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Strategies for successful management of *Cercospora* leaf spot and emerging foliar diseases in sugar beet.

Cercospora leaf spot (CLS), caused by *Cercospora beticola*, continues to be a major threat to sugar beet production in the USA and other sugar beet growing areas of the world. CLS epidemics have become more frequent partly due to favorable weather conditions for CLS development, widespread insensitivity of *C. beticola* populations to commonly used fungicides and adaptation of *C. beticola* to new hybrids with extreme tolerance to CLS (CR+ hybrids). In a short span of 3 years of research with CR+ hybrids, we observed initiation of CLS earlier in the season and CLS severity in nontreated control plots is gradually reaching levels of economic threshold. Based on these observations, timely fungicide application remains critical for effective management of CLS irrespective of the level of tolerance of the varieties to CLS. Our research trials demonstrated that utilization of multiple modes-of-action fungicides in a spray program is essential to maintain effective CLS management especially when *C. beticola* is known to be insensitive to some fungicides. As the proportion of *C. beticola* isolates that can infect CR+ hybrids increase, it will be difficult to justify reduced number of fungicide sprays on CR+ hybrids. We also observed emergence of *Alternaria* leaf spot (ALS) and *Stemphylium* leaf spot (SLS) diseases based on the diagnostic samples received in our laboratory since 2021. In 2024 a field trial was set up to evaluate the efficacy of standard CLS fungicide spray program against ALS and SLS on three different sugar beet hybrids. If the fungicides currently used for CLS do not have the same efficacy in managing ALS and SLS, incidence of these diseases is expected to increase as the acreage for CR+ hybrids expands further in MN and ND.