



CANADIAN CORN PEST COALITION

LA COALITION CANADIENNE CONTRE
LES RAVAGEURS DU MAIS

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News Release: Suspected Cry1Ab Resistant European Corn Borer Found in Nova Scotia, Canada

In the fall of 2022, a European corn borer (ECB) population was collected near Truro, Nova Scotia near a field where a Cry1F-resistant ECB population was collected in 2018. Based on bioassay tests conducted by Drs. Jocelyn Smith and Yasmin Farhan at the University of Guelph, Ridgetown Campus, results show that the population appears to have reduced susceptibility to Cry1Ab.

Implementation of cultural management practices is encouraged as a precaution to reduce ECB populations that carried over from last year. For corn growers in Nova Scotia, it is strongly recommended that any remaining corn stalks left on the soil surface this spring be destroyed prior to planting, especially to fields in the counties of Cumberland, Colchester, Pictou, and East Hants. This also applies to any fields in the province that observed ECB activity in 2022. ECB overwinter in corn stalks left after harvest and are soon to leave these stalks as adult moths to start this year's population. Therefore, one effective measure to reduce ECB populations this spring is to use flail mowers to mow as close to the soil surface as possible to destroy the corn stalks, followed by burying the shredded stalks. Shredding corn stubble can also reduce the population. Tilling corn stubble under without mowing or shredding it first is not as effective.

The extent of where potential Cry1Ab tolerant populations are in Nova Scotia and the Maritime region is currently unknown. Plans are underway to increase monitoring and sampling of ECB populations in the Nova Scotia and neighbouring provinces. Growers in the provinces and states within the Great Lakes and Maritimes Region are encouraged to scout their Bt fields for unexpected injury and report any found to their seed provider and provincial specialist (see table below). Efforts are underway to determine the level of susceptibility of ECB populations in 2023, making scouting and reporting of any unexpected injury found in ECB Bt corn very important.

Further communications on ECB scouting and resistance management recommendations will follow, at a later date.

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