FALL HERBICIDE APPLICATIONS IN CORN AND SOYBEAN. Bryan G. Young and Ronald F. Krausz, Assistant Professor and Researcher, Department of Plant, Soil and General Agriculture, Southern Illinois University, Carbondale, IL 62901.

Two separate field studies were conducted twice in corn and soybean from 1999 to 2001. The corn study evaluated the efficacy of the following herbicides applied in the fall: simazine, rimsulfuron & thifensulfuron, metribuzin, 2, 4-D, and flumetsulam. Rimsulfuron & thifensulfuron applied in the fall controlled 44 to 50% of wild garlic at planting. All other herbicide combinations provided little to no wild garlic control. All herbicide combinations resulted in 84% or greater control of henbit in 2000 and 100% control in 2001. Control of mouseear chickweed was 95% or greater from all herbicide treatments in both years. Annual bluegrass and Carolina foxtail control was 88% or greater from rimsulfuron & thifensulfuron and simazine. All other herbicide treatments provided less than 60% control of these grass species. Corn yield was similar for all herbicide treatments in both years.

The objective of the soybean study was to compare the efficacy of fall herbicide applications to traditional spring applications (30 EPP) for control of winter annual weeds in a no till versus a fall tillage system. Fall tillage (disking) was performed prior to any herbicide applications. Soybean herbicide treatments evaluated were chlorimuron & sulfentrazone, thifensulfuron & tribenuron, flumetsulam plus metribuzin, and chlorimuron & metribuzin plus 2,4-D. In 2000, control of henbit was determined by the interaction of tillage, herbicide application timing, and herbicide treatment. Thifensulfuron & tribenuron provided 73% or less control of henbit. All other herbicide treatments provided 83% or greater control of henbit. When fall tillage was used, spring applications of rimsulfuron & thifensulfuron provided greater control of henbit compared to fall applications. Henbit control was similar from rimsulfuron & thifensulfuron at both application timings in no till. In 2001, fall tillage improved control of henbit from fall applications of flumetsulam plus metribuzin and thifensulfuron & tribenuron compared to no till. Similar to henbit control in 2001, control of mouseear chickweed was improved when fall tillage was used compared to no till averaged over all herbicides. Tillage did not affect the efficacy of spring herbicide applications. Fall tillage improved control of mouseear chickweed from chlorimuron & sulfentrazone by 20% compared to no till. In 2000, there was no difference in soybean yield due to tillage, application timing or herbicide treatment. Soybean yields were 14% greater in no till compared to fall tillage averaged over herbicide and application timing in 2001. Application timing did not influence soybean yield in 2001.