PITBLADO, RON and IAN NICHOLS, Ridgetown College University of Guelph, 130 Main St. East, Ridgetown, Ontario, Canada, N0P 2C0. **The implementation of BEETCAST - a weather-timed fungicide spray program for the control of Cercospora Leafspot in Ontario and Michigan.**

One of the most significant foliar diseases of sugarbeets is caused by *Cercospora beticola*, commonly known as Cercospora Leafspot. Control of this disease has been focused on genetic resistance and the use of foliar applied fungicides. In regions where climatic conditions favour the development of this disease, growers are having to rely more and more on the use of fungicides. Effective control however is achieved only when and how often these fungicides are applied. A number of researchers have developed several spray models using weather parameters. BEETCAST was developed by the authors using hourly temperature and leafwetness values to determine daily disease severity values (DSV). The program advises the grower to consider spraying when the accumulation of each days values reach 55 DSV. Subsequent spray applications would again be recommended at the next 55 DSV interval and continued until early September in the Michigan and Ontario sugarbeet growing regions. The development and delivery using site specific integration is now feasible with the advancement of geographical information systems (GIS) and an improved agricultural microclimate network recently established in both Michigan and Ontario.