#### Key Differences between Avicta Complete Corn with Vibrance and Poncho/Votivo:

- 1. Avicta Complete Corn with Vibrance kills nematodes and works instantly to protect against nematodes, insects and diseases. This is important because the first 30 to 40 days is critical in determining yield potential.
- 2. Avicta Complete Corn with Vibrance delivers consistent performance, even under variable soil pH, temperature or moisture levels.
- 3. Avicta Complete Corn with Vibrance is proven.

In 42 trials across three years, Avicta Complete Corn 250 demonstrated a 4.0 bu/ acre advantage over CruiserMaxx Corn 250.

In 84 non-inoculated comparisons across four years (lower disease pressure), Vibrance showed, on average, a nearly 2 bu/acre improvement in yield.

In seven Rhizoctonia-inoculated locations across three years (high disease pressure), Vibrance showed more than a 9 bu/acre increase.

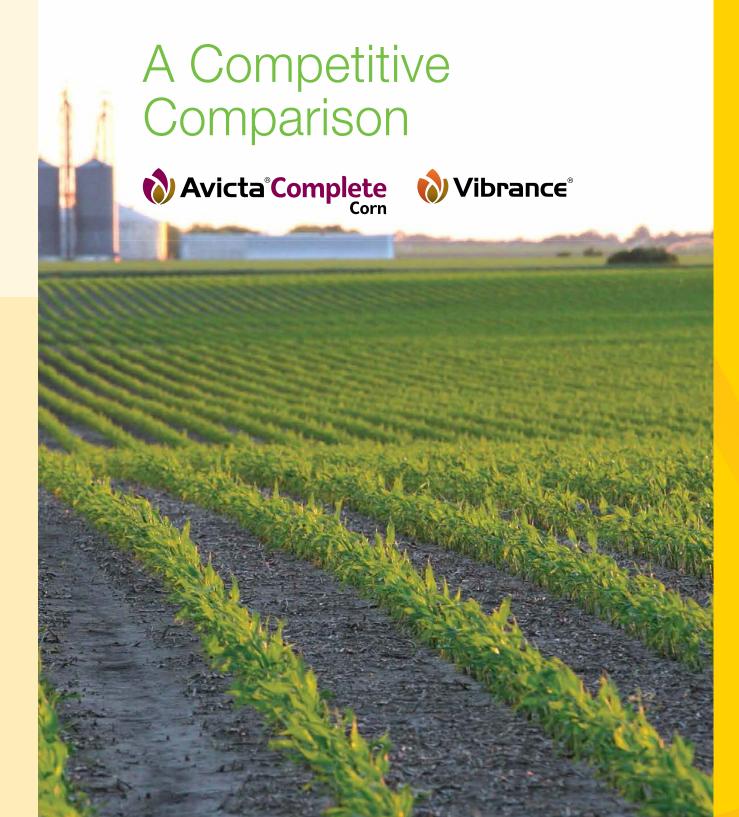
grow more corn





Syngenta field trials 2010-2012

 Vibrance<sup>®</sup> CruiserMaxx Corn 250 with Vibrance vs. CruiserMaxx Corn 250 84 Trials Across 4 Years (low disease pressure CruiserMaxx Corn 250 CruiserMaxx Corn 250 + Vibrance Syngenta field trials 2010-2013 CruiserMaxx Corn 250 with Vibrance vs. CruiserMaxx Corn 250 7 Trials Across 3 Years (high disease pressur CruiserMaxx Corn 250 CruiserMaxx Corn 250 + Vibrance



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©2014 Syngenta. Important: Always read and follow label instructions. Some crop protection products may not be registered for sale or use in all states or counties. Please check with your local extension service to ensure registration status. Avicta Complete Corn 250 and Avicta Complete Corn 500 are Restricted Use Pesticides. For use by certified applicators only, Growers planting Avicta treated seed are not required to be certified applicators. Avicta Complete Corn with Vibrance is an on-seed application of Avicta Complete Corn 250 or Avicta Complete Corn 500 with Vibrance fungicide. CruiserMaxx Corn is an on-seed application of Cruiser 5FS insecticide delivered at the 0.25, 0.50 or 1.25 mg a.i./seed rate and Maxim Quattro fungicide. Avicta technology is protected by U.S. Patent No.

G&S 404.20103 SLC 3482C 12-2014



### Avicta Complete Corn with Vibrance:

#### **The Most Comprehensive Seed Treatment Option**

When considering corn seed treatments, it's important to look at all your options. Growers want a seed treatment that protects their seed purchase investment and the value of the genetics and traits. They want to guard against early-season pests during the critical early stages of growth to give each seed a strong start and the best chance for optimal yield.

One seed treatment option stands out above all others—Avicta® Complete Corn with Vibrance® nematicide/ insecticide/fungicide, a combination of separately registered products. Avicta Complete Corn with Vibrance is the best and most comprehensive seed treatment package on the market. It provides immediate action against nematodes, insects and diseases, and consistently improves plant stand, vigor and yield potential.

Poncho®/Votivo® is a competing seed treatment option. When you choose a seed-applied solution, keep in mind the differences. Take a look at the chart on the following page to compare the nematode control components, Avicta and Votivo.



Lesion Nematode



Lesion Nematodes

## **Best-In-Class Disease Protection**

Rhizoctonia and enhanced root health. Vibrance protects the plant's performance and increasing yield.

available on the market today.



#### Avicta vs. Votivo: Head-to-Head Challenge

	Avicta (Abamectin)	S. Votivo (Bacillus firmus)
Activity	A true nematicide that <b>kills nematodes</b> instantly.	Indirect activity. Depending on soil environment and rate of <i>B.firmus</i> colonization, Votivo may not completely colonize around the early developing root <sup>1</sup> , thereby limiting protection.
Mode of Action	High, intrinsic activity – killing nematodes instantly.	Mode of action described by Bayer as <sup>2</sup> : Seed-applied bacteria colonize around the plant root, creating a living barrier of protection (the mode of action not fully described).
Performance	In greenhouse studies by Syngenta and universities, plants grown from seed treated with Avicta were taller, had bigger root systems and had statistically fewer galls and nematodes in the soil than those treated with Votivo.	Research with universities and contract researchers describe Votivo's activity on nematodes as "inconsistent" <sup>3,4</sup> - in most cases, resulting in yields and root protection similar to the untreated control.
Consistency	Proven to be consistent across corn-growing environmental conditions, including various temperatures, moisture and soil pH levels.	B. firmus may not colonize roots effectively due to environmental impacts on its growth (soil pH, moisture, temperature).   "There are very few published studies on performance of Bacillus firmus. Those that are available suggest results are very erratic."4
Timing of Protection	Instant activity; starts working as soon as the seed is planted for protection during the critical early stages of growth.	B. firmus requires time to colonize the root surface. The speed of colonization is directly proportional to environmental conditions <sup>1</sup> .
Shelf Life	Excellent formulation and slurry stability.	Formulation must be stored between 32 degrees F and 86 degrees F. Once in the slurry stage, it needs to be used within 72 hours. <sup>5</sup>

<sup>1</sup> Based on information on *Bacillus firmus* from American Type Culture Collection and other literature on B.firmus.

<sup>2</sup> http://www.bayercropscience.us/products/seed-treatments/poncho-votivo/ 5 Poncho/Votivo MSDS sheet

<sup>3</sup> Research conducted by third parties but funded by Syngenta.

<sup>4</sup> Kentucky Pest News; University of Kentucky Cooperative Extension Service Bulletin No 1128