

INREC 2017-2024 Crop Year Surveys Data Extrapolation

Corn & Soy Acreages	2017	2018	2019	2020	2021	2022	2023	2024	Average
Corn acreage (CDL)	13,212,913	13,012,207	13,648,497	13,793,805	12,826,886	12,686,886	12,805,034	13,082,234	13,133,558
Soy acreage (CDL)	9,782,215	9,956,734	9,275,193	9,553,928	10,150,325	10,046,351	9,850,104	10,128,623	9,842,934
Corn & soy acreage total (CDL)	22,995,128	22,968,941	22,923,690	23,347,733	22,977,211	22,733,237	22,655,138	23,210,857	22,976,492

CDL = USDA NASS Cropland Data Layer

Commercial Only Nitrogen Rates (lb/ac)	2017	2018	2019	2020	2021	2022	2023	2024	Average
Average commercial N rate on corn in rotation	170.0	172.3	177.5	183.4	170.9	173.4	166.6	179.2	174.2
Average commercial N rate on continuous corn	200.4	201.9	200.4	208.9	199.9	192.6	185.7	205.0	199.4

Crop Rotation	2022	2023	2024	Average
Continuous Corn	10.6%	12.7%	11.6%	11.6%
Corn-Soy	85.3%	84.6%	81.7%	83.9%
Extended Rotation	2.0%	1.4%	3.3%	2.2%
Corn-Small Grain-Soy	0.2%	0.1%	0.3%	0.2%
Other	1.9%	1.2%	3.1%	2.1%

Cover Crop Practices:	2017	2018	2019	2020	2021	2022	2023	2024	Average
Cover crop planted	6.9%	8.8%	9.5%	13.3%	12.1%	16.6%	17.0%	16.7%	12.6%
Rye cover crop	69.4%	82.8%	81.3%	90.9%	80.8%	81.8%	86.6%	89.6%	82.9%
Oat cover crop	9.1%	9.8%	2.8%	1.3%	5.5%	4.4%	6.1%	4.3%	5.4%
Species mix	NA	NA	11.2%	6.7%	12.3%	8.5%	5.5%	5.5%	8.3%
Other cover crop	21.5%	7.4%	4.8%	1.1%	1.5%	5.3%	1.7%	0.6%	5.5%

Commercial Nitrogen Application Practices:	2017	2018	2019	2020	2021	2022	2023	2024	Average
Fall anhydrous ammonia applied	38.9%	24.1%	23.5%	28.9%	43.1%	50.3%	49.5%	42.0%	37.5%
EPA-labeled inhibitor & fall anhydrous ammonia							63.1%	62.0%	62.6%
Nitrapyrin inhibitor & fall anhydrous ammonia	72.6%	73.9%	84.8%	83.8%	86.0%	64.7%			77.7%
Fall only	NA	NA	14.0%	17.4%	22.4%	27.8%	34.7%	23.9%	23.4%
Spring pre-plant only	42.1%	56.3%	50.9%	46.7%	40.3%	33.8%	36.5%	41.9%	43.6%
Spring pre-plant & in-season	9.9%	15.4%	16.9%	13.8%	13.2%	14.5%	10.5%	12.3%	13.3%
In-season only	2.1%	1.1%	1.1%	3.8%	1.7%	1.0%	2.5%	1.8%	1.9%
Fall & spring pre-plant	NA	NA	11.6%	9.7%	14.3%	14.4%	10.2%	10.7%	11.8%
Fall & in-season	NA	NA	3.2%	5.4%	4.7%	6.1%	3.7%	8.0%	5.2%
Fall & spring & in-season	NA	NA	2.3%	3.2%	3.4%	2.3%	2.0%	1.4%	2.5%
Variable rate applied	NA	NA	8.7%	10.1%	16.1%	9.8%	15.2%	12.2%	12.0%

Manure Practices:	2017	2018	2019	2020	2021	2022	2023	2024	Average
No manure used	81.5%	81.4%	80.8%	82.0%	79.7%	78.8%	76.5%	77.5%	79.8%
Beef manure used	6.8%	10.3%	8.8%	6.3%	9.5%	9.0%	11.8%	10.2%	9.1%
Beef & liquid swine manure used	0.0%	0.0%	0.3%	0.1%	0.1%	0.2%	0.4%	0.1%	0.1%
Liquid swine manure used	7.6%	5.4%	7.4%	8.1%	8.1%	8.9%	8.3%	7.9%	7.7%
Poultry manure used	1.6%	1.7%	1.9%	1.2%	1.6%	1.4%	1.7%	0.9%	1.5%
Dairy manure used	2.5%	1.1%	0.8%	2.1%	1.1%	1.7%	1.5%	3.3%	1.8%
Liquid swine manure fall applied	94.7%	84.2%	78.5%	87.3%	82.4%	91.8%	83.1%	91.2%	86.6%
Liquid swine manure spring applied	1.8%	2.5%	11.7%	3.4%	7.0%	4.7%	5.6%	0.0%	4.6%
Liquid swine manure fall & spring applied	3.5%	13.3%	9.9%	9.4%	10.6%	3.6%	11.3%	8.8%	8.8%
Phosphorus Application Practices:	2017	2018	2019	2020	2021	2022	2023	2024	Average
Commercial P incorporated with planter	11.0%	3.8%	1.2%	2.7%	0.6%	0.7%	1.6%	0.9%	2.8%
Commercial P applied in knifed bands	2.9%	2.7%	2.7%	3.0%	2.7%	1.1%	4.0%	6.6%	3.2%
Commercial P broadcast/incorporate in 1 week	47.0%	70.3%	69.1%	40.4%	43.2%	37.9%	31.4%	31.6%	46.4%
Liquid P (commercial/manure) injected	1.8%	3.8%	8.9%	7.8%	5.0%	6.8%	5.6%	1.8%	5.2%
Other P application type (unincorporated)	37.4%	19.5%	18.1%	46.0%	48.4%	53.5%	57.4%	59.2%	42.4%
Variable rate applied	NA	NA	49.6%	45.7%	57.0%	52.8%	61.5%	58.3%	54.2%
Soil testing for P	81.2%	72.1%	85.5%	80.6%	81.2%	79.6%	82.2%	77.1%	79.9%
P applied when at or below optimum levels	74.3%	94.4%	94.3%	99.1%	98.2%	95.4%	91.0%	94.9%	92.7%
Soil Test P Levels	2022	2023	2024	Average					
Average Bray-P1 (ppm)	31.2	34.4	33.7	33.1					
Average Olsen (ppm)		20.9	28.8	24.9					
Average Melich-3 (ppm)	36.1	34.1	41.9	37.4					
Tillage Practices:	2017	2018	2019	2020	2021	2022	2023	2024	Average
Conservation tillage before corn	56.3%	52.3%	46.5%	23.0%	25.4%	29.7%	23.3%	22.9%	34.9%
No-till before corn	26.4%	22.2%	29.4%	29.5%	31.6%	29.6%	32.7%	29.1%	28.8%
Conventional tillage before corn	NA	25.4%	24.1%	47.5%	43.0%	40.6%	44.0%	48.0%	38.9%
Conservation tillage before soy	42.6%	34.6%	33.8%	18.5%	19.6%	27.7%	22.1%	16.0%	26.9%
No-till before soy	43.2%	41.0%	44.6%	47.3%	53.3%	46.9%	49.7%	55.3%	47.6%
Conventional tillage before soy	NA	24.4%	21.6%	34.2%	27.1%	25.5%	28.3%	28.7%	26.9%
Combined corn & soy conservation tillage acres	50.5%	44.6%	41.3%	21.1%	22.9%	28.8%	22.7%	19.9%	31.5%
Combined corn & soy no-till acres	33.5%	30.4%	35.6%	36.8%	41.2%	37.2%	40.1%	40.5%	36.4%
Combined corn & soy conventional tillage acres	NA	25.0%	23.1%	42.1%	35.9%	33.9%	37.2%	39.6%	32.9%

2017	2018	2019	2020	2021	2022	2023	Average	Extrapolated Using
7,441,970	6,805,748	6,341,092	3,171,203	3,260,594	3,768,005	2,977,177	4,823,684	Corn acres
3,486,345	2,890,908	4,018,117	4,071,389	4,052,013	3,755,318	4,188,876	3,780,424	Corn acres
NA	3,299,680	3,289,288	6,551,214	5,512,867	5,150,876	5,638,982	4,907,151	Corn acres
4,169,316	3,441,481	3,134,088	1,764,290	1,993,219	2,782,839	2,173,803	2,779,863	Soy acres
4,221,350	4,081,526	4,134,881	4,517,853	5,409,108	4,711,739	4,892,801	4,567,037	Soy acres
NA	2,433,727	2,006,224	3,271,784	2,746,678	2,561,820	2,783,500	2,633,956	Soy acres
11,611,287	10,247,229	9,475,179	4,935,493	5,253,814	6,550,844	5,150,980	7,603,547	Corn & soy conservation tillage acres
7,707,695	6,972,434	8,152,999	8,589,242	9,461,121	8,467,057	9,081,676	8,347,461	Corn & soy no-till acres
NA	5,733,407	5,295,512	9,822,998	8,259,545	7,712,695	8,422,482	7,541,106	Corn & soy conventional tillage acres