

## SEED SELECTION: A SOUTHWESTERN GROWER'S PERSPECTIVE

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### Abstract

I plan to speak about the reasons why we are growing Roundup Ready and Roundup Ready plus Bt cotton varieties on our dryland stripper harvest operation in Western Oklahoma.

- We have been strip-tilling all of our row crops for 17 years and are now converting to 100% no-till on our cotton operation. The Roundup Ready technology has given us near perfect weed control at very economical costs, with outstanding crop safety.
- While the Bt technology fee is an added cost that is not readily accepted as the norm for dryland cotton production, it has proven a very cost effective input for our farm over the past two seasons. Not only have we had some unbelievable yield increases, growing Bt cotton has eased some of the fears we face in pest management of dryland cotton.
- As a general rule we do not treat our cotton for worms until we reach 12 to 15 percent worms and eggs combined. It is a very hard call to spray for worms in July or August for several reasons, one, of course, is added expense, another is the fact that we are dryland producers and we don't have the luxury of turning on the water and having some assurance of a crop. Also, the thing we fear most is the risk we have of flaring aphids when we treat for worms. Suffering through a dry summer is one thing, but going through a drought with aphids can be devastating.
- The only reason we started looking at Bt cotton in the first place was to see how it might help us manage our worm problems as Oklahoma began boll weevil eradication. The Bt cotton not only exceeded our expectations in that regard, but made us very aware of just how much damage, sub-threshold levels of worms can inflict.
- From an economical standpoint we feel the added cost of the Bt tech fee is a very good investment in our crop. In the past two seasons our Bt cottons have out yielded our conventional cottons by 1/3 to 1/2 bale per acre.

- Our reasoning behind growing Bt cotton verses non-Bt is simple. We are going to grow a crop, we are going to go up and down every row, we are going to put the basic inputs in every acre, and if by spending an extra 12 to 14 dollars an acre on tech fees will produce somewhere around 2000 pounds of cotton, that's a good deal!

### Looking Inside Row

The only reason we started looking at Bt cotton in the first place was to see how it might help us manage our worm problems as Oklahoma entered into boll weevil eradication.

The Bt cotton not only exceeded our expectations in regards to worm control, but has made us very aware of just how much damage, sub-threshold levels of worms can inflict.

It's not just the 8% worms you have the day you go out and scout that hurts, it's all those low counts you have 24 hours a day, 7 days a week, all season long!

In our Bt fields, it is very common to have 85% or better 1<sup>st</sup> and 2<sup>nd</sup> boll retention.

### Yield Increase Slide

From an economical standpoint we feel the added cost of the Bt Tech fees have been a very good investment.

Over the past 2 seasons our fields planted to Bt cottons have out yielded our non-Bt cottons by an average of 239 pounds per acre.

### Cost of Yield Increase Slide

The figures on this slide reflect the extra cost of Stacked-gene planting seed verses planting just Roundup Ready seed.

They are calculated using 1999 Tech. Fee charges, and at a 9 lbs. Per acre seeding rate.

At this seeding rate the added Tech fee for Stacked-gene seed is \$11.64 per acre.

In 1998 the average yield increase of 243 lbs. per acre cost us only 4.8 cents per pound.

And in 1999 the extra 235 lbs. On our Bt. Acres cost 4.95 cents per lbs.

### Sitting in Stripper

Our reasoning behind spending the extra money to plant Bt cotton is simple.

1. We know we are going to grow a cotton crop;
2. We are going to go up and down every row with the same basic inputs;

3. Many of our fixed costs are the same with or without Bt cotton; and
4. If by investing somewhere around \$12 an acre will return us over 200 lbs. of cotton that's a good deal!

### **Growing Cotton**

We have been strip tilling for 17 years and are now in the process of converting all of our cotton to no-till.

Utilizing Roundup technology along with a banded yellow program has given us near perfect weed control at a very economical cost with outstanding crop safety.

### **Full Field View**

While the Bt technology fee is an added cost that is not readily accepted as the norm for dryland cotton production, it has proven a very effective cost input on our farm over the past 2 seasons.

### **Stripper in Cotton**

In our dryland stripper harvest cotton, we use a worm threshold of 12 to 15 percent worms and eggs combined.

1998 as well as 1999 were both very light years for worms.

The highest single field average was 7½%.

It is a very hard call for us to make a worm shot in July or August for several reasons.

- One of course is the added expense;
- Another, the fact that we are dryland producers and we don't have the luxury of turning on the water and nursing our cotton through a dry summer.
- Also, the thing we fear most is the risk of flaring aphids. Suffering through a summer drought is one thing, but going through a drought with aphids can be devastating!