

H.R.I.O.

HORTICULTURAL RESEARCH INSTITUTE OF ONTARIO

Research Report #33
**MUCK VEGETABLE
CULTIVAR TRIALS
and
RESEARCH REPORTS**

1983

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ONTARIO

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VEGETABLE CULTIVAR TRIAL REPORT FOR 1983

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SEED SOURCES - 1983

We wish to express our sincere thanks to all those who provided us with seed for trials.

A&C Abbot & Cobb Inc., Box 307, Feasterville, Pa., 19047
A.Ch. Alf. Christianson Seed Co., Box 98, Mount Vernon, Washington, U.S.A. 98273
Agr See: Sun Seeds
Agw Agway Inc., Seed Division, Box 4933, Syracuse, New York, U.S.A. 13221
AREC Agricultural Research and Education Centre, University of Florida,
P.O. Drawer A, Belle Glade, Florida, U.S.A. 33430
ARCO ARCO Seed Co., Box 181 El Centro, California, U.S.A. 92244-0181
ARZ See: Nickerson Zwaan
Asg Asgrow Seed Co., Box 610, Bradford, Ontario LOG 1C0
Asm Asmer Seeds Ltd., Ash St. Leicester, England, LE5 0DD
Bak Bakker Bros. P.O. Box 7, Noordscharwoude, Holland
BEJO Beemsterboer & Jacob Jong Seed Co., Ltd., Box 9, Noordscharwoude, Holland
BrS Bradford Shippers Ltd., 270 Holland St. E. Bradford, Ontario LOG 1C0
Also see: Erie James, Leamington, Ontario.
Bru Bruinsma BV, P.O. Box 24 Naaldwijk, 2670AA, Holland
Cro Crookham Company, Box 520, Caldwell, Idaho, 83605
DAE Daehnfeltdt, P.B. 15 DK 5100, Odense, Denmark
DeR DeRuiter Zonen BV, Bleiswijk, Holland
DES Dessert Seed Co., See: ARCO
DP See: Nickerson Zwaan
E.J. Erie James Produce, Box 457, Leamington, Ontario, N8H 3W5
Enza EnzaZaden, P.O. Box 7, Enkhuizen, Holland
FM Ferry-Morse Seed Co., 111 Ferry Morse Way, Drawer 7274, Mountainview, Ca.94942
Glo Global Seeds, Box 1617, Gilroy, California, U.S.A 95020
Gebroeders Broersen BV, See: Nickerson Zwaan
Guz Prof. V.L. Guzman, See: AREC
Har Harris Seed Co., Inc., 3670, Moreton Farms, Rochester, New York, U.S.A. 14624
Haz Hazerea Seeds Ltd., P.O.B. 1565, Haifa, Israel
Her Herbst Bros. 1000 N. Main St., Brewster, New York, U.S.A. 10509
IPB International Plant Breeders S.A., Chemin de St-Marc, 84120 Pertuis, France
JHK J.H. Klitgord, Seedsman, Box 87, Mayville, New York, U.S.A. 14757

Jung J.W. Jung Seed Co., Randolph, Wisconsin, 53956
K.Br Kees Broersen, Bogtmanweg 7, 1747 HV Tuitjenhorn, Holland
Key Keystone Seed Co., See: Sun Seeds
Kru Krummrey & Sons Inc., Stockbridge, Michigan, U.S.A. 49285
LDM Leen De Mos, Box 54, 2690 AB S'-Gravenzande, The Netherlands
MIK Mikado Seedgrowers Ltd., 1203 Hoshikuki, Chiba City 280, Japan
Mor Moran Seeds Inc., 1155 Harkins Rd., Salinas, California, 93991
MSU Michigan State Univ. Dept of Horticulture, East Lansing, Michigan 48824
NIPB Nickerson International Plant Breeders S.A. P.O. Box 1787,
Gilroy, California, U.S.A. 95020
NK Northrup King & Co., 1500 Jackson St. N.E. Minneapolis, Minn, 55413
NZ Nickerson-Zwaan BV, Gebroken Meeldyk 74, Box 19 2900AA,
Barendrecht, Holland
Nun Nunhem's Zaden BV, Box 4005, 6080AA, Haelen, Holland
OhE J.E. Ohlsens Enke, NY Munkegaard, DK-2630 Taastrup, Denmark
Pan V.W. Pannevis, Zaadteelt en Zaadhandel BV, Westeinde 62, Box 2
Enkhuizen, Holland
PES Peter Edward Seed Co., 115 Cardinal Lane, Eustis, Florida, 32726
PETO PetoSeed Co., Inc., Box 4206 Saticoy, California, 93004
Qua Quali-Sel-Seeds, Box 311 Parma, Idaho 83660
RS Royal Sluis, Box 22 1600AA, Enkhuizen, The Netherlands
also: Royal Sluis Inc., 1293 Harkins Rd., Salinas, Cal. 93901
RZW Rijk Zwaan, Burgemeester Crezeelaan 40, P.O. 40, DeLier, Holland
Sak Sakata & Co., C.P.O. Box Yokohama No 11, Yokohama 220-91, Japan
SG Sluis en Groot, Box 13 Enkhuizen, The Netherlands and/or
Sluis en Groot of America Inc., 124 Griffen St., Salinas, Cal. 93901-3786
Sha Charles Sharpe & Co. Ltd., Seaford Lines, England, NG3 47HA
Sto Stokes Seeds Ltd., 39 James St., Box 10, St. Catherines, Ontario L2R 6R6
Sun Sun Seeds, 9531 West 78th St., Suite 229, Eden Prairie, Minn. 55344
Tak Takii Co. Ltd., Box 7 Kyoto Central 180 Umbekosi-Inokuma, Kyotoa 600-91
Japan.
Tra Trapp & Sons, Beulah, Michigan, U.S.A.
Twi Otis S. Twilley Seed Co., Box 65, Trevosa, PA. U.S.A. 19047
UnS Union Seed Co., Box 339, Nampa, Idaho, U.S.A. 83651
USDA U.S. Dept. of Agriculture, Dr. C.E. Peterson, Dept. of Horticulture
University of Wisconsin, Madison, Wisconsin, U.S.A. 53706.
UW University of Wisconsin, Dept. of Hort. 1575 Linden Drive, Madison,
Wisconsin, U.S.A. 53706 Attention: Dr. Gabelman.
VHD Vandershave, Box 1 4420AA, Kapelle 3648, Holland
Ves Vesey's Seeds Ltd., York, Prince Edward Island, COA, 1P0
ZWS Zwaan Seeds Inc., P.O. Box 127, Swedeboro, New Jersey, U.S.A. 08085

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CARROT CULTIVAR TRIALS - PACKAGING TYPES

Management Procedures:

The soil was rotovated to a depth of 25 cm, after fertilizer was applied in the form of 500 kg/ha 10-0-0 + 20 kg/ha Borax.

The trials were seeded on May 31, in rows 50 cm apart, with a V belt seeder equipped with a 5 cm scatter shoe, at 82 seeds/m. The Main Trial was replicated 3 times. The plants were thinned to approximately 40 per m. The water table was kept at 90 cm.

A regular fungicide spray program was discontinued after Sept. 1st to evaluate the cultivars for tolerance to leaf blight.

The roots were harvested on Oct. 13 and placed in a "Filacell" storage at 1°C and 95% relative humidity.

LEGEND:

Type: G = Gold Pak, I - Imperator, LD = Long Denvers, N = Nantes

Stand/meter: 40 plants/m = 12 plants/ft.

Length and Width: 25 cm = 10" 3.8 cm = 1.5"

Quality Marks: 5 = most desirable 1 = least desirable

Horizontal Lesions and Degree: The percentage of roots that have horizontal lesions (cavity spots) and to what degree they appear on the roots.

VL = very light, M = medium, V.H. = very heavy, not marketable.

Slicer Types: The degree to which the shape of the root makes it suitable for slicers. In the Main Trial Polaris received the highest mark (only 3.3) which makes it only marginally suitable as a slicer. For a list of cultivars suitable for slicers see index.

Score: The average of uniformity of shape and size, appearance, resistance to greening, interior and exterior color, and core size.

The Main Trial is listed in order of length and slenderness of roots.

Listed in order of length

CARROT MAIN CULTIVAR TRIAL - 1983 - PACKAGING TYPES

CULTIVAR	Source	Mkb. Yld		Oversize		Stand/Meter	Roots		Uniform.		Appearance	Resistance to Greening	Color		Core Size	Rusty Root	% Horiz. Lesions & Degree	Blight	Score
		Tonnes/ha	Bushels/Ac	%	%		Length (cm)	Width (cm)	Shape	Size			Interior	Exterior					
-Spartan North	Sto	69	1228	21	89	33	24	3.6	4.4	4.1	4.0	4.3	4.5	4.4	4.3	5.0	87VL	3.3	4.29
Orlando Gold	EJ	67	1196	8	88	38	24	3.3	4.1	4.1	4.0	4.3	4.5	4.6	4.3	4.7	73VL	3.7	4.27
Spartan Fancy	Sto	67	1196	11	86	36	24	3.2	4.3	4.2	3.7	4.0	4.1	4.3	4.7	5.0	80VL	4.3	4.19
-Dagger 78	ARCO	69	1234	10	87	48	23	3.3	4.1	4.0	4.1	4.3	4.2	4.4	4.2	4.3	60VL	4.0	4.19
Orange Sherbet	Sto	68	1205	26	91	29	23	3.3	4.2	3.8	4.0	4.0	4.0	4.2	4.1	4.7	53L	3.7	4.05
-Javelin 80	ARCO	59	1050	4	92	35	23	3.2	4.1	4.1	3.4	4.3	3.8	4.1	4.1	5.0	33VL	4.0	3.99
-Candy Pak	Cro	70	1252	16	92	32	23	3.2	4.1	4.2	3.8	4.3	4.5	4.5	4.2	5.0	73VL	3.7	4.23
Aristo Pak	Cro	71	1258	10	88	42	22	3.3	3.9	4.0	3.7	4.2	3.7	4.0	3.8	4.7	57L	3.7	3.90
Goldpak 28C	A.Ch	55	982	18	87	28	22	3.2	3.7	3.9	3.6	3.5	3.8	4.1	3.9	4.7	87VL	3.3	3.79
-Six-Pak	Har	74	1317	14	91	35	22	3.6	4.1	4.2	4.0	3.9	4.0	4.2	4.3	5.0	60VL	4.3	4.10
Sweet-n-Crisp	Cro	68	1202	31	89	28	22	3.4	4.1	3.7	4.1	3.8	4.1	4.2	4.2	5.0	89L	3.7	4.03
Saber 78	ARCO	67	1193	2	90	46	22	3.0	4.2	4.2	3.7	4.2	4.1	4.3	4.3	4.3	27VL	4.3	4.15
-Canuck	Sto	79	1412	23	93	40	22	3.4	4.2	4.1	4.1	4.2	4.4	4.3	4.3	5.0	67VL	3.0	4.23
-Diplomat	Asg	73	1305	16	84	45	22	3.2	3.8	3.8	3.7	4.2	3.9	4.2	4.2	5.0	60L	4.7	3.97
-Chancellor	Asg	69	1234	9	82	48	22	3.3	3.8	3.9	3.8	3.6	4.1	4.2	4.1	5.0	53VL	4.3	3.93
Nuggeteer	FM	59	1056	22	81	30	22	3.3	3.6	3.2	3.4	4.2	3.9	4.2	4.1	4.7	53L	3.3	3.80
-Pak Mor	Mor	67	1193	15	90	34	22	3.3	3.8	4.0	3.9	4.2	3.6	4.1	4.3	4.7	100VL	4.7	3.99
Flavor Pak	Cro	62	1107	9	91	39	22	3.2	4.2	4.3	4.1	4.3	3.8	4.2	4.1	5.0	40VL	3.3	4.15
Brite Pak	A&C	52	917	15	76	33	22	3.2	3.4	3.8	3.7	4.3	3.9	4.2	4.1	4.7	67VL	4.7	3.91
Six-Pak II	Har	71	1255	9	89	37	21	3.4	4.1	4.2	4.0	4.3	4.7	4.3	4.2	5.0	27VL	4.3	4.26
Top-Pak	Har	69	1219	25	88	33	21	3.6	3.9	3.9	4.3	4.1	3.6	4.0	3.9	5.0	53VL	4.3	3.95
-Paramount	Asg	80	1427	14	89	43	21	3.4	3.4	3.8	4.0	3.6	4.2	4.2	4.0	5.0	80VL	4.3	3.89
Sierra	NK	64	1136	11	86	45	20	3.2	3.9	3.9	4.1	4.1	3.9	4.0	4.2	4.3	73VL	4.0	4.00
Polaris	Har	82	1466	13	94	48	19	3.4	3.7	3.6	4.0	3.4	4.0	4.3	4.4	5.0	53VL	3.3	3.91

CARROT CULTIVAR STORAGE TRIAL - 1982/83 - PACKAGING TYPES

Cultivar	Source	% Marketable	% Weight Loss In Storage	% Decay	Degree of Decay *
Candy Pak	F.M.	82	14	6	4.0
Gold Pak 28	Sto	82	12	6	3.5
Trophy	Har	80	16	4	3.9
Sp.Deluxe 80	Asg	80	13	7	3.7
Sp.Premium '80'	Cro	80	12	8	4.1
Sp.Delite 80	Asg	76	15	9	3.5
Long Imperator 58	"	76	14	10	3.8
Sp.Fancy 80	"	76	14	10	3.5
Pakmore	Har	76	13	11	3.8
Hipak	"	76	13	11	3.5
Paramount	Asg	76	12	12	2.7
Six Pak	Har	75	15	10	3.4
Klondike Nantes	Sto	75	15	10	3.8
Dagger '78	ARCO	75	15	10	4.3
Saber '78	"	75	13	12	2.9
Javelin '80	"	75	13	12	3.2
Sp.North 'A'	Cro	74	16	10	3.9
Grenadier	Har	74	15	11	3.8
Canuck	Sto	74	14	12	3.1
Cutlass	ARCO	71	17	12	2.9
Lance	Sto	71	14	15	3.4
Goldpak 263	Asg	69	14	17	2.8
Chancellor	"	68	13	19	3.3
Diplomat	"	67	17	16	2.9
Average all cvs		75	14	11	3.5

* 5=most desirable, no decay

Harvest Date: Oct.13, 1982

Due to a rebuilding program, carrots were moved from refrigerated storage to common storage, to "Filacell" storage. The relative humidity was not always in the high 90% range.

Judged: July 27, 1983. Total storage period - 41 weeks.

Listed in order of
length

LONG TERM AVERAGES OF CARROT CULTIVARS - PACKAGING TYPES

Cultivar	Source	# Years Tested	LTA Length		LTA Yield		% Mktble	LTA Score
			cm	Inches	t/ha	b/a		
Orlando Gold	EJ	2	24.28	9.56	66.75	1190	84	4.24
Javelin 80	ARCO	4	23.60	9.29	55.75	991	85	4.13
Candy Pak	FM	7	23.32	9.18	65.53	1167	84	4.30
Dagger 78	ARCO	5	23.30	9.17	69.00	1230	85	4.29
Sp. North	Cro	7	23.25	9.15	66.95	1192	85	4.20
Flavor Pak	Cro	2	23.10	9.09	75.00	1335	90	4.11
Saber 78	ARCO	4	22.98	9.05	59.25	1054	83	4.18
Sweet-n-Crisp	Cro	2	22.90	9.02	67.66	1204	90	4.00
Sp. Delite 80	MSU	4	22.88	9.01	75.25	1376	89	4.08
Orange Sherbet	Sto	4	22.68	8.93	64.12	1141	85	3.85
Cutlass	ARCO	6	22.58	8.89	67.57	1203	81	4.02
Six Pak	Har	4	22.25	8.76	72.25	1286	90	4.24
Nuggeteer	FM	7	22.05	8.68	65.00	1158	80	3.91
Sp. Fancy 80	Cro	4	22.00	8.66	68.50	1219	84	4.01
Brite Pak	A&C	4	21.98	8.65	65.40	1164	79	3.92
Imperator 58	Cro	9	21.69	8.54	50.34	896	78	3.64
Trophy	Har	10	21.60	8.50	64.02	1140	84	3.99
Gold Pak 263	Asg	6	21.58	8.50	60.67	1079	85	3.91
Diplomat	Asg	4	21.50	8.46	73.00	1297	87	3.99
Pak Mor	Har	3	21.43	8.44	61.66	1098	82	3.88
Chancellor	Asg	4	21.40	8.43	67.75	1206	81	3.86
Sierra	NK	3	21.28	8.38	68.50	1219	85	4.02
Lance	ARCO	6	21.22	8.35	64.98	1156	83	4.08
Sp.Premium 80	Cro	4	21.20	8.35	80.75	1437	86	3.95

5 = Most desirable

continued ...

Listed in order of
length

LONG TERM AVERAGES OF CARROT CULTIVARS - PACKAGING TYPES - continued

Cultivar	Source	# Years Tested	LTA Length		LTA Yield		%	LTA Score
			cm	Inches	t/ha	b/a		
Grenadier	Har	14	21.11	8.31	65.94	1173	84	3.98
Sp. Winner 80	Cro	3	21.10	8.31	73.33	1306	82	3.78
Canuck	Sto	15	20.94	8.24	62.69	1116	82	3.99
Gold Pak 28	FM	12	20.76	8.17	55.91	996	85	3.84
Paramount	Asg	6	20.52	8.08	84.33	1502	87	3.92
Sp. Sweet 'A'	Cro	13	20.33	8.00	69.68	1240	82	4.12
King Imperator	NK	10	20.19	7.95	52.71	938	83	3.75
Sp. Deluxe	MSU	9	19.96	7.86	70.80	1260	84	3.97
Dominator	Sun	12	19.63	7.73	63.05	1122	85	3.86
Klondike Nantes	Sto	10	19.59	7.71	72.10	1283	85	3.87
Hipak	Har	13	19.26	7.58	65.46	1166	86	3.84
Sp. Classic 80	Cro	3	17.93	7.05	63.33	1127	78	3.78
Pioneer	Har	10	16.60	6.54	64.00	1139	81	3.61
Scarlet Nantes	Asg	8	14.50	5.71	66.00	1175	75	3.46

5 = Most desirable

EARLY MATURITY OF CARROT CULTIVARS, 1983 - PACKAGING TYPES

Cultivar	Source	Marketable t/ha			Weight/root			Acceptability		
		Aug.16	Aug.23	Sep.7	Aug.16	Aug.23	Sep.7	Aug.16	Aug.23	Sep.7
Pakmor	Mor	31	41	65	73	85	112	4.3	4.2	4.1
Spartan Premium 80	Cro	30	44	65	56	82	99	4.2	4.0	4.2
Klondike Nantes	Sto	31	47	70	53	71	100	3.6	4.0	4.2
Spartan Classic	Cro	30	46	60	51	70	104	3.3	3.7	4.2
Paramount	Asg	28	41	67	55	67	95	3.8	4.0	4.2
Aristo Pak	Cro	28	38	60	58	63	107	3.8	4.0	4.1
Diplomat	Asg	27	35	58	65	76	97	3.9	4.0	4.0
Grenadier	Har	27	37	49	61	72	99	4.1	4.0	3.9
Chancellor	Asg	27	40	59	49	65	77	3.6	4.0	3.9
Flavor Pak	Cro	26	32	59	56	70	95	3.8	3.7	4.0
Candy Pak	Cro	25	34	57	55	59	101	3.8	3.9	4.1
Hipak	Har	26	33	41	66	75	98	3.4	3.7	3.3
Canuck	Sto	25	35	54	46	60	91	3.3	3.8	4.1
Dagger '78	ARCO	24	32	48	55	57	78	3.6	4.0	4.0
Trophy	Har	24	33	60	58	69	89	3.4	3.9	4.1
Sweet-N-Crisp	Cro	24	34	54	63	74	123	3.8	3.9	3.8
Spartan Fancy 80	"	24	34	51	52	71	98	3.6	3.8	3.9
Orlando Gold	PES	24	36	61	56	71	105	3.4	4.2	4.1
Spartan Fancy	Cro	23	35	56	52	60	82	3.4	3.9	4.0
Six Pak	Har	23	36	54	60	64	79	3.8	4.0	4.0
Spartan Delite 80	Cro	22	39	45	56	74	89	3.3	3.9	3.9
Orange Sherbet	Sto	22	31	51	58	78	149	3.3	3.5	4.1
Spartan Delight	"	21	36	56	51	67	93	3.2	4.1	4.1
Spartan North 'A'	Cro	20	28	43	47	66	108	2.7	3.8	3.6

Seeded: May 25 at 60 seeds/m.

5=most desirable. 28 t/ha = 500 b/a

Listed in order of earliness.

CARROT CULTIVAR TRIAL ON MINERAL SOIL - 1983

This three times replicated trial was seeded on May 11 in a Granby sandy loam, on raised beds 140 cm wide at the top, with 3 rows per bed, spaced 57 cm apart. The wet weather before seeding followed by a prolonged dry spell made for a very compacted seed bed and this affected the development of the roots very unfavourably. Many roots were misshapen, not uniform and the average length was 5 cm less than in a similar trial in 1982 on the same farm.

Normal growing practices were followed, although no irrigation was used.

Harvest took place on Oct 11 and the roots were placed in a refrigerated storage.

Data was taken the last week of November.

The cultivars are listed in order of length, acceptability and yield.

Type of Culls: M = Misshapen F = Forked
 S = Split U = Undersize

The type mentioned first is the most prevalent one.

5 = most desirable 1 = Least desirable

For more information on these cultivars see the Main Carrot Trial on organic soil.

The yield of the 3 replications varied so greatly, that statistically there are no significant difference in the yields of the varieties.

CARROT CULTIVAR TRIAL ON MINERAL SOIL - 1983 - PACKAGING TYPES

CULTIVAR	Source	Mkbl. Yield		% Over Size	% Marketable	Type of Culls	Stand/meter	Roots		Acceptability	Resistance to Greening	Color	
		Tonnes/hectare	Bags/Acre					Length (cm)	Width (cm)			Interior	Exterior
Diplomat	Asg	47	838	5	58	M	49	17.1	3.1	3.4	4.0	3.2	3.9
Spartan Premium 80	Cro	46	822	7	65	UM	56	16.9	3.1	3.2	4.0	3.9	4.1
Saber 78	ARCO	40	713	0	66	MC	60	16.1	2.7	3.3	3.9	3.8	3.8
Spartan Fancy 80	Asg	40	708	3	58	MF	47	15.1	2.9	3.0	4.0	3.8	3.9
Chancellor	Asg	47	833	2	66	MU	69	15.3	3.3	2.8	4.0	4.3	4.0
Dagger 78	ARCO	29	510	0	52	MF	51	16.3	3.1	3.0	4.0	4.2	4.0
Paramount	Asg	46	822	6	49	MS	56	16.8	3.0	2.5	3.7	4.0	4.0
Candy Pak	Cro	28	500	0	49	MF	54	16.3	2.9	3.0	4.0	3.9	4.0
Orlando Gold	PETO	39	692	17	49	MF	56	16.0	2.8	2.7	4.0	4.1	4.2
Javelin 80	ARCO	32	567	2	58	MS	58	16.1	2.9	2.9	3.9	3.6	3.9
Pak Mor	Mor	37	656	12	46	MF	40	17.5	3.4	2.3	4.0	3.2	3.9
Canuck	Sto	37	656	14	49	MS	42	15.4	3.1	2.6	3.9	3.2	3.9
Klondike Nantes	Sto	38	682	8	45	MS	45	15.3	3.3	2.6	4.0	3.5	3.9
Hipak	Har	41	729	16	46	MF	41	14.6	3.5	2.7	3.8	3.0	3.7
Imperator 58 Imp	Mor	29	515	3	41	MF	51	15.9	3.2	2.0	2.4	3.3	3.8
Dominator	Sun	30	541	10	34	SM	47	15.0	3.1	2.0	4.0	3.6	3.8
Orange Sherbet #2	Sto	31	552	19	30	MF	39	15.4	3.3	1.8	3.9	3.6	4.1
Grenadier	Har	25	437	0	46	MF	34	16.8	3.2	2.2	4.0	3.7	3.8
Spartan Delight 80	Cro	22	385	14	33	MF	38	16.0	2.9	2.2	4.0	3.7	3.9
Spartan North 'A'	Cro	23	416	11	38	MS	30	16.4	3.1	1.9	4.0	3.9	4.1
King Imperator	Sto	23	416	10	28	MF	34	15.2	2.8	1.6	4.0	3.2	3.8

CARROT CULTIVAR OBSERVATION TRIAL 1983 - PACKAGING TYPES

Cultivar	Source	Yield		% Oversize	% Mbble.	Stand/meter	Type	Roots		Uniform.		Appearance	Resistance To Greening	Interior Color	Core Size	Horiz. Lesions & Degree	Blight	Slicer	Score
		Tonnes/ha	Bushels/acre					Length (cm)	Width (cm)	Shape	Size								
Fancy Nantes	A&C	88	1566	4	87	47	GN	19	3.4	4	4	4+	4-	4+	5-	40VL	4	3+	4.21
XP 837	Agw	107	1905	9	92	61	LD	18	3.6	3+	4-	4	4-	4-	5-	20M	4	4-	3.82
Cardinal	Asm	89	1575	33	94	38	LDN	18	3.5	4-	4-	4	4-	4-	4-	40VL	4	3+	3.78
Imperator 58	A.Ch	79	1397	5	90	45	I	20	3.3	4-	4-	4	4-	4-	4	20L	5	3	3.82
Chrisna	"	81	1442	12	90	45	G	17	3.4	3+	3+	4	4	4-	4+	60VL	4	3	3.75
Sp. Fancy 80	Asg	72	1282	17	84	48	G	21	3.4	4-	4	4	4-	4	4+	80VL	4	2	3.91
Orlando Gold	"	74	1317	6	84	47	GI	23	3.2	4-	4-	4-	4+	4	4+	60L	4	3-	3.95
Cellobunch (XPH 568)	"	75	1335	17	87	49	G	20	3.1	4-	4-	4	4+	4-	4+	100VL	4	3	3.91
XPH 569	Asg	73	1299	3	81	56	G	19	3.1	4-	4-	4-	4-	4	4+	80VL	4	3	3.87
Debut (XPH 979)	Asg	77	1362	34	90	34	IG	22	3.4	4+	4+	4	4+	4	4+	60VL	4	2-	4.12
XPH 981	Asg	79	1406	17	90	38	G	22	3.5	4	4	4	4	4+	4+	60VL	4	2-	4.10
XPH 987	Asg	75	1335	18	87	42	GI	21	3.5	4	4	4	4	4	4+	60VL	3	2	4.04
XPH 5068	Asg	68	1202	0	77	62	GI	20	2.8	5-	3	4+	5-	4-	5-	80L	5	3-	4.21
XPH 5123	Asg	102	1816	18	89	43	GI	23	3.5	4	4-	4+	4	4-	4+	50VL	5	3	4.00
Flamingo	Bak	84	1495	14	87	50	N	15	3.1	4	4	4	2	4-	4+	100VL	4	4	3.67
Nagano	BEJO	96	1700	20	94	43	NG	19	3.4	4-	4-	4-	3	4-	4	40VL	4	4-	3.68
Mokum	BEJO	75	1335	0	92	51	N	17	2.8	4+	4	4	2	4-	5-	60VL	4	5-	3.81
Laranda	"	118	2100	37	90	46	LDN	16	3.6	4	3-	3	2-	4	3+	80M	5	4+	3.24
Berlanda	BEJO	118	2100	33	93	51	LD	17	3.8	4-	4	3+	4-	4	3	40L	5	3+	3.62
Narman	"	88	1558	31	88	42	LDN	18	3.8	4-	4	4-	4	4-	3+	80VL	5	3+	3.72

continued ...

CARROT CULTIVAR OBSERVATION TRIAL - 1983 - PACKAGING TYPES

Cultivar	Source	Yield		% Oversize	% Mkble.	Stand/meter	Type	Roots		Uniform.		Appearance	Resistance To Greening	Interior Color	Core Size	Horiz. Lesions & Degree	Blight	Slicer	Score
		Tonnes/ha	Bushels/Acre					Length (cm)	Width (cm)	Shape	Size								
Nantucket *	BEJO	81	1442	12	84	43	NLD	17	3.5	4	4	4	4-	4+	4+	80M	4	4+	4.05
Orlando Gold	USDA	71	1264	30	82	29	IG	24	3.8	4+	3	4-	4+	4	4+	20VL	4	2	3.94
Golden State	USDA	43	757	58	79	14	G	24	4.0	4	5-	4+	5-	4	4+	40M	4	3	4.28
Spartan North 'A'	Cro	65	1157	17	83	33	GI	21	3.2	4+	4	4+	4+	4+	5-	40VL	4	3	3.67
Spartan Premium '80'	Cro	90	1593	13	94	47	LDG	19	3.4	3+	4-	4	4-	4	5-	40VL	5	2	4.28
Spartan Delite '80'	Cro	51	908	11	77	41	IG	23	3.0	3+	3+	4	4-	4-	4	40VL	2	1	3.71
Packer	Cro	71	1255	22	87	37	GLD	20	3.4	3+	4-	4-	4+	4-	4+	40VL	4	3	3.85
Harvestmore	Cro	69	1219	15	84	50	IG	20	3.1	4-	4	4-	4-	4	4+	80VL	4	2	3.91
Orlando Gold	Cro	74	1317	3	90	69	IG	20	2.8	4+	3	4	4+	4	4+	80VL	4	1	3.98
XPH Cr N-026	Cro	65	1148	3	78	50	LDG	16	3.5	3	3+	4-	4-	4-	4+	20VL	4	3	3.62
XPH Cr W115	Cro	92	1629	25	92	44	G	20	3.2	4+	4	4+	4+	4	4+	80VL	5	3	4.17
XPH Cr N120	Cro	54	961	3	84	44	IG	21	3.1	4+	4	4	4	4	5-	100VL	4	1	4.20
XPH Cr N124	Cro	71	1264	24	87	36	GI	22	3.1	4-	3+	4-	4+	4	5-	80VL	4	2	3.95
XPH Cr N125	Cro	79	1406	22	93	40	IG	23	3.3	4-	4-	4-	4	4	4+	100VL	5	1	3.87
XPH Cr W172	Cro	77	1362	20	89	32	GI	23	3.4	4	4	4	5-	4	4+	50L	4	3-	4.14
XPH Cr W186	Cro	67	1193	15	79	43	IG	23	3.1	5-	4-	4	5-	4	5-	80VL	5	2-	4.25
XPH Cr W193	Cro	81	1433	18	91	41	IG	24	3.2	4	4	4+	4	4	4+	80VL	4	2	4.08
XPH Cr W243	Cro	81	1433	13	89	44	G	21	3.5	4-	4	4+	4-	4+	4+	40VL	3	3	4.05
XPH Cr W248	Cro	69	1228	30	86	33	GLD	19	3.3	4-	3+	4+	4+	4+	4+	40VL	3	3	4.04
XPH Cr W387	Cro	67	1184	27	88	31	IG	23	3.4	4-	4	4	4	4	4+	40VL	3	2-	4.00
Spartan Fancy '80'	Cro	65	1157	15	88	36	GI	21	3.2	4-	4	4	4-	4	5-	60VL	3	2	3.97

* Cultivars that had weak tops

continued ...

CARROT CULTIVAR OBSERVATION TRIAL - 1983 - PACKAGING TYPES

Cultivar	Source	Yield		% Oversize	% Marketable	Stand/meter	Type	Roots		Uniform.		Appearance	Resistance To Greening	Interior Color	Core Size	Horiz. Lesions % Degree	Blight	Slicer	Score
		Tonnes/ha	Bushels/Acre					Length (cm)	Width (cm)	Shape	Size								
XPH Cr W458	Cro	63	1113	6	80	47	GI	21	3.2	4+	4	4+	4+	4-	4+	80L	4	1	4.12
XPH Cr W465	Cro	75	1335	22	93	42	IG	25	3.5	4+	4	4	4+	4	4+	100VL	4	2	4.18
XPH Cr 468	Cro	66	1166	8	85	40	I	23	3.1	4+	4	4-	5-	4	4+	80VL	5	1	4.14
XPH Cr H6	Cro	81	1433	26	94	38	GI	21	3.3	4-	3+	4	4+	4-	4+	80L	4	2	3.95
Texsun	FM	75	1326	22	81	57	LDG	17	3.5	4	3+	4	4	4+	4	40VL	3	2	3.91
FMX 147	FM	79	1397	21	86	37	NG	15	3.8	4-	4	4-	4-	4-	4+	60L	4	4	3.82
FMX 151	FM	96	1709	7	88	52	GI	21	3.4	4+	4-	4+	4+	5-	4+	10VL	5	2	4.28
FMX 164	FM	74	1317	20	88	41	LDN	18	3.6	3-	4-	4-	4-	4-	4+	80VL	5	4-	3.68
FMX 165	FM	85	1504	11	92	38	NLD	16	3.8	4	4	4	4-	4	4+	80VL	5	4-	4.00
FMX 166	FM	84	1486	26	95	33	IG	22	3.4	4-	4	4+	4+	4-	4	40VL	5	3	4.00
FMX 168	FM	76	1353	15	81	48	G	19	3.5	4-	4-	4	4-	4	5-	40VL	5	3	3.97
FMX 171	FM	58	1024	16	60	38	LDI	21	3.5	3+	4-	4-	4	4+	4+	50VL	4	2	3.91
Spartan Premium	Glo	65	1148	17	60	50	LDG	16	3.5	4	3	4-	3-	4	4+	40VL	4	2	3.67
Gold Pak G. Strain	Glo	36	641	3	63	33	GLD	18	3.4	4-	3	4-	4-	4-	4+	60VL	4	3-	3.68
GRX 1302	Glo	33	579	2	37	39	G	22	3.3	4-	4	4	4-	4	4	100VL	4	3-	3.97
GRX 1303	Glo	65	1148	11	62	50	GLD	20	3.5	4-	3+	3+	3-	4+	5-	40VL	5	3	3.72
Hipak	Har	56	988	21	83	35	LDG	16	3.5	3	2+	3+	3+	3+	4	80VL	5	2	3.28
Grenadier	Har	87	1549	11	85	52	G	22	3.3	3	3+	4-	4-	4	4+	60VL	4	3	3.77
Nanco *	Har	77	1371	8	88	45	NG	16	3.2	5-	4	4	3	4	4+	80L	4	5-	4.00
HXP 1051	Har	79	1397	10	87	44	IG	24	3.3	4+	4	4	4	4+	5-	60VL	4	1	4.25

* Cultivars that had weak tops

continued

CARROT CULTIVAR OBSERVATION TRIAL - 1983 - PACKAGING TYPES

Cultivar	Source	Yield		% Oversize	% M&ble.	Stand/meter	Type	Roots		Uniform		Appearance	Resistance to Greening	Interior Color	Core Size	Horiz. Lesions & Degree	Blight	Slicer	Score
		Tonnes/ha	Bushels/Acre					Length (cm)	Width (cm)	Shape	Size								
HXP 1141	Har	52	926	13	72	35	GI	23	3.5	4-	4	4	4-	4	5-	60VL	4	3-	4.07
HXP 2011	Har	88	1566	40	88	39	GD	16	4.0	4	4-	4-	3-	4+	4	60VL	4	2	3.78
HXP 10002	Har	77	1362	0	79	56	G	21	3.3	4+	4+	5-	4	4-	4+	40VL	5	3	4.18
HXP 10012	Har	70	1237	19	79	40	GLD	20	3.3	4-	4-	4	4	4	4+	60VL	5	3+	3.91
HXP 10022	Har	89	1575	23	91	47	ILD	23	3.6	4	4	5-	4-	4-	4+	50VL	5	3	4.05
HXP 10032	Har	83	1477	13	94	42	GI	23	3.4	4+	4	4+	4	4-	4	0	3	2	4.10
HXP 10042	Har	62	1095	35	75	26	GI	23	3.5	5-	4-	5-	5-	4+	4+	100VL	4	3	4.41
HXP 10052	Har	62	1095	28	81	28	IG	24	3.6	4+	4	4+	4+	4	4+	100VL	4	3	4.17
HXP 10062	Har	63	1121	17	94	30	GI	24	3.3	4	4	4+	4	4-	4+	40VL	3	3-	4.04
HXP 10072	Har	54	952	7	87	37	ILD	21	3.3	4	4-	4	4+	4	4	80L	2	1	4.00
HXP 10082	Har	69	1228	18	83	37	I	24	3.3	5-	4	4+	5-	4	4+	80VL	3	2-	4.34
HXP 10092	Har	72	1282	23	94	29	IG	25	3.4	4+	4	4	4+	4+	5-	0	4	3	4.30
HXP 11060	Har	76	1353	8	96	48	GI	19	2.9	3	3+	4	5-	4+	4+	60VL	5	2	3.95
HXP 12331	Har	66	1166	9	90	35	GI	23	3.1	4	4+	4+	4+	4	4	40VL	4	1	4.12
HXP 12371 **	Har	56	997	12	72	37	I	24	3.3	4+	4	4	4+	5-	5-	80VL	4	1	4.34
HXP 12391	Har	58	1024	5	63	42	GLD	18	3.3	4-	4+	4	4-	4	4	80VL	4	3	3.95
HXP 12401	Har	61	1086	0	71	38	IG	23	3.3	4	4+	4+	4-	4	4	40VL	5	3	4.10
HXP 12411	Har	67	1184	12	85	34	GI	22	3.1	4+	4+	5-	4	4-	4+	40VL	4	3	4.24
HXP 12441	Har	66	1175	8	72	34	IG	23	3.3	4	4-	4	4+	3+	4+	60VL	5	3	4.01
Trophy	Har	70	1237	23	85	38	GI	22	3.2	4-	4	4	4	4-	4+	40VL	5	3	3.95

** Half the culls were affected by sclerotina rot

continued ...

CARROT CULTIVAR OBSERVATION TRIAL - 1983 - PACKAGING TYPES

Cultivar	Source	Yield		% OverSize	% Mable.	Stand/meter	Type	Roots		Unifor.		Appearance	Resistance To Greening	Interior Color	Core Size	Horiz. Lesions & Degree	Blight	Slicer	Score
		Tonnes/ha	Bushels/Acre					Length (cm)	Width (cm)	Shape	Size								
Hyb. Exp. 2101	Mor	74	1317	15	91	37	GI	21	3.5	4	4	4+	4+	4-	4+	80VL	4	3	4.08
Hyb. Exp. 2108	Mor	61	1077	12	75	29	GI	19	3.3	3+	3+	4-	4	4	4	100VL	5	3	3.75
Hyb. Exp. 2201	Mor	45	801	10	63	30	GI	22	3.2	4+	4	4+	4+	4	4+	80VL	5	3	4.17
Hyb. Exp. 2127	Mor	51	908	14	61	32	GI	22	3.4	4	4+	5-	4+	4	4+	80VL	5	3	4.22
Hyb. Exp. 2914	Mor	43	757	4	63	42	GI	22	3.2	4-	3+	4	4	4	4+	60VL	5	3	3.90
Imperator 58 Imp.	Mor	48	854	10	60	45	IG	18	3.3	4-	3+	4	4-	4-	4	60L	5	3	3.72
NVH 1001	NK	46	819	6	58	53	GI	18	3.1	4	4	4	4-	4	4+	40VL	4	2+	3.95
NVH 1401	NK	61	1086	0	78	44	GN	15	3.4	4-	4-	4	4-	4-	4+	20VL	4	4-	3.57
Sundance	NK	52	917	8	60	44	GI	20	3.4	4-	4-	4	4	4	4+	20VL	4	2	3.95
Orlando Gold	PES	76	1344	10	88	49	I	24	3.1	4+	4+	4	4	4	5-	50VL	5	2	4.24
Little Champ *	PES	47	828	0	89	34	N	14	3.2	4+	4	4-	4-	4	4+	20VL	1	4-	4.00
Nantes Flamingo	PES	75	1335	18	89	34	N	17	3.5	4+	4+	4	3-	3	3	80VL	3	5-	3.85
Regallis Imperial	PES	72	1273	62	82	25	LD	16	3.9	4+	3+	3+	4-	4	3	40VL	4	2	3.61
Gold Pak (80%)	PES	47	828	11	78	41	G	18	2.9	3+	4-	4	4-	4	5-	60VL	4	3+	3.87
Orlando Gold	PETO	72	1273	0	94	39	I	26	3.1	5-	5-	4	5-	4-	4	100VL	5	1	4.30
PSX 181	PETO	54	961	0	80	34	IG	23	3.2	4	4+	4	4+	4-	4	80VL	5	1	4.00
PSR 482	PETO	59	1041	0	75	48	IG	24	2.9	4	4	4	5-	4+	4+	100VL	4	1	4.20
PSR 682 ***	PETO	64	1130	0	93	43	GI	22	3.0	4	4+	4	4+	4+	5-	20VL	4	3	4.30
PSR 1082	PETO	51	908	0	72	38	I	22	2.8	4+	4	4	5-	4	5-	60L	4	1	4.24
PSR 3282	PETO	59	1041	5	67	36	GI	20	3.2	4-	4-	4+	4	4	4	80VL	4	3	3.95

* Cultivars that had weak tops

** Half the culls were affected by sclerotina rot

continued ...

CARROT CULTIVAR OBSERVATION TRIAL - 1983 - PACKAGING TYPES

Cultivar	Source	Yield		% Oversize	% Mkbl.	Stand/meter	Type	Roots		Uniform.		Resistance To Greening	Interior Color	Core Size	Horiz. Lesions & Degree	Blight	Slicer	Score	
		Tonnes/ha	Bushels/Acre					Length (cm)	Width (cm)	Shape	Size								Appearance
Tamino	RS	73	1299	18	92	37	N	18	3.6	4	4	4	3-	4+	4+	60M	5	4+	3.97
Clairon	RS	65	1157	2	81	43	N	17	3.1	5-	4+	4+	3-	4-	4+	40VL	4	5-	4.00
Nevesta	RS	106	1878	18	90	51	N	16	3.4	4	3+	4-	2+	4	4+	60VL	4	4+	3.65
Rondino	RS	95	1691	14	86	50	N	18	3.4	5-	4+	4+	2+	4-	4+	40M	4	5-	3.94
Elvy	SG	71	1264	10	68	40	N	18	3.5	4	4-	4	2	4	4+	60VL	5	4+	3.67
Hytrop	SG	88	1566	15	78	37	N	18	-	4	4-	4	1	4+	4+	80VL	4	4+	3.62
Tip Top	SG	74	1317	16	80	39	N	17	3.3	4	4	4	3+	4	4+	40L	4	5-	3.90
Dominator	Sun	81	1442	28	69	40	G	22	3.5	3+	4	4+	4	4	4+	60VL	4	3	3.98
Nantes K Strain *	Sun	65	1148	20	82	36	N	16	3.6	3+	4-	4-	3+	3+	4	70L	4	4	3.58
AVX 4852	Sun	50	881	20	58	40	LD	15	3.7	4	4+	4	4-	4	4	80VL	4	3+	4.05
AVX 7901	Sun	68	1202	21	81	35	IG	22	3.5	4	4+	4	4	3	4	80VL	4	2	3.85
AVX 8160	Sun	51	908	3	68	37	IG	24	3.0	4+	4+	4	4+	4	5-	40L	3	3-	4.22
El Presidente	ARCO	46	819	16	68	32	G	21	3.3	4	4+	4+	4-	4+	4+	40VL	2	3	4.20
Nanton	ARCO	68	1206	65	97	26	DN	14	4.1	4-	3	3+	3-	4+	4+	60VL	2	3	3.58
DEXP 101	ARCO	42	748	16	69	24	G	19	3.2	4-	4	4+	4	4+	4	40VL	3	3	4.11
DEXP 102	ARCO	57	1015	6	74	35	GLD	21	3.6	4-	4+	4+	4+	4	4	20VL	3	3-	4.08
DEXP 104	ARCO	82	1460	24	95	36	LDI	19	3.9	4-	4-	4+	4-	4	4	100VL	4	2	3.91
DEXP 105	ARCO	54	952	0	74	60	I	23	2.8	4	4	4	5-	4-	4+	10VL	4	1	4.15
DEXP 107	ARCO	72	1273	6	83	44	IG	22	3.4	4-	4	4+	4	4	4+	40L	3	2	4.10
DEXP 378-888	ARCO	82	1460	10	92	46	GN	19	3.4	4-	4	4	3	4-	4+	60VL	3	3	3.81

* Cultivars that had weak tops.

continued ...

CARROT CULTIVAR OBSERVATION TRIAL - 1983 - PACKAGING TYPES

Cultivar	Source	Yield		% Oversize	% Mbble.	Stand/meter	Type	Roots		Uniform.		Appearance	Resistance To Greening	Interior Color	Core Size	Horiz. Lesions & Degree	Blight	Slicer	Score
		Tonnes/ha	Bushels/Acre					Length (cm)	Width (cm)	Shape	Size								
Dart	ARCO	63	1113	8	83	40	G	21	3.1	4	4+	5-	4	4	4+	80VL	3	3	4.14
King Emperor	Sto	80	1415	28	89	36	G	20	3.3	3+	4	4	4-	4-	4+	40VL	4	3-	3.85
Special Nantes 616	Sto	61	1086	2	84	52	N	14	2.9	4	4-	3+	3+	4-	4	100VL	5	4+	3.67
Super Nantes	Sto	75	1326	22	90	39	N	14	3.5	3	3+	4-	3-	4-	4+	40VL	5	4	3.52
Imperator 408	Sto	49	863	15	57	42	IG	20	3.2	4-	4-	4	4-	4	4+	60VL	5	2	3.91
Spartan Premium	Sto	74	1317	24	85	36	GLD	20	3.5	3+	4	4	4-	4	4+	80VL	3	3	3.85
Exp 1050 *	Sto	47	828	0	68	44	NG	18	2.7	4-	4+	4	2	4	5-	40M	3	4+	3.77
Exp 1051	Sto	62	1095	24	72	36	GI	21	3.3	4-	3+	4-	4-	4	4+	60VL	4	2	3.81
Exp 1053	Sto	73	1299	20	90	37	GI	24	3.3	4	4-	4+	4-	5-	4+	60VL	4	3	4.15
Exp 1054	Sto	79	1406	34	81	38	LD	17	3.7	4+	4-	4	3+	4+	4+	60VL	4	2	4.00
Exp 1055	Sto	46	810	7	74	31	IG	23	3.3	4	4	4+	4-	4+	4+	80VL	4	2	4.15
Exp 1056	Sto	62	1095	11	76	38	GI	21	3.2	4	4	4	5-	4	4+	20VL	3	3	4.20
EXP 1057	Sto	57	1006	2	79	45	I	25	3.2	4+	4+	4+	5-	4+	4+	60VL	3	1	4.32
Exp 1058	Sto	47	828	6	76	39	I	23	2.9	4+	4+	4+	5-	4+	4+	60VL	4	1	4.41
EXP 1059	Sto	33	587	5	36	53	LDI	19	3.5	3+	4	4	4-	4-	4	0	5	3	3.81
Exp 1062	Sto	44	774	10	51	43	G	20	3.6	3	3+	4	4-	4	4	20VL	4	3	3.71
EXP 1063	Sto	55	970	6	80	36	GI	20	3.3	4-	4-	4-	4-	4-	4+	40VL	3	3+	3.82
Spartan Delight	Sto	54	952	8	82	33	IG	24	3.2	4	4+	4+	4+	4	4+	40VL	3	2	4.22
Klondike Nantes	Sto	83	1469	13	82	44	GIN	21	3.3	4-	4-	4+	3+	4+	4+	60VL	4	3	3.95
Scarlet Nantes	Sto	56	997	29	75	33	NL	15	3.6	4+	4	4-	4-	4-	4+	80L	4	4	3.95

* Cultivars that had weak tops.

continued ...

CARROT CULTIVAR OBSERVATION TRIAL - 1983 - PACKAGING TYPES

Cultivar	Source	Yield		% Oversize	% Mkble.	Stand/meter	Type	Roots		Uniform.		Appearance	Resistance To Greening	Interior Color	Core Size	Horiz. Lesions & Degree	Blight	Slicer	Score
		Tonnes/ha	Bushels/Acre					Length (cm)	Width (cm)	Shape	Size								
91 F1	ZWS	87	1549	16	90	51	G	18	3.3	4	4	4	3+	4	4	80VL	5	4-	3.85
149 F1	ZWS	84	1504	26	86	40	G	20	3.4	4+	4	5-	4	4+	4+	60VL	4	2	4.24
S 1287	ZWS	36	632	11	42	37	I	23	3.3	4+	4-	4+	5-	4+	4+	80L	5	1+	4.24
90 F1 *	ZWS	72	1282	8	95	46	G	18	3.4	4+	4	4	4	4	4	20VL	5	3	4.04
Nantes Duke	OhE	88	1558	25	91	35	N	17	3.5	4+	4	4	3	4	4+	60L	4	5-	4.00
Nantes Fancy	OhE	84	1486	10	95	48	N	15	3.3	4	4	4	3+	4	4+	60VL	4	4+	3.94
Nantes Express	OhE	83	1477	9	94	54	N	15	3.2	4	4-	4-	4-	4-	4+	40VL	4	4+	3.87
Ideal Red	Sha	72	1273	33	95	40	ND	14	3.6	4-	3+	3+	4-	4	4+	20VL	4	4+	3.75
Bernova	Enza	85	1509	22	87	38	LD	17	3.5	4-	4-	4-	2+	4	4+	20VL	4	4-	3.62
E 188	Enza	76	1357	12	88	49	GN	16	3.3	4-	4	4-	3+	4-	4	40L	5-	4-	3.77
E 371 *	Enza	77	1371	10	90	46	N	16	3.2	4	4+	4+	3-	4	5-	90VL	4	4+	4.00
E 1095 *	Enza	65	1157	3	85	50	N	15	3.1	5-	4	4	2+	4-	5-	50M	4	5-	3.91
E 1476	Enza	90	1602	10	94	47	N	17	3.3	4+	4+	4+	3	3+	4	30L	4	4	3.85
Golden State	A.Ch	50	885	2	67	46	IG	22	3.1	3+	4	4-	5-	4+	4+	50VL	4	1	4.05

* Cultivars that had weak tops

No "Rusty Root" disorder was found in the great majority of cultivars. Some small indication of rusty root was found in : Orlando Gold (Asg); Spartan Delite, XPH Crk 124, XPH Crk W458, Hipak, HXP 12401 (Har); Hyb Exp 2201 (Mor); NVH 1001 (NK); Orlando Gold (PETO); PSX 181 (PETO); PSR 1082 (PETO); Hytop, Nantes K Strain, and DEXP 105 (ARCO). These cvs received a mark of 4 (out of a possible 5).

The c.v. Imperator 58 (Mor) received a mark of 3.

Marks taken for external color are not listed.

CARROT CULTIVAR TRIALS - 1983 - PROCESSING TYPES

Management Procedures:

Fertilizer: 500 kg 10-0-0- + 20 kg/ha Borax.

Seeded May 24 with a 5 cm wide scatter shoe 40 seeds/m, rows at 50 cm thinned to 30 plants/m.

The Main Trial was replicated three times.

In order to establish tolerance to leaf blights no fungicides were applied after Sept. 1.

Harvest took place on Oct. 14 and data was taken in late November.

Notes on report:

The Main Trial is listed in order of color.

Yield: 56 t/ha = 25 t/ha - 1000 bushels/acre

5 = most desirable 1 = least desirable

Type of Root: LD = Long Danvers C = Chantenay
 N = Nantes G = Gold Pak

Crown Shape: A hollow crown received a lower mark.

Score: The average of the 10 preceding marks.

Horizontal Lesions: also called cavity spots - 80 VL means that 80% of the roots have horizontal lesions of very small size and very few in number.

VH = many very large lesions, roots unmarketable

M = lesions of medium size and number

Rusty Root: Marks not listed. Most cultivars had a good tolerance to Rusty Root with the exception of Chantenay Red Cored (3.9), Chantenay Supreme long type (3.3) Danvers 126(4.4), AUX 3000 (4.0), and Karaf (4.0).

% Seeders: (marks not listed) Chantenay Supreme 6.7%, Midas Touch, 4.8% Spartan Bonus 80 2.3%,
A.C. #126 1.5%, Sparta Bonus 1.1%.

In the adaptation trial some seeders were found in XPH 986, CrW405, FMX210, NVH 1200, Chantenay Kola, Exp. 1052, Sturdo, #68, #134, and #147.

Slicer Shape: Cultivars that had a perfect cylindrical shape, as required for slicing, received a mark of 5.

Cottony core was observed in FMX 154 and Exp 1052

CARROT MAIN CULTIVAR TRIAL - 1983 - PROCESSING TYPES

CULTIVAR	Source	MKEL.			ROOTS		Uniformity of Shape & Size	Smooth	Crown Shape	Core Size	Gr. Shoulder	COLOR				Uniformity	Score	Horiz. Lesions & Degree	Blight	Strength of Tops	Slicer
		Tonnes/hectare	% Mkble.	Wt./root	Length (cm)	Width (cm)						Exterior	Cortex	Camb Zone	Core						
Lucky's Gold	Glo	59	83	258	17.6	5.6	3.6	3.8	3.2	4.3	3.8	4.1	4.4	4.4	4.4	4.4	4.04	80VL	3.0	3.7	1.9
Dess-Dan	ARCO	78	92	223	20.2	5.4	4.3	3.8	3.0	4.2	3.8	4.1	4.2	4.3	4.3	4.4	4.04	65L	2.3	4.3	3.0
Midastouch	FM	69	94	196	16.0	5.4	3.7	4.1	3.1	4.1	3.4	4.1	4.2	4.2	4.2	4.4	3.95	57L	4.2	4.7	3.1
Triple Gold	Jung	64	78	247	18.1	5.7	3.8	3.8	3.2	4.3	3.8	4.0	4.0	4.3	4.2	4.3	3.97	100VL	3.2	3.3	2.9
Sp. Bonus 80	Asg	62	98	182	20.0	5.1	3.7	4.0	3.9	4.2	4.0	4.0	4.3	4.0	4.2	4.2	4.03	53VL	4.4	4.1	2.9
Spartan Bonus	Glo	65	86	180	19.0	5.3	4.0	4.1	2.9	3.6	3.7	4.0	4.2	4.1	4.2	4.1	3.89	53VL	4.7	4.8	3.2
Berlanda	BEJO	79	97	239	21.9	5.1	4.1	3.8	3.1	3.3	2.7	4.1	3.9	4.0	4.1	4.1	3.72	68L	4.8	3.4	3.3
Ch. Red Cored	A.Ch.	67	95	186	13.4	5.6	3.8	4.0	3.1	3.4	3.5	3.9	3.9	3.9	4.2	4.1	3.78	63L	4.0	4.6	2.5
Casey	Asg	61	92	179	19.4	4.9	4.1	4.0	3.5	3.8	3.7	4.0	4.2	3.8	4.0	3.9	3.90	57L	4.9	3.6	2.1
Giant 114	PES	95	97	317	23.0	5.3	4.0	3.6	4.0	3.1	2.0	4.0	3.9	4.0	3.9	3.9	3.64	53L	4.6	5.0	3.7
Chrisma	A.Ch.	51	89	191	21.6	4.7	3.7	3.9	3.0	4.1	3.7	4.3	4.2	3.4	4.0	3.6	3.79	80VL	2.0	2.7	3.3
Royal Danvers	Agw	67	85	249	22.3	5.2	4.3	3.8	3.6	3.9	3.7	4.0	4.0	3.8	3.5	3.8	3.84	50L	3.0	4.1	2.2
A&C #126	A&C	65	82	248	21.4	5.6	4.3	4.0	3.2	3.9	3.7	4.0	4.2	3.3	3.7	3.9	3.82	87VL	3.2	4.7	2.6
Royal Chante.	Sto	65	94	192	15.7	5.6	3.7	4.0	3.5	3.8	3.2	3.9	4.0	3.6	3.9	3.7	3.73	51M	3.9	4.0	2.3
Sp. Classic 80	Cro	70	92	201	20.3	5.3	4.2	4.1	2.5	4.0	4.2	4.1	4.0	3.3	3.7	3.8	3.79	72L	3.4	3.7	3.1
Chant. Sup.	Sto	52	92	167	16.1	5.5	3.4	4.0	3.4	3.4	3.1	4.0	3.9	3.1	3.3	3.3	3.49	100VL	4.9	4.7	2.2
Long Type																					

LONG TERM AVERAGE OF CARROT CULTIVARS - PROCESSING TYPES

Cultivar	Source	# Years Tested	LTA Yield		LTA Color	LTA Score
			t/ha	t/a		
Tahoe	NK	2	69.0	30.8	4.23	4.06
Berlicum Bierma	NZ	3	64.0	28.7	4.23	3.84
Sp. Bonus 80	Cro	4	67.3	30.0	4.21	4.03
Dess-Dan	ARCO	8	76.8	34.3	4.16	4.01
Triple Gold	Jung	4	58.0	25.9	4.11	3.98
Casey	Asg	3	63.7	28.4	4.09	4.00
Spartan Bonus	Cro	10	74.9	33.4	4.09	3.94
Spartan Delux	Jung	6	69.0	30.8	4.00	3.92
Lucky's Gold	Glo	4	52.9	23.6	3.99	4.20
Midas Touch	FM	6	61.8	27.6	3.99	3.93
Spartan Winner	Jung	8	65.0	29.0	3.98	3.89
King Midas	FM	5	62.1	27.7	3.96	3.84
All Season Cross	Tak	4	76.0	34.2	3.95	3.84
Can-Pak	ARCO	6	66.3	29.6	3.90	3.81
Spartan Classic	Cro	9	78.7	35.1	3.88	3.86
Ch. Red Cored	Asm	5	67.6	30.1	3.88	3.72
Royal Danvers	Agw	4	70.0	31.2	3.86	3.84
Berlicum Berlinda	Asm	3	72.0	32.1	3.84	3.62
Spartan Premium	Cro	7	70.6	31.5	3.83	3.79
Oranza	BEJO	3	74.0	33.0	3.82	3.66
Danvers 126	Asg	9	63.2	28.2	3.78	3.66
Royal Chantenay	Sto	2	74.0	33.0	3.74	3.66
Gold King	NK	4	71.0	31.6	3.71	3.56
Red Core Chantenay	Asg	8	71.9	32.1	3.65	3.55

Listed in order of color

CARROT CULTIVAR STORAGE TRIAL - PROCESSING TYPES - 1982/83

Cultivar	Source	% Marketable	% Weight Loss in Storage	% Decay	Degree of Decay *
Spartan Bonus 80	Asg	83	13	4	4
Midas Touch	FM	83	8	9	4
Triple Gold	Jung	82	10	8	4
Casey	Asg	82	9	9	4
Dess-Dan	Sto	81	12	7	3
Red Core Chantenay	Asg	80	11	9	3
(872x6000)9541	MSU	79	13	8	4
Can Pak	ARCO	79	11	10	3
Berlicum Bierma	NZ	79	11	10	4
Spartan Bonus	Asg	79	10	11	3
Spartan Winner	Sto	78	11	11	4
Berlicum Berlinda	Asm	77	15	8	4
Chantenay Red Cored	"	77	11	12	3
King Midas	FM	77	10	13	3
Spartan Classic	Cro	77	8	15	3
Berlicum Special	Asm	75	10	15	3
Tahoe (1981)	NK	71	15	14	3
Danvers 126	Asg	70	12	18	2
Royal Danvers	Agw	67	11	22	2
All Season Cross	Tak	67	11	23	3
Royal Cross	"	52	14	34	1
		Aves. 76	11	13	3.2

* 5=most desirable, no decay
1=many roots, completely decayed

Harvested: Oct.19,1982, placed in refrigerated storage. Moved to common storage Dec.7 and returned to refrigerated storage Jan.5,1983. Total storage period - 35 weeks.

CARROT CULTIVAR OBSERVATION TRIAL - 1983 - PROCESSING TYPES

Cultivar	Source	Mkble. Tonnes/ha		Mkble Wt. /root (g)	Type of Root	Roots		Uniformity of Shape & Size	Smooth	Crown Shape	Core Size	Gr. Shouldering	Color				Uniformity	Score	Horiz. Lesions & Degree	Slicer
		% Mkble.				Length (cm)	Width (cm)						Exterior	Cortex	Camb Zone	Core				
Danvers 126	Agw	68	84	281	LD	21	5.6	4	3+	4-	4	3+	4	4-	3+	3+	4-	3.60	80VL	3-
XP 332	Agw	89	92	234	LD	20	5.3	4-	4-	4-	4-	4-	4-	4+	4	4+	4	3.88	60VL	3-
XP 335	Agw	55	94	367	LD	24	5.9	4-	3+	4	4	4+	4	4	3+	4	4-	3.83	60VL	2
XPH 875	Asg	71	97	229	LD	23	5.1	3+	4-	4-	4	4-	4	4	4	4	4	3.84	60VL	2
XPH 985	Asg	61	93	169	LD	20	5.2	3+	4-	4-	4	4-	4	4	4	4-	4	3.81	60VL	1
XPH 986	Asg	53	94	189	LD	22	4.9	3	4-	4-	4	4+	4-	4	4	4	4+	3.87	80VL	1
Danvers 126	A.Ch.	101	89	191	D	17	5.8	2+	4-	4-	4	3	4-	4-	3+	4-	4-	3.48	60M	2
Lucky's Gold	A.Ch.	30	86	158	D	17	5.0	3	4	4-	4+	5-	4-	4	4-	4	4	3.91	40L	2
Royal Chantenay	A.Ch.	85	94	218	DC	15	6.0	4-	4-	4-	4-	4-	4-	3+	3+	4-	4-	3.62	60VL	1
Crk. W105	Cro	77	89	174	LD	20	5.1	4-	4	4-	4	4	4	4	4-	4	4	3.91	100VL	2+
Crk. W114	Cro	46	98	192	LD	22	5.3	4-	4-	4-	4-	4+	4-	4	4-	4-	4-	3.79	60VL	1
Crk W400	Cro	72	94	267	LD	22	4.7	4	4-	3+	4-	4	4	4	3+	3+	4-	3.70	60VL	3-
Crk W405	Cro	81	98	244	LD	20	5.6	3+	4-	3+	3+	4-	4-	4-	4-	4-	4-	3.58	100VL	2
Sp. Bonus 80	Cro	79	98	231	LD	19	5.6	4-	4-	4-	4-	4-	4-	4-	4	4-	4-	3.73	20L	2
Chanton	ARCO	93	88	272	D	16	6.4	3	3+	3+	4	3+	4	3-	3	4	3	3.36	60VL	2
Touche	ARCO	59	89	219	LD	17	5.5	3	4-	3+	4	4-	4-	4	4-	4	4	3.71	80VL	3-
FMX-105	FM	99	98	186	D	16	5.4	4	4	4-	4	3+	4	4+	4-	4+	4+	3.96	10M	2
FMX-106	FM	97	100	190	D	16	5.6	4+	4	3+	4	4-	4	4	4-	4	4	3.90	60VL	2
FMX-154	FM	99	97	225	DC	14	6.0	4-	4-	3	4-	4-	4-	4-	3+	3+	3	3.48	60L	2
FMX-210	FM	76	87	260	LD	22	5.3	4-	4	4-	4	4-	4	4-	3	3+	3+	3.64	100VL	3

continued ...

CARROT CULTIVAR OBSERVATION TRIAL -1983 - PROCESSING TYPES

Cultivars	Source	Mkble. Tonnes/ha		Mkble. Wt. /root (g)	Type of Root	Roots		Uniformity of Shape & Size	Smooth	Crown Shape	Core Size	Gr. Shoulders	Color				Uniformity	Score	Horiz. Lesions & Degree	Slicer
		%	Makble.			Length (cm)	Width (cm)						Exterior	Cortex	Camb Zone	Core				
GRX 1301	Glo	71	81	222	LD	19	5.6	4-	3+	3+	4	4	4	4	4+	4	4+	3.89	0	1
Triple Gold	Glo	17	67	118	D	16	5.1	3+	3+	4-	4+	4-	4-	4-	4-	4-	4-	3.68	40VL	1
Exp. 2022	Mor	110	95	274	LD	21	5.5	4-	4	4-	4	4-	4-	4-	3+	4-	4-	3.72	80VL	1
Exp. 2023	Mor	59	95	189	D	17	5.4	3	4	4-	4	4-	4-	4-	4-	3+	3+	3.61	100VL	2
NVH 1200	NK	48	95	216	LD	17	5.8	3-	4-	4-	3+	5-	4-	4-	3+	3+	4-	3.58	20VL	1
Feonia Nobo	OhE	70	94	204	LDN	20	4.8	4-	4	4-	4-	4-	4-	4	3+	4	4-	3.72	60VL	4-
Flakkeer Regol	OhE	96	94	253	LDN	21	4.8	3+	4-	4-	3+	3+	4-	4-	3	4-	3+	3.47	60VL	3
Chantenay Redco	OhE	80	85	331	LD	19	6.4	3+	4-	4-	4-	3-	4	4-	4-	4-	4-	3.59	60 VL	2
Chantenay Rola	OhE	56	83	233	D	15	5.5	3+	4	4-	4-	3	3+	4-	4-	3+	3+	3.50	40VL	2
Regulus Imper.	Sha	59	100	211	LD	20	5.2	4-	4-	4-	4-	3	4-	4	4-	4	4-	3.69	100VL	2-
Danvers 126	Sto	87	98	189	D	17	5.6	3	4-	4-	4-	4-	4-	4-	4-	4-	4-	3.63	60VL	2
Exp. 1052	Sto	82	96	228	D	18	5.4	3	3+	4-	4-	4-	4-	4-	4	4	4-	3.65	60VL	2
Exp. 1060	Sto	42	93	296	D	17	6.1	3+	3+	3	4	4+	4-	4-	4+	4	4	3.76	40VL	1
Exp. 1061	Sto	54	74	245	D	17	5.5	3	4	4-	4	4+	4-	4	4	4-	4	3.84	50M	2
AUX 3000	Sun	53	53	312	C	13	7.8	4-	3	3+	4	4	4-	4-	3+	3+	3+	3.53	60L	1
AUX 4851	Sun	76	91	362	LD	22	5.8	3+	4	4-	2	4	4-	3+	4-	3+	4-	3.47	60VL	2
Karaf	NK	70	92	233	LDN	21	4.9	4-	3+	4+	4-	3	4-	4	4	4-	4	3.74	100VL	3+
Sturdo	NZ	67	90	203	D	29	5.9	3	3+	4	3	3+	4-	4-	4	4-	4-	3.54	40VL	1
Chantenay Comet	NZ	83	97	183	DC	13	5.7	3+	4	3+	4-	4-	4-	4-	4	4	4-	3.74	40VL	1
68	NZ	70	86	250	LD	20	5.7	3+	4-	4-	4-	4-	4	4	4	4	4+	3.84	40VL	1
134	NZ	63	90	216	DLD	18	5.6	4-	4-	3+	4	4+	4	4	4	4-	4	3.87	100VL	3
135	NZ	73	97	215	LDG	20	4.7	3+	4-	3	4	4	4-	4	4	4-	4-	3.71	80VL	3
137	NZ	108	100	277	LD	19	6.0	4-	4-	4-	4	4+	4	4	4-	4+	4	3.94	80VL	1
147	NZ	99	96	253	LDG	23	5.2	4	4-	4-	4	4-	4	4	4+	4	4+	3.97	80VL	3

SOME CARROT CULTIVARS THAT CAN BE TRIED FOR SLICERS

Cultivar	Source	MKB. YLD.		% Oversize	% Mkb'le.	Type	Stand/meter	ROOTS		Appearance	Resistance to Greening	COLOR		Core Size	Horiz. Lesions & Degree	Blight	Slicer Shape	Score
		Tonnes/ha	Bushels/Acre					Length (cm)	Width (cm)			Interior	Exterior					
Flamingo	Bak	84	1495	14	87	N	50	15	3.1	4	2	4-	4-	4+	100VL	4	4	3.67
Nantucket *	BEJO	81	1442	12	84	NLD	43	17	3.5	4	4-	4+	4	4+	80M	4	4+	4.05
Mokum	BEJO	75	1335	0	92	N	51	17	2.8	4	2	4-	4	5-	60VL	4	5-	3.81
E 371	Enza	77	1371	10	90	N	46	16	3.2	4+	3-	4	4	5-	90VL	4	4+	4.00
El476	Enza	90	1602	10	94	N	47	17	3.3	4+	3	3+	4-	4	30L	4	4	3.85
Nanco *	Har	77	1371	8	88	NG	45	16	3.2	4	3	4	4	4+	80L	4	5-	4.00
Nantes Duke	OhE	88	1558	25	91	N	35	17	3.5	4	3	4	4+	4+	60L	4	5-	4.00
Nantes Fancy	OhE	84	1486	10	95	N	48	15	3.3	4	3+	4	4	4+	60VL	4	4+	3.94
Nantes Express	OhE	83	1477	9	94	N	54	15	3.2	4-	4-	4-	4	4+	40VL	4	4+	3.87
Nantes Flamingo	PES	75	1335	18	89	N	34	17	3.5	4	3-	4	4-	4	80VL	3	5-	3.85
Tamino	RS	73	1299	18	92	N	37	18	3.6	4	3-	4+	4+	4+	60M	5	4+	3.97
Clairon	RS	65	1157	2	81	N	43	17	3.1	4+	3-	4-	4	4+	40VL	4	5-	4.00
Nevesta	RS	106	1878	18	90	N	51	16	3.4	4-	2+	4	4	4+	60VL	4	4+	3.65
Rondino	RS	95	1691	14	96	N	50	18	3.4	4+	2+	4-	4	4+	40M	4	5-	3.94
Ideal Red	Sha	72	1273	33	95	ND	40	14	3.6	3+	4-	4	4	4+	20VL	4	4+	3.75
Elvy	SG	71	1264	10	68	N	40	18	3.5	4	2	4	4-	4+	60VL	5	4+	3.67
Hytop	SG	88	1566	15	78	N	37	18	-	4	1	4+	4	4+	80VL	4	4+	3.62
Tip Top	SG	74	1317	16	80	N	39	17	3.3	4	3+	4	4-	4+	40L	4	5-	3.90
Special Nantes 616	Sto	61	1086	2	84	N	52	14	2.9	3+	3+	4-	4-	4	100VL	5	4+	3.67
Super Nantes	Sto	75	1326	22	90	N	39	14	3.5	4-	3-	4-	4	4+	40VL	5	4	3.52

* Cultivars that had very weak tops.

NOTE: The above cultivars, taken out of the Adaptation Packaging Trial, have the best cylindrical shape(see slicer shape) Also important, are marks given for core size, internal color and resistance to green shoulders. Many of this type of carrot have to be hilled to prevent green shoulders. For explanation of marks see packaging trial.

CELERY STORAGE CULTIVAR TRIAL - 1983

The 10 cultivars were seeded on May 11 in flats in a greenhouse and transplanted to the field on June 27 in rows 60 cm apart and plants 15 cm in the row, replicated three times. On September 14, 44 stalks of each cultivar were cut, trimmed and placed upright in a pallet box. The celery was drenched with water of 12°C which had 1 kg Benlate per 1000L water added to it. At the time of harvest most cultivars were of good quality with the possible exception of Fla 213, which seemed slightly overmature. The celery was placed in a "Filacell" type of storage where the temperature was kept at 1°C to 1.5°C and a relative humidity of 95%. The pallet boxes were covered on the sides with black plastic film to assure that all cultivars were treated the same irregardless of their place in the pallet box. Loss of color was the largest single cause of storage loss. Weight loss due to moisture loss in storage was quite consistant for all cultivars. Blackstem, a black discoloration concentrated around the vascular bundles of the younger petioles was a serious problem in Tall Utah 52-70K strain and in Tall Green Light. 5 = most desirable.

The cultivars are listed in order of % marketable yield after storage.

Cultivar	Source	At Harvest		After Storage Period of 84 Days					
		Yield t/ha	Quality	%Mkb.	Quality	Reasons Unmarketable (% by Weight)			
						Storage loss	Black Stem	Decay	Loss of Color
Clean Cut	Har	96	3.8	68	3.7	7	4	2	19
Surepak	Sto	102	3.7	67	3.6	9	8	2	14
Fla 213	A&C	134	3.1	67	2.5	9	3	6	15
Summit	FM	108	3.6	61	4.0	8	1	3	27
Fla 683-K Str.	Sun	122	3.8	62	3.7	9	7	5	16
Improved Utah 52-70	Sto	127	3.5	64	2.7	9	8	4	15
Deacon	Har	129	3.5	62	2.7	9	10	5	14
Tall Utah 52-70K Str.	Sun	117	3.7	56	3.0	7	16	6	15
Bishop	Mor	120	3.8	55	3.5	8	0	6	31
Tall Green Light	Har	117	3.9	50	2.6	7	18	7	18
Mean of all Cultivars		117	3.6	61	3.2	8	8	5	18

CELERY BOLTING TRIAL - MAIN - 1983

Cultivar	Source	Mkb.Wt. t/ha	% Trim Loss	Pet. Lgth	Total Lgth	Rib- bing	Crisp ness	Stringy	Compact ness	Boron defic.	Yellow Leaves	Score	% Seed ers	Resist. to Bolting	1 28 1
FM 1213	FM	143	25	31	61	R	4.0	4.0	3.5	4.0	3.5	3.80	0	5	
Florida 683 K Str.	Sun	137	30	30	66	R	3.8	3.3	3.7	4.8	3.4	3.80	20	3	
Tall Green Light	Har	135	34	32	68	R	4.0	3.7	3.9	4.7	3.6	3.98	70	1	
Calmario	"	133	31	29	65	R	4.1	3.3	4.1	4.1	3.6	3.84	33	2	
Fla 683 (Regular)	Sto	133	29	30	63	R	4.2	3.9	3.8	4.3	3.2	3.88	37	3	
Bishop	Har	132	31	35	69	S	4.3	4.2	4.0	2.6	4.0	3.82	0	5	
Summit	FM	131	24	30	62	S	4.1	3.4	3.1	3.3	4.2	3.62	0	5	
Deacon	Mor	131	32	30	63	R	4.1	3.8	3.6	3.4	3.1	3.60	7	3	
Surepak	Sto	129	39	41	73	R	4.1	3.7	4.4	4.2	4.4	4.16	0	5	
Bishop	Mor	128	29	37	66	MS	4.2	3.8	4.1	3.4	3.9	3.88	0	5	
Deacon	Har	126	30	30	62	R	4.2	3.9	3.5	3.3	3.3	3.64	10	4	
Imp.Utah 52-70	Sto	126	32	31	66	R	4.0	3.8	4.0	3.7	3.7	3.84	3	4	
Tendercrisp	Sto	124	32	34	62	S	4.1	3.9	3.0	2.8	3.1	3.38	15	4	
FM 1217	FM	124	31	31	70	R	4.2	4.0	4.0	4.7	3.1	4.00	53	3	
Tall Utah 52-70 Str.	Sun	124	34	32	68	R	3.9	3.5	3.4	4.2	3.2	3.64	10	4	
Florida 213	A&C	123	34	32	68	R	4.0	3.5	3.7	3.0	3.1	3.46	0	4	
Clean Cut	Har	122	35	31	64	R	4.0	3.6	3.7	3.1	3.3	3.54	3	4	
Grande	Sun	121	36	32	67	R	4.1	4.1	3.8	4.2	3.8	4.00	0	4	
Tall Utah 52-70R (213 Str.)	Sto	120	34	30	64	MS	4.1	3.9	4.0	2.7	3.4	3.62	3	4	
Tall Utah 52-70R Impr.	Har	119	34	27	63	M	3.9	3.4	3.2	3.1	3.9	3.50	7	4	

Notes:

The celery was seeded April 8, 1983 in a greenhouse and on May 5, transplanted to flats. From May 27 to June 14, 1983, the plants of the main and adaptation bolting trials were placed in a cold storage room at a temperature of 1°C. Fluorescent lights were used in the daytime hours. One June 16, the plants were transplanted to the field in rows 60 cm apart and 15 cm in the row. Irrigation was applied when required. The harvest was delayed to better judge the seedstalk development. The plants were cut lengthwise to measure the stem plate and arrive at an average mark for resistance to bolting. Stem plate length: 2-4cm received a 5, 5-9cm=4, 10-14cm=3, 15-25cm=2, over 25cm=1.

The cultivars are listed in order of t/ha. Score is the average of crispness, stringiness, compactness, Boron deficiency (cat scratches) and yellow leaves. 5=most desirable. R=Ribby, rough, S=Smooth. M=Medium.

CELERY BOLTING TRIAL - ADAPTATION - 1983

Cultivar	Source	Mkb.Wt. t/ha	% Trim Loss	Pet. Lgth	Total Lgth.	Rib- bing	Crisp ness	Stringy	Compact ness	Boron defic.	Yellow Leaves	Score	% Seed ers	Resist. to Bolting
77-43	MSU	154	34	40	72	R	4+	4+	4-	5	4	4.26	0	5
CRY-003	"	148	33	33	65	M	4+	3	4-	4+	4-	3.80	20	3
78-74 SM	MSU	143	36	31	60	MR	4+	4+	4-	4	4+	4.12	0	5
CRY-004	Mor	142	23	33	60	M	4	3+	4	4	3	3.66	20	3
79-57	MSU	142	24	35	62	MR	4+	4+	4	4-	4+	4.12	0	5
74-56 WE	"	136	46	35	63	R	4+	4+	3+	5	4	4.18	0	5
74-75	"	134	28	30	60	S	4	4-	4-	4+	5	4.14	0	5
Multipak	Asm	133	33	24	58	MS	4	3+	3	3+	4	3.52	0	4
82:335	AREC	133	33	37	72	R	4-	3+	4	5	3+	3.86	0	5
82:334 (M68-29-5M)	"	131	33	36	65	R	4+	3+	4+	5-	4	4.12	0	5
82:336	"	131	38	32	70	R	4-	3+	4	4	4-	3.74	0	5
Celebrittee	Asm	126	39	24	55	R	4+	4-	2	3	4+	3.46	0	4
B-72-41	MSU	125	32	33	60	MR	4+	4-	4	4	5-	4.14	0	5
78-03	"	124	30	32	67	S	4	4-	3+	4-	4-	3.68	0	5
B-68-37	"	121	34	34	63	MS	4+	4+	4	4	5	4.32	0	5
Summer Pascal	Har	110	32	--	--	--	--	--	--	--	--	----	100	1
78-69M	MSU	110	35	36	62	M	4+	4	4	3	4-	3.80	0	5
Alabaster	S&G	Celeriac, not judged												

M.S.U. BREEDING LINES - 1983

81-660	MSU	152	16	37	70	S	4.3	4.3	4.0	4.7	4.0	4.26		
81-654	"	146	28	41	70	R	4.0	3.7	4.7	4.7	3.0	4.02		
81-619	"	145	28	34	65	MR	4.0	3.7	4.0	5.0	4.3	4.20		
81-660	"	138	27	37	67	S	4.3	4.0	4.3	3.0	3.0	3.72		
81-649	"	134	30	34	62	MR	4.3	3.3	4.0	4.3	3.0	3.78		
81-647	"	132	32	32	58	M	4.3	3.7	3.7	3.3	3.7	3.74		
81-648	"	88	29	33	52	R	4.0	3.7	3.7	3.0	4.7	3.82		

Note: These plants received no cold treatment, however cv 81-649 did produce 10% seedstalks.

CAULIFLOWER MAIN CULTIVAR TRIAL - 1983

Cultivar	Source	Main Harvest Date	Duration to Harvest 75%	% Unmarketable	Reason Unmarketable	Ave. Wt./Head (grams)	Mkble Yield			Color	Ricey	Bracted	Loose	Curd Protection
							Tonnes/ha	Crates/ha	Crates/acre					
Andes	RS	S.1	15	0	-	1485	41	2301	932	4.5	4.3	4.3	4.9	4.1
Brendo	LDM	S.19	10	2	-	1452	39	2301	932	4.8	4.7	4.9	4.7	4.2
White Empress	Har	A.26	8	5	LD	1156	34	2431	984	4.5	4.7	5.0	4.0	4.1
Snow Crown	Tak	A.18	6	9	RC	1124	32	2340	947	3.6	3.0	4.9	4.6	3.2
Calypso	LDM	A.22	5	12	RLC	1161	31	2249	911	4.5	2.8	4.2	3.7	3.3
338B	RZW	S.6	14	20	RB	1321	30	1911	774	4.4	2.8	4.6	3.7	4.2
Dualba	RZW	A.23	4	16	RLC	873	21	2041	826	4.2	3.7	4.7	4.1	3.0
Alpha Paloma	RS	S.7	12	32	RC	1133	22	1599	648	3.7	1.8	4.6	4.5	3.1
Sakigake #1	MIK	A.15	5	27	LCR	682	15	1781	721	2.7	4.9	4.9	2.4	2.6
Alpha Veralto	RS	A.31	8	66	RCB	1109	12	871	353	3.2	1.5	4.0	3.9	2.8

Fertilizer: 600 kg/ha 10-0-14 + 20 kg/ha Borax. Sidedressing: 100 kg/ha Ammonium Nitrate. Direct seeded on June 1st in rows 80 cm apart and thinned to 40 cm on July 5th.

The ground water table was kept at 75 cm and irrigation was only applied when less than 2 cm rainfall per week was received.

The main trial was replicated 3 times and part of each row was not tied to judge the natural curd protection. The cultivars 338B, White Rock and White Fox developed bacterial leaf spot. 5 = most desirable 1 = least desirable.

Duration to harvest 75%: the days required to harvest 75% of the plants.

Reason Unmarketable: R=Ricey, C=Poor Color, L=Loose, B=Bracted, D=Decay, U=Undersize.

The reason mentioned first is the main cause.

CAULIFLOWER CULTIVAR TRIAL - ADAPTATION - 1983

Cultivar	Source	Mean Harvest Date	Duration to Harvest 75%	% Unmarketable	Reason Unmarketable	Ave. Wt/Head (grams)	Mkble Yield		Crates/acre	Color	Ricey	Bracted	Loose	Curd Protection
							Tonnes/ha	Crates/ha						
81-831	MSU	A.17	6	0	-	753	23	2600	1053	4.4	5.0	5.0	1.8	3.4
79-908	"	A.15	12	5	-	1050	30	2340	947	4.2	5.0	5.0	3.8	4.2
78-908	"	A.15	3	6	-	1082	29	2210	895	4.3	5.0	5.0	4.0	3.5
81-871	"	A.22	9	0	-	870	26	2470	1000	3.8	4.8	4.6	3.8	4.0
Stovepipe	"	A.19	5	5	-	875	25	2340	947	3.5	4.4	5.0	4.6	3.8
79-945	"	A.22	4	15	RCL	856	23	2210	895	3.1	3.8	5.0	3.4	3.9
81-837	"	A.17	9	16	L	741	19	2080	842	3.9	5.0	5.0	2.8	3.5
77-879	"	A.12	6	32	-	896	18	1690	684	3.9	4.6	5.0	3.8	3.2
77-876	"	A.16	7	30	LD	746	16	1820	737	4.0	4.2	5.0	3.4	3.3
78-882	"	A.19	5	28	LRC	788	16	1690	684	3.4	4.4	5.0	2.6	3.4
XPH 855	Asg	S.6	19	11	RU	1156	31	2210	895	3.9	2.4	5.0	3.2	3.7
Hormade	NZ	S.9	24	6	-	1130	26	1950	789	4.4	4.6	4.8	5.0	4.4
Starlight	RZW	A.26	16	35	DUC	1164	20	1430	579	4.0	3.4	4.6	4.0	4.4
Snow King	Tak	A.6	4	15	L	850	23	2210	895	4.0	4.8	4.2	1.4	3.0
White Rock	SG	S.19	14	18	RC	1407	31	1820	737	4.6	4.4	5.0	4.6	4.1
White Fox	SG	S.6	10	13	-	1104	24	1820	737	4.8	4.6	4.8	4.6	4.0
RS 1831 (Vernon)	RS	S.14	14	6	-	1316	33	2080	842	4.7	4.2	5.0	4.6	4.1
Dok Elgon	"	S.16	13	39	RCLU	1183	20	1430	579	4.2	3.0	3.8	4.6	3.8
Alpha Fortados	"	S.12	13	59	RCLB	1143	13	910	368	3.7	2.4	3.6	4.0	2.7
RS 1836	"	S.14	10	56	RCLU	783	9	910	368	2.9	2.2	5.0	3.2	3.7
Suprimax	"	S.14	10	68	RBLC	1142	11	780	316	3.5	2.0	3.0	3.8	2.8
Matra	"	S.25	15	67	UCRB	1250	10	650	263	3.3	3.8	4.2	4.8	4.3
Groden	DAE	S.2	7	63	RCD	1192	11	780	316	4.5	3.4	4.6	5.0	2.9
Corvilia	"	A.22	4	81	RBL	900	4	390	158	3.2	2.2	4.2	4.0	2.9

EARLY ROMAINE LETTUCE CULTIVAR TRIAL - 1983

Cultivar	Source	Days to Harvest	Wt/Carton (18 heads)	% Mktble	Diameter (cm)	% Tipburn	Bottom Rot	Firmness	Uniformity	Internal Stem Length	Acceptability	Remarks
MAIN - Seeded June 2 - replicated 3 times.												
Parris Island	Sun	56	20.9	100	16.7	7	4.8	4.3	4.3	3.0	4.0	
Signal	Peto	55	16.3	100	16.2	0	4.9	3.6	4.1	3.5	3.9	
Parris Island	Har	57	18.9	100	16.6	0	4.1	4.0	4.0	2.7	3.7	
Parris Island	Mor	56	18.6	100	16.5	0	5.0	3.9	4.0	3.2	3.7	
Valmaine	Har	57	15.8	100	15.1	7	4.7	3.3	3.7	3.0	3.3	
Valmaine	Peto	Only 2 heads marketable										
ADAPTATION - non-replicated												
Parris Island	Peto	57	20.2	100	15.8	0	5-	4	4	3	4-	
XP 825	Asg	55	20.5	100	17.4	0	5-	4+	4+	3-	4	Beautiful
XP 930	"	55	21.6	100	17.4	0	5-	4	4+	4-	4	Nice and even
XP 996	"	55	18.0	100	16.6	0	5-	4	4+	3+	4	
XP 997	"	55	18.0	100	16.0	0	5	4+	4+	3+	4	
XP 998	"	55	20.2	100	16.4	0	5-	4+	4+	4-	4	40% brown rib
XP 999	"	55	19.8	100	16.0	0	5-	4+	4+	3	4	Very good
Babro Black	Bak	55	19.2	100	15.8	0	3+	2	4	5-	3	Produced suckers
Green Princess	IPB	53	17.6	100	16.8	0	5	4	4+	3	4+	
Lemo	OhE	55	13.3	100	14.0	0	4-	1	3+	5-	2	
Corsaro	RS	55	18.9	100	16.6	0	5-	4+	4+	3-	4-	
L 9752	SG	57	26.1	100	20.0	70	4	1	1+	1	1	

Note: The cvs Vasko, Bellona, Columbus, Polo, Marmer and Marbello did not produce a sufficient number of plants for a fair evaluation. FM8248 and Cartan went to seed prematurely.

LATE ROMAINE CULTIVAR TRIAL - 1983

Cultivar	Source	Days to Harvest	Wt./Carton (18 heads) kg	% Mable	Diameter (cm)	% Tipburn	Bottom Rot	Firmness	Uniformity	Internal Stem Lgth.	Acceptability	Remarks
<u>MAIN - Seeded June 22, replicated 3 times</u>												
Parris Island	Mor	54	16.9	100	15.9	0	4.8	4.3	4.2	4-	4.2	Very nice
Parris Island	Har	54	17.0	100	15.3	0	4.8	4.1	4.1	4	4.1	Very nice
Valmaine	"	54	15.8	100	15.5	7	4.5	4.1	3.9	4-	4.1	
Parris Island	Sun	53	14.4	100	13.7	0	4.6	3.9	4.0	4	4.0	
Signal	Peto	53	14.2	100	14.3	7	4.8	3.8	4.0	4-	3.8	
<u>ADAPTATION - non-replicated</u>												
Parris Island	Peto	54	15.3	90	14.6	0	5-	4+	4	4-	4+	
XP 825	Asg	54	15.6	100	14.2	0	5-	4	4	4-	4	
XP 930	"	54	15.5	100	15.4	0	5-	4-	4	3+	4	
XP 996	"	54	14.9	100	14.8	5	5-	4-	4-	3	4-	Brown rib
XP 997	"	54	12.9	100	14.2	0	5	4-	4-	4-	4-	
XP 998	"	54	13.8	100	15.2	0	5	4-	4	4	4	
XP 999	"	54	14.7	100	15.0	0	5	4	4+	4-	4+	
Babro Black	Bak	54	15.7	100	14.6	0	4-	4+	4+	5	5-	Blond romaine
Green Princess	IPB	51	16.6	100	15.2	20	5-	3	3	2+	3	
Cartan	"	54	14.0	90	14.0	0	5-	4-	4-	4	4-	Harv. slightly early
Lemo	OhE	54	12.4	100	12.6	0	4	4	4	5	4	Blond romaine
Corsaro	RS	58	19.8	100	15.0	10	5-	4+	4+	3	4+	Very nice, harv. early

5=most desirable

1=least desirable

Rows at 43 cm, thinned to 30 cm

EARLY HEAD LETTUCE CULTIVAR TRIAL - 1983

Cultivar	Source	Days to Harvest	Wt./Carton (18 heads) (kg)	% Mkble	Reason Non-Mkble	Diameter (cm)	% Tip Burn	Bottom Rot	Firmness	Uniform.	Internal Stem Length	Acceptability	Remarks
MAIN - Seeded May 18, 1983. Replicated 3 times.													
Montello	Asg	62	19.0	100		15.6	7	4.1	4.5	4.6	4.0	4.6	Very nice
Montello	Har	62	19.5	100		15.7	17	3.8	4.7	4.8	4.5	4.4	
Green Lakes	Peto	62	19.5	100		16.0	7	4.1	4.2	4.2	4.0	4.4	Some sun scald
Montello	"	62	18.4	100		15.6	13	4.0	4.1	4.2	4.0	4.4	Nice
Montello	Mor	63	20.4	97	slime	16.8	7	4.2	4.1	4.3	4.0	4.2	
Green Lakes	Har	63	18.9	100		16.5	7	4.0	3.9	4.2	3.9	4.2	
Green Lakes	Mor	63	20.7	100		16.2	7	4.2	4.0	3.8	4.0	4.1	
Fairton	Asg	65	21.7	97	slime	17.6	3	4.0	3.9	4.2	4.3	4.1	
Green Lakes	Sun	63	17.9	100		16.3	0	4.1	3.6	3.9	4.0	4.1	
Ithaca	Peto	63	22.4	100		16.8	7	3.9	3.5	3.9	3.7	4.0	Some nice and heavy
XP 993	Asg	64	21.9	93	slime	16.5	13	3.6	4.2	4.2	4.3	4.0	10% brown rib
Ithaca	"	62	20.8	100		17.1	8	3.8	3.9	4.1	3.9	3.9	
XP 992	"	66	23.3	97	slime	17.3	40	4.1	4.2	4.3	3.9	3.9	Beautiful except tip burn
Ithaca	Har	64	20.5	100		16.7	7	3.8	3.5	4.0	3.1	3.8	
El Toro	"	65	Too soft and loose. 100% seeders, soft smooth leaves										
Salinas R100	"	65	100% seeders, smooth soft leaves, very loose soft, puff ball										

Notes:

5 = most desirable.

Rows at 43 cm

Plants thinned to 30 cm.

Tipburn detected only after cutting head.

The weather was very hot and humid for 3 weeks prior to harvest.

LATE HEAD LETTUCE CULTIVAR TRIAL - 1983

Cultivar	Source	Days to Harvest	Wt/Carton (18 heads) (kg)	% Mkble	Reason Non-Mkble	Diameter (cm)	% Tipburn	Bottom Rot	Firmness	Uniformity	Internal Stem Length	Acceptability
Main - Seeded June 29, 1983. Replicated 3 times												
Ithaca	Har	56	17.0	100	- - -	16.0	0	3.7	4.3	3.9	4.2	4.2
Montello	Mor	58	18.5	95	Soft	16.2	0	4.0	4.0	4.0	4.0	4.2
XP 992	Asg	60	20.8	85	Soft, slime	16.2	3	3.2	4.5	4.3	3.5	4.2
Green Lakes	Sun	57	19.9	95	Slime	17.3	3	4.3	3.8	4.0	3.9	4.0
Green Lake	Mor	57	19.9	90	Seeder, soft	16.0	0	4.2	4.2	4.0	4.3	4.0
Montello	Har	53	17.0	100	- - -	16.6	0	4.3	4.0	4.2	4.0	4.0
XP 993	Asg	58	19.5	95	Slime	16.1	0	3.9	3.5	3.5	3.7	4.0
Ithaca	Asg	56	18.0	95	Slime	15.8	0	3.9	4.0	3.3	3.7	3.9
Green Lakes	Har	58	18.7	95	Soft	16.6	3	4.2	3.4	3.7	4.0	3.7
Montello	Asg	57	17.5	95	Soft	16.6	3	4.2	3.7	3.7	4.2	3.7
Fairton	Asg	58	18.5	90	Slime	16.0	10	3.7	3.7	3.2	4.3	3.5
Mesa 659	Asg	58	22.9	100	- - -	17.3	25	4.0	3.7	3.3	3.2	3.3
Mesa 659	Mor	59	20.7	85	Slim, soft	17.1	10	4.2	3.2	3.5	3.7	3.2
El Toro	Har	61	23.0	65	Soft, seeders	17.3	70	3.7	3.2	3.7	1.5	1.9

EARLY HEAD LETTUCE ADAPTATION TRIAL - 1983

Cultivar	Source	Days to Harvest	Wt/Carton (18 heads) (kg)	% Mkble	Reason Non-Mkble	Diameter (cm)	% Tip Burn	Bottom Rot	Firmness	Uniform.	Internal Stem Length	Acceptability	Remarks
Seeded: May 18, 1983													
GL-659-700	Asg	65	22.0	90	soft	18.0	0	5-	3+	4	3	3+	30% brown rib
XP 989	"	65	23.0	100		18.0	0	4+	4-	5-	4	4+	
XP 991	"	65	23.8	100		17.4	0	4	4+	4+	4+	4	
65 LM-1	"	65	22.1	100		17.8	20	5-	3+	3+	4-	3-	6% brown rib
65 LM-2	"	65	23.8	100		17.6	0	5-	2+	3-	2+	2	60% brown rib
65 LM-3	"	65	18.7	100		17.2	0	5-	3-	4-	4+	3-	60% brown rib
65 LM-4	"	65	21.2	100		18.4	0	4	3+	4+	4	3+	60% brown rib
65 LM-5	"	65	18.9	100		17.0	20	4	4	4	4	4	Brown ribs
65 LM-6	"	65	21.4	100		18.0	60	4+	4	4-	4+	3	
65 LM-7	"	65	19.5	100		16.0	10	4+	4	4-	4+	4-	30% brown rib
65 LM-8	"	65	20.5	100		15.4	0	4+	3+	4-	4	4	10% brown rib
65 LM-10	"	65	19.1	100		16.0	30	4	4	4	4+	4	40% brown rib
65 LM-11	"	65	20.2	90	slime	16.0	0	4	4+	4+	4+	4	30% brown rib
65 LM-12	"	65	18.7	100		16.6	0	3+	3+	4-	4	4-	20% brown rib
65 LM-13	"	65	20.7	100		16.4	0	4-	4+	4	4	4-	80% brown rib
65 LM-14	"	65	21.5	100		17.2	60	5-	4	4-	4-	3	60% brown rib
65 LM-15	"	65	19.6	100		16.4	0	5-	3	4	4+	3	80% brown rib
65 LM-16	"	65	21.8	100		17.2	20	4	4-	3+	4+	4-	60% brown rib
65 LM-17	"	65	19.4	100		16.0	20	4+	4-	3+	4+	3-	60% brown rib
65 LM-18	"	65	19.1	100		15.8	0	4-	3-	4-	4	3+	20% brown rib
65 LM-19	"	65	20.2	100		15.4	0	4	4	4+	4-	4	30% brown rib
65 LM-20	"	65	18.7	100		15.8	0	5-	4-	4+	4+	4-	60% brown rib
Salinas	Peto		See Salinas R100										
Empire	"	65	25.2	80	slime	18.4	40	4	3-	3-	4-	3-	
Prizehead	"		Red leaf lettuce, very nice										
Lake Nyah	Sha	68	25.6	90	slime	19.0	100	4+	3	4	2	2	
AVX 0970	Sun		100% seeders, puff balls										

The breeding lines 73-44, 73-45, 73-49, 74-11, 74-13, 74-28, 74-29, 74-46 and 74-56 did not produce a sufficient number of plants to do a fair evaluation.

LATE HEAD LETTUCE ADAPTATION TRIAL - 1983

Seeded: June 29 - Non Replicated

Cultivar	Source	Days to Harvest	Wt/Carton (18 heads) (kg)	% Mkb1e	Reason Non-Mkb1e	Diameter (cm)	% Tipburn	Bottom Rot	Firmness	Uniformity	Internal Stem Lgth	Acceptability	Remarks
GL-659-700	Asg	61	18.7	70	Soft	16.6	20	4+	3+	3	3	3-	Very uneven emergence
XP 989	"	56	19.0	90	Slime	16.2	0	4	5-	4+	4+	4+	Very nice
XP 991	"	56	22.9	80	Soft	16.2	0	4+	5	5-	4-	4+	Excellent but uneven
65LM-1	"	58	18.0	90	Soft	16.2	0	4	3+	4-	4-	4	
65LM-2	"	58	22.5	90	Soft	17.4	0	4-	3	4-	3+	3	Large, soft and coarse
65LM-3	"	61	20.7	60	Soft	15.6	0	4-	3-	3-	4-	3	
65LM-4	"	69	15.3	80	Soft, split	15.0	20	3+	3+	3-	3	3	
65LM-5	"	61	20.7	80	Soft	16.0	0	4-	3	3	3	3	
65LM-6	"	58	20.7	90	Soft	16.6	0	4-	4	4-	4	4	
65LM-7	"	61	18.9	90	Soft	16.2	10	4-	3+	3	3+	3+	
65LM-8	"	69	17.1	60	Soft, split	15.2	0	3	4+	3	3+	3	Brown ribs
65LM-10	"	61	20.7	80	Soft	15.4	0	4-	3-	4-	4-	3+	
65LM-11	"	61	19.8	80	Soft, split	15.0	0	4-	3+	3-	3+	3	
65LM-12	"	61	19.4	90	Soft	16.0	0	3+	4-	4-	4-	4-	
65LM-13	"	61	17.6	90	Soft	16.0	0	3+	3	3+	4	4-	1 brown rib
65LM-14	"	63	19.2	90	Soft	16.2	0	3+	3	4-	3	3+	
65LM-15	"	63	19.1	100	----	14.4	0	4-	3	4	4-	4-	
65LM-16	"	63	21.1	100	----	15.8	10	4	3+	3	4-	3+	
65LM-17	"	63	18.1	80	Soft	15.2	0	4-	3	3+	3-	3	
65LM-18	"	63	20.7	60	Soft, seeders	16.6	0	4	3+	3-	3+	3-	
65LM-19	"	63	19.4	80	Soft, split	16.2	5	4	4-	3	4	3+	
65LM-20	"	61	21.1	100	----	15.6	0	4-	4-	4	4-	4-	

continued ..

LATE HEAD LETTUCE ADAPATION TRIAL - 1983 - CONTINUED

Seeded June 29 - Non Replicated

Cultivar	Source	Days to Harvest	Wt./Carton (18 heads) (kg)	% Mkble	Reason Non-Mkble	Diameter (cm)	% Tipburn	Bottom Rot	Firmness	Uniformity	Internal Stem Length	Acceptability	Remarks
Salinas	Peto	61	19.3	30	Seeders	16.1	33	4	4	3+	2-	1	
Empire	Peto	61	19.3	80	Soft, slime	15.6	30	4	4	4+	4	4-	Pear shaped oval
Prizehead	Peto	47	-	100	red leaf lettuce-very attractive								
Nerone	R.S.	61	19.4	70	Seeders	16.6	100	4-	3+	4-	2	1	Downy mildew
Nabucco	R.S.	61	21.6	30	B.R. seeders, sf.	17.0	100	3+	4-	4-	2	1	
Lake Nyah	Sha	61	22.5	90	Soft	16.8	80	3	3+	4-	2+	1	
AUX 0970	Sun	61		100%	seeders								

LONG TERM AVERAGES OF SOME OF THE ONION VARIETIES TESTED IN OUR TRIALS

Cultivar	Source	# Years Tested	LTA		LTA Days to Maturity	Firmness
			t/ha	b/a		
Pronto S	Asg	4	48.4	862	107	2.76
Super Spice	Sto	5	37.5	668	107	4.14
Autumn Spice	Cro	9	41.2	773	108	4.17
Early Pak	Cro	6	53.1	945	108	4.14
Simcoe	ARCO	8	48.6	865	109	4.24
Rocket	Asg	13	54.6	970	109	3.82
Tamarack	Sto	5	47.9	853	110	4.18
Fawn Preview	FM	11	51.2	912	110	4.05
Trapp #6	Tra	12	54.1	962	110	4.01
Garnet	Asg	12	54.1	962	110	3.77
Progress	Har	8	57.5	1024	110	3.70
Mirage	Sto	4	44.2	787	111	4.35
Buccaneer	Har	13	52.0	926	111	4.08
Mustang	Har	12	51.1	910	111	4.05
Aries	Asg	9	52.0	926	111	3.98
Taurus	Asg	9	53.2	947	111	3.88
Nutmeg	Har	10	51.6	919	112	4.29
Trapp # 8	Tra	11	56.8	1011	112	4.23
Abco	A&C	2	63.8	1136	112	4.20
Sw. Sandwich	USDA	3	69.8	1242	112	4.02
Golden Laker	FM	5	47.4	848	112	4.00
Imp. Aut. Spice	Sto	8	45.8	815	112	3.78
Autumn Glo	Brs	4	53.4	944	113	4.03
Sunburst	Asg	8	44.5	792	113	4.00

continued ..

LONG TERM AVERGAES OF SOME OF THE ONION VARIETIES TESTED IN OUR TRIALS - continued

Cultivar	Source	# Years Tested	LTA		LTA Days to Maturity	Firmness
			t/ha	b/ha		
Buccaneer Imp.	Har	2	58.1	1034	114	4.50
Mucker	ARCO	8	55.6	990	114	4.05
Cooper Cache	FM	9	53.7	956	114	3.92
Sunglow	Cro	4	51.3	909	114	3.86
Autumn Bronze	FM	2	40.0	713	115	4.00
Canada Maple	Sto	14	55.5	988	116	4.24
Ontario M	Asg	7	54.7	970	116	4.11
Aut. Splendor	Cro	3	50.2	893	116	4.05
Autumn Keeper	Cro	6	53.0	942	117	4.15
Spartan Era	Key	7	55.5	987	117	4.13
Storage King	Sto	8	53.9	960	117	3.90
Russet	Sto	5	65.1	1159	117	3.84
Gladitor	Key	10	61.5	1094	117	3.76
Exporter	Sto	14	57.9	1030	117	3.76
Bronze Age	FM	6	60.8	1082	117	3.38
Sp. Sleeper	USDA	4	61.4	1093	118	4.11
Autumn Pride	Cro	4	72.2	1285	119	3.73
Sentinel	Har	10	59.3	1056	120	4.27
Harvestmore	Har	2	39.4	701	120	3.50
Canada Granite	Sto	5	45.1	803	121	4.04
Northern Oak	Sto	8	61.0	1085	121	3.80
Sp. Banner 80	Agw	2	67.8	1207	125	3.78

ONION CULTIVAR STORAGE TRIAL - SEP.12, 1982 - AUG.18, 1983

Cultivar	Source	% Weight Loss In Storage	% Rot By Weight	% Sprouted By Weight	% Soft By Weight	% Mbble By Weight	Firmness
Sentinel	Har	10	1	1	2	86	4.4
Simcoe	ARCO	8	0	3	3	86	4.3
Canada Maple	Sto	7	0	4	3	86	4.2
Mucker	ARCO	9	1	2	4	84	4.3
Buccaneer Impr.	Har	10	0	5	2	83	4.4
Autumn Keeper	Cro	10	1	2	4	83	4.4
Fawn Preview	FM	8	0	6	4	82	4.2
Trapp #8	Tra	9	0	4	7	80	4.0
Sto.Exporter	Sto	10	1	4	5	80	4.0
Mustang	Har	9	0	7	5	79	4.2
Copper Cache	FM	10	0	4	7	79	4.0
Taurus	Asg	8	1	3	10	78	3.8
Autumn Glo	Cro	10	0	6	8	76	3.9
Tamarack	Sto	9	0	8	7	76	3.9
Ontario M	Asg	9	1	8	7	75	3.9
Trapp #6	Tra	10	0	7	8	75	3.8
Rocket	Asg	9	0	8	10	73	4.0
Imp.Autumn Spice	Sto	8	0	8	11	73	3.9
Aries	Asg	9	0	6	12	73	3.7
Garnet	Asg	9	0	8	10	73	3.7
Autumn Splendour	Cro	9	0	10	10	71	3.8
Early Pak	Cro	10	0	14	11	65	3.7
Sunglow	Cro	10	0	7	19	64	3.3
Russet	Sto	10	0	8	19	63	3.4
Progress	Har	10	1	13	22	54	3.1
Averages		9	1	6	8	76	3.9

Stores at 27°C and 70% R.H. for one week. The temperature was gradually lowered to 1% by December 15, 1982, while the R.H. was kept at approximately the same level. On April 20, the samples were moved into a refrigerated storage.

ONION CULTIVAR TRIALS - 1983

Crop Management Information:

Fertilizer: 1000 kg/ha 10-0-5 + 18 kg/ha copper sulfate

Seeding: May 3 at 52 seeds/m (16/ft) with a 5 cm wide scatter shoe. The seed was coated with Pro-Gro and 35 kg/ha 5% Dyfonate plus 10% Thiram was applied in the seed furrow.

Weed Control: pre-: 2.5 L/ha Gramoxone
loop: 14 L/ha Radox + 7 L/ha CIPC.
Post: 5 L/ha Radox + 2.5 L/ha Tok applied 4 times at 2 week intervals.
Grass Control: 5.3L/ha Hoe-Grass in 330 L water/ha.

Insect Control: 1.1 kg/ha Diazinon or 550 ml/ha Dibrom applied when necessary.

Disease Control: 2.2 kg/ha Maneb or Zineb weekly after July 27.

Minor Elements: 3 applications of 2 kg/ha Manganese Sulphate
2 applications of 1 kg/ha Zinc chelate

Water Table: kept at 60 cm, no irrigation used.

Spout Inhibition: 16L Royal M-H with Sorbatram in 1100 L water/ha on August 23 when 25 to 75 % of the tops were down.

The main trial is listed in order of maturity and is replicated 3 times.

The date of maturity is the date when at least 85% of the tops are down.

Stand/meter: 33 bulbs/m = 10 bulbs/ft.

Yield/ha: is the marketable yield over 44 mm (1 3/4"); 56 t/ha = 25 t/a = 1000 bags/acre

Type of Culls: D = Double R = Rot W = White Y = Yellow
U = Undersize S = Sprouted Rd = Red

Ave. weight/bulb: 100 grams - 3.5oz. = bulb 2 1/4" in size.

Score: Average of last 7 marks 5= most desirable 1 = least desirable.

ONION MAIN CULTIVAR TRIAL - 1983

Cultivar	Source	Days to Maturity	Stand/meter	Yield		Uniformity					Color	Skin Thickness	Skinning	Neck Finish	Score		
				Tonnes/ha	Bags/Acre	% #1 Small	% Culls	Type of Culls	Ave. Weight /bulb (g)	Firmness						Size	Shape
Eskimo (No.10)	Tak	103	30	60.1	1122	4	1	--	96	3.9	4.1	4.1	4.0	3.8	3.5	4.3	3.96
Progress	Har	106	28	56.2	1000	5	7	DU	98	3.9	3.9	3.9	3.8	3.8	3.3	4.2	3.83
Simcoe	ARCO	108	28	50.3	895	8	4	UR	87	4.6	4.0	3.7	4.0	3.9	3.8	4.3	4.04
Taurus	Asg	109	31	53.5	952	7	4	DR	83	4.2	4.2	4.2	3.9	3.9	3.9	4.3	4.09
Norstar (80-02)	Tak	110	27	68.9	1226	2	1	--	113	3.6	4.0	4.3	3.8	3.8	3.0	4.6	3.87
Trapp #8	Tra	111	32	60.1	1069	4	1	--	111	4.2	3.9	4.0	4.3	3.9	3.8	4.2	4.04
Tamarack	Sto	112	26	54.0	961	4	4	UD	99	4.2	4.1	4.0	4.3	3.7	4.0	4.0	4.04
Aries	Asg	112	29	59.6	1060	4	1	--	92	4.1	4.0	3.9	3.8	4.0	3.8	4.1	3.96
Early Pak	EJ	113	29	55.3	984	3	4	RU	87	4.1	4.0	3.7	4.1	4.0	3.9	4.1	3.99
Abco	A&C	113	30	61.9	1101	5	3	UD	95	4.4	4.1	3.9	4.0	4.2	4.1	4.0	4.10
Canada Maple	Sto	113	32	50.9	906	8	4	DUR	78	4.4	3.8	3.6	3.9	4.0	4.1	4.3	4.01
Fawn Preview	FM	114	28	51.2	911	8	2	--	87	4.2	3.9	3.9	4.0	4.0	4.2	4.1	4.04
Sw. Sandwich	A.Ch	114	33	73.5	1308	4	1	--	99	3.9	4.2	4.3	4.4	4.0	3.8	4.1	4.10
Russet	Sto	114	30	67.0	1193	2	4	DR	113	3.6	4.0	3.3	3.9	3.9	3.9	4.0	3.80
Mucker	ARCO	116	27	55.2	982	7	6	WRU	106	4.2	3.8	3.6	4.2	4.1	4.1	4.0	4.00
Buccaneer Imp.	Har	117	32	62.2	1106	5	4	DUR	91	4.6	4.0	3.8	3.9	3.9	3.8	4.2	4.03
Copra	BEJO	119	30	64.5	1148	4	2	UR	97	4.3	4.2	4.3	4.0	4.1	4.2	4.1	4.17
Sp. Sleeper	USDA	119	28	65.1	1159	3	1	--	105	4.3	4.1	3.9	4.4	3.7	4.1	4.0	4.07
Autumn Pride	EJ	121	32	72.7	1295	4	3	DUR	102	3.9	3.9	3.7	3.9	3.8	3.7	3.9	3.83
Cuprum	ARCO	122	28	71.5	1272	1	1	--	110	4.1	4.3	4.0	4.4	3.8	3.9	4.1	4.09
Better Banner	A&C	122	27	62.3	1108	2	6	DUR	111	3.9	4.0	3.6	3.8	3.8	4.0	3.7	3.83
Exporter	Sto	123	26	57.9	1030	3	6	URD	104	4.0	3.8	3.1	4.1	4.1	4.0	3.9	3.86
Northern Oak	"	124	32	67.6	1203	6	4	D	101	3.8	3.7	3.4	3.7	3.8	3.7	3.8	3.70
Sentinel	Har	126	30	63.3	1127	4	3	U	99	4.4	4.0	4.0	4.0	4.0	4.3	3.7	4.06
Sp. Banner '80'	Agw	127	27	65.1	1159	5	2	--	110	4.0	4.1	3.3	3.9	3.9	3.9	3.7	3.83

ONION CULTIVAR OBSERVATION TRIAL - 1983

CULTIVAR	Source	Days to Maturity	Stand/meter	Yield		% #1 Small	% Culls	Types of Culls	Av. Weight /bulb (g)	Firmness	Uniformity		Color	Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/hectare	Bags/Acre						Size	Shape					
Apollo	A&C	107	29	66	1166	2	9	DUR	111	3+	4	3+	3+	4-	4-	4	3.61
Super Apollo	A&C	112	28	48	862	5	13	DR	92	4-	4-	4-	4-	4-	4-	4	3.74
Keep Sweet(Sw. Span.)	A&C	121	26	68	1214	3	2	DU	118	4-	4	4	3+	4-	4-	4-	3.73
Superior	A&C	121	27	71	1269	1	8	DR	126	4-	4-	4	4-	4-	4	4-	3.79
ACX-834418	A&C	121	25	63	1118	2	12	DUR	128	3	3+	4-	4-	4-	4-	4-	3.54
ACX-834447	A&C	114	19	53	938	2	14	DR	143	4-	4+	4	4	4	3+	4	3.90
ACX-834460	A&C	112	27	70	1249	3	6	DR	122	4	4-	4	4-	3+	4	4-	3.77
ACX-834462	A&C	112	30	62	1111	6	3	UD	99	4-	3+	4	4-	4	4-	4	3.77
Rocket	Asg	105	29	57	1014	6	3	D	92	3+	4	4+	4-	4-	4-	4+	3.86
XPH23	Asg	112	27	61	1090	3	3	DR	105	4	4-	4+	3+	4-	4-	4	3.81
XPH691	Asg	110	27	59	1049	2	9	D	105	4	4-	4	4-	4-	4-	4	3.83
XPH738	Asg	117	24	52	918	1	15	D	112	3+	3+	3+	4-	4+	4	4-	3.66
XPH3220	Asg	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
XPH3227	Asg	112	21	58	1035	2	1	U	120	4	4+	4	4-	3+	4	4-	3.86
XPH3240	Asg	112	30	67	1187	3	3	RU	103	5-	4+	4-	4	4-	4	4-	4.01
XPH3252	Asg	125	28	73	1297	3	1	R	118	4	3+	2+	4	3+	4-	3+	3.41
XPH3255	Asg	125	16	58	1028	0	4	RD	165	4	4+	4-	4-	3	4	4-	3.77
XPH3267	Asg	-	12	42	745	0	30	D	226	4-	4+	4	4-	3+	4	3+	3.76
XPH3268	Asg	121	25	82	1456	0	2	D	143	4+	4+	4+	4	4	4-	3+	3.99
Gambler	Agw	117	32	81	1435	3	3	DUR	115	4-	4-	3+	3+	4-	3+	4-	3.53

Continued ...

ONION CULTIVAR OBSERVATION TRIAL - 1983

CULTIVAR	Source	Day to Maturity	Stand/meter	Yield		% # 1 Small	% Culls	Type of Culls	Ave. Weight /bulb (g)	Firmness	Uniformity		Color	Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/ha	Bags/Acre						Size	Shape					
Indian Princess	Agw	117	27	57	1007	4	7	RD	100	3+	4	4	4-	4-	4-	4	3.77
XP632	Agw	128	34	91	1621	3	4	RDU	125	3	3+	3+	3+	4-	4-	3	3.33
XP633	Agw	119	30	65	1159	2	2	RU	98	4-	4-	3	4-	4-	4-	4-	3.60
XP634	Agw	121	25	67	1187	1	4	DR	121	4	4	4-	4-	4-	3+	4-	3.73
XP635	Agw	121	34	73	1304	5	2	DU	100	3+	4+	4	4-	3+	3+	4	3.70
XP636	Agw	128	24	69	1221	2	5	DRd	134	4	4	4	3	4-	4-	4	3.77
XP638	Agw	119	26	54	966	3	5	RDW	97	4-	4	4-	4-	4-	4-	4	3.79
XP695	Agw	125	23	77	1373	0	3	R	153	4	4-	3+	3+	3+	4	3+	3.56
Hold Burger	Bak	139	13	17	310	1	30	RD	86	3-	2+	3+	2	3+	4	1	2.66
Suntan	BEJO	117	29	57	1007	2	14	Rd	101	4+	4+	5-	4	4-	3+	4+	4.09
Sunglow	Cro	128	26	81	1435	0	2	R	138	4-	4-	4-	3+	4-	4	4-	3.69
XPH Crk. N2	Cro	128	16	57	1007	0	9	RD	165	3+	3	3	3	3+	4	3	3.23
XPH Crk. N9	Cro	125	23	83	1469	0	0	R	154	4	4+	4-	4	4-	4	3-	3.77
XPH Crk. N13	Cro	128	28	61	1076	5	1	R	101	4-	4	3+	3+	4	4-	4-	3.67
XPH Crk. N14	Cro	121	22	61	1083	1	3	RU	127	4	3+	3	4-	4-	4-	4-	3.59
XPH Crk. N23	Cro	110	34	59	1056	5	2	RU	82	4	4	4+	4-	4-	4	4	3.96
XPH Crk. N49	Cro	103	26	47	828	6	1	RU	82	4-	4	3+	4-	4-	3+	4-	3.63
XPH Crk. N50	Cro	110	29	49	869	8	5	RU	81	4-	4	4+	4	4	3+	4+	3.94
XPH Crk. N51	Cro	112	35	74	1311	3	3	RSp	97	4+	5-	4	4	4-	4-	4	4.06
XPH Crk. N52	Cro	110	25	43	766	9	4	RD	84	4	4-	4	4	4-	3+	4+	3.86

continued ...

ONION CULTIVARS OBSERVATION TRIAL - 1983

CULTIVAR	Source	Days to Maturity	Stand/meter	Yield		Uniformity						Skin Thickness	Skinning	Neck Finish	Score		
				Tonnes/ha	Bags/Acre	% #1 Small	% Culls	Type of Culls	Av. Weight /bulb (g)	Firmness	Size					Shape	Color
XPH Crk. N53	Cro.	107	32	56	1000	6	1	R	82	4-	4+	4	4	4-	3+	4+	3.90
XPH Crk. N95	Cro	112	27	67	1200	2	4	R	113	4-	4	4-	4-	4-	4-	4	3.79
XPH Crk. H283	Cro	114	27	71	1256	0	8	RD	125	3+	4-	3+	3+	3+	3	4-	3.37
XPH Crk. W767	Cro	114	29	59	1042	2	7	RD	98	4	5-	4+	4-	4	4-	4-	4.01
XPH Crk. W775	Cro	112	29	65	1159	3	8	DUR	106	3+	4-	4-	4-	4-	4-	4-	3.64
XPH Crk. W848	Cro	128	30	71	1269	5	0	R	110	4-	4	3+	4-	4-	4	4-	3.73
Autumn Glo	E.J.	119	18	54	966	1	4	DR	137	4	4-	4	3+	3+	4	4	3.76
Autumn Keeper	E.J.	125	23	72	1283	1	10	R	156	4	4-	4	3+	3+	4-	4-	3.67
Autumn Splendor	E.J.	110	23	56	1000	2	3	RD	112	3+	4-	4	4	4-	4-	4-	3.73
XEJ - 720	E.J.	119	26	86	1525	0	4	RDU	149	3	4-	4	4-	3+	4-	3+	3.53
Bronze Reserve (X42M4)	FM	114	25	59	1049	2	5	RD	109	4-	4-	3+	4	4-	4	4	3.77
Bronze Age	FM	128	27	60	1069	5	4	DR	106	3+	3+	4-	3+	3+	4-	4-	3.47
Copper Cache	FM	117	25	47	835	8	2	RU	91	4	4-	4-	3	4-	3+	4	3.63
220W-4	FM	110	28	74	1318	1	4	DR	120	4	4+	4	4-	4-	4-	4	3.91
X153W2	FM	128	24	66	1180	3	6	RU	131	4	4-	4	4-	4-	4	3+	3.77
X153W3	FM	121	22	68	1207	0	6	RU	145	4	4	4-	3+	4-	4-	4-	3.73
X218W4	FM	117	22	66	1166	0	2	RU	135	4	4+	4	4	3+	4-	3+	3.80
X219W2	FM	125	22	63	1118	0	4	DR	131	4-	4-	3+	4-	3+	4	4	3.67
X219W9	FM	128	22	59	1056	2	13	RD	138	3+	4-	4-	3-	3	4-	4-	3.40
X220W1	FM	114	23	58	1035	1	1	R	108	4-	4+	4	3+	3+	4	4	3.80

continued ...

ONION CULTIVAR OBSERVATION TRIAL - 1983

Cultivar	Source	Days to Maturity	Stand/meter	Yield		% # 1 Small	% Culls	Type of Culls	Ave. Weight /bulb (g)	Firmness	Uniformity			Skin Thickness	Skinning	Neck Finish	Score	
				Tonnes/ha	Bags/Acre						Size	Shape	Color					
X220W2	Bronze Reserve	FM	114	24	66	1180	1	2	R	125	4-	4	4-	3+	4-	4	4	3.77
X220W3	Coopermine	FM	119	28	69	1221	0	2	R	108	4	4-	4-	4	4-	4	4+	3.91
X220W4	Columbia	FM	105	27	50	897	4	4	URD	86	4	4	4	4	4-	4-	4	3.91
X221W4		FM	114	27	52	931	8	3	DUR	93	4-	4	4+	4	4-	4-	4+	3.96
X222W4		FM	110	25	66	1166	1	0	R	118	4	4	4	4-	4	4-	4-	3.87
X223W2		FM	114	31	54	966	0	3	R	119	4	4	4	4-	4-	4-	4-	3.83
X224W2	Gibraltar	FM	119	27	66	1173	1	2	DU	110	4+	4-	4-	4	4-	4	4	3.91
X225W1		FM	121	28	58	1035	3	2	RU	95	4+	4+	4	4	4-	4-	4	4.00
X225W2		FM	128	27	61	1076	1	2	RU	102	4-	4	3+	3+	4-	3+	4	3.61
X226W1		FM	114	22	45	793	6	3	DU	96	4	4	4	4-	4-	4	4	3.91
X227W2		FM	117	27	59	1049	4	0	-	100	4-	4-	4-	4-	4-	4	4	3.79
X228W2		FM	121	20	57	1014	1	8	SdR	132	4-	4-	3+	4-	4-	4	4-	3.69
X229W3		FM	121	28	72	1283	1	5	R	118	4-	5-	4	4+	3+	4	4-	3.96
X230W3		FM	125	17	51	911	1	11	RD	152	3+	4	4-	4-	4-	4-	3-	3.54
X231W3		FM	125	18	59	1042	2	4	RD	147	4-	3+	4	3+	3	4	3	3.47
X231W9		FM	132	20	61	1083	0	15	DR	160	3+	3	3	3	3+	4-	3+	3.23
X232W3		FM	125	15	51	911	1	20	DR	191	4-	4-	4	4-	3	4-	4	3.69
Early Canada	Glo	132	16	52	927	0	22	DWR	185	4-	4-	4-	3	3+	4-	3+	3.49	
GRX 2809	Glo	117	22	57	1014	0	14	DWR	130	3+	4-	4	4-	3+	4	3+	3.61	
GRX 2810	Glo	121	30	78	1380	1	0	-	113	4-	4	4-	4	4-	4-	4-	3.79	

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ONION CULTIVAR OBSERVATION TRIAL - 1983

CULTIVAR	Source	Day to Maturity	Stand/meter	Yield		% #1 Small	% Culls	Type of Culls	Ave. Weight /bulb (g)	Firmness	Uniformity			Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/ha	Bags/Acre						Size	Shape	Color				
GRX 2811	Glo	112	26	54	952	1	10	RDU	99	4-	4-	4-	4	4-	4-	4-	3.74
GRX 2812	Glo	112	27	68	1214	1	7	DR	120	4-	3+	4-	4-	4-	3+	4-	3.59
Early Yellow	Har	110	30	69	1235	4	6	DR	112	3	3+	3+	3-	3	2+	4-	3.04
Nutmeg	Har	112	26	63	1125	0	2	R	107	4-	4+	4	4-	4-	4-	4-	3.83
Super Sleeper	Har	125	25	49	869	3	8	RDW	96	4+	4-	3+	3+	4-	4	4-	3.71
Surecrop	Har	125	25	63	1125	2	1	R	107	4+	4-	4-	4-	4-	4-	4-	3.79
HXP 2610	Har	103	22	50	897	1	1	R	103	3	5-	4+	4	3+	3+	4	3.80
HXP 2611	Har	112	26	70	1242	1	2	RD	120	4-	4	4	4-	4-	4-	4	3.83
HXP 2612	Har	112	27	61	1090	1	0	UR	99	4	4+	4+	4	4-	4-	4	4.00
HXP 2613	Har	125	24	61	1090	2	0	R	112	4+	4	4	3+	4	4-	4-	3.86
HXP 2614	Har	125	25	68	1214	1	3	R	123	4	3+	3	3+	3	4	4-	3.47
HXP 2617	Har	121	25	65	1159	1	3	R	115	4	4+	4+	4-	4-	4+	4-	4.00
HXP 2618	Har	117	23	55	980	1	1	RU	106	4	4-	4	3+	4-	4-	4	3.77
HXP 2619	Har	110	24	48	856	3	3	RU	92	4-	4	4-	4	4-	4-	4	3.83
HXP 2620	Har	121	31	73	1304	4	1	DUR	109	4	4	4	4-	4-	4	4	3.91
HXP 2621	Har	117	28	48	849	5	4	RU	81	4-	4+	4+	3+	4-	4	4	3.90
HXP 2622	Har	117	28	62	1104	3	0	-	99	4	4-	4-	4-	4-	4-	4+	3.83
HXP 2623	Har	117	30	60	1062	5	1	RU	92	4+	4+	4-	3+	4-	4-	4	3.86
HXP 2624	Har	119	25	52	918	3	3	R	95	4-	4	4-	4	4-	4	4-	3.83
HXP 2625	Har	128	23	63	1118	1	0	U	119	4	4	4-	3	3+	4	4-	3.67

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ONION CULTIVAR OBSERVATION TRIAL - 1983

CULTIVAR	Source	Days to Maturity	Stand/meter	Yield		% # 1 Small	% Culls	Type of Culls	Ave. Weight /bulb (g)	Firmness	Uniformity		Color	Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/ha	Bags/Acre						Size	Shape					
HXP 2626	Har	125	21	50	883	7	1	U	111	4-	4-	4+	3-	4	4+	4-	3.77
D5537p	Har	128	18	50	897	1	10	RD	137	5-	4	4+	4-	4-	4	3+	3.96
D275162	Har	128	20	60	1069	1	1	-	132	4-	4	4-	3	4-	4	4	3.73
ACX 0370W	NIPB	110	24	44	776	5	2	DUR	86	4	4	4	4-	3+	3-	4+	3.76
ACX 1272W	NIPB	110	22	58	1035	1	3	DR	116	3+	4-	3+	4+	3+	3-	4	3.51
ACX 1303W	NIPB	131	23	62	1104	0	25	D	155	4	4	4-	3+	3+	4-	4-	3.67
ACX 1324W	NIPB	131	17	44	787	1	23	D	144	3+	4	4	4-	4-	4-	4	3.77
ACX 1333W	NIPB	125	16	38	676	1	13	DUR	119	4-	4-	4	4-	4-	4	4+	3.87
ACX 3327	NIPB	114	26	54	952	1	18	DR	108	3+	4-	4	4-	4	3+	4	3.71
ACX 3337R	NIPB	110	34	66	1173	4	4	DRU	92	4-	3+	4-	3	4	3	4	3.53
ACX 5041R	NIPB	114	26	46	814	4	19	DR	98	4	3+	3	3+	4-	3+	4	3.51
ACX 5154R	NIPB	121	16	24	435	1	47	D	127	4-	4-	4-	3-	3+	3	4	3.44
ACX 5329R	NIPB	128	20	32	566	8	38	DR	124	4-	3+	4-	3+	4-	4-	4-	3.59
ACX 5799R	NIPB	128	21	9	166	12	61	RdD	67	4-	4	4-	2	3+	3	4	3.39
ACX 5800R	NIPB	114	22	44	780	3	21	DUR	111	4-	3+	4	3+	4-	4-	4+	3.71
ACX 5801R	NIPB	110	23	30	531	17	2	DU	70	2+	3	3	3	3	2	4+	2.94
ACX 7944R	NIPB	125	14	32	566	1	19	DUR	121	4-	3+	3+	2	3+	3-	4	3.19
ACX 7449R	NIPB	121	23	45	800	3	17	DR	105	3	4-	4	3	3+	3-	4	3.39
ACX 7969R	NIPB	136	40	27	483	0	60	DR	209	4	3	4	3	3	3+	4	3.47
ACX 8013R	NIPB	121	24	13	228	16	47	DRd	63	3-	4-	4	2	3	3-	4+	3.20

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ONION CULTIVAR OBSERVATION TRIAL - 1983

CULTIVAR	Source	Days to Maturity	Stand/meter	Yield		% # 1 Small	% Culls	Type of Culls	Ave. Weight /bulb (g)	Firmness	Uniformity		Color	Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/ha	Bags/Acre						Size	Shape					
ACX 8092R	NIPB	128	12	58	1028	0	3	R	221	3	4-	4+	3+	3	4	3+	3.51
ACX 8100R	NIPB	114	31	74	1318	2	18	DR	130	4-	4	4	4	4	4-	4-	3.87
ACX 8122R	NIPB	114	17	35	628	6	3	UD	100	3+	4-	3	4-	4-	3+	4-	3.49
F24	Jung	125	20	42	752	4	1	-	95	4+	4+	4+	4-	4-	4	4+	4.09
F25	Jung	125	19	67	1200	0	3	DR	157	4	4+	4	4-	3+	4-	3+	3.76
F27	Jung	125	26	35	628	18	3	U	74	5-	4	4	4-	4-	4	4-	3.97
F47	Jung	125	19	40	704	3	1	U	91	4+	3+	4+	3+	4-	4	4	3.84
F57	Jung	131	20	62	1111	1	4	D	138	4-	4-	3+	3+	3+	4-	3+	3.47
F245	Jung	128	27	52	931	6	1	U	89	4-	4-	4	3+	4-	4-	3+	3.63
F247	Jung	125	29	25	448	31	2	U	56	4-	4-	4	3+	4-	4-	4-	3.69
F254	Jung	125	19	39	697	5	2	R	98	4+	4	4	4-	4-	4-	4-	3.87
F257	Jung	125	22	50	883	6	1	RU	103	4	4	4+	3+	3+	4-	4-	3.76
F274	Jung	125	26	54	966	3	4	R	98	4+	4	4-	4-	4-	4	4	3.91
F275	Jung	125	23	55	973	1	3	RU	109	4	4-	3+	3+	4-	4-	4	3.67
F452	Jung	125	27	62	1104	1	0	U	101	4+	4+	4+	4-	4-	4	4-	4.00
F457	Jung	128	22	65	1152	0	10	DR	138	4	5-	4-	5-	3+	4	4-	4.01
F542	Jung	125	25	69	1228	2	2	R	122	4	4	4+	4	4-	4-	4-	3.91
F572	Jung	131	16	40	704	2	7	RU	115	4	4	4	4+	4-	4+	4-	4.00
F574	Jung	128	24	53	945	7	0	-	103	4	4	4	4+	3+	4-	4	3.90
F752	Jung	128	25	80	1414	0	3	R	144	4-	4+	4	4	3+	4-	3+	3.76

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ONION CULTIVAR OBSERVATION TRIAL - 1983

CULTIVAR	Source	Days to Maturity	Stand/meter	Yield		% # 1 Small	% Culls	Type of Culls	Ave. Weight /bulb (g)	Firmness	Uniformity		Color	Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/ha	Bags/Acre						Size	Shape					
Flinstone	K.Br	121	24	20	352	32	3	UR	53	4	4	4+	3+	4-	3-	4+	3.76
Golden Earth	K.Br	93	23	17	304	28	5	US	47	2+	4+	4	3	3	2	5-	3.33
Ramaran	K.Br	134	18	32	566	0	24	DR	99	4-	4+	4+	3+	4-	3+	3+	3.70
Rocky	K.Br	134	20	42	745	1	13	DR	102	3+	4	4	3+	3+	4+	3	3.60
Fall Classic	JHK	125	20	46	814	2	1	R	102	4+	4+	4+	4-	4	4-	4	4.04
Krummrey Special	Kru	136	20	52	924	1	7	RD	119	4	4-	4-	4	3+	4+	4-	3.81
QSX 1024	Qua	136	16	36	649	1	9	DR	105	4-	4+	4+	3	4-	4-	3-	3.63
QSX 1038	Qua	136	17	30	524	6	10	DR	90	3+	4-	4-	3	4-	4-	3+	3.49
QSX 1040	Qua	133	14	19	345	2	19	RD	76	3-	4	4+	2-	3	2+	4-	3.10
Oporto RS	RS	138	19	40	718	0	20	DR	112	4-	4+	4+	3+	4-	4	3-	3.71
Rivato RS	RS	138	26	41	731	0	26	DR	91	3+	4	4	4-	3+	4	3	3.61
Ingot	Sha	139	20	32	566	5	23	DRd	97	3+	4	4	3-	4-	4-	3+	3.53
Early Harvest	Sto	107	19	37	655	5	3	UR	91	2	3+	3+	3-	3-	2	4+	2.90
Enterprise	Sto	114	20	53	938	3	7	RD	127	3+	4-	4-	4	4-	4-	4	3.73
Imp. Autumn Spice	Sto	110	17	40	718	4	4	R	107	4-	4	4	4-	4	3	4+	3.81
Mirage	Sto	112	20	44	787	3	2	R	98	4	4	4+	4	4	3+	4	3.94
Russet 214A	Sto	125	22	70	1242	0	4	RW	140	3+	4	4-	4-	3+	4-	4-	3.63
Spartan Banner	Sto	128	23	56	993	1	2	DR	107	4-	4	4-	3	3+	4-	4-	3.59
Tecumseh	Sto	119	18	52	918	1	7	DR	135	4-	4	4	4+	4-	4-	4+	3.96

continued ...

ONION CULTIVAR OBSERVATION TRIAL - 1983

CULTIVAR	Source	Days to Maturity	Stand/meter	Yield		% # 1 Small	% Culls	Type of Culls	Av. Weight /bulb (g)	Firmness	Uniformity		Color	Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/ha	Bags/Acre						Size	Shape					
Capable	ARCO	110	19	58	1035	2	2	Rd	137	4	4	4	4-	4-	3+	4	3.81
Oro	ARCO	117	17	50	897	1	4	R	133	3+	4-	3+	4-	4	4-	4-	3.63
DEXP 293-3	ARCO	110	25	69	1221	2	2	UR	121	4	4	4-	4+	4-	3+	4	3.86
DEXP 476-4	ARCO	112	19	35	628	8	4	RU	90	4	4+	4	4-	4-	3-	4+	3.81
DEXP 479-4	ARCO	114	25	62	1111	4	0	-	111	4	4+	4	4-	4-	3	4+	3.86
DEXP 560-3	ARCO	110	22	48	856	3	4	RD	103	4-	3+	4-	4-	4-	3+	4	3.63
DEXP 594-1	ARCO	125	23	62	1111	0	16	RD	143	4+	5-	4	4	3+	4-	3+	3.90
DEXP 595-1	ARCO	-	14	55	983	0	0	-	172	4	4-	4-	4-	3+	4	3+	3.67
DEXP 596-1	ARCO	128	23	61	1076	1	3	RU	116	4	4+	4	4+	4-	4	4-	4.00
DEXP 597-3	ARCO	128	23	59	1042	0	5	RD	114	5-	5-	4+	4	4-	4-	4	4.16
DEXP 597-4	ARCO	125	28	48	849	3	9	RD	90	4+	4-	4+	4-	3	4-	4	3.81
DEXP 1317-1	ARCO	117	22	67	1194	2	1	U	134	4+	4+	4	4-	3+	4-	4	3.90
EYG #155	ARCO	117	20	46	814	3	10	RD	113	4-	4-	3+	3+	3	3-	4	3.39
EXP 1064	Sto	125	23	54	952	1	9	DR	112	4	4	4-	4	4	4-	4-	3.87
EXP 1065	Sto	125	20	49	876	1	23	D	138	4-	4+	3+	4+	4-	4-	4-	3.81
Gladiator	Sun	125	28	61	1090	3	7	DUR	107	4-	4-	4-	4	4-	4-	4-	3.74
Early Gold	Sun	112	15	30	531	11	6	DR	103	4-	4	4-	4-	3	3	4+	3.63
AVX 3365	Sun	140	21	36	642	3	27	DR	110	5-	4	5-	4-	4-	4	3+	4.01
Eskimo (80-02)	Tak	107	25	53	945	1	0	R	96	4-	4-	4	4-	3+	3	4+	3.67
Norstar (No. 10)	Tak	103	27	62	1111	2	1	R	100	3	4-	4	3+	3	3-	4+	3.43

continued ...

ONION CULTIVAR OBSERVATION TRIAL - 1983

Cultivar	Source	Days to Maturity	Stand/meter	Yield		% # 1 Small	% Culls	Type of Culls	Ave. Weight /bulb (g)	Firmness	Uniformity		Color	Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/ha	Bags/Acre						Size	Shape					
Trapp #6(Lot51256)	Tra	112	19	45	793	1	13	RD	120	4+	4	4	4	4-	4	4	4.00
Trapp #6(Lot52358)	Tra	114	29	56	993	3	7	DUR	93	4-	5-	4+	4-	4-	3+	4+	3.96
Sweet Sandwich	USDA	117	23	67	1187	0	5	R	133	4+	4+	5-	4	4-	4+	4	4.19
VDH 79266	VDH	117	20	49	876	2	1	R	110	4	4+	4	4	4-	3+	4	3.90
VDH 82012	VDH	119	24	60	1062	2	4	RDU	113	4	4-	4-	4	4-	4	4-	3.83
VDH 82018	VDH	112	25	55	980	3	3	DUR	101	4	4+	4+	4-	4-	4-	4+	4.00
VDH 82209	VDH	110	26	50	833	4	1	UR	88	4+	4+	4+	4	4+	4	4+	4.21
VDH 82245	VDH	125	24	74	1318	1	3	R	140	4	4+	4-	4-	4-	4-	4	3.87
VDH 82249	VDH	119	24	58	1035	2	5	R	113	4	4	4	4-	4-	4-	4	3.87
VDH 82388	VDH	125	25	52	918	1	17	D	111	4-	4+	4	4	3+	3+	4	3.80
TARGA	NZ	136	19	31	545	19	2	RD	90	4	4-	3+	3	4-	3+	4-	3.53
ROCCO	NZ	142	15	23	400	0	22	R	84	4-	4	3+	3+	4-	4-	3+	3.57
Sweet Sandwich (Lot 114013)	PES	117	21	60	1069	2	4	RDU	128	4+	4+	4+	4	4	3+	4	4.03
Sweet Sandwich (Lot 114015)	PES	112	28	74	1318	2	2	RU	119	4	4+	5-	4+	4	4	4	4.19
#1070	Sto	100	22	60	1069	1	1	R	122	3+	4+	4	4-	3-	3-	4+	3.57
#1071	Sto	112	31	66	1173	4	3	DUR	97	4	4	4	4	4	4-	4	3.96
107-83	UW	128	21	74	1311	0	4	DR	157	4+	4	4	3+	3+	4-	3+	3.70
115-83	UW	-	8	47	828	0	0	-	250	4+	4+	4+	4+	4	4-	3+	4.03
118-83	UW	119	26	71	1269	2	0	-	120	4+	5-	4+	4+	4-	4	4	4.19

continued ...

ONION CULTIVAR OBSERVATION TRIAL - 1983

CULTIVAR	Source	Days to Maturity	Stand/meter	Yield		% # 1 Small	% Culls	Type of Culls	Ave. Weight /bulb (g)	Firmness	Uniformity		Color	Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/ha	Bags/Acre						Size	Shape					
124-83	UW	114	31	61	1083	5	1	U	90	4	5-	4+	4+	4-	4-	4-	4.06
143-83	UW	112	39	57	1021	12	2	RU	73	4-	4+	3+	4	4	4-	4	3.86
147-83	UW	125	22	58	1035	1	6	DR	123	4	4+	4-	3	4-	4	3	3.67
157-83	UW	110	24	58	1035	2	0	-	104	4	5-	4	4	4	4	4	4.10
201-83	UW	110	43	69	1228	12	0	-	78	4-	5-	4	4-	4	4-	4	3.97
216-83	UW	114	29	59	1056	2	1	U	90	4+	5-	4+	4	4+	4	4+	4.27
219-83	UW	121	25	48	856	4	9	D	96	4	4	3+	4	4+	4-	4+	3.94

RED ONION CULTIVAR OBSERVATION TRIAL - 1983

Cultivar	Source	Days to Maturity	Stand/meter	Yield		% # 1 Small	% Culls	Types of Culls	Ave. Weight /bulb (g)	Firmness	Uniformity			Skin Thickness	Skinning	Neck Finish	Score
				Tonnes/hectare	Bags/Acre						Size	Shape	Color				
Big Red	A&C	117	23	50	890	3	6	RDU	105	4-	4	4-	4+	4-	3+	4-	3.77
ACX 834451	A&C	121	26	50	897	5	6	RDW	94	4	4+	4	4-	4	4-	4	3.96
Crk. W156	Cro	121	29	52	924	4	14	DR	94	4-	4	4-	4+	3+	3+	4-	3.71
Benny's Red	Har	128	24	72	1283	1	21	DWR	164	4	4-	4-	3+	4-	4-	4-	3.69
Rudo	OhE	142	11	6	110	2	63	DR	63	4	4	4	4+	3+	4	2+	3.70
ACX 7929R	NIPB	133	14	45	800	1	17	D	167	3+	4-	3+	3+	3+	2	4-	3.23
ACX 8071R	NIPB	128	27	24	435	9	42	DUS	79	3+	4-	4	1	3-	3-	4	3.06
ACX 8073R	NIPB	117	24	63	1125	1	10	DWU	128	4-	4-	4-	3	4-	3	4+	3.59
Comred	K.Br	133	26	28	497	5	36	DR	77	4-	3+	5-	4+	3-	2	4-	3.49
DEXP 110-4	ARCO	131	24	77	1366	2	12	D	160	4-	5-	5-	4+	4-	4-	4-	4.07
Carmen	ARCO	128	24	46	814	4	13	DRU	100	4-	4	4+	4	4-	3-	4	3.77
Carmen	Sto	128	21	48	862	3	9	DWU	111	4	4	4+	4	4-	3+	4	3.90

SPANISH ONION CULTIVAR OBSERVATION TRIAL - 1983

CULTIVAR	Source	Day to Maturity	Yield # 1 3 inches +		% 1 3/4 - 3"	% Culls	Type of Culls	wt/bulb	% Single Centre	Firmness	Uniformity		Color	Skin Thickness	Skinning	Neck Finish	Score
			tonnes/ha	Bags/acre							Size	Shape					
Matador	Mor	128	21	373	42	21	DR	201	0	4-	4+	4	4-	4-	3	4	3.77
Fiesta	PETO	121	9	159	74	7	RDU	161	0	4	3+	4-	3+	4-	3+	4	3.61
Wte. Sp. Ringmaster	"	139	9	159	29	53	DR	179	0	4-	4	3	3+	3	3-	4	3.39
Saturn	PETO	133	2	41	50	43	DRU	147	0	4	4-	4	3+	3+	3+	3-	3.47
White Sp. Jumbo	PETO	139	0	0	22	77	RDY	117	0	4-	4-	4	4-	3+	3+	4-	3.63
DEXP 592P	ARCO	131	30	538	39	15	DWR	228	20	4+	4-	4	4-	3+	3+	4	3.76
Brahma	ARCO	139	15	262	65	0	-	170	20	4	3+	4	3+	3+	4	3+	3.60
Magnum	ARCO	128	32	566	38	19	RdD	216	0	4-	4-	3-	4-	4-	2+	4-	3.36
Golden Cascade	ARCO	128	43	773	26	8	D	239	10	4-	4+	4	4-	3	3-	4-	3.59
Cima	Sun	139	42	752	13	27	DR	238	10	4-	4	3	3+	3+	4-	2-	3.24

Y = yellow (in a white variety)

PRODUCTION OF SHALLOTS 1983

710 grams of cv Yellow less than 44 mm in size and 7200 grams of cv Sante less than 44 mm in size and 4250 grams of cv Sante over 44 mm in size were planted on May 25 in a deep muck. The bulbs were spaced 15 cm in the row and the rows were 43 cm apart, with the soil barely covering the bulbs. A herbicide application of 6.7 kg/ha allidochlor (Radox) and 3 kg/ha chlorpropham (CIPC) was applied prior to the planting. All other growing practices were done as for the production of yellow cooking onions from seed.

The bulbs were pulled August 17 and moved into a temperature and humidity controlled storage in early September.

TABLE

<u>Materials Planted:</u>	<u>Yellow - Over 44 mm</u>	<u>Sante - Less than 44 mm</u>	<u>Sante - Over 44 mm</u>
Planted #/ha	155,000	155,000	155,000
Planted t/ha	2.1	3.8	7.1
<u>Yield:</u>			
#/ha over 44 mm	0	257,000	137,000
#/ha 32-44 mm	126,000	393,000	510,000
#/ha 20-44 mm	<u>299,000</u>	<u>237,000</u>	<u>571,000</u>
Total #/ha	426,000	887,000	1,218,000
t/ha over 44 mm	0	15.4	6.3
t/ha 32-44 mm	2.7	10.2	12.6
t/ha 20-32 mm	<u>2.1</u>	<u>2.5</u>	<u>5.2</u>
Total t/ha	4.8	28.1	24.1
Total b/a	85	500	429
% Culls (by Wt.)	11.1	2.5	2.6
Type of Culls	Decay	Undersize Decay	Decay Undersize
Av. Weight (bulbs (g))	11.3	31.7	19.8
Quality *	2	4+	4
Color	Yellow	Bronze	Bronze
% Seeder	0	3.7	6.2
Increase in Production (by weight)	2.25X	7.3X	3.4X

* 5 = most desirable, 1 = least desirable

Conclusion: The best material for planting is the small size Sante. It had the greatest increase in production, largest size, highest yield, excellent quality, and few seeders.

PARSNIP CULTIVAR TRIAL - 1983

As a result of the serious disease problems that have developed during the last two growing seasons, it was decided to have a variety trial of all cultivars and sources available and check these for resistance to diseases. 22 cultivars were seeded in a three times replicated trial, in rows 50 cm apart 6 m long, at 33 seeds/m.

Two cultivars, one of which was a 4 year old seed supplied by a grower, did not germinate. Normal management practices were followed, except that fungicides were not applied after September 1st. Also, the tops were not clipped at a height of 50 cm, as is the practice in some areas. The plants were thinned to about 12/m in the row which proved to be too thin a plantstand and resulted in a very high percentage of oversize. No disease symptoms were found on the foliage at harvest on October 31st.

The roots were placed in a "Filacell" storage where the temperature was kept at 1°C and the relative humidity at 95%.

Data was taken on November 22, 1983 after 3 weeks in storage.

Explanation of marks given in table:

The cultivars are listed in order of shape and acceptability.

5 = most desirable, 1 = least desirable

10 t/ha = 225 bushels of 40 lbs. per acre

44 mm to 65 mm equals 1½" to 2½". The great majority of oversize were 2½" to 3" in diameter.

Type of Culls

U = Undersized

S = Split

C = Canker

N = Navel

F = Forked

M = Misshapen

The length was taken from the crown to the point where the diameter was 1½ cm.

Ratio L/D: is the length divided by the diameter, the higher the mark, the more slender the root.

Root: The mark given is better for those roots more uniformly filled and cylindrical in shape.

Shape of Crown: A hollow crown receives a lower mark.

Acceptability: A mark given for eye appeal relating to appearance, color, smoothness and shape.

PARSNIP CULTIVAR TRIAL - 1983

Cultivar	Source	Mkble. Yld. Tonnes/ha		% Culls	Type of Culls	Stand/meter	40-65mm Roots		L/D Ratio	Shape of Root	Crown Shape	Color	Acceptability	% Diseased		
		40-65 mm	Over 65 mm				Length (cm)	Crown Diameter (cm)						Canker	Gray Mold	Bact. Soft Rot
Harris Model	A&C	6.0	10.6	37	CM	9.5	21.5	5.6	3.8	4.1	3.7	3.8	4.2	10	1	-
Leda	E S	8.2	10.3	31	FC	11.2	20.4	5.7	3.6	3.9	3.9	3.7	4.2	7	-	1
Harris Model	Har	8.9	8.4	25	SC	11.3	19.9	5.5	3.6	3.9	3.9	3.9	4.0	6	-	-
Harris Model	Har	8.6	6.4	22	NC	9.5	20.9	5.7	3.6	3.7	3.3	3.3	3.9	5	-	-
Harris Early Model	NK	6.0	7.6	24	CN	9.0	21.8	5.4	4.0	3.4	3.5	3.0	3.8	8	-	2
Harris Model	Sto	8.2	6.9	26	NS	10.5	20.9	5.4	3.9	3.7	4.0	3.3	3.8	6	-	-
Harris Model	Asg	8.5	7.3	36	CM	10.3	20.6	5.7	3.6	3.7	3.9	3.4	3.7	9	1	-
Cobhan Improved Mar.	TOZ	6.4	15.4	12	FM	10.5	15.7	5.9	2.7	3.0	2.0	3.0	3.7	3	1	-
All-America	Har	3.1	13.5	43	CN	9.3	18.1	5.2	3.5	3.3	3.7	3.3	3.6	16	1	3
Albino	Asm	5.4	15.4	22	CF	11.5	15.4	5.6	2.8	2.9	3.2	3.7	3.7	10	-	-
Hollow Crown Imp.	Sto	2.8	15.6	44	CF	9.7	17.7	5.7	3.1	3.2	3.1	3.8	3.3	22	-	1
Alba	TOZ	8.4	6.8	7	UC	9.8	14.1	5.7	2.5	2.8	2.3	3.0	3.3	2	1	-
All American	A&C	3.3	14.5	30	CU	9.8	16.9	5.4	3.1	3.0	3.2	3.3	3.3	17	-	-
Improved Marrow	Asm	6.0	14.9	14	MF	11.3	14.7	5.7	2.6	3.9	2.3	3.4	3.2	3	4	-
Ideal Hollow Crown	Sun	4.4	14.8	36	CF	10.7	17.9	6.0	3.0	2.3	2.4	3.3	3.2	17	1	-
White Gem	Sha	3.2	19.3	24	CF	10.8	14.3	5.5	2.6	2.0	2.5	3.7	2.0	11	2	-
Gladiator	TOZ	4.0	17.1	18	CF	10.0	15.6	5.7	2.7	2.8	2.5	3.3	2.8	6	-	-
Avonresister	Sha	2.3	13.5	21	CF	9.2	9.3	5.4	1.7	1.7	2.8	2.7	2.3	5	-	-
Unicorn	Asm	1.8	9.9	38	CU	8.0	10.7	5.7	1.8	1.4	3.0	3.0	1.6	15	-	-
Avonresister	Asm	3.3	8.5	27	CU	8.2	8.5	5.8	1.5	1.2	2.1	2.0	1.5	13	1	-

WEED CONTROL IN CARROTS WITH BARLEY USED FOR WIND BREAK ABATEMENT, 1983

The cultivar Diplomat was seeded on May 25 in muck soil in rows 43 cm apart. In each plot of 8 rows, one row was seeded to barley, variety Bruce, to study the effect of herbicides on barley. The plots were 3 m long and each treatment was replicated 3 times. A tractor mounted boomsprayer was used, equipped with #8006 nozzles applying 550 L water/ha at 140 kPa (50 gal/acre at 20 psi).

Crop growth stages:

Pre	May 30
Post 1	June 22, 2 true leaves, hot weather before and after application
Post 2	June 28, 4 true leaves, 10 mm rain before, cool day
Post 3	July 7, 15 cm high, cloudy day, fair

On June 29, Sethoxydim at 0.35 kg ai/ha (Poast at 770 ml/a) + 1.87 L Assist in 375 L water/ha was used on all plots to eradicate the barley. Evaluation data was taken on July 20 and August 4.

Comments:

All combinations with Prometryne (Gesagard) pre-, looked good.

Prometryne (Gesagard) and split-linuron applications gave the best weed control, yield and barley control.

Split-linuron treatments without Prometryne (Gesagard) were excellent, although the barley control was not as good.

The weed control of the single linuron treatments was not as good as the split application while barley control was better.

Metobromuron- pre-emergence-only treatments, and Metobromuron-post-emergence-only treatments were not satisfactory.

Crop damage occurred in most Metobromuron (Patoran) pre-and post-treatments and some slight crop damage in the linuron 1 kg/ha treatments.

WEED CONTROL IN CARROTS 1983 - continued

Generic Name	Rate kg/ha ai	Trade Name	Product /acre	Applied	BLW Control		Yld. t/ha	Barley Control	Weeding Days/ha
					July 20	Aug.20			
Check	0		0	-	0	0	0	30	*
Linuron (3X)	0.33	Lorox (3X)	.6 lb.	Post 1,2,3	90	85	95	40	3
Prometryne + Linuron (3X)	1.1 0.33	Gesagard + Lorox (3X)	1.2 lb. .6 lb.	Pre Post 1,2,3	100	90	95	82	2
Linuron	1.0	Lorox	2.0 lb.	Post 3	84	56	86	100	8
Prometryne + Linuron	1.1 1.0	Gesagard + Lorox	1.2 lb. 2.0 lb.	Pre Post 3	88	82	90	94	3
Metobromuron	1.0	Patoran	.6L	Post 1	34	21	73	100	15
Metobromuron	1.0	Patoran	.6L	Post 2	40	37	65	46	12
Metobromuron	1.0	Patoran	.6L	Post 3	46	15	64	94	17
Prometryne + Metobromuron	1.1 1.0	Gesagard Patoran	1.2 lb. .6L	Pre Post 1	82	80	93	100	4
Prometryne + Metobromuron	1.1 1.0	Gesagard Patoran	1.2 lb. .6L	Pre Post 2	70	56	90	80	8
Prometryne + Metobromuron	1.1 1.0	Gesagard Patoran	1.2 lb. .6L	Pre Post 3	74	70	81	92	6
Metobromuron	3.35	Patoran	2.0L	Pre	40	21	67	98	17
Metobromuron	2.85	Patoran	1.7L	Pre	52	17	76	98	16
Metobromuron	1.67	Patoran	1.0L	Pre	76	46	72	94	16
Metobromuron (3X)	0.33	Patoran (3X)	0.2L	Post 1,2,3	68	10	*	*	*

* Plots destroyed, over run with weeds.

WEED CONTROL AND BARLEY WINDBREAK ERADICATION IN ONIONS, 1983

In an effort to find a replacement for allidochlor (Radox) and Niclofen (Tok) several herbicides were tankmixed and used at the Station in 3 replicated trial.

Included in the plots was 1 row of barley (Bruce) for every 8 rows of onions (Aries), to study the effect of these herbicides on barley. The tractor mounted boomsprayer applied 550 L/ha at 140 kPa (20 psi) at the last nozzle. The nozzle type was T jet 8006. On May 17, pre-emergence to the onions, all plots were sprayed with Paraquat at 0.5 Kg/ha (Gramoxone at 1 L/a). The barley had just emerged and was only slightly set back. In 1982, Paraquat was applied when barley was over 10 cm high, just prior to emergence of the onions and it severely burned the barley. Crop growth stages when sprays were applied:

Early loop stage, May 24, evening

Post 1, June 20, early a.m., dew on leaves, 2nd leaf showing

Post 2, June 27, early a.m., no dew, cloudy

Post 3, July 5, early a.m. after rain

Post 4, July 12, a.m., dew on leaves followed by a hot and humid day

Post 5, July 20, early a.m. dew on leaves

On June 8 (onions 1st leaf stage) all plots were sprayed with diclofop-methyl 1.0 kg/ha (Hoe-Grass 2.1 L/a) in 330 L water/ha (30 gal/acre).

On June 29, all plots were sprayed with Sethoxydim 0.35 L/ha (Poast 7.70 ml/a) + Assist 2.6 L material/ha to eradicate the barley. Data taken on June 16, when onions had 1 true leaf, on June 29, and again on August 3.

Results:

June 16: Loop and Hoe-Grass treatments

Chlorpropham (CIPC) alone did some damage to crop and barley and had very good weed control.

Chlorpropham and Ioxynil (CIPC + TOTRIL) did not improve weed control, but increased damage to crop.

Cyanazine (Bladex) alone gave very good weed control, but did no damage to the crop, nor to the barley

Chlorpropham + Cyanazine (CIPC + Bladex) gave excellent weed control but resulted in quite severe injury to the crop.

August 3:

Chlorpropham + Oxyfluorfen (CIPC + Goal) gave the best results, good weed control, very little crop damage, fairly low weeding cost, and high yields.

Chlorpropham + Ioxynil (CIPC + Totril) resulted in high yields, but weed control was poorer.

Cyanazine + Oxyfluorfen (Bladex + Goal) gave excellent weed control, but especially the Post 1 and 2 treatments of Bladex, at the higher rate, resulted in very severe crop damage.

Sethoxydim (Poast) treatment eradicated the barley only partially. It should have been applied earlier in the season. The CIPC and Goal treatment increased the control of the barley. The yield of the onion rows, adjoining the not fully eradicated barley rows, was greatly reduced.

WEED CONTROL IN ONIONS - 1983 - continued

Results on June 16

Treatments	kg/ha ai at:	Loop	Control			Crop Damage
			Grasses	BLW	Barley	
Check (not weeded)		0	0	0	-	0
Check(hand weeded)		0	90	100	-	0
Chlorpropham (CIPC)		9	98	82	-	22
Chlorpropham (CIPC) + Ioxynil (Totril)		9 0.05	98	83	-	37
Chlorpropham (CIPC) + Cyanazine (Bladex)		4.5 0.8	100	90	54	45
Chlorpropham (CIPC) + Oxyfluorfen (Goal)		4.5 0	97	84	46	20
Cyanazine (Bladex) + Oxyfluorfen (Goal)		1.6 0	97	87	6	0

Results on August 3

	Rates kg/ha ai						BL Weed Control	Barley Control	Crop Damage	Yield		Weeding Days/A
	Loop	Post 1	Post 2	Post 3	Post 4	Post 5				t/ha	B/A	
Check (not Weeded)	0	0	0	0	0	0	0	-	100	0	0	-
Check (hand weeded)	0	0	0	0	0	0	100	-	0	52	925	-
Chlorpropham **	9	3	3	3	3	3	46	-	26	44	783	9.7
Chlorpropham + Ioxynil	9 0.05	3 0.05	3 0.05	3 0.05	3 0.05	3 0.05	66	-	16	54	959	7.8
Chlorpropham + Cyanazine	4.5 0.8	1.5 0.8	1.5 0.8	1.5 0.26	1.5 0.26	1.5 0.26	90	60	62	26	468	2.1
Chlorpropham + Oxyfluorfen	4.5 0	1.5 0.04	1.5 0.04	1.5 0.04	1.5 0.04	1.5 0.04	88	94	18	56	990	3.6
Cyanazine + Oxyfluorfen	1.6 0	0.5 0.03	0.5 0.03	0.5 0.03	0.5 0.03	0.5 0.03	94	34	44	37	653	1.1

Note: ** On July 7 Ioxynil was applied at 0.25 kg/ha ai.

CELERY STORAGE TREATMENT TRIAL 1983/84

The cultivar Florida 683 was seeded May 10 in an outside seedbed and transplanted on July 13 to a muck soil in rows 60 cm apart and 15 cm in the row. Normal management procedures were followed and harvest took place on September 30.

Type of Treatments:

Two storage types were used. One, a "Filacell" storage, has a controlled temperature of 1°C and a forced air relative humidity system which keeps the relative humidity constant at very close to 100%. The second storage is a refrigerated storage where the temperature is kept at 0°C and the relative humidity between 90 to 100% by an airjet nozzle which is regulated by a timer set manually as considered necessary.

The celery was placed upright in one of the following containers.

1. Open plastic containers holding 18 stalks each, small holes in the sides and bottom allowed for some air movement.
2. Closed black plastic bags each holding 11 stalks - no air movement.
3. Wooden pallet boxes holding 160 to 170 stalks each. One half of each box was wrapped in black plastic film on the sides and 80% of the top - leaving the bottom open for air movement. Some of the pallet boxes were placed in front of the Filacell air intake unit forcing the humid cold air through the celery for pre-cooling. The wrapping took place after the pre-cooling.

All celery was drenched prior to storage with 1 kg Benlate per 1000 L of water. All treatments were replicated three times.

continued ...

CELERY STORAGE TREATMENT TRIAL 1983/84

TEMPERATURE TABLE: Celery placed in storage at 1:00 p.m.

		FILACELL STORAGE				REFRIGERATED				
		pre cooled		regular		regular		regular		
Date	Time of Day	P.B. Wrapped	P.B. Not	P.B. Wrapped	P.B. Not	Plastic Containers	Bags	P.B. Wrapped	P.B. Not	Air
Sept. 30	1:00 p.m.	-	22°	22°	22°	22°	22°	22°	22°	1°
	1:30 p.m.	-	10°	18°	17°	20°	21°	19°	19°	6°
	2:00 p.m.	-	7°	17°	16°	18°	21°	17°	17°	3°
	2:30 p.m.	-	6°	14°	13°	16°	21°	15°	15°	2°
	3:30 p.m.	-	5°	12°	11°	14°	21°	10°	10°	1°
	4:30 p.m.	-	4°	11°	10°	13°	20°	9°	9°	1°
		end of forced air cooling								
Oct. 1	8:00 a.m.	3°	2°	3°	2°	3°	8°	1°	1°	0°
Oct. 2	8:00 a.m.	2°	2°	3°	2°	2°	4°	0°	0°	1°
Oct. 3	8:00 a.m.	1.6°	1.3°	1.5°	1.5°	1.5°	2°	0.3°	0°	1°
Oct. 13	8:00 a.m.	1°	0.8°	1.4°	1.3°	1°	1.3°	0.4°	0.5°	0.5°

Forced air cooling lowered the temperature of the celery in 3½ hours to 4° while the regular cooling lowered it to 9° in the same period.

CELERY STORAGE TREATMENT TRIAL 1983/84

All treatments replicated three times

A: Storage period Sept. 30 to Dec. 9, 1983 - 70 Days

Treatment Storage Types	Into Storage		Out of Storage					Per 100 kg into storage on September 30					
	# Stalks	Quality*	MKBL. #	Stalks	Quality*	Crispness*	MKBL.	Wt/loss	yellow	rot	Black		
											stem	wilted	pithy
<u>FILACELL STORAGE</u>													
Plastic Container	54	4.1	54	4.1	3.9	83	6	10	1	0	0	0	
Closed black P. Bag	44	4.2	44	4.2	4.7	83	0	9	8	0	0	0	
Forced Air pre-cooled P.B. not wrapped	87	4.1	87	4.1	3.5	80	5	13	2	0	0	0	
Forced Air pre-cooled P.B. Wrapped	83	4.1	83	4.1	3.8	77	5	14	4	0	0	0	
Pallet box not wrapped	78	4.5	78	3.8	3.0	75	10	10	5	0	0	0	
Pallet box wrapped	79	4.5	78	3.9	3.3	70	12	12	6	0	0	0	
<u>REFRIGERATED STORAGE</u>													
Pallet Box Wrapped	79	3.9	79	3.7	3.0	72	13	13	2	0	0	0	
Pallet Box not wrapped	79	3.9	79	3.5	2.0	71	14	13	2	0	0	0	

* 5 = most desirable 1 = least desirable

continued ...

CELERY STORAGE TREATMENT TRIAL 1983/84 - continued

B: Extended Storage period December 9 to January 20, 1984: Another 42 days

Storage Types	Into Storage		Out of Storage			Per 100 kg into storage on September 30						
	#	*	Mkbl.	*	*	Mkbl.	Wt/loss	yellow rot	B.Stem	wilted	pithy	
	Stalks	Quality	# Stalks	Quality	Crispness							
<u>FILACELL STORAGE</u>												
Plastic Container	54	4.1	48	4.0	3.9	51	7	31	5	5	1	0
Closed black P. bag	44	4.2	28	3.0	4.4	29	0	23	44	4	0	0
Forced Air pre-cooled P.B. not wrapped	87	4.1	72	3.7	3.7	42	8	29	12	2	7	0
Forced Air pre-cooled P.B. Wrapped	83	4.1	68	3.7	3.9	40	7	28	17	4	4	0
Pallet box not wrapped	78	3.8	63	3.6	3.2	37	18	25	11	1	8	0
Pallet box wrapped	78	3.9	66	3.0	3.6	38	13	25	16	0	4	4
<u>REFRIGERATED STORAGE</u>												
Pallet Box Wrapped	79	3.7	62	2.8	2.8	38	11	29	5	3	14	0
Pallet box not wrapped	79	3.5	38	2.9	2.2	26	15	25	3	1	30	0

* 5 = most desirable 1 = least desirable

RESULTS:

Open Plastic Containers in "Filacell": best quality and marketable return for the first as well as for the extended storage period.

Closed Black Plastic Bags in "Filacell": excellent in first storage period but very high percentage of rot in the extended period. No shrinkage.

Forced Air Pre-Cooled was better than not pre-cooled even in this trial where the regular cooling took place under close to ideal conditions.

Pallet Boxes Not Wrapped in the refrigerated storage resulted in a 30% loss due to wilting.

As was found in earlier experiments the blackstem disorder developed only after the celery was stored for more than 70 days. The amount in this trial was much less as in former trials

EFFECT OF NITROGEN ON STORAGE QUALITY OF CELERY, 1983

On May 10 the celery cultivar Florida 683 was seeded in a greenhouse, transplanted to flats on June 1 and to the field on June 14 in rows 60 cm apart, and 15 cm spaced in the row. According to recommendations, fertilizer was required at 500 kg/ha of 30-4-16 plus 15 kg/ha Borax. 500 kg/ha 0-4-16 plus 15 kg/ha Borax was applied broadcast before planting and nitrogen was applied as shown in the table below.

Ammonium nitrate was used as the source of nitrogen. The sidedressing was drilled into the soil and irrigation was used after. All treatments were replicated 3 times.

On September 8 when the plants were slightly overmature, 30 stalks per plot were harvested, trimmed and placed upright in pallet boxes. The celery was drenched with water of 12°C which had 1 kg/1000 L water added to it. The pallet boxes were placed in a "Filacell" storage where the temperature was kept at 1°C and the relative humidity at 95%.

On Dec. 8 after 91 days in storage, data was taken.

Table

After a storage period of 91 days

Treatments before Planting	kg N/ha sidedressing on			MKB wt t/ha	at harvest Quality *	MKB % by wt.	Quality *	Reasons unmarketable in % by wt.				
	June 30	July 11	July 22					Respir- ation**	Loss of Color	Decay	Pithy	Black Stem
0	0	0	0	135	4.1	50	2.6	6	8	30	4	2
67	34	0	0	142	3.6	48	2.5	7	11	25	6	3
133	34	33	0	141	3.5	55	2.9	7	13	21	1	2
200	34	33	33	138	3.1	54	3.0	8	12	23	1	2
300	67	66	66	135	3.2	58	3.0	8	14	18	0	2

* 5 = most desirable

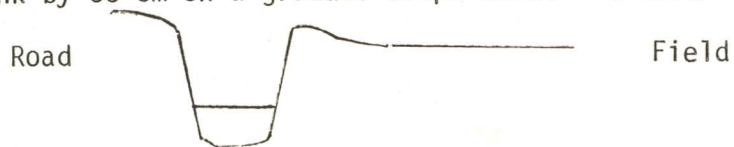
** Respiration = loss of weight during storage period as a result of respiration and/or loss of moisture.

From the above it appears that the quality is lower at the higher N rates. The Nitrogen rates had very little effect on the storage quality and the recovery of marketable stalks.

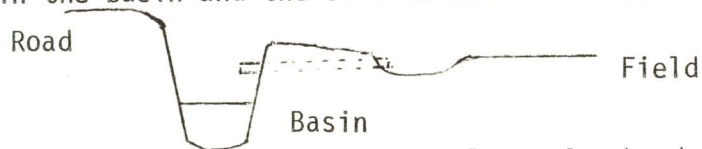
EROSION OF MUCK SOIL - PROGRESS REPORT - CONTROL METHODS AT M.R.S.

For several years spring run-offs have caused wash-outs at the north head land of the station resulting in the ditch being filled in. Even though the field was leveled off after, the next spring the water found the same course and the damage increased year by year.

In August of 1982 the ditch was cleaned out and the soil was leveled at the ditch bank, leaving enough soil close to the ditch to raise the bank by 30 cm on a gradual slope about 3 m wide.



Two 10 cm drains were installed 100 m apart, through the raised bank beginning at a basin 2 m X 2 m and 20 cm deep, and sloping down to the ditch to allow the run-off water to collect in the basin and the soil to settle out before draining into the ditch.



On September 13, 1982 winter rye was seeded at 180 kg/ha with a Planet Jr. handseeders at plate # 27, in rows 27 cm apart on the raised part (3 m wide) of the ditch bank. Irrigation was used after.

The very mild winter did not cause a sudden heavy run-off. The system worked well and no run off occurred over the raised ditch bank.

On April 22, 1983 the fall rye was killed with an application of 2.5 L Gramoxone/ha.

On August 12, 1983 domestic rye grass was seeded at part of the ditch bank at a rate of 40 kg/ha, and on August 19, the other parts of the bank were seeded with winter triticale, winter wheat, spring rye or barley.

The run-off of surface water on February 14, 1984, did not cause erosion and the water gradually disappeared from the field through the drains.

GREENHOUSE SEEDLESS CUCUMBER VARIETY TRIAL ON ORGANIC SOIL, SPRING 1983

Thirteen cultivars were seeded on January 21 and planted on February 21 in a deep peat soil on hills 25 cm high and covered with black plastic. 8 cvs were replicated 4 times and 5 cvs were non-replicated. The temperatures were set at 18°C at night and 2 hours before sunrise, gradually raised to 24°C. Venting began at 26°C. The soil temperature was 16°C at planting time and rose to 19°C in 10 days and reached 21°C by April 4.

Number marketable fruit/m²/3 week period ending:

Cultivar	Source	Apr.22	May 13	June 3	June 24	Total	% X	% Lge.	% Med.	% Sm1.	% #2	Ave. Weight	
												kg/m ²	/frt (g)
<u>Main</u>													
Saskia	Nun	8.4	9.6	13.4	11.9	43.3	1	23	51	22	3	24.2	559
Girola	Enza	10.2	9.6	10.8	10.7	41.3	4	31	54	5	6	23.0	560
Brustar	Bru	8.6	11.3	10.2	11.0	41.1	6	32	48	10	4	24.6	579
Brudania	Bru	8.9	11.1	10.4	10.5	40.9	8	27	48	11	6	23.0	563
Corona	VDB & DeR	8.6	9.5	9.5	11.7	39.3	7	25	52	9	7	22.3	567
Maja	Nun	9.8	8.6	12.5	7.4	38.3	2	21	53	17	7	20.5	536
Indalo Imp. 499	VDB & DeR	10.2	5.6	9.0	10.4	35.2	13	38	40	3	6	21.4	609
Kamaron	Enza	9.2	6.0	11.9	7.4	34.5	24	36	32	0	8	20.5	594
<u>Adaptation</u>													
R 307	R.Sluis	7.2	13.1	8.3	14.7	43.3	11	39	37	4	9	24.8	576
Indalo Imp.299	VDB & DeR	9.0	8.0	10.1	10.2	37.3	7	31	39	16	7	22.9	622
#155-81	Nun	8.0	9.0	10.5	9.6	37.1	14	38	42	3	3	22.7	613
#1266	Sl. & Gr.	8.1	11.3	8.6	8.0	36.0	25	32	34	4	5	24.6	682
Pepinova	Sl. & Gr.	5.4	6.8	10.7	9.9	32.8	17	25	31	8	19	19.2	591