

**Project No.:** Continuing 13C-4167-1217

**Title:** Cranberry Varieties Trials

**Year initiated:** 2003 **Current year:** 2005 **Terminating year:** 2010

**Personnel:** Kim D. Patten, WSU-Long Beach, Extension Specialist

**Title:** Evaluation of new cranberry varieties for the Pacific Northwest.

**Justification:**

As cranberry growers plant new acreage or replant existing beds, they want to select varieties that are 1) adapted to the growing region, and 2) high yielding. Since 1998, the price paid to growers for their cranberries has fallen dramatically. During this industry-wide economic slump, a number of growers are replanting unproductive beds. Currently, Stevens is the variety of choice because of its high yield potential, larger fruit and good color. Based on data obtained from the present genotype planting (13 varieties and 3 selections), both Pilgrim and Gryleski #1 are now being planted commercially in this area. Selecting a variety that takes fewer years to reach full production might help growers recover the investment in new and/or replanted beds. While consistent year-to-year high yields are important, so are the reactions to insect pests and diseases. Selecting a variety (or varieties) with pest resistance or some level of tolerance may reduce the overall requirements for pesticides and hence lower the cost of production and increase return per acre. Besides yield, the suitability of a variety for the fresh fruit market is a very important criterion for many growers in Grayland. This is a function of fruit fresh keeping quality and ease of dry harvesting. For the fresh fruit industry in Grayland to continue, it is imperative that superior varieties for the fresh fruit market be developed. The goal of this project is to evaluate genotypes for low levels of field and storage rot with good yield and ease of dry harvesting.

**Objectives:**

1. Maintain the new replicated planting on the Pacific Coast Cranberry Research Farm in Long Beach with 9 new genotypes and 2 standard varieties.
2. Gather data on vine cover, upright density and initial fruit quality.

**Results:**

*Objective 1) Maintain the new replicated planting on the Pacific Coast Cranberry Research Farm in Long Beach with 9 new genotypes and 2 standard varieties. All varieties which lacked a full compliment of plants were supplemented and all plots have complete ground cover.*

*Objective 2) Gather data on variety performance.*

Four varieties (Pilgrim, NJS98-23, Bain Favorite #1 and NJS98-65), had average fruit size greater than 2 grams per fruit. Both BE4 and Pilgrim had excellent early production (>150 bbl/ac).

There were no differences in fruit rot at harvest or after 12 weeks storage. It is too early to make long-term inference about performance. However, based on yield and size data from the first real harvest Pilgrim is a superlative performer.

Table 1. 2005 yield, fruit size and fruit rot of the 2003 cranberry variety planting at PCCRF.

Variety	Yield bbl/ac	fruit size g/fruit	% Rot At harvest	% Rot After 12 weeks
njs98-23	77 bc	2.03 ab	15 a	14 a
njs95-37	85 bc	1.44 bcd	9 a	7 a
cnj96-44-83	77 c	1.94 abc	11 a	15 a
cnj97-105-4	1 c			
cnj95-20-20	32 c	1.57 a-d	8 a	12 a
cnj93-9-42	61 c	1.62 a-d	11 a	14 a
cnj93-13-100	46 c	1.40 cd	5 a	18 a
BE4	150 b	1.20 d	8 a	14 a
AR2	16 c	1.91 abc	17 a	6 a
Bain Favorite #1	46 c	2.08 a	8 a	16 a
Pilgrim	257 a	2.14 a	14 a	18 a
Stevens	1 c			
njs98-65	11 c	2.11 a	6 a	12 a
njs98-28	27 c	1.58 a-d	12 a	4 a
LSD (P=.05)	63.5	0.39	0.391	13

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)  
Yields from Stevens and cnj97-105-4 were inadequate to evaluate fruit size and rot.