

**Project Title:** Processing Cucumber Cultivar Evaluation - 2004

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**Objectives:**

1. To evaluate new cucumber cultivars for yield performance, quality (fresh and brined), disease tolerance, and adaptability and acceptability to local processors.

**Methodology:**

Cucumber cultivar trials were established on a Brookston clay loam sand spot phase soil on the Ridgetown College research farm. Multipick trials had row spacings of 1.5 m and plants were spaced 15 cm in the rows for a final population of 17 777 plants/acre (44 444 plants/ha). Simulated machine harvest trials had row spacings of 0.5 m, and plants were spaced 10 cm in the rows. Multipick trials were initially seeded on 01 June, but emergence was poor the trials were re-seeded on 22 June. The simulated machine harvest trial was seed on 06 July.

Weeds were controlled with Command applied preplant. Weed escapes were controlled by hand hoeing. The multipick trial was irrigated with drip irrigation. Harvested cucumbers were graded according to Ontario commercial standards. Samples of each cultivar of the advanced multipick trial was collected and transported to the Department of Plant Agriculture, University of Guelph in Simcoe, where they brined, and later evaluated for brining quality.

**Results:**

Many new cultivars were evaluated in the multipick trial in 2004. In total, eighteen cultivars were evaluated in this trial. The multipick plots were harvested 7 times. In the advanced multipick trial, Spunky, Jackson C and Eclipse produced the highest value early yields\*\*(\$ 1544, \$1469, and \$1467 per acre respectively). Patton C, Eureka, and Patton S produced the highest total yields (\$5711, \$5596, and 5566 per acre respectively). Fiesty, Poncho Villa C, Jackson C, and Fancipak M demonstrated the highest brined quality.

Twelve cultivars were evaluated in a once-over machine harvest simulation. Eclipse, MacArthur C and Papillon produced the highest returns per acre (\$1 789, \$1 742, and \$1 716 per acre respectively). Marketable fruit per plant ranged from 0.8 to 1.1 fruit across all cultivars.

\*\* - includes grades 1-4.