VELVETLEAF GROWTH IN MONOCULTURE AND IN SOYBEAN. Shawn M Hock*, Stevan Z. Knezevic, Alex R. Martin, John L. Lindquist. Graduate Research Assistant, Professor, Professor, Professor. University of Nebraska. Department of Agronomy and Horticulture. Lincoln, NE 68583-0915.

Velvetleaf is an important weed in row crops throughout the United States. This study was conducted to determine how soybean row spacing, relative time of weed emergence, and the presence of soybean influenced the growth of velvetleaf. Field studies were conducted at two locations in eastern Nebraska in 2002. Glyphosate resistant soybeans were planted in 19 and 76 cm row spacing. Velvetleaf was planted either in monoculture or with soybean at soybean planting (VP), emergence (VE), and 1st trifoliate (V2) growth stages. Velvetleaf emerged at cotyledonary (VC) and first nodal (V1) stages of soybean however, there was no emergence for velvetleaf when planted during soybean V2 growth stage. Crop presence was the most important factor influencing velvetleaf growth, resulting in a decreased dry matter (DM) and leaf area accumulation in mixed plantings. Soybean row spacing and relative time of weed emergence had a smaller affect on velvetleaf DM and leaf area accumulations by season end. Velvetleaf DM and leaf area was higher in wide-row than in narrow-row soybean. Velvetleaf planted at soybean VP had lower leaf area than velvetleaf planted at soybean VE.

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