

# Are You Evaluating Your Traits with Yield in Mind?



## 1 Rootworm traits don't make yield – they protect your yield potential. Don't sacrifice high yields just to get low root ratings.

- 2007 Iowa State University (ISU) corn rootworm trials<sup>1</sup> did not show a clear correlation between root ratings and yield.
- In fact, Agrisure® CB/LL/RW out-yielded Herculex® XTRA in three out of four trials – regardless of root ratings<sup>2</sup>.

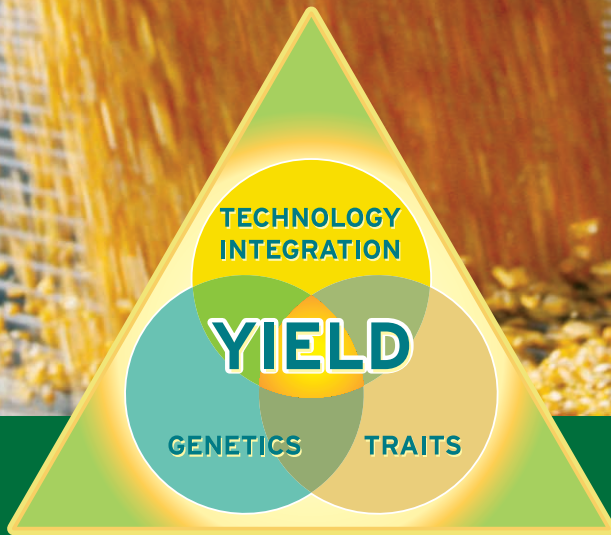
## 2 Yield potential is determined by genetics. It's the total genetic package that influences stalk strength, standability, kernel fill and other characteristics that drive yield.

- Hybrids with Agrisure RW employ an industry-leading germplasm base.
- In Syngenta trials<sup>3</sup>, Agrisure RW hybrids out-yielded Pioneer® brand Herculex XTRA hybrids by an average of 5.4 bu/A at **90 locations** – including Pioneer's top-performing hybrids 34A20, 36B05 and 34A18.
- In ISU trials, Pioneer 34A16 was the isoline hybrid (no rootworm trait) used as a check for Pioneer's 34A20 with Herculex XTRA. At two out of four sites, the isoline hybrid that was treated with a soil insecticide out-yielded the Pioneer hybrid with Herculex XTRA. At the third site, the isoline hybrid once again outyielded the Herculex XTRA hybrid (by 1 bu/A), and at the fourth site the Herculex XTRA hybrid outyielded the isoline by 2 bu/A.

## 3 Technology integration is the critical third step.

Technology integration joins your rootworm trait with your hybrid. Yield drag happens when the conversion brings along unwanted genetic "baggage" from the donor plant.

- Adding Herculex RW to Herculex I hybrids **decreased** yields an average of 7.8 bu/A from the same hybrid without Herculex RW<sup>4</sup>.
- The advanced technology integration process that Syngenta uses means more optimal trait conversions. Adding Agrisure RW to Agrisure CB/LL **increased** yields an average of 3.7 bu/A in the absence of rootworm pressure<sup>5</sup>.



### High-Performance Traits. Elite Genetics. Advanced Technology Integration.

Hybrids with the Agrisure RW trait bring together all three components for Root Protection Built for Yield. Results from 2007 Iowa State University corn rootworm trials<sup>1</sup> underscore the importance of the yield triangle.

- **Southeast Research Farm, Crawfordsville.** All three rootworm traits (Agrisure RW, YieldGard® Plus and Herculex XTRA) provided 100% product consistency, with root ratings under 0.05. But yields varied from one trait to another by *up to 23 bushels per acre*<sup>2</sup>.
- **Northwest Research Farm, Sutherland.** Hybrids with Yieldgard Plus and Herculex XTRA had the lowest root ratings, but hybrids with YieldGard Plus and Agrisure CB/LL/RW had *the highest yields*<sup>2</sup>.
- **Johnson Farms, Ames.** There was no statistical difference in yield among the three traits, even though YieldGard Plus hybrids had the lowest root rating in plots<sup>2</sup>.
- **Northeast Research Farm, Nashua.** Agrisure CB/LL/RW hybrids had a higher root rating than Herculex XTRA hybrids, but there was no statistical difference in yield<sup>2</sup>.

For more information, see your seed dealer or visit [www.agrisuretraits.com](http://www.agrisuretraits.com)

<sup>1</sup>Average root-injury, product consistency, percent lodging, and stand count for corn rootworm treatments (CRW transgenic strip tests), 2007, Iowa State University.

<sup>2</sup>Evaluation of Corn Rootworm Hybrids, Iowa State University, Southeast, Northeast and Northwest Research and Demonstration Farms.

<sup>3</sup>2007 Syngenta grower strip trial comparisons. Hybrids compared were within three days RM of each other.

<sup>4</sup>All comparisons from 2007 Syngenta strip trials. Yield increase/decreases are based on comparisons between Agrisure CB/LL hybrids and Agrisure CB/LL/RW hybrids of similar genetics. Herculex comparisons consisted of 26 strip trial comparisons between 34A16 Herculex I and 34A18 Herculex XTRA hybrids.

<sup>5</sup>Average yield increase when comparing isoline hybrids at 135 grower strip trial comparisons in 2007 where rootworm feeding was not present in untreated checks.

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