

2019 Penn State/PDMP Corn Silage Hybrid Performance Trial Results

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Produced in cooperation with the Professional Dairy Managers of Pennsylvania (PDMP).

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Production Details: Penn State/PDMP Corn Silage Hybrid Evaluation Trials

| | |
|--------------------|---|
| Site: | Bellefonte, Centre Co. |
| Cooperator | Dan Ulmer |
| Planting Date | 8-May |
| Soil Type | HaA Hagerstown silt loam 0-3% slope |
| Herbicides | pre- Atrazine, Roundup, Dual, Callisto |
| | post- None |
| Previous Crop | Soybeans |
| Tillage | None |
| Starter Fertilizer | 10.5 gal - 10-34-0 |
| Insecticide | Force 3G |
| Manure | 6000 gallons pit manure |
| Fertilizer | 100 lbs of N as 30% |
| Harvest Date | 9/10/2019 |
| Field Summary: | Excellent weed control and adequate fertility. Rainfall was adequate during pollination time. Corn looked very consistent across plot. Might have some very minor hail damage. There was adequate rain at pollination time. |

Weather Summary:

| Month | Precip. | GDD |
|-------------------------|---------|------|
| May 8th-June 1st | 5.51 | 294 |
| June 1st-July 1st | 3.84 | 498 |
| July 1st-August 1st | 3.84 | 769 |
| August 1st-September 10 | 3.05 | 775 |
| Seasonal Total | 16.24 | 2336 |

| | |
|---------------|---|
| Precip. Data: | https://www.accuweather.com/ |
| GDD data: | http://climatesmartfarming.org/tools/csf-growing-degree-day-calculator/ |

| Table Key # | Trait Family Product | Bt protein(s) | Marketed for control of: | Resistance to a Bt protein in the trait package has developed in : | Herbicide tolerant? |
|--------------------------|--|--|---|--|---|
| Conv. | Conventional | None | None | --- | No |
| RR2 | Roundup Ready 2 | None | None | --- | GT |
| Agrisure | | | | | |
| 1 | Agrisure GT | None | None | --- | GT |
| 2 | Agrisure 3010 & 3010A | Cry1Ab | ECB SWCB | --- | GT LL |
| 3 | Agrisure 3000 GT, 3011A | Cry1Ab, mCry3A | ECB SWCB RW | RW | GT LL |
| 4 | Agrisure Viptera 3110 | Cry1Ab, Vip3A | BCW CEW ECB FAW SB SWCB TAW WBC | --- | GT LL |
| 5 | Agrisure Viptera 3111 | Cry1Ab, mCry3A, Vip3A | BCW CEW ECB FAW SB SWCB TAW WBC RW | RW | GT LL |
| 6 | Agrisure 3120 E-Z Refuge | Cry1Ab, Cry1F | BCW ECB FAW SB SWCB | FAW WBC | REFER TO BAG FOR SPECIFIC LETTER CODE: EZO=GT ONLY EZ1= GT LL |
| 7 | Agrisure 3122 E-Z Refuge | Cry1Ab,Cry1F, mCry3A, Cry34/35Ab1 | BCW ECB FAW SB SWCB RW | FAW WBC RW | |
| 8 | Agrisure Viptera 3220 E-Z Refuge | Cry1Ab, Cry1F, Vip3A | BCW CEW ECB FAW SB SWCB TAW WBC | --- | |
| 9 | Agrisure Viptera 3330 E-Z Refuge | CryAb, Vip3A, Cry1A.105+CryAb2 | BCW CEW ECB FAW SB SWCB TAW WBC | --- | |
| 10 | Agrisure Duracade 5122 E-Z Refuge | Cry1Ab, Cry1F, mCry3A, eCry3.1Ab | BCW ECB FAW SB SWCB RW | FAW WBC RW | |
| 11 | Agrisure Duracade 5222 E-Z Refuge | Cry1Ab, Cry1F, Vip3A, mCry3A, eCry3.1Ab | BCW CEW ECB FAW SB SWCB TAW WBC RW | RW | |
| Herculex | | | | | |
| 12 | Herculex 1 (HX1) | Cry1F | BCW ECB FAW SB SWCB | ECB FAW SWCB WBC | LL RR2 (most) |
| 13 | Herculex RW (HXRW) | Cry34/35Ab1 | RW | RW | |
| 14 | Herculex XTRA (HXX) | Cry1F, Cry34/35Ab1 | BCW ECB FAW SB SWCB RW | FAW SWCB WBC RW | |
| Optimum | | | | | |
| 15 | TRIssect (CHR) | Cry1F, mCry3A | BCW ECB FAW SB SWCB RW | ECB FAW SWCB WBC RW | LL RR2 |
| 16 | Intrasect (YHR) | Cry1F, Cry1Ab | BCW ECB FAW SB SWCB | FAW WBC | LL RR2 |
| 17 | Intrasect TRIssect (CYHR) | Cry1Ab, Cry1F, mCry3A | BCW ECB FAW SB SWCB RW | FAW WBC RW | LL RR2 |
| 18 | Leptra (VYHR) | Cry1F, Cry1Ab, Vip3A | BCW CEW ECB FAW SB SWCB TAW WBC | --- | LL RR2 |
| 19 | Intrasect Xtra (YXR) | Cry1F, Cry1Ab, Cry34/35Ab1 | BCW ECB FAW SB SWCB RW | FAW WBC RW | LL RR2 |
| 20 | Intrasect Xtreme (CYXR) | Cry1F, Cry1Ab, mCry3A, Cry34/35Ab1 | BCW ECB FAW SB SWCB RW | FAW WBC RW | LL RR2 |
| 21 | AcreMax (AM) | Cry1F, Cry1Ab | BCW ECB FAW SB SWCB | FAW WBC | LL RR2 |
| 22 | AcreMax CRW (AMRW) | Cry34/35Ab1 | RW | RW | LL RR2 |
| 23 | AcreMax1 (AM1) | Cry1F, Cry34/35Ab1 | BCW ECB FAW SB SWCB RW | FAW SWCB WBC RW | LL RR2 |
| 24 | AcreMax Leptra (AML) | Cry1Ab, Cry1F, Vip3A | BCW ECB FAW SB SWCB TAW WBC CEW | --- | LL RR2 |
| 25 | AcreMax TRIssect (AMT) | Cry1F, Cry1Ab, mCry3A | BCW ECB FAW SB SWCB RW | FAW WBC RW | LL RR2 |
| 26 | AcreMax Xtra (AMX) | Cry1F, Cry1Ab, Cry34/35Ab1 | BCW ECB FAW SB SWCB RW | FAW WBC RW | LL RR2 |
| 27 | AcreMax Xtreme (AMXT) | Cry1F, Cry1Ab, mCry3A, Cry34/35Ab1 | BCW ECB FAW SB SWCB RW | FAW WBC RW | LL RR2 |
| Yieldgard/Genuity | | | | | |
| 28 | YieldGard CB (YGCB) | Cry1Ab | ECB SWCB | --- | RR2 |
| 29 | YieldGard VT Rootworm (YGRW) | Cry3Bb1 | RW | RW | RR2 |
| 30 | YieldGard VT Triple | Cry1Ab, Cry3Bb1 | ECB SWCB RW | RW | RR2 |
| 31 | VT Double PRO VT Double PRO RIB complete | Cry1A.105, Cry2Ab2 | CEW ECB FAW SB SWCB | CEW | RR2 |
| 32 | VT Triple PRO VT Triple PRO RIB complete | Cry1A.105, Cry2Ab2, Cry3Bb1 | CEW ECB FAW SB SWCB RW | CEW RW | RR2 |
| 33 | Trecepta (or RIB complete) | Cry1A.105, Cry2Ab2,Vip3A | BCW CEW ECB FAW SB SWCB TAW WBC | --- | RR2 |
| Others | | | | | |
| 34 | Smartstax Smartstax Refuge Advanced Smartstax RIB Complete | Cry1A.105, Cry2Ab2, Cry1F, Cry3Bb1, Cry34/35Ab1 | BCW CEW ECB FAW SB SWCB RW | CEW WBC RW | LL RR2 |
| 35 | Powercore (or Refuge Advanced) | Cry1A.105, Cry2Ab2, Cry1F | BCW ECB FAW SB SWCB CEW | CEW WBC | LL RR2 |
| 36 | QROME (Q) | Cry1Ab, Cry1F, mCry3A, Cry34/35Ab1 | BCW ECB FAW SB SWCB | FAW WBC RW | LL RR2 |
| | BCW = black cutworm | SB = stalk borer | GT = glyphosate tolerant | | |
| | CEW = corn earworm | SWCB = southern corn borer | LL = Liberty Link, glufosinate tolerant | | |
| | ECB = European corn borer | TAW = true armyworm | RR2 = Roundup Ready 2, glyphosate tolerant | | |
| | FAW = fall armyworm | WBC = western bean cutworm | | | |
| | RW = corn rootworm | | | | |

Source: <https://www.texasinsects.org/bt-corn-trait-table.html>