

# SES Seminar Series

**Guest Speaker:** Dr. Peter Sikkema

(University Guelph, Ridgetown)

**“History of herbicide-resistant weeds in Ontario”**



The first herbicide-resistant weed on the globe was Group 4 (2,4-D) resistant wild carrot found in Ontario in 1957. This was followed by Group 5 (triazine) resistant lambsquarters in 1974 and Group 2 (ALS inhibitors) resistant pigweed in 1997. There are four weed species with confirmed Group 9 ((glyphosate) resistance in Ontario among the 43 globally known glyphosate-resistant (GR) weeds. Giant ragweed (seed collected in 2008), Canada fleabane (seed collected in 2010), common ragweed (seed collected in 2011) and waterhemp (seed collected in 2014) are the four species with populations confirmed to be Group 9 resistant in Ontario. In 2018, the first four-way resistant weed was confirmed in Canada, there are populations of waterhemp with resistance to Group 2, 5, 9 and 14 herbicides. Surveys show that over time the number of locations is increasing and GR weeds are found over a wider geographical area. Field trials were established at various sites with GR common ragweed, giant ragweed, waterhemp and Canada fleabane in 2010–2018 to evaluate control options in corn, soybean and wheat. In trials completed on commercial farms in Ontario, GR common ragweed, giant ragweed, waterhemp and Canada fleabane interference caused an average yield loss in corn of 75, 72, 17, and 64% and in soybean of 74, 74, 43 and 65%, respectively. It is important to implement weed management practices that limit the selection of additional glyphosate-resistant weeds. Long-term approaches to weed management will be presented. Hopefully, this will ensure the usefulness of glyphosate and glyphosate-resistant crops for many years in the future.

**March 14, 2019– 12:00pm–1:00pm**  
**Alexander Hall Rm 265**

**All are welcome to attend!**

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