

REFUGE BULLETIN



If you live in one of the counties below, you may be required to plant a separate refuge for Genuity® Bollgard II® cotton.

Includes all counties in Arizona, New Mexico, California, and the Texas counties of Brewster, Crane, Crockett, Culberson, El Paso, Hudspeth, Jeff Davis, Loving, Pecos, Presidio, Reeves, Terrell, Val Verde, Ward and Winkler.



Check with local authorities (such as your state Department of Agriculture) regarding county-specific exemptions from refuge requirements, allowed in accordance with state pink bollworm eradication programs.

To access a simple IRM calculator, go to genuity.com/stewardship/Pages/InsectResistanceManagement.aspx

Genuity® Bollgard II® Cotton Refuge Requirements



For all refuge options listed below, the variety of cotton planted in the refuge must be comparable, especially in the maturity date, to the Genuity Bollgard II cotton for which it serves as refuge. The refuge must be managed similarly to Genuity Bollgard II cotton (example: planting time, use of fertilizers, weed control, irrigation, terminations, and management of other pests).

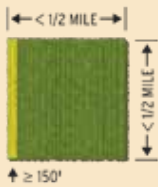
EMBEDDED REFUGE

Genuity Bollgard II Refuge

OPTION A

Fields **less than** 1/2 mile in length and width:

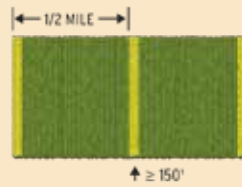
- Plant at least 5 acres of non-*B.t.* cotton for every 95 acres of Genuity Bollgard II cotton.
- Locate refuge within the field.
- Monsanto recommends each refuge be at least 150 feet wide.
- Read the IRM Grower Guide for specific treatment options and timing.



OPTION B

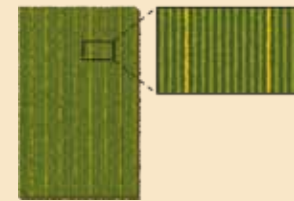
Fields **greater than** 1/2 mile in length and/or width:

- Plant at least 5 acres of non-*B.t.* cotton for every 95 acres of Genuity Bollgard II cotton.
- Plant the refuge in more than one location to ensure compliance with distance requirements.
- Monsanto recommends each refuge be at least 150 feet wide.
- Read the IRM Grower Guide for specific treatment options and timing.



OPTION C*

- Plant one single refuge row for every 6 (six) to 10 *B.t.* rows.
- Interspersing single row refuge is not recommended for regions with a history of significant cotton bollworm or tobacco budworm damage.
- Read the IRM Grower Guide for specific treatment options and timing.



5% EXTERNAL UNSPRAYED REFUGE

- Plant at least 5 (five) acres of non-*B.t.* cotton (as refuge cotton) for every 95 acres of Genuity Bollgard II cotton (95% Genuity Bollgard II, 5% non-*B.t.* refuge).
- The size of the refuge **must be at least 150 feet wide**.
- Genuity Bollgard II cotton fields **must be within 1/2 mile** (or closer) of the associated field.
- Read the IRM Grower Guide for specific treatment options and timing.



5% External Unsprayed Option

Genuity Bollgard II Refuge

20% EXTERNAL SPRAYED REFUGE

- Plant at least 20 acres of non-*B.t.* cotton as a refuge for every 80 acres of Genuity Bollgard II cotton (80% Genuity Bollgard II, 20% non-*B.t.* refuge).
- The size of the refuge **must be at least 150 feet wide**.
- Refuge may be treated **with any insecticide** (excluding foliar *B.t.* products) including pheromone.
- Genuity Bollgard II cotton fields **must be within one linear mile** (preferably within 1/2 mile or closer) of the associated refuge.



20% External Sprayed Option

Genuity Bollgard II Refuge

Growers must read the IRM Grower Guide prior to planting.

*Monsanto cautions growers against using this option in regions that have significant cotton bollworm or tobacco budworm damage. **Check with a qualified expert, including your seed company, crop advisors and/or extension specialists.**



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.



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B.t. products may not yet be registered in all states. Check with your Monsanto representative for the registration status in your state.

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