

**Project Title:** Processing Pea Cultivar Evaluation - 2005

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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 05 May 2005. 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 two cultivars from 6 seed companies were included in the trial. Of these, 25 were cultivars which were not in the trial in previous years. Spring and Encore were included as standards for comparison.

Plant stands were good due to adequate moisture in May, but the weather became hot and dry as the season progressed. Early maturing varieties tended to yield better than later maturing varieties. Weed control was good. Tenderometer readings averaged 99.9 across all varieties. Yields were lower than previous years; they averaged 3200 lbs/acre across all cultivars.

The top yielding early maturing varieties (less than 1200 heat units\*) were 42006 (4078 lbs/acre\*), Spring (3568 lbs/acre\*), 08220609 (3527 lbs/acre\*), and PLS 902 (3525 lbs/acre\*) .

The top yielding late maturing varieties (greater than 1200 heat units\*) were PLS 11 (3942 lbs/acre\*), BSC 348 (3848 lbs/acre\*), Cosima (3746 lbs/acre\*) and 8510616 (3511 lbs/acre\*). The yield of Encore was 3173 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.