



# Top Ten Tips to Tame Trait Torture

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Every season there more transgenic traits and stacks, and new brand names to add to the confusion. Below is a top-ten list of things you can do to avoid mistakes at planting, and to help diagnose field problems later in the season that may be related to traits.

## **#10 Understand the terminology used by your seed company**

Is RR the same as GT? What is the 'extra' in Herculex Xtra? How does Monsanto's new Genuity brand differ from Yieldgard?

## **#9 Understand the biology of each trait**

What are the benefits and limitations of each trait? What level of control, if any, should you expect? Is herbicide tolerance or a seed treatment part of the package? Is there a refuge requirement?

**#8 If you still do not understand the terminology and biology, call your seed dealer and ask more questions until you do.**

## **#7 Confirm that the seed ordered in late fall is the seed shipped this spring**

Check shipping records and bag tags against your original purchase. When seed stocks get tight, or bad weather leads to many replanted acres, the seed shipped to your farm may not be what exactly you expect.

## **#6 Keep good planting records**

This is especially important in replant situations, if you produce both conventional and biotech crops, or if you plant fields to different herbicide-tolerance traits. Mistakes happen! Several years ago, I visited a farm where continuous corn fields planted to Yieldgard RW seed had considerable lodging and root feeding. I used gene check strips to show that the lodged corn was not expressing Cry 3Bb toxin, and thus was not an RW Bt hybrid. That same year, I visited a heavily-lodged field accidentally planted to 80% conventional corn (essentially an 80% refuge) and 20% Bt RW. Bummer, dude.

## **#5 Calculate correct refuge acres by dividing total Bt acres by 4**

## **#4 Plant Bt refuge in a block or separate field instead of in strips.**

Although strips are technically legal, alternating Bt and non-Bt corn makes it difficult to detect a problem, and strip refuges cannot be managed separately for a secondary pest problem.

## **#3 For herbicide traits, Ask Twice-Spray Once**

For custom application, both parties should sign an agreement that at a minimum reconfirms the field(s) to be sprayed, the herbicide trait in each field, and the herbicide that will be applied. This protects both the grower and the applicator from misunderstandings that result in dead fields.

## #2 Save a representative sample of bag tags

Many field problems are quickly solved with bag tags. In the example in #6, I had to use gene check strips to show the lodged corn was not RW Bt. Later, when the grower found an empty seed bag with a tag, we confirmed he planted a Yieldgard corn borer Bt hybrid, not an RW Bt.

My suggestion is to save at least one tag from the seed planted in each field. On the tag, write the year and the field location or number that you use in your farm records (this practice also forces you to look at the tag one last time to confirm what you are planting). Keep the tags in an envelope in your desk, throw them in a drawer, staple them to a barn beam - it doesn't matter, just save some tags. At the end of the season, if everything went well, throw the tags away. However, if a field shrivels after an herbicide application or lodges unexpectedly, the bag tags are one of the first things I want to see.



## And the # 1 way to reduce trait torture:

If you have a problem, do not wait until November to make a phone call. Contact your seed dealer, local company representative, or county extension agent promptly while the problem is still visible and fresh evidence can be gathered.

