

VEGETABLE RESEARCH IN EASTERN WASHINGTON, 1961

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Except for the disease-resistance work with peas, our vegetable trials this year were mostly preliminary. This was the first year that vegetable plots were grown on the new Columbia Basin Experimental unit east of Othello. Vegetable trials were also grown at Pullman. A brief summary of these trials will be reported.

Fifty-three early and midseason sweet corn varieties were tested. The twelve which were scored highest in field rating are shown in Table 1 along with their relative maturity date and yield. Also shown is the relative quality rating of frozen samples of each variety as judged by an organoleptic panel.

Table 1. Maturity, yield, and processing quality of the twelve sweet corn selections rated highest in Eastern Washington trials, 1961.

Variety	Source	Harvest Date	Unhusked Ears lbs./plot	Organoleptic Rating of frozen samples
Golden Jubilee	Rogers	8/20	57	479
Seneca Golden	Robson	8/12	49	434
XP 2047	Assoc.	8/14	55	355
XP 2044	Assoc.	8/13	39	354
Alberta Gold	SRS	8/13	49	333
XP 2046	Assoc.	8/13	57	324
Seneca Arrow	Robson	8/16	60	364
Gold Crest	F. M.	8/8	45	406
F. M. Cross	F. M.	8/22	45	414
G. Cross Bantam		8/23	59	302
XP 2045	Assoc.	8/17	34	337
XP 1137	Assoc.	8/17	41	359
Average of 2 commercial samples				311

On December 13, a frozen sample of each sweet corn selection was rated by an organoleptic panel composed of Washington State University personnel and representatives of the industry. The twelve selections which received the highest rating from this panel are listed in Table 2. Again, relative maturity date and yield are shown along with the comparative quality rating of each selection at the time it was harvested. Characteristics included in the harvest quality

rating were: plant and ear uniformity, snap, husk tightness and appearance, kernel depth, ear appearance, kernel color and depth, taste, texture, and pericarp toughness.

Table 2. Maturity, yield, and harvest quality of the twelve sweet corn selections rated highest in freezing quality in Eastern Washington trials, 1961.

Selection	Source	Harvest Date	Unhusked ears lbs./plot	Harvest quality rating(100 possible)
Golden Jubilee	Rogers	8/20	57	79
NK 81	Northrup King	8/23	44	71
NK 75143	Northrup King	8/11	49	70
KVF 5793	Corneli	8/20	54	70
Seneca Golden	Robson	8/12	49	81
KVF 60-26	Corneli	8/16	52	61
Cr. 909-1	Crookham	8/7	38	65
NK 23-27	Northrup King	8/19	44	67
FM Cross	Ferry Morse	8/22	45	76
NK 1710	Northrup King	8/21	45	68
Gold Crest	Ferry Morse	8/8	45	76
NK 51036	Northrup King	8/20	36	72

It should be emphasized that for yield, especially, the above tables give only a rough estimate; since only two plots of each variety were usually grown, and sometimes only one.

Twenty-two onion varieties and selections from the USDA and Crookham Seed Co. were compared in replicated trials on the Columbia Basin Research Unit east of Othello. Of the onion varieties tested, Treasure, a USDA hybrid released last year, had a yield almost double that of Fiesta or of Brown Beauty. Treasure was also outstanding in appearance. Two other USDA experimental hybrids and two Crookham Seed Co. experimental hybrids produced much higher yields and had better appearance than the older commercial varieties. Table 3 compares maturity, yield, and quality of some of the better selections with maturity, yield and quality of several standard hybrid varieties.

Table 3. Onion evaluation at Othello, 1961

Variety & Source 1/	Maturity 2/	Yield / acre	10 over 2"	12 over 3 1/2"	Color	Shape	Neck	Comparative rating
1a1718 x B12115-2 (b)	E	543	535	7.0	Med.Dk.	Rnd.	S1Th	68
B2264 x U16-3-10-2 (b)	M	575	514	60.3	Med.Lt.	Rnd.	OK	78
U23-92-5-2 x U16-3-10-2 (b)	L	648	498	188.2	Med...	Rnd&Pt.	Thick	75
Treasure (b)	M	639	565	73.8	Lt.	Rnd.	OK	81
Fiesta (a)	ME	369	288	0.0	Lt.	Long	OK	46
Brown Beauty (a)	ME	358	294	27.9	Med.	Rnd.	OK	54
Expt. Hyb. 2 (a)	ME	533	505	48.8	Dk.	Long	OK	73
Expt. Hyb. 3 (a)	M	623	560	159.3	Med.Lt.	Rnd&Pt.	OK	85

1/ Source: (a) Crookham, (b) U.S.D.A.
2/ Maturity: E, Early; M, Medium; L, Late

Actually this test was a measure of performance under very adverse conditions. Because this was the first year of production on the Research Farm, planting had to be delayed until water was available. This meant that the onions were not planted until April 22. Also the crop suffered from a lack of nitrogen during the early part of the season. Even so, considering only selections which had been in previous farm trials, those selections which ranked highest in yield and appearance in field trials under more ideal conditions in 1959 and 1960 also ranked highest in these trials. It seems probable then that the data reported in Table 3 do reflect a true relative performance of the selections and varieties listed. The total yield is somewhat lower than would ordinarily be expected. Samples of each selection are presently being stored at three different temperatures and results of these storage trials will be reported later.

Seedless watermelon produced at the Othello farm were of excellent quality, although the texture was judged not quite so good as that of the regular melons. Of the four seedless selections tested, Seedles 317 was earliest and judged to be highest in quality. Although yield weight was not determined, this variety produced more melons than any other seedless strain.

In plots of 20 commercial varieties of tomatoes at the Othello farm, approximately 50% of the plants showed symptoms of curly top. No variety escaped the disease. Most varieties of tomatoes did well at Pullman in 1961 because the season was much warmer than usual. Even so, Fireball was the only variety with fruit of fairly good size and quality which ripened a full crop on the vines.

Varieties of cucumbers tested varied in the percentage of bitter fruits which they produced from those which produced no bitter fruit to those which produced 100%. Only the outer part of the cucumber is bitter and the bitterness apparently can always be removed by paring away the outer portion of the cucumber. The depth to which the bitter principle penetrates the fruit will vary from fruit to fruit and the bitterness goes deeper on the stem than on the bud end.