



Tackling weeds with Assure II Herbicide

Focusing on reduced unwanted grass and volunteer corn

Assure II herbicide helps protect Enlist® crops – including corn, soybeans and cotton – from at least 37 problematic grasses like foxtail, volunteer non-Enlist® corn, quackgrass and johnsongrass. The Enlist® trait in corn provides tolerance to FOP herbicides like Assure II, in addition to 2,4-D choline, glyphosate and glufosinate.

Assure II is a selective, group one herbicide intended to control grasses using quizalofop as its mode of action. When applied to weeds, the herbicide is absorbed through foliage and translocated to the roots and other growing elements within the plant. Affected tissue becomes necrotic and chlorotic before dying, leaving the remainder of the plant stunted and noncompetitive. Following application, symptoms initially appear within 7 to 14 days depending on spraying conditions. In addition to being used to support the growth of Enlist corn or other crops on its own, Assure II can be tank-mixed with multiple types of postemergence fungicides, insecticides and herbicides (including Enlist® One herbicide).

Primary uses

- **Annual & perennial grass control** – Assure II can be applied alone or in conjunction with other herbicides to manage seasonal grasses in fields with the Enlist trait or with a range of other crops. The application should be made on actively growing weeds less than 6 inches tall.
- **Addressing volunteer corn** – Assure II can be applied to unwanted, volunteer corn without the Enlist trait, including volunteer glyphosate-resistant corn. It provides control of 12- to 18-inch volunteer corn.

Importance of controlling volunteer corn and grassy weeds

In some corn- and soybean-producing states, like Nebraska, volunteer corn is a top weed concern. Research done at South Dakota State University, the University of Minnesota and the University of Nebraska–Lincoln suggests yield losses – based on the number of volunteer corn plants per acre – can cause up to 54% yield loss in soybeans and 13% yield loss in corn.¹ The presence of volunteer corn also can increase disease problems and the intensity of corn rootworm challenges. Volunteer corn can be difficult to control, because many types of corn are tolerant to or not affected by glyphosate or glufosinate, dicamba or 2,4-D. However, Assure II can be used to address glyphosate-tolerant volunteer corn while not damaging Enlist corn.

Additionally, grassy weeds can damage crop yield, increase water use and steal soil-based nutrients like nitrogen. Grassy weeds may start out absorbing as much nitrogen as sprouting corn plants, but once grasses reach about 4 inches, they can start to take in nitrogen much faster than corn does. However, Assure II can be used to help protect yields from grasses.

¹ Jha, Prashant, Bob Hartzler, and Meaghan Anderson. "Management of Volunteer Corn in Fields Affected from Derecho." Iowa State University Extension and Outreach: Integrated Crop Management. September 2020. <https://crops.extension.iastate.edu/blog/bob-hartzler-meaghan-anderson-prashant-jha/management-volunteer-corn-fields-affected-derecho>.



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