

February 26, 2016

ROUNDUP READY® ONE SOYBEAN SEED

We are at a period of time when cash flows are tough. It takes really good management and multiple strategies to work through tough times. At the Hallam meeting the other day a local farmer that sells Roundup Ready® One soybeans (RR1) put a slip of paper advertisement on NuPride soybeans on every windshield advertising a low cost of \$30 per acre. The 2016 crop budgets from UNL - <http://extensionpublications.unl.edu/assets/pdf/ec872.pdf> - indicate a budgeted expense for new technology or RR2Y's ranged from \$54 to \$74 per acre depending on the situation.

Development of glyphosate-resistant transgenes started in the early 1980's and was commercially introduced in soybean varieties in 1996 as RR1. Use of the technology expanded rapidly. In 2008, the Roundup Ready 2 Yield varieties were commercialized as Genuity® Roundup Ready 2 Yield®, I will refer to this as RR2Y varieties. RR2Y soybean varieties have rapidly replaced the RR1 varieties in the marketplace.

New inventions have a patent for 20 years after application to provide incentives for rapid development and marketing of improved technologies. The original RR1 patent expired in 2014 and the third-party patent expired in 2015, thus, the RR1 transgene is available for general public use. However, many commercially released soybean varieties are protected by Plant Variety Protection (PVP), thereby limiting the potential for using RR1 transgene by producers. Seed under PVP has a "saved seed" exception that allows farmers to save enough seed to plant the next crop, but not to sell to other farmers to plant.

Many commercial varieties are protected by a patent rather than by PVP, essentially a private company soybean breeder can choose to protect varieties either by the federal patent law or the PVP. Farmers can request a license to save seed from a RR1 soybean variety, and if granted, then would be able to save seed to plant in fields owned or operated by that farmer or for sale to other farmers.

Has yields with RR2 exceeded RR1's so much we never look back? Do we go back to old world and save seed with RR1's because it's legal to do this now in an attempt to increase net return?

Research was conducted in 2012, 2013 and 2014 at the University of Nebraska near Mead. Analysis of variance indicated that no yield differences were present at $P \leq 0.05$ between RR1 seed (commercial seed in 2012, saved seed in 2013 and 2014) and commercial RR2Y seed. The lack of yield response of the RR2Y varieties was not influenced by use of commercial (2012) or saved RR1 (2013 and 2014) seed in the study, or the substitution of newer, and supposedly improved, RR2Y varieties in 2014. The researchers were very careful how they handled and saved back the seed. This is one study in one location.

Personally I would be cautious here. If you have had some challenging fields certainly RR1 could be a consideration but I would use new technology seeds on good capability ground and never put all my eggs in one basket. I think working with professional farmers with cleaning operations would be crucial, I would tend to be in the camp of not saving back seed myself.



To research the study closer conducted at Mead go to: <http://ow.ly/YLIHb>

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