**April 15 Update for Kansas Soybean Commission**

**TITLE:** Control of Pigweed with an Integrated Systems Approach in Soybean.

**PRINCIPAL INVESTIGATORS**

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**Field Status**

Field trials have been completed.

**Observations**

All treatments containing the herbicide program component resulted in excellent (> 97%) pigweed control which demonstrates the importance of using overlapping residual herbicides with multiple effective sites of action. Treatments containing row-crop cultivation (RC) tended to reduce pigweed density and biomass at 3 and 8 weeks after planting (WAP) in all locations compared to the 30-inch row width no cover crop treatment. Mixed results were observed when the effect of winter wheat cover crop (CC) was considered: in about half of the site-years, CC provided approximately 50% reductions in pigweed density and biomass whereas in the remainder CC provided no change to an increase in pigweed density. Decreased row widths achieved the most consistent results by reducing pigweed biomass at 8 WAP when data were pooled across location: decreasing row widths from 30-inches to 15-inches resulted in a 23% reduction whereas decreasing from 15-inches to 7.5-inches achieved a 15% reduction. In conclusion, RC should be incorporated where possible as a mechanical option to manage pigweed, and decreased row widths should be used when economically feasible to suppress late season pigweed growth. CC achieved inconsistent pigweed control in this research and should be given special consideration prior to implementation. The integral use of these components with an herbicide program as a system should be recommended to achieve the best pigweed control as well as reduce the risk of resistance.

**Upcoming Work**

The data from this research has been shared with producers at extension meetings and will be available to producers in an extension publication (see attached draft of publication).