



 Agrisure Viptera®

syngenta®

Elevate your  
grain quality and  
profit potential



# Grain quality key to higher profitability

Proliferation of molds and mycotoxins in crops can significantly hurt your bottom line. When not protected, pests such as corn earworm can feed on corn, leaving it susceptible to contamination from mycotoxins, including aflatoxin<sup>1</sup>.

Because aflatoxin is a known carcinogen, the FDA mandates that levels cannot exceed certain limits, measured in parts per billion (ppb) depending on the intended use of the corn.

High levels of aflatoxin negatively affect the price of grain, docking grower revenue at the elevator. After harvest, molds and mycotoxins in stored grain can lead to loss in weight and quality degradation. The bottom line – mycotoxins such as aflatoxin rob growers of grain in the field and revenue at the elevator.

Fortunately, there's a solution to help protect grain quality and profitability. Corn hybrids that include traits for insect control can help reduce kernel contamination from mycotoxins such as aflatoxin through reduced insect feeding<sup>2</sup>.

The Agrisure Viptera<sup>®</sup> trait has been shown to **significantly reduce** aflatoxin contamination through control of corn earworm and other ear-feeding insects.

The Agrisure Viptera trait supports a better profit potential by giving growers higher-quality grain and preventing storage loss through grain shrink.



Hybrid **without** Agrisure Viptera

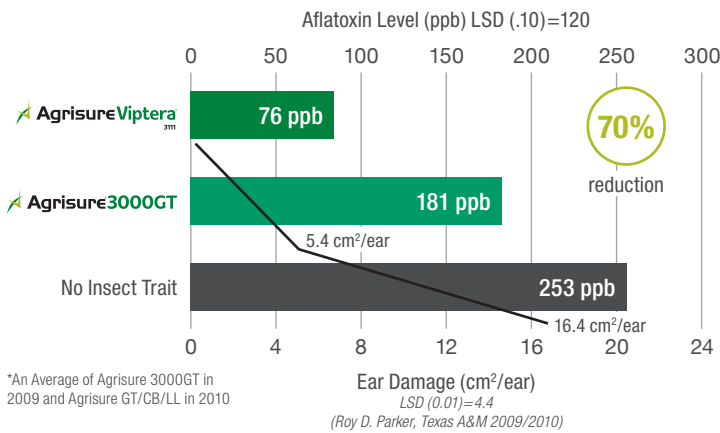
The spores of fungi responsible for aflatoxin enter corn plants **through exposed areas such as those caused by insect damage** and spread the harmful toxin throughout the corn plant.



Hybrid **with** Agrisure Viptera

Location: Southern IL.

**Influence of the Agrisure Viptera® Trait on Corn Earworm Feeding Damage and Aflatoxin Concentration**

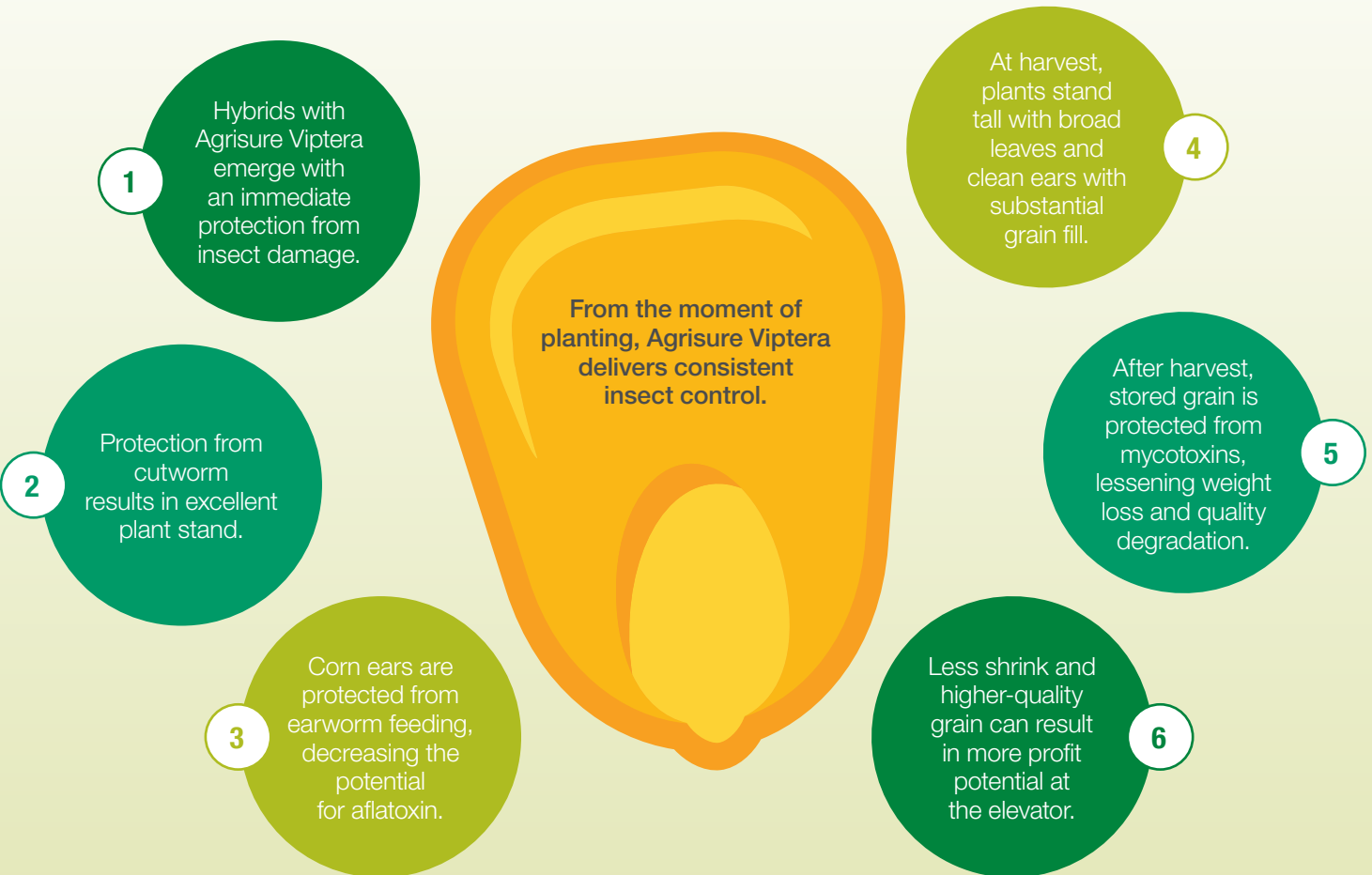


*“Our hybrids that include the Agrisure Viptera trait yield tremendously well. If we can keep insect pests from injuring that plant early, we see higher yields and we’re bringing a better product to the market due to the higher grain quality, which in the end, puts more money in our pocket.”*

**ADAM FORD, grower, Faucett, Mo.**

## The most comprehensive insect control on the market

The Agrisure Viptera trait consistently delivers more, high-quality grain through the most comprehensive corn insect control. By controlling major leaf-, stalk- and ear-feeding insects such as corn earworm, Western bean cutworm, black cutworm and fall armyworm, the Agrisure Viptera trait offers better crop stand and lower levels of disease, resulting in potential increases in profit and yield.







# More control. More insects. More yield.

Agrisure Viptera is the foundation of multiple trait stacks that control up to 16 above- and below-ground insect pests. It is conveniently available in E-Z Refuge<sup>®</sup> products and in water-optimizing Artesian<sup>™</sup> hybrids.

Every season, you work hard for that extra bushel, and the Agrisure Viptera trait can help you reach that higher yield potential. Industry-leading leaf, stalk and ear-feeding insect protection results in less stand loss and better grain quality, helping to ensure that your crop will live up to its full genetic yield potential.

No other trait in the industry provides better or more comprehensive control. By limiting the damage caused by insects, Agrisure Viptera helps protect your bottom line.

<sup>1</sup> Council for Agriculture Science and Technology. "Mycotoxins: Risks in Plant, Animal, and Human Systems." Task Force Report 139. Ames, IA. 2003.

<sup>2</sup> Vincelli, Paul. "GMOs and Corn Mycotoxins." Kentucky Pest News. University of Kentucky Cooperative Extension Service, 20 Aug. 2013. Web. 8 Apr. 2015. <[http://www2.ca.uky.edu/agcollege/plantpathology/extension/KPN\\_Site\\_Files/pdf/KPN1353.pdf](http://www2.ca.uky.edu/agcollege/plantpathology/extension/KPN_Site_Files/pdf/KPN1353.pdf)>.

Dr. Roy Parker, Texas A&M University, 2009-2010. Influence of insect trait on grain aflatoxin levels.

*"The Agrisure Viptera trait is in all of the corn we've planted. Cutworm and corn earworm are our main concerns, and this year we didn't see much pressure. The ears looked beautiful and, in my mind, Agrisure Viptera is 100 percent effective since we saw no stand issues and no signs of earworm damage."*

**BARRY GUIER, grower, Sweet Springs, Mo.**

## The Agrisure Viptera Trait: Delivering the Most Comprehensive Corn Insect Control

Above ground insect control with the Agrisure Viptera trait

INSECT	Agrisure Viptera <sup>®</sup> Trait Stacks*	Herculex <sup>®</sup> 1	Optimum <sup>®</sup> AcreMax <sup>®</sup>	Genuity <sup>®</sup> VT Double PRO <sup>™</sup> RIB Complete <sup>®</sup>
Corn Earworm	++++	+	++	+++
Black Cutworm	++++	+++	+++	+
Fall Armyworm	++++	+++	++++	+++
Western Bean Cutworm	++++	+++	+++	+
Dingy Cutworm	+++			
Corn Stalk Borer	+++		+	+
True Armyworm	++++			
Beet Armyworm	+++			
Sugarcane Borer	+++	+++	+++	+++
European Corn Borer	++++	++++	++++	++++
Southwestern Corn Borer	++++	++++	++++	++++

**Insect Control Scale: Blank = unavailable; - = no effect; + = some; ++ = good; +++ = very good; ++++ = excellent**

\*Agrisure Viptera 3111, Agrisure Viptera 3110, Agrisure Viptera 3220 E-Z Refuge<sup>®</sup>, Agrisure Duracade<sup>®</sup> 5222 E-Z Refuge

All competitor information is based solely upon interpretation of publicly available information, including public presentations, regulatory submissions, and observations made in commercial fields.



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