



HERBICIDE

General information

Grass control is a top concern for all sorghum growers. In field studies, the Inzen™ herbicide tolerance trait and accompanying Zest™ WDG herbicide have demonstrated effective postemergence grass control in sorghum.

However, to maintain the effectiveness of this offering, sorghum growers will have to follow proper stewardship guidelines to help prevent the trait from outcrossing to weedy relative grasses, such as johnsongrass and shattercane.

Inzen sorghum trait and Zest WDG herbicide

Zest WDG provides postemergence control of grasses in sorghum. Its active ingredient has been used in herbicides that have been registered for use on other crops for many years. Combining Zest WDG with sorghum varieties containing the Inzen sorghum trait will create a system that controls grass in sorghum and improves crop safety due to the built-in herbicide tolerance.

Managing weed resistance in herbicide-tolerant crops

Growers will need to follow a routine herbicide-resistance management program when planting sorghum with the Inzen sorghum trait:

- Apply integrated weed-management practices. Use multiple herbicide modes of action with overlapping weed spectrums in rotation, sequences or mixtures.
- Use the full recommended herbicide rate and proper application timing for the hardest-to-control weed species present in the field.
- Scout fields after herbicide application to ensure control has been achieved. Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.
- Monitor site and clean equipment between sites.
- Plan crop rotations that allow use of herbicides with alternative modes of action in the year following sorghum with the Inzen sorghum trait. See chart 1.

Managing pollen-mediated gene flow

The following best management practices will help limit potential movement of the Inzen trait to closely related species:

- Do not plant sorghum with the Inzen sorghum trait and use Zest WDG in fields known to have ALS-resistant johnsongrass or shattercane.
- Do not plant any sorghum the following year after planting the Inzen sorghum trait.
- Plant into fields in which emerged weeds have been controlled by tillage or nonselective herbicides, such as glyphosate.
- Manage johnsongrass and shattercane growth in road ditches, fence rows and nearby places so their flowering does not coincide with the Inzen sorghum trait flowering.
- · Closely monitor effectiveness of herbicide programs.
- Complete certification program and sign Technology Use Agreement (TUA).

Chart 1: Crop rotation alternative modes of action (MOA) for grass control in crops following sorghum:

Corn

- Glyphosate in glyphosate-tolerant corn
- Glufosinate in glufosinate-tolerant corn
- Topramezone
- Quizalofop in Enlist® corn

Soybean

- Glyphosate in glyphosate-tolerant soybeans
- Glufosinate in glufosinate-tolerant soybeans
- ACCase herbicides

Cotton

- Glyphosate in glyphosate-tolerant cotton
- Glufosinate in glufosinate-tolerant cotton
- ACCase herbicides

Wheat

- Preplant or post harvest control by nonselective herbicides
- Tillage

Sunflower

- Preplant tillage
- Nonselective herbicides
- ACCase herbicides

Fallow

- Tillage
- Nonselective herbicides
- · ACCase herbicides

Sorghum

DO NOT plant any sorghum the following year after planting Inzen trait sorghum.





To aid in the prevention of developing weeds resistant to this product, the following steps should be followed:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Apply the maximum specified labeled use rates of Zest™ WDG herbicide for the most difficult to control weeds in the field at the specified time (correct weed size) or when applications are made under challenging environmental conditions to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Report any incidence of nonperformance of this product on a weed species that is listed in the "Weeds Controlled" section of the Zest WDG label to your Corteva Agriscience retailer or local representative, or call 800-992-5994.
- If resistance is suspected in a weed species listed in the "Weeds Controlled" section or the Zest WDG label or to johnsongrass or shattercane, treat the weed escapes with a herbicide having a mode of action other than Group 2 and/or use non-chemical methods to remove escapes, as practical with the goal of preventing further seed production. Report suspected resistance to your Corteva retailer or local representative, or call 800-992-5994.

Additionally, users should follow as many of the following herbicide resistance management practices as practical:

- Use a broad-spectrum soil-applied herbicide with other modes of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative modes of action.

- Rotate the use of this product with non-Group 2 herbicides.
- Incorporate nonchemical weed-control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Avoid using more than two applications of Zest WDG and any other Group 2 herbicide within a single growing season unless in conjunction with another mode of action herbicide with overlapping spectrum.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.
- Contact the local agricultural extension service, Corteva representative, Ag retailer or crop consultant for further guidance on weed control.

Other considerations

- Escapes can be difficult to control in areas that have used repeat applications of ALS herbicides; resistance has developed to some targeted annual grasses.
- Continue to use preemergence and broadleaf herbicides.
- Preemergence herbicides can help reduce grass and broadleaf weed pressures even if they aren't fully activated. Use herbicides with a different mode of action to help manage weed resistance.
- The use of preemergence herbicides followed by postemergence herbicides has provided the most consistent weed-control program in trials.



