



CLOSING WHEEL STUDY

INDIANA

PURPOSE

To determine what effect different closing wheel types have on plant emergence and yield. Unfavorable planting conditions were targeted for this study.

STUDY INFORMATION

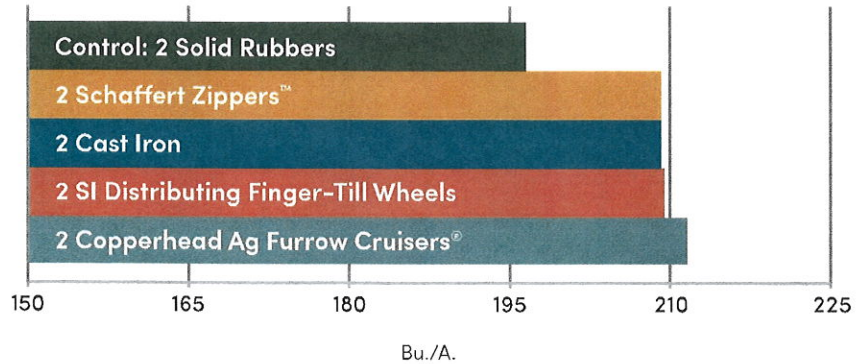
| | |
|--------------------------------|---|
| Planted | 5/16/2016 |
| Harvested | 10/14/2016 |
| Population | 34,000 Seeds/A. |
| Row Width | 30 in. |
| Previous Crop | Soybeans |
| Tillage | No-Till |
| Herbicides | Fall burndown: 12 oz. Authority [®] MTZ DF, 1 qt. Brash [®] , 1 qt. Roundup PowerMAX [®] Pre: 3.5 oz. Corvus [®] , 1 qt. Atrazine, 1 qt. Roundup PowerMAX Post: 3 oz. Capreno [®] , 1 qt. Roundup PowerMAX |
| Insecticides | Escalate [™] |
| Starter | 10 gal. 28-0-0 2x2 |
| Total Nitrogen | 190 units as UAN |
| Brand | 5828AMX [™] |
| Soil Type | Crosby (silt loam) |
| Soil Test Values | pH O.M. % CEC 6.5 2.3 8.9 |
| Percent Base Saturation | Ca Mg K H 67.4 15.5 3.6 13.5 |
| Parts per Million | P K S 32 125 6 Zn Mn B 1.7 40 0.3 |

2016 RESULTS

| Closing Wheels | Pressure Setting | Percent Moisture | Bu./A. | Bu./A. Difference |
|--|------------------|------------------|--------------|-------------------|
| Control: 2 Solid Rubbers | 3rd Notch | 18.7 | 197.7 | -- |
| 2 Copperhead Ag Furrow Cruisers[®] | 3rd Notch | 18.7 | 204.3 | +6.6 |
| 2 Pro Stitches | 3rd Notch | 18.5 | 203.9 | +6.2 |
| 2 Schaffert Zipper [™] | 3rd Notch | 18.6 | 200.3 | +2.6 |
| 2 Cast Iron | 3rd Notch | 18.6 | 198.8 | +1.1 |
| 2 SI Distributing Finger-Till Wheels | 3rd Notch | 18.7 | 197.6 | -0.1 |

[®]XL, Optimum, and AcreMax are registered trademarks of Pioneer. XL[®] brand seed is distributed by Beck's Superior Hybrids, Inc. Individual results may vary.

2-YEAR CLOSING WHEEL YIELD ADVANTAGE



- We intentionally planted this no-till plot in less than ideal conditions. We ran into small, wet pockets where all of the closing wheels had issues closing the seed furrow.
- There was an obvious advantage with the more aggressive closing wheels over the standard rubber closing wheel system.
- The increased seed-to-soil contact translated into a more even stand establishment and ultimately, higher yields.

Conventional Tillage- Corn 2016

| HEADER # / DATA TYPE | 001 RAW | 001 CALC | 011 CALC | 002 RAW | 002 CALC | 010 RAW | 006 RAW | 008 RAW | 008 CALC |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| EVALUATION DATE | 6/2/2016 | 6/2/2016 | 6/2/2016 | 6/6/2016 | 6/6/2016 | 10/11/2016 | 10/11/2016 | 10/11/2016 | 10/11/2016 |
| EVALUATION TIME | : | : | : | : | : | : | : | : | : |
| SPECIES TYPE / CODE | P ZEAMD | P ZEAMD | P ZEAMD | P ZEAMD | P ZEAMD | P ZEAMD | P ZEAMD | P ZEAMD | P ZEAMD |
| VARIETY | BECK'S 5665 AMX | BECK'S 5665 AMX | BECK'S 5665 AMX | BECK'S 5665 AMX | BECK'S 5665 AMX | BECK'S 5665 AMX | BECK'S 5665 AMX | BECK'S 5665 AMX | BECK'S 5665 AMX |
| STAGE | | | | | | | | | |
| SYMPTOM / METHOD | CNT NUM | STD NUM | STD %S | CNT NUM | STD % | EMR % | WTE LB | Yield/BU | Yield % |
| EVALUATION BASIS / UNIT | 66.00 FTR | 1.00 A | 1.00 A | 66.00 FTR | 1.00 PL | 1.00 PL | 1.00 PL | 1.00 A | 1.00 A |
| EVALUATION PART | ALL | ALL | ALL | ALL | ALL | ALL | SD | SD | SD |
| | | | | | | | | | |
| RubberTires | 72 | 19074 | 100 | 105 | 100 | 0.67 | 57.7 | 218.0 | 100.0 |
| Furrow Cruiser | 81 | 21318 | 113 | 108 | 103 | 0.74 | 57.6 | 229.0 | 105.0 |
| Cruiser Xtreme | 85 | 22506 | 119 | 108 | 104 | 0.78 | 58.2 | 233.3 | 107.1 |
| Cast Iron | 77 | 20394 | 108 | 104 | 100 | 0.72 | 57.8 | 222.3 | 102.1 |
| Dawn Curvetine | 77 | 20394 | 107 | 104 | 100 | 0.72 | 57.6 | 221.6 | 101.7 |
| Schlagel | 86 | 22572 | 119 | 108 | 104 | 0.77 | 58.0 | 223.9 | 102.8 |
| 15" Martin/Rubber tire | 81 | 21318 | 113 | 107 | 102 | 0.74 | 57.9 | 217.2 | 99.6 |
| Shaffert Mowhawk | 78 | 20592 | 109 | 102 | 98 | 0.73 | 58.5 | 220.1 | 101.0 |
| <i>Heartland Technologies Inc.- Fishers, IN</i> | | | | | | | | | |