

**Project Title:** Processing Pea Cultivar Evaluation - 2006

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**Objectives:**

1. Identify pea cultivars with agronomic characteristics suitable for the processing industry.

**Methodology:**

Pea cultivars were seeded on a Brookston clay loam sand spot phase soil at the Ridgetown College Research Farm on 06 May 2006. Based on soil nutrient analysis, additional phosphorous and potassium were not required, and no nitrogen was applied. No seed treatments were applied other than what was present when the seed came from the supplier. The peas were seeded at a rate of 1 375 000 plant/ha (500 000 plants/acre) into rows spaced at 18 cm (7") using a 12- row Wintersteiger double cone plot seeder. Seed numbers were calculated by weight, using data provided by seed companies

Weeds were controlled by a preplant application of Pursuit and hand hoeing.

Plots were monitored as they matured by harvesting a subsample of 0.5 m x 8 rows per plot, and combining the 4 samples (replicates) and shelling. Tenderometer readings were made using an F.M.C. pea tenderometer. At harvest, 2.0 m x 8 rows (2.88 m<sup>2</sup>) were harvested per plot, and shelled in a stationary pea sheller.

**Results:**

Thirty four cultivars from 5 seed companies were included in the trial. Of these, 22 were cultivars which were not in the trial in previous years. Spring and Encore were included as standards for comparison.

The spring of 2006 started off with cool weather and adequate moisture resulting in uniform emergence and good stands. Moisture through the season was more uniform and temperature were more moderate than previous years. Weed control was good, with few ragweed escapes. Diseases were not present.

The harvest season lasted 15 days and average adjusted yields across all cultivars were double the previous year at 7039 lbs/acre. We harvested at lower tenderometer values than previous years, with the average across all cultivars being 90 psi. An extra category was included in the seive size distribution table (> 6) as a few cultivars had a significant percentage of peas greater than a seive size of 6.

The top yielding early maturing varieties (less than 1300 heat units\*) were CMG 389 (8250 lbs/acre\*), CMG 397 (8164 lbs/acre\*), and PLS 11 (7905 lbs/acre\*). Spring yields were 6212 lbs/acre\*.

The top yielding late maturing varieties (greater than 1300 heat units\*) were BSC 348 (9131 lbs/acre\*), BSC 610 (8543 lbs/acre\*), BSC 364 (8424 lbs/acre\*) and CMG 395 (8307 lbs/acre\*). The yield of Encore was 7789 lbs/acre\*.

\* - yields and heat units were adjusted to a tenderometer value of 100; one tenderometer point was equivalent to 28 lbs/acre and 2 heat units.