

Seed Technologies

Silver Lane Hybrids makes every effort to keep you informed and educated on the many changes taking place in the agricultural seeds industry. Our commitment to you is that we will bring you all worthwhile new technologies as they become available. Some things you need to be made aware of are found in the following text:

Roundup Ready® Biotechnology

The addition of this trait in both corn and soybeans has, to say the least, revolutionized how we view herbicide use on the farm. The Roundup Ready® seed trait make the plant resistant to the chemical class know as glyphosate, the active ingredient in Roundup WeatherMax®. In the case of using Roundup Ready® soybeans there are no restrictions on how you plant or market them. Roundup Ready® Corn has been approved for export to the European community.



When you see the above logo on a bag of Purple Ribbon seed corn you will know that it carries the Roundup® resistance trait. We also include the trait in our seed product numbers by including a (RR) in the name i.e. (PR601RR). **Please, Please be sure to read the tag.** The economics of using Roundup biotechnology in corn on your farm are quite good. Monsanto also claims a yield increase will result through reduced crop stress from using your normal alternate chemicals. We do know this- That if you have problems controlling ragweed on your farm or farm high organic matter soils this program has a real worth exceeding what you pay for it. It works! We have deliberately not talked about how best to use a Roundup® chemical program on your farm because you should seek expert advice from your herbicide dealer. **Please note that this is a patented biotechnology by Monsanto® and an appropriate license must be obtained from them before you may legally use it.**

Is using this biotechnology on your farm worth it? Only you can really answer this question. We do know that it very well may pay for itself through reduced input cost and more importantly dependability.



The BT Technologies from Monsanto®

BT biotechnology gives the corn plant the ability to literally kill common insect pests. There currently are two BT technologies for you to use on your farm, more will be released in the future. They both arise from the same technological method but **control two entirely different insect species**. The first BT event patented by Monsanto® was introduced to control **European Corn Borer** and is now designated in our literature with a **(CB)** being included in a hybrid name. i.e. PR634CB is the Corn Borer resistant version of PR634. The second event released by Monsanto was new for the 2004 planting season; it controls the **Corn Rootworm Beetle** a pest that is a real problem throughout Purple Ribbon Seeds market area. We are real excited about the release of this biotechnology because we really feel that it will be useful to you every year. We designate the hybrids which carry the Corn Rootworm trait with a **(RW)** in the hybrid number. i.e. (PR601RW) It should be noted that the (RW) event will not control adult root worm beetle feeding.

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Let's take a look at these technologies:



European Corn Borer designated **CB**

Remember the last time you picked down corn- there is about an equal chance that this occurred because of common stalk rots, rootworm or corn borer. CB biotechnology now gives you a way to eliminate the third cause. CB hybrids will control the larval stage of corn borer, it kills them. You will not see stalk tunneling or ear clipping in CB hybrids. That's right, the numbers of ears you see flying through the air at harvest or laying on the ground are greatly reduced because borer have not worked them over, let alone the corn will stand better. Monsanto® claims a yield advantage over conventional hybrids even in Purple Ribbon Seeds' market area where European Corn Borer are not considered an annual pest. You also get an easier harvest and in those years where we have a real problem with the corn borer you get the privilege of not harvesting down corn as well as getting higher yields. Oh, by the way using CB corn hybrids also reduces the incidence of stalk rot by greatly reducing the entry sites the bacteria use to infect the corn plant. When you see the above logo you will know you are dealing with a CB corn hybrid from Purple Ribbon Seeds.

Purple Ribbon Seeds now has 9 CB hybrids for your use.

What must you do to use CB corn hybrids on your farm?

The EPA requires that you plant an insect reserve of corn borer susceptible corn within ½ mile of the CB field equaling 20% of the acres planted to CB hybrids. The reserve can even be planted with the CB hybrid in the same field as long as it is planted in blocks equaling 20% of the field. We must do this in order to extend the life of the biotechnology, because insects are very adaptive and can change their genetic makeup to overcome the source of most plant resistance. Know the old saying "Use it or lose it" this really applies to this kind of biotechnology. Please follow this important license restriction. Here is another important thing for you to consider; producers caught in violation of this restriction could loss their

right to use Monsanto's new technologies, this will include losing access to the Roundup Ready® Soybean Biotechnology.

CB hybrids have been approved for export so they are not part of the Market Choices program. That being said: Please check with the people who normally buy your grain to make sure they take this kind of corn because some processors object to using this product in their manufacturing process.

Is using this biotechnology on your farm worth it? Only you can really answer this question. We do know that it very well may pay for itself through higher yields, a timely harvest and a whole lot fewer headaches.



Corn Rootworm designated **RW**

Just released in quantity for the 2004 planting season is the BT event that controls **Corn Rootworm Larva**. It has no effect upon the adult except to drastically reduce their numbers and the amount of silk clipping they cause. It flat kills this pest in its larval form. The Purple Ribbon corn hybrids that carry this biotechnology have the designation (**RW**) included in the hybrid number. i.e. PR601RW

Purple Ribbon Seed is proud to announce the release of 4 new RW hybrids. Monsanto® claims a yield advantage over conventional hybrids, actually if you think about this, it makes common sense. Think about how a corn plant lives; every nutrient with the exception of oxygen and carbon dioxide are taken up through the roots. If you grow a larger root mass there is more surface area in the soil for the plant to feed from, resulting in a better fed, healthier plant which results in higher yield, improved ear retention and standability.

A real advantage to this biotechnology is its dependability. How often have you invested in a T-band insecticide application- (cost about \$12.00 - \$20 per acre depending upon rate and product used) - just to have the weather turn off wet and cool and delay the emergence of the rootworm larva past the date when your T-band would have been effective? At least in the case of controlling Corn Rootworm this problem has now been eliminated, it works every year and controls rootworm larva throughout its larval stage. Only **RW** BT biotechnology offers you this degree of dependability.

Now let's address a subject near and dear to every farm wife, your safety. Corn Rootworm biotechnology will not completely eliminate the need for soil borne insecticides but it will cut your exposure by 80%. Farm insecticides fall in the same category as anhydrous ammonia, nobody likes being around them, they are dangerous smelly products to handle. Hey, farming is risky enough as it is; why increase the risks?

Farm owners are the best stewards of the land. Yes government can encourage stewardship, but only farmers can implement the things that need to be done to guarantee the productivity of our farms for preceding generations. How is this related to using RW biotechnology? Not only does the use of this biotechnology reduce your personal exposure to toxic chemicals it also reduces exposure to them by every animal and non target insect found on your farm.

Think about it!

What must you do to use RW corn hybrids on your farm?

The EPA requires that you plant an insect reserve, of corn borer susceptible corn, within or adjacent to RW fields equaling 20% of the acres planted to RW hybrids. Please note that two fields separated by a road are not considered adjacent. We must do this in order to extend the life of the biotechnology, because insects are very adaptive and can change their genetic makeup to overcome the source of most plant resistance. Know the old saying “Use it or lose it” this really applies to this kind of biotechnology. Please follow this important license restriction. Here is another important thing for you to consider; producers caught in violation of this restriction could lose their right to use Monsanto’s new technologies. Does this include losing access to the Roundup Ready® Soybean Biotechnology? Why the refuge requirements are different between CB and RW technologies is because of the very different habits of the two corn pests. Bottom line is that rootworm beetles do not fly far to mate.

RW hybrids have **not** been approved for export to Europe so they are part of the Market Choices program. Please check with the people who normally buy your grain to make sure they take this kind of corn; this is because some processors may object to using this product in their manufacturing process and or the grain is destined for the European community.

Is using this biotechnology on your farm worth it? Only you can really answer this question. We do know that it very well may pay for itself through higher yields, a timely harvest, your personal safety, reducing the environments load of toxic chemicals and a whole lot fewer headaches.

Insect Resistance Management Program

Is a program developed to reduce the likelihood of target pests developing resistance to genetic sources of insect resistance. This program was developed by Monsanto® and the Federal EPA. It is **not voluntary** and was a licensing restriction placed upon Monsanto by the federal government before they could offer the biotechnology for sale. Bottom line is:

Do it or lose it!

When you see the logo found at the right side of this paragraph you are required to plant insect reserves or face losing your Monsanto biotechnology license. This includes all (CB) and (RW) Purple Ribbon Hybrids



Planting Refuges, Preserving Technology

Before opening a bag of seed, be sure to read and understand 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 Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation to comply with those stewardship requirements.

We have now entered the trait stacking game

You may now purchase Purple Ribbon Seed corn with multiple stacked traits. It is important to know that at this point in time no stacked traits have been approved for export to Europe. All stacked hybrids are part of the market choice program.

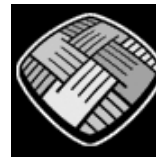


Grain harvested from products that bear this mark is fully approved for food and feed use in the United States and Japan, but is not approved in the European Union. You must find a market for this crop that will not ship this grain or its processed products to Europe. Appropriate markets for this grain include: domestic feed use or grain handlers that specifically agree to accept this grain and handle it appropriately. For more information on your grain market options, go to the American Seed Trade Association's website at www.amseed.org or call your seed supplier.

MARKET CHOICES is a certification mark used under license from ASTA. **Know Before You Grow**SM, an information service provided by National Corn Growers Association at www.ncga.com.

Growers should refer to Monsanto's Technology Use Guide for information on crop stewardship regarding the potential movement of pollen to neighboring crops. 423075
READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. For more information call 1-800-768-6382. Know Before You GrowSM is a service mark of National Corn Growers Association.

Purple Ribbon Seeds currently offers stack hybrids as follows
(RRCB) – Roundup Ready European Corn Borer Stacked
PR515RRCB and PR601RRCB



The BASF® ClearField® Production System Program

A chemical program and selection of ALS resistant corn hybrids make up the pieces of this program. The insertion of ALS resistance into corn is done through conventional plant breeding. It allows hybrids carrying this trait to resist higher and hotter rates of the herbicide class known as ALS. If you have a problem with rag and other weeds emerging late this may be an alternative on your farm. We have a policy that as new hybrids of this type become available we offer them to you for use on your farm. From a cost standpoint these hybrids cost no more than our conventional hybrids and an added advantage is that it was developed with conventional plant breeding; it has absolutely no marketing restrictions. We currently have 7 hybrids with this characteristic. **Please, Please be sure to read the tag.**

If you spray the wrong field after planting the chemical will kill the corn. Purple Ribbon hybrids of this type have CF as part of the product name. i.e. PR593CF

**Purple Ribbon Seeds
Is a brand of
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for the latest in Purple Ribbon news please visit
www.silverlanehybrids.com

