

## **Multiple Herbicide-Resistant Waterhemp: The Ontario Experience**

*Presenter: Peter Sikkema, University of Guelph*

Waterhemp is a small-seeded, summer annual, broadleaf weed with an extended emergence pattern, has high genetic diversity, is a prolific seed producer, is very competitive, and has spread rapidly throughout southern Ontario. Multiple-herbicide-resistant (MHR) waterhemp (*Amaranthus tuberculatus*) was first confirmed in Ontario from seed collected from one field on Walpole Island in 2014. MHR waterhemp has now been confirmed in 17 Ontario counties. Waterhemp has evolved resistance to five herbicide modes of action in Ontario (Groups 2, 5, 9, 14, and 27). Control strategies in corn and soybean will be presented. Results from a long-term integrated waterhemp control study indicate that with a diversified weed control program the number of waterhemp seeds in the seedbank can be decreased substantially.