

Well-proven herbicide-tolerance technology

More choice for soybean growers

In 2009, Bayer CropScience extended its LibertyLink® technology to soybean for growers in the USA who now, for the first time, have an alternative herbicide-tolerance technology to the glyphosate system. LibertyLink soybeans will also be available in Canada from 2010.

Over a prolonged period last summer, we received two or three calls a day from farmers telling us about glyphosate resistance in pigweed in various parts of Arkansas.” This is what Dr. Robert C. Scott, weed expert at the University of Arkansas at Fayetteville wrote in the Delta Farm Press, describing his experience of what has since become an increasingly-observed phenomenon in the United States. “In the meantime, there are confirmed reports of resistance to glyphosate from 20 states”, agrees Andy Hurst, Product Manager for herbicide-

tolerant traits and the herbicide Ignite® for Bayer CropScience in the USA.

Glyphosate is the non-selective herbicide relied upon by 90 percent of all US soybean farmers, as well by growers of various other crops. They can rely on it because they also use soybean seed material that is genetically modified to be tolerant of this herbicide. The practical advantage of herbicide-tolerance systems is that you only need to apply one herbicide at post-emergence – and a non-selective product at that, one which can control all of the relevant broadleaf and grassy weeds present. That’s very convenient for the farmer – at least until the moment resistant weeds appear.

Against this background, the market introduction of soybeans equipped with Bayer CropScience’s LibertyLink®-technology in 2009 raised a great deal of excitement. For the first time, soybeans were avail-



Ford Baldwin, Crop Protection Advisor for Practical Weed Consultants in Austin, Arkansas, appreciates the opportunity to rotate herbicide-tolerance technologies.

able that benefited from an alternative mode of herbicide tolerance: in this case of the non-selective active substance glufosinate-ammonium. Bayer CropScience markets a product containing this active substance in the USA under the trade name Ignite. "It controls more than 120 broadleaf and grassy weeds", according to Hurst.

Protecting against resistance

Soybean is now the fourth crop plant introduced into the USA that has resistance to glufosinate based on Bayer CropScience's LibertyLink-technology – after canola, cotton and maize. Even in the first season, more than 85 seed companies had obtained a license to use it in soybean; as a result, 24 different soybean varieties with built-in Ignite herbicide

resistance came onto the market in 2009. The fact that soybean farmers now have a choice of two herbicide tolerance systems is a big advantage, according to Hurst. "They can now alternate products for weed control – between glyphosate and Ignite. And that is an effective way of avoiding resistance development". Ford Baldwin, Crop Protection Advisor at Practical Weed Consultants in Austin, Arkansas, sees it the same way: "If you keep using the same thing over and over, resistance is only a matter of 'when'. We have the opportunity now to rotate, and thus to keep a lot of farmers out of trouble."

The move to the new varieties is easier for farmers if they can be sure that they can market their harvest without any hindrance. So before introducing the LibertyLink technology, Bayer CropScience made sure to obtain import permits in many of the major soybean-importing countries, including Australia, China, Japan, Canada, Mexico, New Zealand, Russia, South Africa, South Korea and Taiwan. An important milestone was achieved in autumn 2008

when the European Union (EU), another important importer of soybean products from the USA, also gave the go-ahead. This meant that an important precondition for any soybean grower thinking of sowing seed with Bayer CropScience's LibertyLink technology was fulfilled, as indicated clearly by the reaction of the American Soybean Association (ASA): on the very day the EU gave the green light, the ASA published an urgent press release with the title "ASA celebrates EU Approval of LibertyLink Soybeans".

When asked about his experience of the first season, Product Manager Andy Hurst responds enthusiastically: "The growers have reported excellent weed control, and the soybean plants are looking very good too." While the farmers were collecting the harvest, the seed companies were already producing the soybean seed lots for the coming season. "In the meantime, nearly 120 companies have obtained a license to use LibertyLink technology", says Hurst. He and his team calculate that seed will be available to serve a growing area of up to 600,000 hectares. Next year, 2010, will also see the availability of LibertyLink soybean seed to Canadian farmers for the first time. It is also being investigated whether the technology should be marketed in Latin American countries too, says Hurst. ◀

Karl Hübner

The LibertyLink herbicide resistance technology makes it possible for soybean growers to alternate various non-selective herbicides – for intelligent, effective weed management.

