

## 2001 Executive Summary Report

**Project Title:** Processing Vegetable Cultivar Evaluation

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**Objectives:** To evaluate new cultivars of sweet corn, snap beans and peppers for their suitability for processing vegetable production under growing and climatic conditions of southwestern Ontario and to aid in the introduction of superior cultivars to growers and processors in southwestern Ontario. To provide field support for processing tomato cultivar evaluation managed by Mr. Loewen (University of Guelph, Ridgetown College).

**Methodology:** Cultivars of each crop were arranged using a randomized complete block design with 3 or 4 replicates. The cultivars in the trials were managed according to normal cultural practises used in southwestern Ontario. Data on plant stand, maturity, yield, quality, disease resistance and plant growth characteristics were collected.

### **Results:**

**Snap Beans.** Trials were conducted to evaluate large sieve size, standard cutting and slicing types and small sieve size, whole pack types. Ten large sieve and 13 small sieve cultivars were tested. The trial was seeded under good soil conditions, however, high day and night temperatures and little rainfall resulted in slow germination and poor plant stands in some of the varieties. European type varieties (MV 185, Polder, Scala and Eden) appeared to have less tolerance to heat stress. Mv 185, Polder and Scala were not harvested due to poor germination and poor plant stands. Varieties tended to mature more evenly than usual. There was not much spread in harvest dates. Goldmine and Titan were the top yielders in the large sieve size group in 2001 and Carlo was the top yielder in the small sieve size group.

**Sweet Corn.** Thirteen super sweet cultivars were tested. There was some 3 to 5 leaf dieback, but not serious. There was no problem with leaf rust or other diseases in 2001. In general, yields were about average for this trial. HMX 8344, a bicolour corn, had the highest yield and had a large, fat ear. It also yielded well in 2000.

**Bell Peppers.** Nineteen cultivars were evaluated. Heat stress delayed maturity, yields were low and fruit size was below average. Plants were shallow rooted and slightly small. Fruit set was slow. Fruit shape was more variable than usual and a lot of fruit in most cultivars were pointed. Karma, Paladin, Crusader and SPP 8124 appeared to have good heat tolerance and showed better uniformity for shape with less pointed fruit. Red fruit were slow ripening and most varieties showed poor colour uniformity. Some cultivars had above average leaf loss in the later half of the season. Sun scald and blossom end rot showed up but there was little bacterial soft rot compared to last year. 4 Star (RPP 6088) continued to be one of the top cultivars. Double Up (SPP 6112), a large, slightly elongated, blocky type, performed well. Conquest (HMX 9640) and Defiance (EX 12292) have yielded well in the last 2 years.

**Tomato.** Field support for processing tomato cultivar evaluation was provided to Mr. Steve Loewen, University of Guelph, Ridgetown College. Thirty six entries were included.