700,000 or 35% or planted acres</b>
Other Industry-approved technique acres	7,750,000 or 69% of planted acres	<b>7,390,000 or 70% of planted acres</b>

<b>Fertilizer Application Strategies for corn on tiled acres</b>	Acres in 2017	Acres in 2019
Acres of corn planted	11,200,000	<b>10,500,000</b>
Fall / Winter nitrogen was applied with a nitrification inhibitor	3,550,000 or 32%	<b>1,460,000 or 14%</b>
Spring nitrogen was applied with a nitrification inhibitor	2,790,000 or 25%	<b>2,220,000 or 21%</b>

<b>Fertilizer Application Strategies for corn on non-tiled acres</b>	Acres in 2017	Acres in 2019
Acres of corn planted	11,200,000	<b>10,500,000</b>
Fall / Winter nitrogen was applied with a nitrification inhibitor	1,040,000 or 9%	<b>540,000 or 5%</b>
Spring nitrogen was applied with a nitrification inhibitor	1,020,000 or 9%	<b>2,070,000 or 20%</b>





## Fertilizer Application Strategies for corn on tilled acres

	Acres in 2017	Acres in 2019
Acres of corn planted	11,200,000	<b>10,500,000</b>
STRATEGY 1 - Fall / Winter N was 50% or less of total N	780,000 or 7%	<b>330,000 or 3%</b>
STRATEGY 2 - Fall / Winter N was 0% of total N (all Spring applications)	1,850,000 or 17%	<b>1,720,000 or 16%</b>
STRATEGY 3 - Less than 50% FALL / WINTER applications, with remaining nitrogen applications split between pre-plant and side-dress applications	1,790,000 or 16%	<b>1,930,000 or 18%</b>

<b>Reductions in phosphorus applications</b>		2017 Acres	2019 acres
Tiled acres	Acres where phosphorus application rates were reduced since 2011	4,440,000	<b>7,410,000</b>
Non-tiled acres	Acres where phosphorus application rates were reduced since 2011	2,150,000	<b>3,800,000</b>
Tiled acres	Acres where placement of phosphorus applications were moved from broadcast to subsurface or banding	1,530,000	<b>1,440,000</b>
Non-tiled acres	Acres where placement of phosphorus applications were moved from broadcast to subsurface or banding	280,000	<b>870,000</b>

<b>Reasons for reducing phosphorus applications</b>	2017 Acres	2019 Acres
The Illinois Agronomy Handbook removal rates for phosphorus were updated	2,390,000	<b>4,460,000</b>
Soil test information	4,520,000	<b>9,470,000</b>
Other reasons, including cost	2,420,000	<b>5,030,000</b>

<b>Cover Crop questions (tiled and non-tiled acres)</b>	<b>Acres</b>
Corn / Soybean acres planted to cover crops after the 2019 crop season on tiled ground.	930,000
Corn / Soybean acres planted to cover crops after the 2019 crop season on non-tiled ground.	480,000
Corn / Soybean acres planted to cover crops after the 2017 crop season on tiled ground.	290,000
Corn / Soybean acres planted to cover crops after the 2017 crop season on non-tiled ground.	420,000
Corn / Soybean acres planted to cover crops after the 2015 crop season on tiled ground.	490,000
Corn / Soybean acres planted to cover crops after the 2015 crop season on non-tiled ground.	630,000
Corn / Soybean acres planted to cover crops after the 2011 crop season on tiled ground.	220,000
Corn / Soybean acres planted to cover crops after the 2011 crop season on non-tiled ground.	380,000



# General Knowledge Questions

<b>Percent of Farms reporting in 2020</b>	<b>Not at all knowledgeable</b>	<b>Slightly knowledgeable</b>	<b>Somewhat knowledgeable</b>	<b>Knowledgeable</b>	<b>Very knowledgeable</b>
Nutrient Loss Reduction Strategy	26.9	29.9	20.7	10.7	11.8
MRTN strategy	30.2	29.0	17.6	14.7	8.5
Wood chip bioreactors	54.7	17.2	14.4	11.5	2.2
Constructed Wetlands	42.1	20.5	16.5	17.9	3.0
Cover crop management	9.1	24.7	27.7	26.1	12.4



# Questions?



## Fertilizer Application Strategies for corn on non-tiled acres

Acres in 2017

Acres in 2019

Acres of corn planted

11,200,000

**10,500,000**

STRATEGY 1 - Fall / Winter nitrogen was 50% or less of total nitrogen

340,000 or 3%

**110,000 or 1%**

STRATEGY 2 - Fall / Winter nitrogen was 0% of total nitrogen (all Spring applications)

1,250,000 or 11%

**990,000 or 9%**

STRATEGY 3 - Less than 50% FALL / WINTER applications, with remaining nitrogen applications split between pre-plant and side-dress applications

930,000 or 8%

**740,000 or 7%**

<b>Percent of Farms reporting in 2019</b>	<b>Not at all knowledgeable</b>	<b>Slightly knowledgeable</b>	<b>Somewhat knowledgeable</b>	<b>Knowledgeable</b>	<b>Very knowledgeable</b>
Nutrient Loss Reduction Strategy	21.0	27.0	38.4	11.6	2.0
MRTN Strategy	20.3	33.5	25.5	14.1	6.6
Bioreactors	53.8	23.0	15.0	5.5	2.7
Constructed Wetlands	19.7	29.6	38.0	10.2	2.5
Cover Crops Management	15.2	16.7	35.5	28.4	4.2