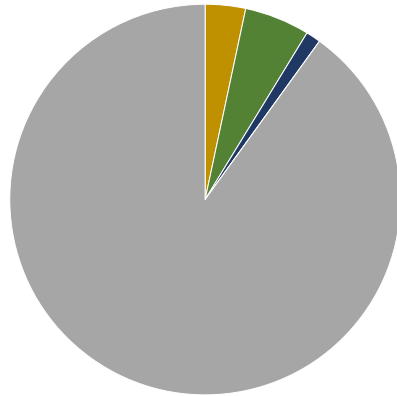
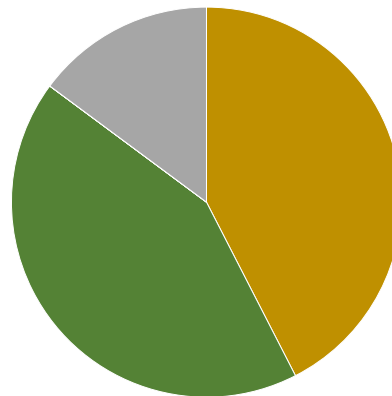


NOBLE
2019 Fall Cover Crop and Tillage Transect

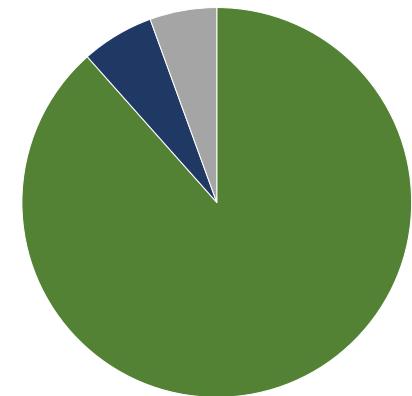
Living Cover Acres



Not Tilled Acres



Tillage Systems



■ Corn ■ Soybeans ■ Small Grains ■ Not Tilled ■ Conservation Till ■ Conventional Till
■ Specialty Crops ■ Other Systems

| Crop | NASS CropScape Acres | Living Cover Percentage | Living Cover Acres | Not Tilled | Not Tilled Acres | Conservation Till | Conservation Till Acres | Conventional Till | Conventional Till Acres |
|-----------------|----------------------|-------------------------|--------------------|------------|------------------|-------------------|-------------------------|-------------------|-------------------------|
| Corn | 62,082 | 7% | 4,346 | 89% | 55,253 | 7% | 4,346 | 4% | 2,483 |
| Soybeans | 63,861 | 11% | 7,025 | 87% | 55,559 | 5% | 3,193 | 7% | 4,470 |
| Small Grains | 4,191 | 38% | 1,593 | 0% | - | 0% | - | 0% | - |
| Specialty Crops | 1.8 | 0% | - | 100% | 1.8 | 0% | - | 0% | - |
| Total | 130,136 | 10% | 12,963 | 85% | 110,814 | 6% | 7,539 | 5% | 6,954 |

*Not Tilled - Any direct seeding system, including site preparation, with minimal soil disturbance (includes strip & ridge till).

*Conservation Till - Any tillage system leaving 16% - 75% residue cover after planting, excluding no-till (includes mulch and reduced tillage).

*Conventional Till - Any tillage system leaving less than 15% residue cover after planting.

*Living Cover includes living cover crops and cereal grains planted into cash crops using direct seeding or broadcast methods.

*Data is limited to what is reported to ISDA by the individuals conducting windshield surveys and recording data