

Horticulture Series 567

December 1986

O. A. P. D. C.
NOV 20 1986
LIBRARY

1986

PROCESSING CABBAGE CULTIVAR
EVALUATION TRIALS

Dale W. Kretchman, Mark Jameson and Charles Willer

10/12
10/11

Department of Horticulture

The Ohio State University
Ohio Agricultural Research & Development Center
Wooster

639
Oh3

This page intentionally blank.

PROCESSING CABBAGE CULTIVAR EVALUATION TRIALS—1986

Dale Kretchman, Mark Jameson and Charles Willer
Department of Horticulture
The Ohio State University
Ohio Agricultural Research & Development Center

The cabbage cultivar evaluation trials were conducted at the OARDC Vegetable Crops Research Branch near Fremont. The soil is a sandy loam. The plots received 400 lb/A broadcast of 6-24-24 and 150 lb/A within-row at planting of 6-24-24 fertilizer; 1 lb/A boron and 3 qt/A of Diazinon pre-plant incorporated. Treflan at 2 pt/A was pre-plant incorporated for weed control.

The plots were field seeded on May 2, using a Planet-Jr. seeder. Rows were 30 ft. long on 30-in. centers. The rows were hand-thinned to give an 18-in. spacing. Each cultivar was replicated four times.

Cultural care throughout the season was according to recommended procedures. No serious insect or weed problems developed during the season. Water damage occurred to one replication and thus those plants were not harvested. Monthly rainfall totals were:

May	4.52 in.
June	3.17 in.
July	5.35 in.
August	2.79 in.
September	2.83 in.

When the majority of the heads reached maturity, the cultivars were evaluated for uniformity of head size and maturity, plant size, and plant uprightiness. The heads were harvested on August 27 and September 18, counted and weighed. Three heads of each cultivar from each replicate were cut and the core length and polar and equatorial diameters recorded. The observational trial was harvested on August 27 and September 18, the numbers and weight of heads recorded. Three heads of each cultivar were cut, and the core length, equatorial and polar diameter recorded.

Seed companies who supplied seed for these trials included: Harris-Moran Seed Co., Rochester, NY; Ferry-Morse Seed Co., Mountain View, CA; Petoseed Co., Inc., Woodland, CA; Arco Seed Co., Inc., Brooks, OR; Northrup King & Co., Minneapolis, MN; Seedway Inc., Hall, NY; Reed's Seeds, Cortland, NY; Stokes Seeds Inc., Buffalo, NY; and Sunseeds, Hollister, CA.

All publications of the Ohio Agricultural Research and Development Center are available to all on a nondiscriminatory basis without regard to race, color, national origin, sex, or religious affiliation.

12/86-S444-150

TABLE 1. Yield and quality characteristics of cabbage cultivars for processing, Replicated Trial - 1986.

Cultivar	Source	Harvest Data		Measurements (inches)		
		Tons/ acre	Lbs/ head	Core length	Polar diam.	Equatorial diam.
Bravo	Harris Moran	44.2	8.7	3.33	7.39	8.89
Condor	Harris Moran	52.7	8.9	3.94	8.11	8.77
Superkraut	Reed's Seeds	37.9	7.1	3.44	7.72	7.94
Superdane	Reed's Seeds	29.5	5.9	3.50	6.89	7.55
Arco-206	Arco Seeds	32.2	5.9	3.11	7.72	8.28
King Cole	Ferry Morse	34.6	6.2	3.44	7.44	7.94
Titanic-90	Ferry Morse	32.0	6.3	3.33	7.72	8.67
Krautpacker	Seedway	45.2	8.2	2.67	7.89	8.33
Rodolfo	Seedway	32.3	6.4	2.83	7.78	8.16
Krautking	Seedway	43.3	8.0	3.05	8.28	8.39
AVX-9844 (Ocala)	SunSeed	30.5	6.5	3.17	7.05	8.55
Quisto	Northrup King	24.3	5.8	3.11	7.17	7.33
Rio Verde	Northrup King	41.7	8.9	3.28	7.33	9.22
Olympic	Northrup King	<u>45.2</u>	<u>8.5</u>	<u>3.61</u>	<u>7.94</u>	<u>9.05</u>
	LSD 5%	11.64	1.79	---	0.73	0.74

TABLE 2. Quality characteristic ratings of cabbage cultivars for processing, Replicated Trial - 1986.*

Cultivar	Plant Characteristics*			
	Uniformity	Plant size	Head Shape	Plant uprightness
Bravo	1	3	2	1
Condor	1	2	2	3
Superkraut	2	2	2	2
Superdane	3	3	2	2
Arco-206	2	3	2	2
King Cole	1	2	2	2
Titanic-90	3	3	2	2
Krautpacker	2	3	2	2
Rodolfo	3	3	2	3
Krautking	2	3	2	3
AVX-9844 (Ocala)	1	3	3	1
Quisto	2	2	2	1
Rio Verde	2	3	2	1
Olympic	1	3	2	1

- * Uniformity: 1 = good; 2 = fair; 3 = poor
 Plant Size: 1 = small; 2 = medium; 3 = large
 Head Shape: 1 = pointed; 2 = round; 3 = flat
 Uprightness: 1 = upright; 2 = slightly tipped; 3 = very tipped

TABLE 3. Yield and quality characteristics of cabbage cultivars for processing, Observational Trial - 1986.

Cultivar	Source	Harvest Data		Measurements (in.)		
		Tons/ acre	Lbs/ head	Core length	Polar diam.	Equatorial diam.
PSR-55480	Petoseed	28.3	5.7	3.33	6.83	7.67
HMS-3228	Harris Moran	25.5	6.3	3.00	6.33	6.83
HMX-9092	Harris Moran	19.0	4.1	3.16	6.67	7.83
Survivor	Stokes	13.6	2.9	2.16	6.00	6.00
Jadekeeper	Stokes	17.8	3.4	2.16	6.17	7.00
Winterkeeper	Stokes	17.0	3.3	2.17	6.33	5.33
Falcon	Stokes	44.0	8.0	2.00	8.00	8.17
FMX-261	Ferry Morse	24.7	4.5	2.17	6.33	6.67
FMX-280	Ferry Morse	32.2	6.5	2.67	7.33	8.33

TABLE 4. Quality characteristic ratings of cabbage cultivars for processing, Observational Trial - 1986.

Cultivar	Plant Characteristics *			
	Uniformity	Plant size	Head shape	Plant uprightness
PSR-55480	2	2	2	2
HMS-3228	3	2	2	2
HMX-9092	2	1	2	2
Survivor	1	1	2	1
Jadekeeper	1	1	2	1
Winterkeeper	1	1	2	1
Falcon	2	3	2	3
FMX-261	1	1	2	3
FMX-280	2	2	2	2

- * Uniformity: 1 = good; 2 = fair; 3 = poor
 Plant Size: 1 = small; 2 = medium; 3 = large
 Head Shape: 1 = pointed; 2 = round; 3 = flat
 Uprightness: 1 = upright; 2 = slightly tipped; 3 = very tipped

TABLE 5. Additional observations on cultivars and lines including internal quality.

Cultivar	Comments
Bravo	Large frame, good uniform., upright plants, small mid-ribs, white inside, mild flavor, internal buds.
Condor	Medium frame, good uniform., very tipped plants, medium mid-ribs, white inside, mild flavor, internal buds.
Superkraut	Medium frame, fair uniform., slightly tipped plants, large mid-ribs, light green inside, fairly strong flavor.
Superdane	Large frame, poor uniform., slightly tipped plants, large mid-ribs, white inside, mild flavor.
Arco-206	Large frame, fair uniform., slightly tipped plants, medium mid-ribs, white inside color, outer leaves green, mild flavor.
King Cole	Medium frame, good uniform., slightly tipped plants, medium mid-ribs, white inside, mild flavor, standard cultivar.
Titanic-90	Large frame, poor uniform., slightly tipped plants, med. to large mid-ribs, white inside, strong flavor.
Krautkeeper	Large frame, fair uniform., slightly tipped, medium mid-ribs, green outer leaves, very strong unpleasant flavor.
Rodolfo	Large frame, poor uniform., very tipped, medium to light mid-ribs, white color, strong flavor, light green outer leaves.
Krautking	Large frame, fair uniform., very tipped, large mid-ribs, white inside, mild flavor.
AVX-9844 (Ocala)	Large frame, good uniform., upright, thick mid-ribs, whitish green inside, mild flavor
Quisto	Medium frame, fair uniform., med. to large mid-ribs, white inside, solid heads, mild flavor.
Rio Verde	Large frame, fair uniform., upright, large mid-ribs, white inside, internal buds, mild flavor.
Olympic	Large frame, good uniform., upright, med. to large mid-ribs, white inside, sweet flavor, crooked core.
PSR-55480	Medium frame, fair uniform., slightly tipped, medium mid-ribs, white inside, solid heads, mild flavor.
HMX-3228	Medium frame, poor uniform., slightly tipped, large mid-ribs, white to yellow inside color, mild flavor.

Cultivar	Comments
HMX-9092	Small frame, fair uniform., slightly tipped, medium mid-ribs, white inside, bland flavor.
Survivor	Small frame, good uniform., upright, large mid-ribs, yellow inside, mild flavor.
Jadekeeper	Small frame, good uniform., upright, medium mid-ribs, white inside, mild flavor.
Winterkeeper	Small frame, good uniform., upright, med. to large-ribs, green inside, fresh market type.
Falcon	Large frame, fair uniform., very tipped, medium mid-ribs, green color, extending for about an inch into head, leaves upright from core, mild flavor.
FMX-261	Small frame, good uniform., very tipped, large mid-ribs, yellow-green color, sweet flavor.
FMX-280	Medium frame, fair uniform., slightly tipped, medium mid-ribs, white inside color, mild flavor.

This page intentionally blank.