

# PROVEN IN THE FIELD. REFLECTED IN THE YIELD.

Stay true to your roots with SmartStax® technology



The best way to minimize the risk of devastating crop damage is to help maximize control of corn rootworm below ground, while protecting against above-ground pests. SmartStax® technology delivers two modes of action proven to provide the broadest spectrum of defense for corn rootworm in your field and the most complete protection for your yield.

## WHAT SETS SMARTSTAX® TECHNOLOGY APART:

- **Broad spectrum of insect control** with two proven, highly effective modes of action against corn rootworm and the technology provides above- and below-ground insect control
- Maximize control of corn rootworm, the pest that can **cost farmers more than \$1 billion annually in lost yield potential and costs of control**
- Built-in herbicide resistance technologies can help the plant withstand glyphosate and glufosinate herbicide applications to prevent weeds from robbing plants of the nutrients and water they need

## QUANTIFYING THE DAMAGE

Root damage is primarily caused by CRW larval feeding. Every root node nibbled by larvae can result in a yield loss of approximately 15%.<sup>1</sup> In addition, root lodging can impede harvesting, further reducing grain yield by 15%-34%

HEALTHY ROOT



**DAMAGED ROOT**  
15%-34% Yield Loss  
Root Damage by CRW



## EXCEPTIONAL ABOVE- AND BELOW-GROUND PROTECTION

Unique modes of action give corn plants the protection they need against major pests that can inflict serious crop damage.



CORN ROOTWORM  
(NORTHERN & WESTERN)



EUROPEAN CORN BORER



SOUTHWESTERN  
CORN BORER



CORN EARWORM



FALL ARMYWORM



BLACK CUTWORM

1. Journal of Applied Entomology 137 (2103): Validation of a nested error component model to estimate damage cause by corn rootworm larvae. N.A.Tinsley, R.E.Estes & M.E.Gray  
2. Spike BP, Tolleson JJ, 1991. Yield response of corn subjected to western corn rootworm (Coleoptera:Chrysomelidae) infestation and lodging. J. con. Entomol. 84, 1585-1590.  
3. Commodity Price \$3.25/ac, Source: Kynetec TraitTrak Data, 2016

See how our yield and profit potential stacks up against other trait options at [Genuity.com/Compare](http://Genuity.com/Compare)

# COMPARE YOUR CORN ROOTWORM PROTECTION OPTIONS



	Dual Modes-of-Action products for corn rootworm			Single Mode-of-Action products for corn rootworm	
<b>COTTON-GROWING AREA</b>	<b>SmartStax<sup>®</sup> Corn</b>	<b>Orome<sup>®</sup></b>	<b>Optimum<sup>®</sup> Intrasect<sup>®</sup> Xtreme</b>	<b>VT Triple PRO<sup>®</sup> Corn</b>	<b>Agrisure<sup>®</sup> Viptera<sup>®</sup> 3111</b>

## PRIMARY PESTS

<b>Corn Rootworm (Northern &amp; Western)</b>	**	**	**	*	*
<b>European Corn Borer</b>	***	**	**	**	*
<b>Southwestern Corn Borer</b>	***	**	**	**	**
<b>Corn Earworm<sup>1,2</sup></b>	**			**	*
<b>Fall Armyworm</b>	***	*	*	**	*
<b>Black Cutworm</b>	*	*	*		*

## HERBICIDE TOLERANCE

Roundup Ready <sup>®</sup> 2 Technology/LibertyLink <sup>®</sup>	Roundup Ready <sup>®</sup> Corn 2/LibertyLink <sup>®</sup>	Roundup Ready <sup>®</sup> Corn 2/LibertyLink <sup>®</sup>	Roundup Ready <sup>®</sup> 2 Technology	Glyphosate/LibertyLink <sup>®</sup>
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## REFUGE (Cotton-Growing Area)

20% Structured	20% Structured	20% Structured	20% Structured	20% Structured
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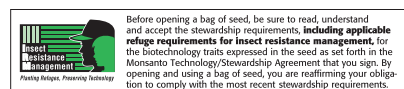
## REFUGE EXAMPLE (Cotton-Growing Area)



Modes of action equal control of pest

\*\*\* Triple-mode activity   \*\* Dual-mode activity   \* Single-mode activity

<sup>1</sup>Pioneer claims suppression of corn earworm on the Optimum<sup>®</sup> Intrasect<sup>®</sup> Xtra 1. Syngenta claims suppression of corn earworm with Bt11, Cry1A.105 and Cry2Ab2 from B. t. controls or suppresses corn earworm.



View more in-depth  
product comparisons at  
[Genuity.com/Compare](http://Genuity.com/Compare)

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**B.t. products** may not yet be registered in all states. Check with your Monsanto representative for the registration status in your state.

**IMPORTANT IRM INFORMATION: RIB Complete<sup>®</sup>** corn blend products do not require the planting of a structured refuge **except** in the Cotton-Growing Area where corn earworm is a significant pest. SmartStax<sup>®</sup> RIB Complete<sup>®</sup> corn blend is not allowed to be sold for planting in the Cotton-Growing Area. **See the IRM/Grower Guide for additional information. Always read and follow IRM requirements.**

**Performance may vary from** location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

**ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.** Roundup Ready technology contains genes that confer tolerance to glyphosate, an active ingredient in Roundup<sup>®</sup> brand agricultural herbicides. Agricultural herbicides containing glyphosate will kill crops that are not tolerant to glyphosate. Genuity<sup>®</sup>, RIB Complete<sup>®</sup>, Roundup and Design<sup>®</sup>, Roundup Ready 2 Technology and Design<sup>®</sup>, Roundup Ready<sup>®</sup>, Roundup<sup>®</sup>, SmartStax<sup>®</sup> and Genuity<sup>®</sup> VT Triple PRO<sup>®</sup> are trademarks of the Bayer Group. LibertyLink<sup>®</sup> and the Water Droplet Design<sup>®</sup> is a registered trademark of BASF. Respect the Refuge and Corn Design<sup>®</sup> is a registered trademark of National Corn Growers Association. All other trademarks are the property of their respective owners. ©2018 Bayer Group All Rights Reserved. 10705