

Transgenic sugar beet tolerant to glyphosate, development of Roundup Ready™ sugar beet.

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Hilleshög NK and Monsanto has invested years of research in the development of Roundup tolerant sugar beet. Yield trials are now being performed with advanced elite material. Before these hybrids are released on the market, a risk assessment is performed. Such a risk assessment addresses a number of aspects, including a molecular and biochemical characterization of the transgenic plant. This molecular evaluation relates to issues such as a precise determination of the introduced DNA, an estimation of the amount and safety of proteins expressed from the introduced genes, an evaluation of the number of integrated loci and the mendelian inheritance pattern of the introduced genes. And finally a determination of the stability of the integrated DNA and expression of the genes over several generations in a breeding program. The results of this molecular risk assessment will be presented.