WEED CONTROL IN SWEET CORN. Joseph G. Masabni, Fruit and Vegetable Extension Specialist, University of Kentucky Research and Education Center, Princeton, KY 42445.

Numerous new sweet corn varieties are released each year. Although many herbicides are available for weed control in sweet corn, many warn that 'not all corn varieties may be tolerant' and that 'varieties should be tested before making recommendations'. Experiments were conducted in 2003 and 2004 to test labeled and non-labeled herbicides on various sweet corn cultivars. In 2004, 'Saturn' bicolor sweet corn was seeded on May 21, 2004. Various preemergence and postemergence herbicides were used to determine their toxicity on sweet corn growth, ear development and yields, in addition to their weed control potential.

(S)-dimethenamid 1 lb ai or s-dimethenamid 0.75 lb ai and halosulfuron 0.023 lb ai combination reduced growth of sweet corn by 47 days after treatment and significantly reduced corn ear size and yields by harvest. Halosulfuron 0.032 lb ai applied alone did not affect sweet corn when compared to the s-metolachlor and atrazine control plots. Flufenacet 0.77 lb applied alone with in combination with Lumax (s-metolachlor +atrazine +mesotrione premix) 2.46 lb ai had excellent control of honeyvine milkweed, common purslane, and ivyleaf morningglory and increased sweet corn yields in terms of ear numbers and weights. The high rate of Lumax 4.93 lb ai had no visible injury on sweet corn at 47 days after treatment and was more effective on cocklebur and most grasses than the lower 2.46 lb ai rate. The improved weed control resulted in better sweet corn yields but no differences in ear length or width. Foramsulfuron applied postemergence following Lumax or s-metolachlor also did not injure Saturn sweet corn and was more effective in terms of overall weed control.

2004 North Central Weed Science Proceedings 59:163.