



Are seed treatments effective against the same insects as below ground traits?

Occasionally, there is confusion between the insects that are controlled with various Bayer trait packages and the insects that are controlled by the insecticide applied to the seed as a component of Acceleron® Seed Applied Solutions. Below-ground trait packages are only effective against corn rootworm larvae (northern, western, and Mexican) while above-ground trait packages are effective against several different species of caterpillars. Insecticides used with seed treatments provide control against several soil-dwelling insect pests as well as some above-ground pests early in the season.

What insecticide is available on the corn seed products from Bayer?

The seed treatment applied to the corn seed is clothianidin (Poncho® insecticide) and, depending on which level of Acceleron® Seed Applied Solutions product is used, clothianidin is either applied alone (BASIC and ELITE offerings) or in combination with VOTIVO® insecticide (BASIC plus or ELITE plus). Clothianidin is available at 3 different rates of application, 250 (0.25 mg active ingredient/kernel), 500 (0.50 mg active ingredient /kernel), or 1250 (1.25 mg active ingredient /kernel) depending on the corn product. Products with SmartStax® technology come with either the BASIC plus or ELITE plus offering, which has the 500 rate of application. Most non-SmartStax products come with the BASIC or ELITE offering at the 250 rate of application. The 1250 rate is available on certain products. Please consult with your Bayer seed representative to determine what Acceleron® Seed Applied Solutions product is available for the corn seed product you wish to buy.

What insects are controlled with the Bayer seed treatments on corn products?

The insects listed below are labeled for control depending on the rate of application¹

Corn Insects Controlled	Rate of Application (mg of active ingredient per kernel)
Chinch bug Corn flea beetle Corn leaf aphid Black cutworm Grape colaspis Seedcorn maggot Southern corn leaf beetle Southern corn rootworm Southern green stinkbug Sugarcane beetle White grub (including European, Chafer larvae, May/June beetle larvae, Japanese beetle larvae) Thrips Wireworm	0.25 and 0.50
In addition to above, Corn rootworm (including northern, western, southern, and Mexican) Southern corn billbug	1.25

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What insects are controlled with the SmartStax® RIB Complete®, VT Double PRO® RIB Complete®, and the Trecepta® RIB Complete® corn brand blend products?²

Corn Insects Controlled	Trait Package
Black cutworm Corn earworm* European corn borer Fall armyworm Stalk borer Sugarcane borer Southwestern corn borer Corn rootworm larvae (including northern, western and Mexican)	SmartStax® RIB Complete® corn brand blend
Corn earworm* European corn borer Fall armyworm Stalk borer Sugarcane borer Southwestern corn borer	VT Double PRO® RIB Complete® corn brand blend
Black cutworm Corn earworm European corn borer Fall armyworm Stalk borer Sugarcane borer Southwestern corn borer Western bean cutworm	Trecepta® RIB Complete® corn brand blend
*Cry1A.105 and Cry2Ab2 from B.t. controls or suppresses corn earworm.	

Is there duplication of control of the insect pests between the Acceleron® Seed Applied Solutions products and the various trait packages in Bayer seed products?

While there is some duplication between the two, like corn rootworm larvae controlled by the 1250 rate and by the trait package provided in SmartStax RIB complete brand corn products, most of the other major seed and seedling pests are not controlled by the trait packages in Bayer seed products. Additionally, many of the seed and seedling pest populations are difficult to predict and sampling programs have not been developed to determine if the populations have reached the economic threshold.



Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, **including applicable refuge requirements for insect resistance management**, for the biotechnology traits expressed in the seed as set forth in the Monsanto Technology/Stewardship Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation to comply with the most recent stewardship requirements.

Sources:

¹Poncho® 600 label. Bayer Seed Growth™. https://agriculture.basf.us/content/dam/cxm/agriculture/crop-protection/products/documents/Poncho_600_Label1i.pdf

²DiFonzo, C. 2020. The handy Bt trait table for U.S. corn production. Michigan State University Extension. https://agrillife.org/lubbock/files/2020/02/BtTraitTable_FEB_2020.pdf

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ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. B.t. products may not yet be registered in all states. Check with your seed brand representative for the registration status in your state.

IMPORTANT IRM INFORMATION: RIB Complete® 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. 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.

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