DEVELOPMENT OF A SWEET CORN COMPETITIVENESS INDEX. Sarah M. Kaping, Roger L. Becker, Vincent A. Fritz, James B. Hebel, Elizabeth J. Katovich, Undergraduate Research Assistant, Professor, Associate Professor, Research Coordinator and Senior Scientist, University of Minnesota, 411 Borlaug Hall, 1991 Upper Buford Circle, St. Paul, MN 55108.

Among sweet corn varieties there is a wide range of canopy architectures. Several studies have shown that the canopy shade of most crops greatly inhibits the growth of weeds due to lower light availability. Previous research has shown that sweet corn variety selection influences weed height, weed tiller number, weed biomass, light quality and light quantity. A field experiment was conducted to determine the light competitiveness of sixteen sweet corn varieties. PAR was measured and LAI was estimated. These light measurements aid in exploring the potential of selecting for crop canopy architecture to enhance competition with weeds. Differences were observed in canopy architecture among varieties. The results reflect the first year of this study and continuing research will be performed.

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