

**Project Title:** Bacterial Spot Resistant Pepper Cultivar Evaluation - 2004

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**Objectives:**

1. Evaluate new pepper cultivars for yield, quality and acceptability to Ontario processors when produced under Ontario growing conditions.
2. Coordinate yield and quality evaluations with disease resistance evaluations in order to provide a more complete package on new cultivar performance.

**Methodology:**

Eight bell pepper cultivars were seeded in the greenhouse into 200 cell trays containing BM-3 growing media on 23 April 2004. Aristotle and Red Start were included as green and red standard cultivars respectively, and King Arthur was included as an early maturing comparison. The peppers were transplanted on 14 June 2004 into a Brookston clay loam sand spot phase soil on the Ridgetown College research farm, with a row spacing of 1.0 m and in row spacing of 45 cm (22 222 plants/ha).

Weeds were controlled with a preplant incorporated treatment of Treflan. Weed escapes were controlled with cultivation and hoeing.

Nitrogen fertilizer was applied preplant at rate of 65 kg/ha actual N. Phosphorous and potassium applications were based on soil analysis. European corn borers were controlled with sprays of Decis and Sevin.

The plots were irrigated with Netafim Streamline irrigation tape. Green peppers were harvested until 06 October.

The trial was established in a randomized complete block design with four replications. A single plot consisted of 1 rows, 8 m in length with 1.0 m between the rows.

**Results:**

Yields in 2004 were low, but fruit size was large. HMX 2643 was the top yielding cultivar (15.3 t/acre) as well as Double Up (13.4 t/acre). Red Start fruit size was small (203 g), but it produced more fruit per plant than other cultivars (8.9 fruit/plant) Fruit numbers per plant were generally lower than previous years, likely due to the shorter harvest season. Mature fruit yields were not taken. HMX 2643 and Double Up produced the greatest early yields.