PERFORMANCE OF NEW ISOPHORONE-FREE SUGAR BEET HERBICIDE FORMULATIONS. Dean W. Maruska, Kevin B. Thorsness, Michael C. Smith, John O. Martin, George Simkins, Mary D. Paulsgrove and James J. Cappy, Field Development, Technical Service Representatives and Product Development Managers, Bayer CropScience, Research Triangle Park, NC 27709.

Several widely used sugarbeet herbicides are formulated using the solvent isophorone. Isophorone is a List 1 inert ingredient due to reported carcinogenicity properties. In 2001, EPA issued an extensive data call-in for isophorone to the chemical manufacturers and pesticide registrants that market products containing isophorone. The tolerance-exemption reassessment process for isophorone required under the Food Quality Protection Act is to be completed by August, 2006. Significant time and resources to support the continued use of isophorone in the sugar beet herbicides would be required. Additionally, the use of isophorone containing herbicide formulations will not be permitted in Canada beginning in 2004.

Bayer CropScience has developed isophorone-free formulations of their desmedipham and phenmedipham containing sugar beet herbicides. These new products have been extensively tested in large field trials under an EPA granted Experimental Use Permit in seven sugar beet producing states. The new products provided equivalent to improved crop safety and weed control when compared to the current isophorone containing commercially available products.