

TOLERANCE OF SWEET CORN TO TOPRAMAZONE. Darren E. Robinson, John O'Sullivan, John Zanstra, Nader Soltani and Peter H. Sikkema, Assistant Professor, Professor, Research Associate and Assistant Professor, Department of Plant Agriculture, University of Guelph, Ridgetown, ON, N0P 2C0.

Topramezone is a newly introduced herbicide for use in field corn (*Zea mays* L.), and may have use as a postemergence treatment in sweet corn. Tolerance of eight hybrids of sweet corn to topramezone applied postemergence (POST) at rates of 0, 50, 75, 100, 150 and 300 g ai ha⁻¹ were studied at one Ontario location in 2000, and two locations in 2001 and 2002. Topramezone applied POST at 50, 75, 100 and 150 g ha⁻¹ did not cause any visual injury in Calico Belle, CNS 710, Delmonte 2038, FTF 222, FTF 2467, GH 2684, Reveille, and Rival sweet corn hybrids at 7 days after treatment (DAT) and caused minimal injury (less than 5%) at 300 g ha⁻¹ in all hybrids. The initial sensitivity observed in these hybrids was minimal and transient with no effect on visual injury at 14 and 28 DAT. Topramezone applied POST at 50, 75, 100, 150 and 300 g ha⁻¹ did not reduce plant height, cob size, and marketable yield of Calico Belle, CNS 710, Delmonte 2038, FTF 222, FTF 2467, GH 2684, Reveille and Rival sweet corn hybrids. Based on these results, we conclude that topramezone applied POST at rates evaluated can be safely applied to Calico Belle, CNS 710, Delmonte 2038, FTF 222, FTF 2467, GH 2684, Reveille and Rival sweet corn.