

Project Title: 2018 Processing Cucumber Cultivar Evaluation

Research Lead: John Zandstra, University of Guelph Ridgetown Campus

Assistance: Allison Taziar (Technician)
Maryanne DeBruyn Wammes
Geoffry VandenBoorn
Michelle Vyn

Experimental Design and Analysis: 16 cultivars (14 reportable) were arranged in randomized complete block design with three replicates. Plots were a single row 8 m long, with a row spacing of 1.5 m. Analysis of variance was performed on the data using Fisher's protected LSD test and a significance level of 0.05.

Methods: Cucumbers were seeded June 12, 2018 at 40 500 seeds/ac on a Brookston clay loam sand spot phase soil, to which 90 kg/ha of nitrogen fertilizer was applied prior to establishment. Plants were thinned to a population of 21 000 plants/ac following emergence. Drip irrigation was applied weekly as needed. Pest control consisted of Command herbicide at 0.78 L/ha for pre-emergent weed control, while an application of Sandea and hand weeding were used for post-emergence. A soil drench of Admire was applied after planting for insect control, and Bravo, Zampro and Torrent fungicides were applied in rotation for disease control. Once the majority of fruit reached grade 3, harvests were collected twice a week for 4 weeks (8 harvests total), at which point the fruit was graded by size, counted, and weighed. Length and diameter for fruit sized grade 2A through 3B were recorded at every other harvest.

Results: Harvests began on July 30th. Yields consist of grades 1 through 4 (not oversize) and are presented in Table 1. Variety NUN0118 had the highest early yield, while Aristan was the highest yielding overall at 24.2 t/ac. Approximately half the varieties yielded 19 t/ac or more.

Executive Summary – 2018 Parthenocarpic Processing Cucumber Evaluation

14 cultivars were evaluated in the 2018 parthenocarpic processing cucumber multipick trial at Ridgetown Campus. The trial was arranged in randomized complete block design with three replicates and the crop was managed following standard cultivation practices. Harvests were collected twice a week beginning July 30, 2018 with total yield ranging between 12 and 24 t/ac. Aristan was the highest yielding variety with 24.2 t/ac, followed by NUN0110 (21.8 t/ac) and Amour (21.5 t/ac). Aristan also produced the most fruit per plant out of the varieties evaluated.