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## The Bt corn refuge: Is it really necessary?

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## **Abstract**

Corn growers are increasingly adopting the corn biotech traits in YieldGard®, Herculex®, and Agrisure® for yield protection against corn rootworms and/or European corn borers in what we call Bt corn hybrids. All of these traits require that corn growers follow Insect Resistance Management (IRM) requirements to effectively manage this technology. Surprisingly, I heard numerous corn growers during my recent winter meeting circuit around the state scoff at the IRM requirements. I'm sure many of them were thinking, is a Bt corn refuge really necessary?

## **Keywords**

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## **Disciplines**

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## The Bt corn refuge: Is it really necessary?

by *Marlin E. Rice, Department of Entomology*

Corn growers are increasingly adopting the corn biotech traits in YieldGard®, Herculex®, and Agrisure® for yield protection against corn rootworms and/or European corn borers in what we call Bt corn hybrids. All of these traits require that corn growers follow Insect Resistance Management (IRM) requirements to effectively manage this technology. Surprisingly, I heard numerous corn growers during my recent winter meeting circuit around the state scoff at the IRM requirements. I'm sure many of them were thinking, is a Bt corn refuge really necessary? Their responses suggested to me that the IRM requirements were not seriously being considered for the coming growing season. I believe that it is in the best interest, along with their obligation, for corn growers to farm responsibly with the biotech traits and to practice good stewardship. Hopefully, all corn growers who will be planting this technology in 2007 will follow the IRM requirements. Here are my reasons why:

- Farmers should follow IRM requirements because they are required under law by the EPA. Farmers should value the effectiveness of the product and want to preserve the technology for the future.
- Being a good steward of the technology is a decision they are making not just for themselves but for their neighbors and the person who will be farming their land in the future. It is a decision they make for everyone who uses the technology. If insect resistance becomes a problem, it eventually becomes every corn grower's problem.
- By not following IRM requirements, growers risk losing the technology's performance when insects become resistant to the technology.
- Following the IRM requirements reduces the risk of corn rootworms or European corn borers developing resistance to the technology. Based on corn rootworm biology, it is extremely important that growers follow the refuge distance requirements to ensure that the beetles coming out of biotech corn mate with beetles coming out of the refuge, minimizing the risk of developing resistant corn rootworm beetles.
- Finally, corn growers should follow IRM requirements because they signed an agreement with the seed company; it's an issue of integrity.

So the answer to the question is yes, a Bt corn refuge really is necessary. For more information on IRM guidelines, growers should check with their seed company representative or consult the [National Corn Growers Association Web site](#) for refuge planting options.

*Marlin E. Rice is a professor of entomology with extension and research responsibilities in field and forage crops.*

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