

COMPETITION AND MANAGEMENT OF ANNUAL MORNINGGLORY (*IPOMOEA* SPP.) IN CORN AND SOYBEAN. Phillip J. Parrish, Dawn E. Nordby, and Emerson D. Nafziger, Graduate Student, Department of Crop Sciences, University of Illinois, Urbana, IL 61801, Extension Specialist, Department of Crop Sciences, University of Illinois, Urbana, IL 61801, and Professor, Department of Crop Sciences, University of Illinois, Urbana, IL 61801.

Field research was conducted at Urbana, IL in 2006 to determine the competitiveness of various morningglory species in corn and soybean crops and to evaluate herbicide options for morningglory control. Morningglory competition was evaluated at four densities located either between the crop rows or within the crop row. In corn, location and weed density significantly affected morningglory leaf area and biomass. The interaction of location on density was not significant for weed leaf area and biomass in corn. Morningglory leaf area was 190 cm<sup>2</sup> at the low density and 572 cm<sup>2</sup> at the highest density when plants originated between the corn rows; however, leaf area was 462 cm<sup>2</sup> at the lower density and 1537 cm<sup>2</sup> at the highest density when plants originated from within the corn row. In soybean, location, density, and the interaction of location and weed density affected leaf area and biomass. The greatest amount of weed leaf area was observed where morningglory was growing between the soybean rows. Morningglory leaf area was 2349 cm<sup>2</sup> at the low density and 6073 cm<sup>2</sup> at the highest density when plants originated between the soybean rows while leaf area was 646 cm<sup>2</sup> at the lower density and 6274 cm<sup>2</sup> at the highest density when plants originated from within the soybean row. Morningglory control in corn was similar to the weed free for all treatments except the glyphosate alone treatment. Preemergence herbicide treatments in soybean provided some suppression of morningglory at the time of postemergence application. Control of morningglory in soybean was greatest (over 90%) in the cloransulam followed by glyphosate+carfentrazone and cloransulam followed by glyphosate+fomesafen treatments. Cloransulam followed by glyphosate+acifluorefen and cloransulam followed by glyphosate+fomesafen provided greater than 80% control also.