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The sugar beet Event H7-1 responsible for glyphosate tolerance in sugar beet was developed by Monsanto and KWS SAAT SE. The first commercial fields were planted in 2007 and by 2009 the adoption rate in North America (N.A.) was over 85%. Since then sugar beet production has increased by 21% from 25.9 to 31.4 tons per acre based on USDA ERS data. Research results indicate the use of the Roundup Ready® (RR) system of weed control in sugar beet resulted in up to a 6.5% increase in performance when compared to traditional herbicide weed management systems. Roundup Ready sugar beets entered the market subject to the same approval criteria for sugar content, yield and disease tolerance as established for non-GM beets. Since the introduction of RR sugar beet hybrids, breeding gain has continued at a high rate while concurrently, tolerance to Cercospora leafspot, Aphanomyces root rot, Fusarium root rot, Rhizoctonia, rhizomania, curly top, powdery mildew, nematode and sugar beet root aphid also greatly improved. In contrast, the frequent use of glyphosate on rotational crops such as corn and soybean resulted in the development of resistant weeds in many N.A. growing areas. Since additional herbicides are or will likely be needed for weed control in sugar beet, the development of a new weed control system would be extremely beneficial to N.A. growers.