

**NEW YORK STATE 2017 PROCESSING SNAP BEAN CULTIVAR TRIAL REPORT
Large Sieve Bean - 3-4 Sieve Bean - Whole Bean**

James Ballerstein - Research Support Specialist, Horticulture Section
New York State Agricultural Experiment Station - Cornell University, Geneva, New York

Stephen Reiners - Professor and Chair, Horticulture Section
New York State Agricultural Experiment Station - Cornell University, Geneva, New York

PROCEDURE AND MATERIALS

Location: NYS Agricultural Research Farm - field 22, Geneva - soil type - Honeoye silt loam

Planting Dates: Large Sieve - 5/17, 3-4 sieve beans - 6/2, Whole type - 6/12

Row Width: 30 inches, **Row length:** 30 ft. **In-row Spacing:** 1 5/8 inches (6-8 plants/ft.)

Conventional Tillage **Fertilizer:** 350#/A of 15-5-10 with Zn and Mn

Herbicide: Dual post plant, Basagran, Reflex and Raptor post emergence

Planter - Two Row Monosem Vacuum Planter

Plot Size: 1 row - 4 replications (Replicated entries), 1 row - two replications (Observation entries).

The objective of this trial was to compare a number of green and wax snap bean varieties for yield and other quality characteristics. This was accomplished in cooperation with the snap bean processors in New York and Ontario Canada in an attempt to find new, higher quality, and disease resistant varieties that are adapted to our climate and soil conditions. We did not have a field day this past season due to the weather difficulties.

For both replicated and observation entries, yield of five feet per replication was obtained by pulling the plants and hand picking them. Multiple harvests were made to plot yield increase and also seed size increase. An FMC snipper and grader were used to snip and grade the harvested pods. Each replicated entry was processed (canned and frozen) for later evaluation by the processors and seedsmen. Comments from this cutting are not included in the report.

Soil moisture was adequate too excessive for growing season 2017. The large sieve and 3-4 sieve plantings had decent emergence and good overall plots. The whole bean trial had very uniform emergence but excessive rainfall hurt the third and fourth replications severely. See the weather insert at the end of the summary for a breakdown of temperatures and precipitation over the growing season.

A cutting was held for industry on November 9th.

*Jim Ballerstein, NYSAES, 630 West N. Street, Hedrick Hall, Geneva, NY 14456-0462
315-787-2223 (phone) jwb2@cornell.edu(email)*

We wish to thank the NYS Vegetable Research Council and Association, Ontario Processing Vegetable Growers and cooperating seed companies for their financial support of the project. We also wish to thank Mr. Michael Gardinier and Mr. Roger Ward of Farm Fresh First and Mr. Jeff Johnson of Seneca Foods for their assistance in planning the trials. Special thanks to Wayne Hansen, Floyd Baker, Alison Mahoney, Matt Gates, Helen Terra, Misty Hotelling, Andrea Lewis and Kim Day for their assistance in day to day operations.

**N. Y. S. 2017 PROCESSING SWEET CORN VARIETY
REPLICATED AND OBSERVATION (su and supersweet type) TRIAL SUMMARY**

James Ballerstein - Research Support Specialist, Horticulture Section
New York State Agricultural Experiment Station - Cornell University, Geneva, New York

Stephen Reiners – Professor and Chair, Horticulture Section
New York State Agricultural Experiment Station - Cornell University, Geneva, New York

The trial was located at the Vegetable Research Farm in Geneva, NY. The objective was to harvest su gene type at 72-75% moisture and the supersweet type at 75-78% moisture. Plot size for the replicated entries was 2 rows, 40 feet in length, and 30 inches between the rows. An early planting of su cultivars was planted on 5/10 and followed by another planting on 5/24. A single planting of the supersweet type (four replications) was planted on 6/13. Yield data were taken from a single harvest of a 20 feet section of each of the two rows (40 row feet total). A subsample of 15 ears was used for ear data.

Observation entry plot size was also 2 rows, 40 feet in length, and 30 inches between the rows. There were two plots of each cultivar at each planting. Planting dates were the same as the replicated plots. All plantings were sowed with a Monosem vacuum planter with double disc openers. The fertilizer used was a 15-5-10 (with Mn and Zn) at a rate of 350 lbs. per acre. Fertilizer was banded two inches below and two inches to the side of the seeds at planting. Bicep Lite (at the labeled rate) was applied post emergence for weed control. Desired population was 19,000 plants per acre (11 inches in row spacing). One cultivation was made to enhance weed control and to sidedress N (was done roughly 30 days from planting (400 pounds of 22-0-0 per acre)). The varieties GH4927 and GH6462 from Syngenta Seeds were used as standards for the su type. Overland, from Syngenta Seeds, was used as the supersweet standard.

Spring and summer rainfall were above average with the early su planting not made due to excessive rainfall. Both the su and supersweet plantings had good emergence. The supersweets looked to have a N deficiency possibly due to excessive rainfall and heavy rain events that probably leached fertilizer away. Heat units over the entire growing season were probably average but it was cooler than normal in August. See Weather Summary table. The bacterial disease Stewarts Wilt was minimal to nonexistent. Common Smut was minimal. Common Rust infection was evident late in the season especially in the white supersweets. NCLB was again evident although it probably did not affect yield. This disease seems to be more common and a bit more severe the past few years. A separate planting of all cultivars was planted on 7/15 for a disease rating of NCLB and common rust. It was rated middle of October with good disease symptoms. Comments are in tables 5 & 9.

We wish to thank the NYS Vegetable Research Association, Ontario Processing Vegetable Growers and cooperating seed companies for their financial support of this project. We also wish to thank Mr. Michael Gardinier and Mr. Steve Lashbrook of FarmFreshFirst for their assistance in planning the trials. Special thanks to Wayne Hansen, Allison Mahoney, Andrea Lewis, Matt Gates, Misty Hotelling, Floyd Baker, Kim Day, Ariel Brotherton and Helen Terra for their assistance in day to day operations. Please address any questions to me at the address below.

Jim Ballerstein
jwb2@cornell.edu

315-787-2223