THOMAS, LACIE*, JAIME WILLBUR, DANIEL BUBLITZ, and KURT STEINKE. Department of Plant, Soil, and Microbial Sciences, Michigan State University, Plant and Soil Sciences Building, 1066 Bogue Street, East Lansing, MI 48824. **Utilizing Foliar Boron for Managing *Cercospora beticola*.**

One of the more severe foliar pathogens capable of causing damage to sugarbeet is *Cercospora beticola*, the causal pathogen of Cercospora leaf spot (CLS). When not managed appropriately, CLS can reduce sugarbeet yield 40%. Although plant defoliation caused by the disease directly impacts root size and sugar quality, other factors including leaf regrowth and impurities within the root affect plant health and crop quality. Managing CLS remains difficult due to resistance to several fungicides. Management strategies including boron-containing compounds have been discussed as possibly containing fungistatic properties with the ability to reduce disease severity in the field. Field studies were established to investigate the effects of foliar applied boron on sugarbeet plant health and CLS disease severity. Treatments included a standard fungicide program, three foliar boron treatments (0.1, 0.25, or 0.5 lbs. B per acre) applied at 10-day intervals for 7 total applications without a standard fungicide program, three foliar boron treatments (0.1, 0.25, or 0.5 lbs. B per acre) applied at 10-day intervals for 7 total applications in conjunction with a standard fungicide program, and a nontreated check for a total of 8 treatments. Measureables collected include plant tissue nutrient analysis, percent canopy coverage, canopy normalized difference vegetation index (NDVI), visual disease incidence and severity, sugar quality, and yield. In addition, complementary *in vitro* studies will be conducted to test boron efficacy on pathogen growth. Preliminary results from the 2020 growing season will be presented and discussed as part of an integrated CLS management program.