

Field Notes: October 12, 2009

Natural selection is happening in our fields.

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The idea of “natural selection” may sound odd to some who have heard it used in other subject areas; but this year we may see some fields tolerate the stresses of unusual weather while others will be severely damaged. There will likely be a gradation among crop varieties, showing a wide range in their levels of stress tolerance.

It’s difficult to accept the idea that some good may come from all this trouble; but we will at least have a chance to see which varieties are most stable under conditions of alternating drought, high temperature, high humidity, diseases, insects, and excessive rainfall. Those varieties (if any) that survive this gauntlet will almost certainly be chosen by seed companies for production in the coming years and by farmers for planting. These varieties will also supply the genetics for future breeding programs as breeders prepare for the crops of the future.

We have experienced most of this in the past, as many of our older producers can attest. The soybean varieties that were popular in the past were produced from genetic lines that had proven their hardiness. Varieties like Bragg, Lee, Pickett, Forrest, and others were subjected to long periods of field testing prior to release. These varieties were named for Confederate Army generals by Dr. Edgar Hartwig, and released for distribution to growers only after having been proven under the widest possible range of conditions.

Following the release and widespread use of Dr. Hartwig’s varieties, breeders began striving for the highest possible yields, setting aside some of the stress and disease tolerance considerations that were paramount for him. Today, we have a string of “racehorse” varieties that are capable of greater yields than those of the past; but many of them are not capable of withstanding stress and disease as well as their predecessors. The conditions we have experienced this year will likely show us which genetic lines still have the best tolerance to adversity. It is likely that we will find the lineage of our most “stable” varieties tied directly to the sturdy lines of the past. That’s the way nature has of reminding of who is really in charge.

The same principles are true for corn hybrids and cotton varieties. One of the biggest problems we have is that varieties are often placed on the market before they can be thoroughly tested. I will stick to my principle of not pointing an accusing finger; but farmers know only too well which “new” varieties were sold this year with glowing descriptions of high yields. Some of these now appear to be good performers, while others have collapsed under the pressures of environmental stress, poor climatic adaptation, and poor performance in soil areas where they had not been tested.

The stakes are high enough in farming without raising them by planting crop varieties with unproven genetics. I hope we can survive this year of “natural selection” since varieties are not the only things being tested. Many of our farmers, as well as those who support and supply them, are also subject to the grim reaper. As we go through this process, many changes will be made. I hope you and I survive to go forward; and that we learn from this experience. Thanks for your time.