FAQ030 Phasing out of selective herbicides

End of registration for many selective herbicides makes completely new developments of herbicide strategies necessary

The number of new herbicides brought to market has fallen from almost 60 per decade in the 1990s to less than 10 in the 2010s. New basic herbicide mechanisms (Mode of Action) have not been found for 30 years. At the same time, the EU's more intensive risk assessment, with the main phase up to 2009, let a lot of companies take a large number of products off the market or they failed re-registration.

As a consequence, in many cases there are no equivalent chemical alternatives anymore available due to problems with approval requirements (toxicity, resistance formation, residue problems). This is particularly critical when active ingredient combinations are used in a culture where even a single substance that is eliminated devalues the overall mixture to a very great extent.

For example, the elimination of the pre-emergence herbicide Chloridazon (2020/2021) will make the pre-emergence treatment of sugar beet very difficult, especially since Reglone has already been removed and glyphosate is not a longer-term alternative.

Farmers with a focus on the production of crops such like potatoes and sugar beet are already unable to produce at their current costs. Combined with restrictions on Metamitron (e.g. Goltix, registration end due to resistance), white goosefoot in beets will then hardly be chemically controllable and the hand hoe is no alternative.

For this reason, new combination methods are becoming increasingly necessary. They will, for example, be based on extensive pre-emergence treatments and later series applications of non-selective weed control methods. The crop.zone method with minimized tensions is an excellent basis for safe treatment as late as possible in pre-emergence. Reducing voltage means as well that, even after the seed has risen, it is still possible to reach easily woody weeds such as the white rind and goosefoot as close as possible to the side or height-selectively from above, while at the same time protecting the cultivated plants. Whether these applications between the rows will then be transferred to the rows using sensor technology and robotics or whether there will be combinations with chemical methods or chopping options will be shown in the individual applications.

This is just one example of how the elimination of selective herbicides and herbicide mixtures needs to be answered with specially tailored innovative replacement solutions. It should also be noted that many chemical herbicides can only be used against very small weeds without damaging the sugar beets, while alternative methods can still be used much less preventively for larger weeds. How big "big" is will become apparent in the further development of Crop.zone technology, especially with woody weeds. It is already certain, however, that the threshold of controllable weed stages can be significantly raised by location- and height- selective applications and suitable Electrohybrid fluids.

If such economically viable developments are not implemented in time, entire arable crops with all the added value that follows can be lost regionally. Crop.zone will also work intensively for application options in areas where selective herbicides have been used up to now and where hoeing techniques are not a viable alternative.