Late-Season Weed Escapes in Indiana Soybean Fields

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Crop advisors and extension personnel have observed a recent increase in the number of complaints regarding weed control with glyphosate (Fig. 1). Since glyphosate-resistant soybeans are grown in 89% of soybean acres in Indiana, we were interested in determining what weeds are escaping glyphosate treatments by recording identity, occurrence, and distribution of weed species in soybean fields just prior to harvest.

A field survey of 389 fields in 15 counties was conducted in September and October 2003. Survey sites were randomly selected by examining NASS Cropland Data Layer and United States Geological Service digitized imagery. The number of sites in each county was based upon a target of one field per every 3500 acres of cropland (Fig. 2). At each site, identity and field coverage (%) of each weed protruding above the soybean canopy was recorded. Southeastern Indiana was sampled more extensively due to widespread failures of glyphosate to control horseweed in 2002 and 2003. Due to time constraints, we were not able to sample a sufficient number of fields in southwestern Indiana.