EVALUTION OF SOYBEAN YIELDS BETWEEN GLUFOSINATE AND GLYPHOSATE RESISTANT SOYBEANS. Michael Weber* and Jayla Allen, Bayer CropScience, Research Triangle Park, NC. (187)

Since the first introduction of glyphosate resistant crops in the mid 1990's, US growers have become accustomed to the use of a non-selective herbicide. Rapid adoption of this technology in some crops including soybeans has dramatically changed the way in which growers approach weed control. Some areas of the Midwest have seen a market share of glyphosate resistant soybeans approach 95%. With the increase in acreage planted to glyphosate resistant soybeans, most basic manufacturers have abandoned the discovery for new and novel herbicides for soybeans. Coupled with the rapidly increasing acres of glyphosate resistant corn, it would be expected that more glyphosate resistant weeds will develop and spread across the Midwest.

Glufosinate resistant soybeans are expected to gain full commercialization by early 2009. Glufosinate resistant soybeans will be a limited launch in the US and gradually increase in concurrent years. The total acres of soybeans have been estimated to be about one million for soybean growing areas. Soybean maturity ranges are expected to be from 0.5 through 4.8 groups; ranging from the Dakotas through Arkansas. Glufosinate has a unique mode of action that can provide an alternative control measure for weeds resistant to glyphosate. A new formulation of glufosinate has been labeled for use in glufosinate-resistant crops.

Yield trials for glufosinate and glyphosate resistant soybeans were conducted by universities. Trials evaluated yield along with the use of glufosinate in glufosinate resistant soybeans comparing to glyphosate in glyphosate resistant soybeans for general weed efficacy under a broad spectrum of grass and broadleaf weeds.