

Weed Populations Confirmed Resistant to Herbicide Groups in Ontario Counties¹

WSSA GROUP ²	Site of Action (Examples of Herbicides)	Confirmed herbicide resistant weeds in Ontario (As of October, 2012)	Location(s)
1	Inhibitors of acetyl CoA carboxylase (ACCase)	Large crabgrass	Chatham-Kent
2	Inhibitors of acetolactate synthase (ALS) and also called acetohydroxyacid synthase (AHAS)	Redroot and green pigweed ³	Bruce; Elgin; Essex; Hamilton–Wentworth; Haldimand; Huron; Kent; Lambton; Lennox & Addington; Middlesex; Oxford; Perth; Simcoe; Stormont, Dundas & Glengarry; Wellington
		Lamb's-quarters ³	Elgin; Essex; Kent; Lambton; Middlesex; Simcoe; Stormont, Dundas & Glengarry
		Green foxtail	Huron; Lambton; Oxford; Perth; Wellington; Victoria
		Giant foxtail	Essex; Elgin; Lambton; Oxford
		Cocklebur	Lambton
		Eastern black nightshade	Bruce; Carleton; Elgin; Huron; Middlesex; Oxford; Perth; Simcoe; Stormont, Dundas & Glengarry; Wellington
		Common ragweed	Bruce; Carleton; Elgin; Essex; Haldimand–Norfolk; Huron; Kent; Lambton; Middlesex; Niagara; Oxford; Perth; Prexcott–Russell; Simcoe; Stormont, Dundas & Glengarry; Wellington
		Waterhemp	Bruce; Lambton; Essex
3	Microtubule assembly inhibitors	Currently none confirmed.	
4	Synthetic auxins	Wild carrot	Halton; Wellington
5	Inhibitors of photosynthesis at photosystem II, Site A	Barnyard grass	Waterloo
		Common groundsel	York
		Common ragweed	Brant; Essex; Haldimond–Norfolk; Hamilton–Wentworth; Lambton; Lennox & Addington; Niagara; Wellington

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		Goosefoot	Brant
		Lamb's-quarters ⁴	Numerous counties throughout Ontario
		Green pigweed ⁴	Elgin; Huron; Oxford, Simcoe, Wellington
		Redroot pigweed ⁴	Kent; Simcoe, Stormont, Dundas & Glengarry; Waterloo
		Waterhemp	Essex; Lambton
		Wild mustard	Former Glengarry (Now Stormont, Dundas & Glengarry)
		Witchgrass	Grey; Haldimond-Norfolk; Leeds & Grenville; Prescott–Russell; Wellington
		Yellow foxtail	York
6	Inhibitors of photosynthesis at photosystem II, Site B	Redroot pigweed	Essex, Kent
		Smooth pigweed	Essex
7	Inhibitors of photosynthesis at photosystem II, Site B (alternate binding site)	Green pigweed	Middlesex, Simcoe
		Redroot pigweed	Huron, Chatham-Kent; Middlesex, Simcoe
8	Conjugation of acetyl co-enzyme A	Currently none confirmed.	
9	Inhibitors of 5-enolpyruvylshikimate-3-phosphate synthase (EPSP)	Canada fleabane ⁴	Elgin, Essex, Kent, Lambton and Niagara
		Common ragweed	Essex
		Giant ragweed	Essex, Kent, Lambton, Lennox and Addington
10	Inhibitors of glutamine synthetase	Currently none confirmed.	
11	Inhibitors of carotenoid biosynthesis	Currently none confirmed.	
13	Diterpene synthesis inhibitor	Currently none confirmed.	

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14	Inhibitors of protoporphyrinogen oxidase (Protox)	Currently none confirmed.	
15	Conjugation of acetyl co-enzyme A	Currently none confirmed.	
19	Inhibitors of auxin transport system	Currently none confirmed.	
20	Inhibits cell wall synthesis, Site A	Currently none confirmed.	
22	Photo system I – electron diverters	Canada fleabane	Essex
		Eastern black nightshade	Chatham-Kent
		Field peppergrass	Essex
23	Inhibitors of mitosis	Currently none confirmed.	
27	Inhibitors of p-hydroxyphenyl pyruvate dioxygenase (HPPD)	Currently none confirmed.	

¹ If you suspect that you have a herbicide resistant weed contact the Department of Plant Agriculture, University of Guelph at 519-824-4120 Ext 58372 for more information on testing services.

² Herbicide groupings for Ontario follow the Weed Science Society of America's nationally accepted grouping. Groups 12, 13, 16, 17, 18, 21, 24, 25 and 26 are not available in Ontario.

³ Populations exist that are also resistant to group 5 herbicides.

⁴ Populations also exist that are resistant to group 2 herbicides.