NICKSON, THOMAS¹, PAUL TENNING², ERLING SMED³, AND ANNEMIE HONTIS⁴. ¹Ceregen, a unit of Monsanto Company, 700 Chesterfield Parkway North, St. Louis, Missouri, 63198, USA; ²Hilleshög AB, P.O. Box 302, S-261 23, Landskrona, Sweden, ³DANISCO Seed, Højbygårdvej 14, DK-4960 Holeby; ⁴Monsanto Europe Ltd., 1348 Louvain-la-Neuve, Belgium. <u>Transgenic sugar beet</u> tolerant to glyphosate, substantial equivalence of Roundup Ready[™] sugar beet compared to other beet.

Weed control is a critical element of maximizing yields in sugar beet production. Most current herbicide programs suffer from a narrow spectrum of weeds controlled as well as crop injury. Monsanto and Sandoz Seeds have been working together for several years in an effort to offer farmers in Europe and the US sugar beet tolerant to glyphosate. The use of Roundup® in sugar beet production will afford broad spectrum weed control without crop injury. Because the Roundup Ready trait was initially introduce using techniques of biotechnology, these improved beets must be approved by regulatory agencies around the world for food and feed use and unconditional environmental release. Researchers at Monsanto, Sandoz, and DANISCO have completed a detailed two year, multi-site analysis of these new sugar beets looking at 17 individual components. Based on comparisons to the results of analyses of a control, nonmodified line, and comparing to acceptable ranges published, we conclude that Roundup Ready sugar beet are substantially equivalent to other beet. Furthermore, these improved beets present no greater risk than is currently present with other sugar beets. The results of these analyses will be discussed in detail.