

GROW **MOre** corn



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What Growers Say About Avicta Complete Corn

"When we use Avicta Complete Corn, we notice that our corn comes up consistently, right from the start, even if soil types or other conditions vary. Avicta Complete Corn looks good from one end of the field to the other." Jerry Norman | Erie, Illinois

"This is the third year we've used Avicta Complete Corn – it has proven to help yield and keep plants healthier throughout the year."

Lucas Nofziger | Wauseon, Ohio

"I think Avicta Complete Corn gives you early-season vigor that comes as an entire package. It gives you more uniform stands, and the nematode pressure in my book is bullet proof. You know you're using the best seed treatment available." Matt Bailey | Schuyler, Nebraska

"We had a particular field that consistently had trouble getting a good stand because of nematodes. We started using Avicta Complete Corn, and it's no longer an issue. We don't want to put anything there that doesn't have Avicta Complete Corn on it." Nick Andrew | Carthage, Illinois "I think the biggest benefit of planting Avicta Complete Corn is the higher yield at the end of the year. It really protects the roots as they are growing, especially early in the season, and it allows the plants to establish and perform better in those critical early growing stages." Nathan Baker | Pioneer, Ohio

"One of the main things we have noticed from using Avicta Complete Corn is a higher percentage stand of planted kernels. We have noticed that our roots are definitely much healthier because of it." Rye Randolph I Canton, Illinois

"Some advantages I've seen from Avicta Complete Corn are healthier plants, more even stands and more consistent stand counts." Cole Anderson | Friend, Nebraska

"I've used Avicta Complete Corn for three seasons. One of the main reasons we use it is to help protect our roots all season long. We do a lot of things to ensure a good crop all year, why not start off with the seed? Avicta Complete Corn protects the roots from nematodes and gives us a better root mass." Scott Bradford | Chanute, Kansas

Triple Protection Against Nematodes, Insects and Diseases

As genetics and traits continue to advance, seeds are becoming more and more valuable. But from the moment a seed is planted, nematodes, insects and diseases threaten to eat away at genetic yield potential. The best way to protect your seed investment and the value of genetics and traits is to shield the plant when it matters most—during the critical early stages of growth when yield potential is determined.

Avicta[®] Complete Corn with Vibrance[®] nematicide/insecticide/fungicide seed treatment gives growers an innovative, seed-delivered technology that works instantly to protect corn seedlings. The result is comprehensive, early-season protection against a wide spectrum of damaging nematode species, insect pests and early-season disease pathogens. That means increased plant stand, uniformity and vigor, stronger emergence and higher yield potential—all delivered in a convenient on-the-seed formulation.

Avicta Complete Corn is now available with Vibrance seed treatment fungicide. The addition of Vibrance brings best-in-class *Rhizoctonia* protection for stronger, healthier roots, which are critical to maximizing performance and yield.







Advantages of Avicta Complete Corn With Vibrance

• Kills nematodes instantly, offering growers a true nematicide

• Protects against a wide spectrum of corn-damaging nematode species

• Works consistently against nematodes in all environmental conditions,

including various temperatures, and moisture and soil pH levelsDelivers proven protection against a broad range of insect pests

 Provides the most complete fungicide option on the market for protection against a wide variety of early-season diseases and

• Offers a combination of a nematicide, insecticide and fungicides for

• Helps increase stand establishment, uniformity and vigor under

instant early-season pest protection and optimal yield and profit potential

Promotes vigorous and healthy corn seedlings from the day seeds are planted

• Protects seed investment and the value of the genetics and traits by

• Enhances root health by protecting root hairs, which improves the

plant's ability to absorb water, intake nutrients and manage stress

shielding the plant during the time when yield potential is set and the

best-in-class Rhizoctonia protection

varying environmental conditions

plant is most vulnerable

Features

Benefits

Corn Parasitic Nematode Populations More Prevalent Than You May Think

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Nematodes are microscopic, thread-like roundworms that can cause significant damage to vulnerable crops by feeding in or on plant roots. Nematode damage also provides an entry point for plant pathogens, such as bacteria and fungi, to invade the root and further weaken the plant.

Corn-damaging nematodes occur in every soil type, not just sandy soils, and there is no rescue treatment to offset the impact of the damage they can cause. Changing production practices such as the increase in corn-on-corn production and conservation tillage are helping fuel the increase in corn plant parasitic nematode populations.

In the past, soil-applied organophosphate and carbamate in-furrow insecticides have provided some suppression of nematodes, minimizing populations to the point that damage went unnoticed when these materials were used for insect protection. However, the switch to pyrethroid insecticides and the introduction of CRW-traited corn has left the door open for nematodes to prosper.

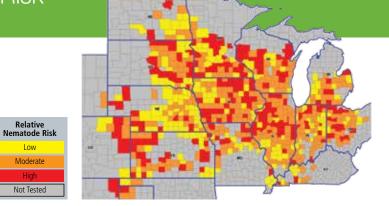
In 2007, Syngenta Seedcare initiated a survey of corn nematode populations in the Midwest. Surveyors randomly selected three corn fields in each county of the Midwestern Corn Belt that plants at least 25,000 acres of corn. Five university labs and one private lab processed the samples and determined that corn plant parasitic nematodes could be found in every county sampled. The outcome of the survey is a visual representation of the widespread risk to corn production that nematodes can create.



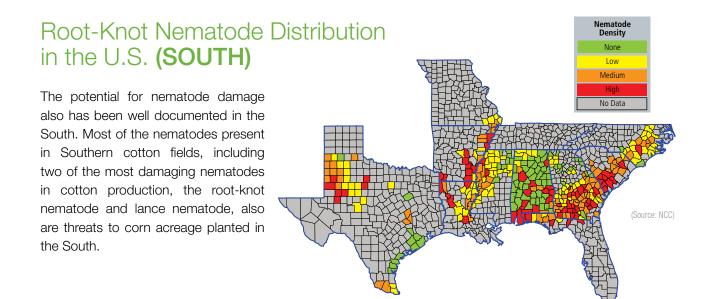


Average Corn Nematode Risk in the U.S. (MIDWEST)

With the data collected from the Midwest survey, Syngenta Seedcare developed a map that categorizes the potential corn injury risk via colors that represent a weighted index of nematodes present based on species numbers and relative thresholds for each species.



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Low

Immediate Protection Against Nematodes



Damage caused by corn nematodes can be easily underestimated as it is often misdiagnosed and difficult to identify. Symptoms such as chlorosis, stunting, root damage, root galling and yield loss can be mistaken for herbicide injury, disease, micronutrient deficiencies or

the result of harsh environmental conditions such as drought. Oftentimes there are no visual symptoms, but yield and profit potential are impacted.

Avicta Complete Corn with Vibrance provides effective nematode protection from the time the seed is planted through the critical early-season root development period, promoting stronger stands and emergence. Early-season root development is especially critical as reducing damage during early growth promotes root expansion whereas early nematode feeding may stunt root development leading to a smaller overall root mass. Larger root masses that have less nematode feeding positively impact the corn crops' ability to uptake nutrients and moisture, especially in times of moisture stress.

Although the nematicide active ingredient in Avicta Complete Corn with Vibrance (abamectin) is not systemic, it adheres to the root exterior as the root grows and develops and is brought into contact with troublesome nematodes and protects from them. This movement reduces the initial nematode population during the early growth stages by killing nematodes through contact activity. As any corn grower knows, strong, healthy plants build the foundation for better yield and return on investment potential.

Avicta Complete Corn with Vibrance protects against troublesome nematode species including:

 Dagger • Lance

- Lesion
- Needle Rina
- Root-knot
- Spiral
- Sting
- Stubby-root
- Stunt

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Superior Protection Against Early-Season Insects

The insecticide active ingredient in Avicta Complete Corn with Vibrance (thiamethoxam) is systemic, which offers better activity and longer residual for consistent early-season protection against a broad spectrum of yield-robbing insect pests, including:

- Wireworm
- Chinch bug
- Seedcorn maggot
- Southern corn leaf beetle
- Corn flea beetle
- White grub*
- Black cutworm
- Thrips

- Grape colaspis
 Southern green stinkbug
- Seedcorn beetle
- e Corn leaf aphid
 - Sugarcane beetle
 - Billbug**
 - Corn rootworm**
- Avicta Complete Corn with Vibrance is available in three different versions that contain varying levels of the insecticide component. Avicta Complete Corn 500 provides an increased rate of insecticide (0.50 mg thiamethoxam/seed) compared to Avicta Complete Corn 250 (0.25 mg thiamethoxam/seed) for enhanced insect protection.

Avicta Complete Corn 1250 offers the highest available rate of insecticide (1.25 mg thiamethoxam/seed) for added insect protection against corn rootworm and billbug, and is a key component in an effective integrated corn rootworm management program.

* Including Japanese beetle larvae, European Chafer larvae, true white grub, annual white grub and May/June beetle larvae.
**Requires the higher application rate of thiamethoxam (1.25 mg a.i./seed). Corn rootworm protection includes Mexican, Northern, Southern and Western species.

Market-Leading Disease Protection

Avicta Complete Corn with Vibrance offers the most complete combination of seed treatment fungicides on the market—mefenoxam, fludioxonil, azoxystrobin, thiabendazole and sedaxane. The disease protection helps shield the developing plant against reduced emergence, which is caused by disease slowing growth and dampling off of the seedlings, reduced plant stand, vigor and ultimately yield. Additionally, when used as a component of Avicta Complete Corn with Vibrance, thiabendazole helps enhance the level of nematicidal activity provided for even more protection against damaging nematode pests.

Avicta Complete Corn with Vibrance protects against the following damaging seed- and soil-borne diseases in corn:

Seed-Borne

- Fusarium
- Cladosporium
- Helminthosporium
- Diplodia (Stenocarpella)
- Aspergillus
- Penicillium
- Sporisorium (Sphacelotheca)
- Mucor
- Rhizopus

Soil-Borne

- Rhizoctonia
- PythiumFusarium
 - Fusarium graminearum
 - Fusarium verticillioidesMacrophomina
 - Diplodia (Stenocarpella)
 - Sporisorium (Sphacelotheca)
 - Colletotrichum

Penicillium

Enhanced Root Health

A strong root system is critical to maximizing a plant's performance and increasing yield. Greater root surface area improves the plant's ability to absorb water, intake nutrients and perform under stress.

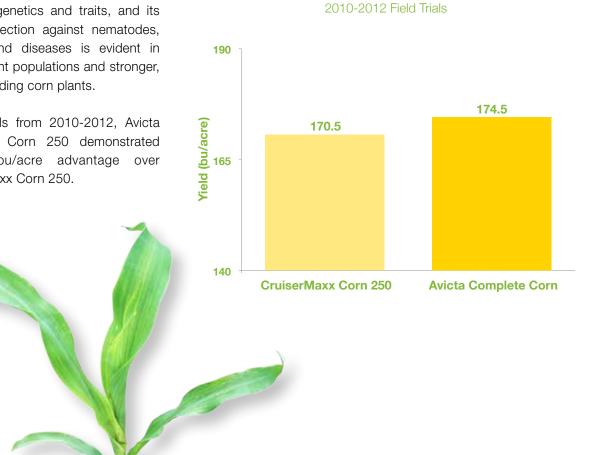
Root health begins with good seed care. The addition of Vibrance to the already robust fungicide package in Avicta Complete Corn adds systemic performance against *Rhizoctonia* for enhanced root health and the strongest root system possible.



Consistent Results for Higher Yield

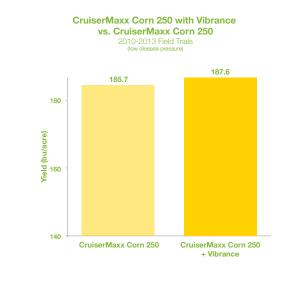
Avicta Complete Corn has proven its worth in the field. It protects the value of genetics and traits, and its triple protection against nematodes, insects and diseases is evident in higher plant populations and stronger, higher-yielding corn plants.

In 42 trials from 2010-2012, Avicta Complete Corn 250 demonstrated a 4.0 bu/acre advantage over CruiserMaxx Corn 250.



Avicta Complete Corn 250

vs. CruiserMaxx Corn 250



CruiserMaxx Corn 250 with Vibrance vs. CruiserMaxx Corn 250 2010-2012 Field Trials (high disease pressure) 160.0 149.4 Ac) 140.3 ē 140.0 CruiserMaxx Corn 250 CruiserMaxx Corn 250 + Vibrance

In seven Rhizoctonia inoculated locations (high disease pressure), the addition of Vibrance showed more than

a 9 bu/acre increase.

In 84 comparisons in lower disease

pressure, Vibrance still shows on

average nearly 2 bu/acre improvement

in yield.



