

VEGETABLE

VARIETY TRIALS

1980

PRELIMINARY RESULTS

BROCCOLI

CAULIFLOWER

CHINESE CABBAGE

CUCUMBER

EGGPLANT

MELON

ONION

RADISH

SQUASH/PUMPKIN

SWEET CORN

SWEET PEPPER

TOMATO

WATER MELON

Department of Vegetable Crops
Agricultural University of Norway
P.O.B. 22, N-1432 ÅS-NLH, Norway

January 1981

Mimeograph No. 126

VEGETABLE VARIETY TRIALS

1980

Editors: Trevor Remedios and Toril Sagen

Department of Vegetable Crops
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INTRODUCTION

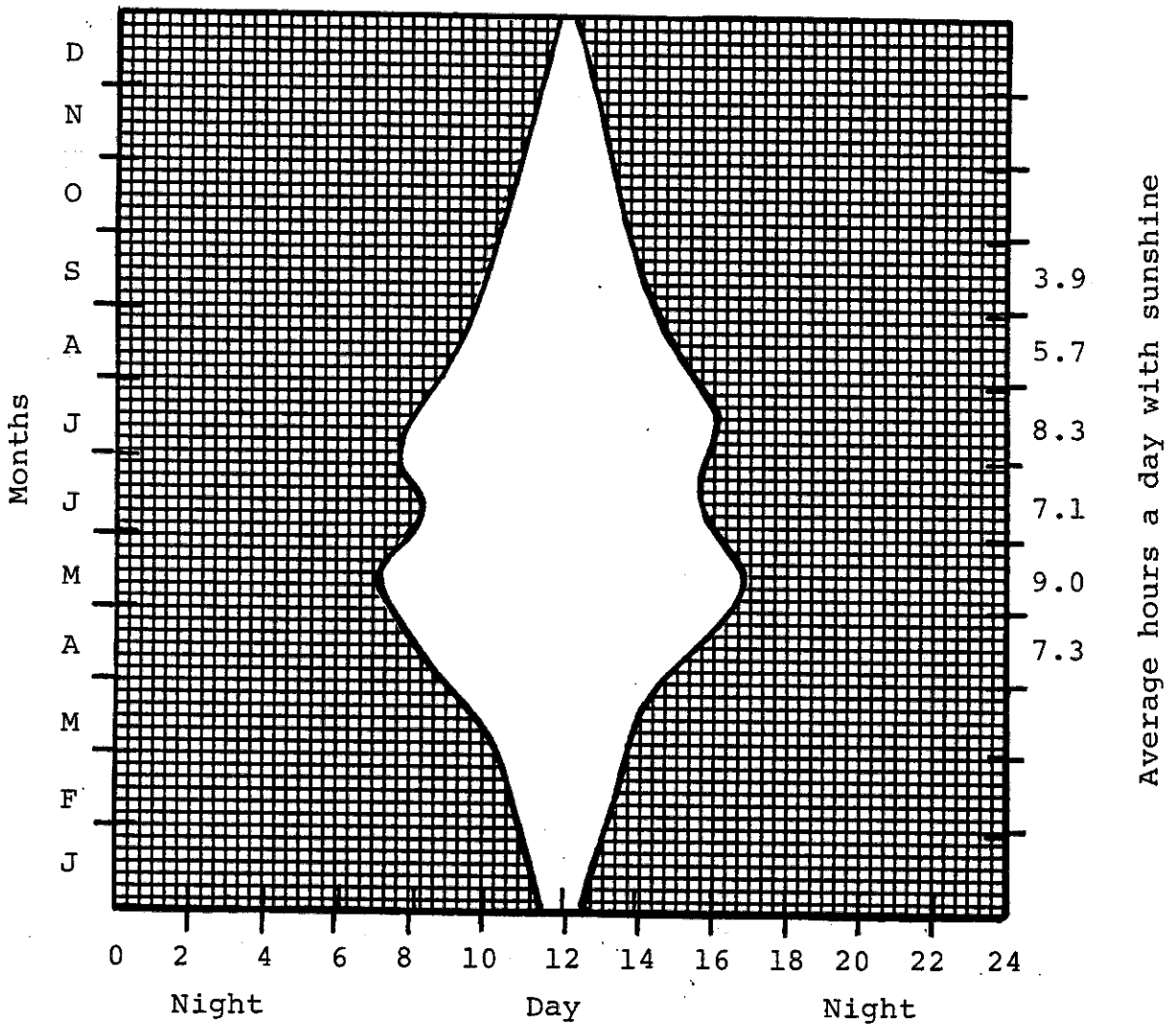
A part of the routine work carried out at the research farm of the Department of Vegetable Crops, Agricultural University of Norway, is the testing of new varieties under Norwegian conditions, and the introduction of new kinds of vegetables. This publication deals with the results of variety trials performed in 1980.

We wish to thank the many seed firms who have been very generous in supplying us with samples for our trials here at Ås. In some cases, the firm named may not be the primary seed producer, but the retail agent.

Ås, Norway
January, 1981

Arnulf R. Persson
Professor

THE GRAPH SHOWS THE AVERAGE NUMBER OF SUNSHINE HOURS DURING THE YEAR AT ÅS - 60°N



WEATHER DATA FOR ÅS FROM MAY - SEPTEMBER 1980

	Month	1980	1979	30 years average (1931-60)
Rainfall (mm)	May	59.7	88.3	49
	June	135.6	46.1	70
	July	47.4	55.1	79
	August	75.2	84.5	96
	September	75.3	54.3	86
Sunshine hours	May	280.5	158.2	240.6
	June	213.7	259.2	304.6
	July	256.3	198.9	269.5
	August	176.5	177.1	258.9
	September	116.7	169.7	155.3
Average temp. °C	May	11.7	8.0	10.2
	June	15.7	15.3	14.4
	July	16.2	15.2	16.8
	August	14.8	13.7	15.6
	September	11.7	10.7	10.9

SEED SUPPLIERS

AB W. Atlee Burpee Co, Warminster, PA 18974, USA
AH A. Hansens Amagerfrø, Postboks 3, DK-2630 Tåstrup, Danmark.
ARZ A.R. Zwaan & Zoon b.v., Postbox 992, NL-2270 AZ Voorburg,
Nederland.
ASG Asgrow International Corp., Subsidiary of the Upjohn Comp.,
Kalamazoo, Michigan 49001, USA.
ASM Asmer Seeds Ltd., Asmer House, Ash Street, Leichesten, LE5
ODD, England.
BALL Geo. J. Ball, Inc., West Chicago, Illinois 60185, USA.
BEJO BEJO Zaden B.V., P.O.Box 9, NL-Noordscharwoude, Nederland.
BEM C. Beemsterboer N.V., Postbus 2, Warmenhuizen, Nederland.
BGP Bundesforschungsanstalt für gartenbauliche Pflanzenzüchtung,
Bornkampsweg, 2070 Ahrensburg/Holst., Vest-Tyskland (DBR).
BHM Ernst Benary, Göttinger Strasse 3510, Hann München 1, Vest-
Tyskland (DBR).
BRU Bruinsma Selectiebedrijven B.V., P.O.Box 24, Naaldwijk,
Nederland.
BSA Bundessortenamt, Rathausplatz 1, D-3000 Hannover 72, Vest-
Tyskland (DBR).
CAS A.L. Castle, Inc., P.O.Box 877, Morgan Hill, Calif. 95037, USA.
CHA Charter Research, Inc., P.O.Box 787, Caldwell, Idaho 83605, USA.
CS Charles Sharpe & Co., Ltd., Sleaford, Lincs, England.
CTIFL Centre Technique Interprofessionnel des Fruits et Légumes,
Service de L'amélioration de la Production, Centre de
Balandran, F-30127 Bellegarde, Frankrike.
DES Dessert Seed Co., Inc., P.O.Box 181, El Centro, California
92244, USA.
DP D. van der Ploeg's Elite Zaden B.V., Postbus 19, 2990 AA
Barendrecht, Nederland.
DSG VEB Saat- und Pflanzengut, 43 Quedlingsburg-Harz, Øst-Tysk-
land (DDR)
ENZA De Enkhuizer Zaadhandel B.V., Postbus 7, Enkhuizen, Nederland.
=ENK
ES Elsom's Seeds Ltd., Spalding, Lincolnshire, PE 111QG, England.
FM Ferry-Morse Seed Co., Inc., P.O.Box 100, Mountain View,
California 94040, USA.
GCRI Classhouse Crops Research Institute, Rustington, Littlehampton,
Sussex, England.
GER Germania Seed Company, Chicago, Illinois, USA.
GRI Grimstadfrø A/S, 4890 Grimstad.
HAR Joseph Harris Co., Inc., Moreton Farm, Rochester, N.Y. 14624,
USA.
HG AB Hammenhögs Frø, S-27050 Hammenhög, Sverige
HHF Hans Hoffmann, Bahnhofplatz 1, D-8550 Forchheim, Vest-Tysk-
land (DBR).
HILD Karl Hild, Marbach am Neckar, Vest-Tyskland (DBR).
LA SFL Landvik, 4890 Grimstad
LC L. Clause, S.A., 91220 Brétigny-sur-Orge, Frankrike.
LD A/S L. Dahnfeldt Havefrø, Postbox 15, DK-5100 Odense, Danmark
LIV The Livingston Seed Co., Columbus, Ohio, USA.
KEY Keystone Seeds, Inc., P.O.Box 1438, Hollister, California
95023, USA.
LEUT Leütens Frøhandel A/S, Postboks 3928 Leangen, 7001 Trondheim.
LOG Økern Torgvei 1, Oslo 5.
MSU Michigan State University, Department of Horticulture, East
Lansing, Michigan 48823, USA.
NF A/S Norsk Frø, Postb. 27, Korsvoll, Oslo 8. (Frysjaveien 40)

NK Northrup King & Co., P.O.Box 959, Minneapolis, Minnesota
55440, USA.

NUN Nunhem's Zaden, P.O.Box 4005, NL-6080 AA Haelen, Nederland.

OEK J.E. Ohlsens Enke, Ny Munkegård, DK-2630 Tåstrup, Danmark.

OST Otis S. Twilley Seed Co., Inc. P.O.Box 65, Trevoise, PA, 19047
USA.

PA C.W. Pannevis' Zaadteelt en Zaadhandel N.V., Postbus 2,
Enkhuizen, Nederland.

PARK Geo. W. Park Seed Co., Inc. Greenwood, South Carolina 29647,
USA.

PPK Poljoprivredno Prehrambeni kombinat, Kutjevo our Dorada,
Jugoslavia.

PS Petoseed Co., Inc., P.O.Box 4206, Saticoy, California 93003, USA.

RB Rogers Brothers Seed Co., P.O.Box 1647, Idaho Falls, Idaho
83401, USA.

ROG Gebrüder Roggli A.G., Dorfstr. 36, CH-3652 Hilterfingen BE,
Sveits.

RS Royal Sluis, Postbus 22, 1600 AA Enkhuizen, Nederland.

RZ A.R. Zwaan en Zoon B.V. Prinses Mariannelaan 296, P.O.Box 992,
2270 AZ Voorburg, Nederland

RA Statens Gartnerskole Rå, 9410 Borkenes.

SAK T. Sakata & Co., C.P.O. Box 11, 2, Kiribatake, Kanagawa-ku,
Yokohama, Japan 220-91.

SCD Soci t  Civile Darbonne, 91490 Milly-la-For t, Frankrike.

SCHAF Karl Sch fer Samenzucht, Postfach 837, 34 G ttingen, Vest-
Tyskland (DBR).

SEMP Sempra Praha, Oborov  podnik, Bubensk  n brez  9, Praha 7,
Czechoslovakia.

S&G N.V. Koninlijke Zaadteelt en Zaadhandel, Sluis en Groot,
Postbus 13, Enkhuizen, Nederland.

SPER Carl Sperling & Co., Postfach 2640, D-2120 L neburg, Vest-
Tyskland (DBR).

STO Stokes Seeds Ltd., 39 James st., Box 10 St. Catharines,
Ontario, L2R 6R6, Canada.

SUH Sveriges Uts desf rening, Hammenh gsavdelningen, S-270 50
Hammenh g, Sverige.

SUP Supergran, Bruul 101, B-2800 Mechelen, Belgia.

SUS Sveriges Uts desf rening, Sval f, Sverige

SW Seedway, Inc., Hall, New York 14463, USA.

TA Takii & Co., Ltd., Seed Growers, P.O.Box 7, Kyoto Central,
180 Umekoji-inokuma, Japan.

T&M Thompson & Morgan (Ipswich) Ltd., London Road, Ipswich,
Suffolk, England IP2 0BA (Zimtrade, Solveien, 1540 Vestby)

UA UniAgros, Aulestrasse 80, FL-9490 Vaduz, Vest-Tyskland (DBR)

UG University of Guelph, Canada.

USDA United State Dep. of Agriculture, Cheyenne Horticultural Field
Station, Cheyenne, Wyoming, USA.

CW

VAV The N.J. Vavilov All-Union Institute of Plant Industry,
44, Herzenstreet, Leningrad, USSR

VDB Gebr der van den Berg, N.V., Postbus 25, Naaldwijk, Nederland.

WAV van Waveren & de Bres GMBH, Postfach 75, 34 G ttingen, Vest-
Tyskland (DBR).

WILL Willhite Melon Seed Farms Poolville, Texas 76076, USA.

WW W. Weibull AB, Fack, S-261 20 Landskrona 1, Sverige.

BROCCOLI OBSERVATION TRIALS 1980

Relative yield 100 = 1750 kg/dekare

Variety	Seed supplier	First harvest date	Harvest period (days)	Average weight of central head (g)	Average weight of side shoots (g)	Relative number of harvested heads	Relative yield	Comments
Basto	OE	28/7	27	159	31.2	20	51	Tightly compacted, large and well-formed heads, but late maturing. Low plants.
Cleopatra	STO	25/7	31	163	14.9	90	72	Late maturing, little foliage, small heads, but several.
Coaster	RS	16/7	35	117	19.4	72	78	Rather open heads, several small side shoots, several small leaves under and around the head.
Corvet	RS	22/7	34	107	24.4	75	93	Long stems, with firm, well-formed heads.
Futura	ASG	11/7	45	113	20.1	88	103	Large yields, uneven maturing, plenty of side shoots.
Gem (reference var.)	ASG	11/7	45	107	17.7	100	100	Dark blue/violet heads, uneven maturing, long stems and plenty of side shoots.
Grande	LOG	25/7	31	160	19.7	67	68	Uneven maturity, uneven plants, small side shoots.
Green Hornet	STO	11/7	45	108	18.0	78	83	The main head sits very openly. Compact heads.
SG 1	S&G	11/7	45	80	20.8	64	74	Fine, large compact heads.
Skiff	RS	25/7	31	116	23.7	34	58	Fine, large heads.
Stolto	OE	11/7	45	124	21.3	52	67	Uneven maturing, low plants.
Surfer	RS	22/7	34	119	17.3	92	91	Open growth, plenty of side shoots.

Sown in peat blocks:

7/5-80

Transplanted in the field:

4/6-80

CAULIFLOWER VARIETY TRIALS 1980

Variety	Seed supplier	Planting date	Length of harvest period in days	Days from planting to 50% yield	Yield			Curd							
					Total kg/daa	Class I kg/daa	% Class I	\bar{x} weight	Colour 1-9	Height of curd 1-9	Anto-cyan colour 1-9	Uniformity 1-9	Riceyness 1-9	Compactness 1-9	Div. of florets 1-9
White Top	LOG	a	67	32	2400	1500	62.5	720	8.6	8	9	7.4	8.2	8.6	
		b	76	32	2900	2700	92.3	900	7.5	8	9	7.5	8.8	7	7
White Summer	S&G	a	64	18	2400	2050	86.0	633	7.6	7.6	9	8.2	9	8.6	
		b	72	29	2750	2200	81.1	818	7.3	8	9	8.5	9	8.5	4.5
Star Light	RZ	a	67	31	3000	2250	77.1	737	7.8	7.8	9	7.2	8.2	8	7.3
		b	76	25	2900	2350	80.4	857	8	8.7	9	8	8.3	7.3	
SG 109	S&G	a	65	28	2450	2100	86.0	636	7.8	8	9	8.2	9	8.8	
		b	72	22	2900	2350	82.0	837	6.3	7.5	9	8	8.8	8.3	6.3
Fortuna	RZ	a	63	27	2250	1550	68.7	658	8.5	8.3	9	8	7	6.5	
		b	74	13	2600	2400	92.5	758	8.4	8.2	9	8.6	9	6.8	7.2
Celesta		a	61	19	2600	1950	76.5	731	8	7.8	9	7.5	8.3	7.3	
Hormade	ARZ	a	63	27	2100	1250	60.8	594	7.9	7.7	9	6.4	7.1	7.5	
Snow Crown	TA	a	53	8	2050	1450	70.8	577	6.7	6	9	7	6.7	8.3	
White Horse	STO	a	60	23	2050	1300	64.4	654	6.3	7	8.5	6.8	7.5	7	
King	LD	a	56	12	2050	900	44.2	540	6.3	6.5	8.8	6.5	7.0	9.1	
Paloma	RZ	a	56	12	1950	900	45.0	526	6.3	6.5	7.5	6.5	6.5	6.5	
64002 K	SUH	b	76	21	3450	3400	98.5	959	7.3	8	9	8.3	9	8.7	6.3
SG 112	S&G	b	85	31	3200	3100	96.5	948	8.8	7.5	9	8.5	9	8.3	5
54925 K	SUH	b	79	27	3150	2800	89.0	888	7	8.3	9	8	9	8.3	4.3
Sv 35005 K	SUH	b	70	18	2250	1800	80.7	732	6.6	7.4	9	7.4	8.8	6.6	7.6

a = Transplantation in the field 4/6-80

b = " " " 24/6-80

Replications: 3

Plot size: 6 x 1.3 m = 7.8 m²

Between plants: 40 cm

Between rows: 65 cm

CHINESE CABBAGE VARIETY TRIAL 1980

Variety	Seed supplier	Average		Total yield kg/daa	% Class I + II
		Head weight kg	Total no. of leaves		
Nagaoka 50 days	LOG	1.216	28	5350	93
Statue	OST	1.453	27	6400	100
Kinal F ₁	OE	1.233	25	5450	78
Senda F ₁	OE	1.346	33	5900	99
Ally F ₁	OE	1.166	28	5150	100
Tip Top	S&G	1.211	32	5350	89

Sown: July 7

Planted: July 31

Between plants: 37 cm

Between rows: 65 cm

Harvested: October 10

REACTIONS OF TWO CHINESE CABBAGE VARIETIES TO DIFFERENT METHODS OF IMPROVING THE MICROCLIMATE

Variety	Seed supplier	Deep furrow			Deep furrow with polyethylene cover			Polyethylene tunnel		
		Average weight/head kg	Average number of leaves	Average stalk length cm	Average weight/head kg	Average number of leaves	Average stalk length cm	Average weight/head kg	Average number of leaves	Average stalk length cm
Nagaoka 50 days	LOG	0.446	11.8	8.2	1.332	24.5	9.4	0.994	19.5	9.5
Statue	OST	0.592	13.7	22.2	1.087	22.1	26.2	1.040	18.0	21.3

Sown: 18/4-80
 Planted: 12/5-80
 Between plants: 30 cm
 Between rows: 65 cm
 Harvested: 2/7-80

CUCUMBER VARIETY TRIAL 1980

Variety	Seed supplier	Yield kg/daa Class I	Total yield kg/daa	% Class I	Days to 50% yield	Average fruit weight in gram	Percentage distribution by weight in Class I			
							6-9 cm	9-11 cm	11-13 cm >13 cm	
Dura	RZ	1500	1900	78.5	80	31	55	29	11	5
1329/73	BRU	2150	2850	74.4	77	37	34	28	16	22
E 1296	ENZA	1850	2750	63.2	77	26	49	30	15	6
Septa	HG	1550	2350	71.8	81	23	57	32	9	3
Elon	RS	2200	2750	73.7	79	31	74	24	2	0
Miracross	RS	1300	1700	81.0	79	37	48	26	19	7
Kokard	WW	1600	3550	65.1	79	26	51	33	15	1
SG 891	S&G	1550	2150	76.2	83	42	17	23	28	32
Levo	S&G	1900	2800	72.7	80	31	58	29	11	2
Siro F ₁	ENZA	1550	2200	76.5	79	31	72	23	4	1

PARTHENOCARP CUCUMBER VARIETY TRIALS 1980

Variety	Seed supplier	Yield kg/daa Class I	Total yield kg/daa	Percentage distribution by weight in Cl. I				% Class I	Average fruit weight in gram
				6-9 cm	9-11 cm	11-13 cm	>13 cm		
Andrea	NUN	1650	2150	21.1	33.8	29.7	15.5	75.6	65.6
Colet	RS	500	600	42.8	34.2	17.4	5.6	84.6	50.9
Dura	RZ	1600	2000	56.9	27.6	13.9	11.3	88.0	48.0
Marbel (=Mecano)	RS	1900	2300	43.7	34.9	17.7	3.7	82.8	48.1
No. 49	RS	1400	1750	38.8	26.6	29.5	5.1	79.6	60.0
Paragon	S&G	2050	2600	37.2	38.2	21.2	3.4	78.8	52.9
RS 78012	RS	1650	2000	43.3	37.3	14.3	5.2	84.2	52.8
RS 78038	RS	1800	2150	41.6	31.9	21.6	4.8	81.7	52.1
T 33	OE	1350	1650	34.9	26.4	30.6	8.8	84.1	55.2

Plot size: $(5 \times 1.3)m^2 = 6.5 m^2$

Between plants: 20 cm

Between rows: 1.30 m

Sown: 28/5-80

PICKLING CUCUMBER OBSERVATION TRIAL 1980

Scale 1 - 9 (9 = best, 1 = unacceptable)

Variety	Seed supplier	THE PLANT				THE FRUIT					
		Foliage growth (1 - 9)	Inter-node length (cm)	State of health (1 - 9)	No. of male flowers	Scale of parthenocarp (1 - 9)	Colour (1-3)*	Light/dark spines	Warts (1-9)	Index Fruitwall : seed room	Firmness (1-9)
Levo	S&G	5	13.4	3	Few	5	2	-	3	1.42	5
Super Slice	NK	5	13.2	4	Many	8	3	Light	1	1.96	7
Levotex F ₁	ENZA	4	12.0	5	Few	8	2	-	4	1.60	6
Moldex F ₁	ENZA	3	12.5	3	None	3	3	Light	5	1.59	5
Fuga	RZ	5	11.9	6	None	8	2	Light	3	1.72	7
Commander F ₁	TA	2	13.8	5	Few	9	3	-	4	1.88	6
Green Knight	TA	4	11.0	5	Many	7	3	Light	3	2.46	8
Donar	LC	5	9.6	4	Many	9	3	-	8	1.81	6
Tagor F ₁	LC	4	12.7	3	Few	8	2	Dark	4	1.42	5
Maxor F ₁	LC	5	12.5	4	None	6	2	Dark	3	1.06	6
Nib F ₁	WAV	6	11.7	5	Many	9	2	Light	4	1.41	-
RS 52	RS	3	9.9	3	Few	5	3	-	8	1.65	4
Elena F ₁	RS	6	11.4	5	Many	8	2	Light	5	1.85	6
Biri F ₁	OE	8	11.5	3	None	5	2	Light	5	1.58	5
Mera F ₁	OE	8	14.0	5	None	8	2	-	4	1.62	5
Albeit	OE	6	11.0	4	Few	8	3	-	8	1.46	6
WW 374 B	WW	8	16.0	3	Many	3	1	-	5	1.52	4
WW 1098	WW	8	14.2	2	None	5	1	-	5	1.57	5
Belares	S&G	6	10.6	4	Many	7	1	Dark	6	1.73	5

PICKLING CUCUMBER OBSERVATION TRIAL 1980 CONTINUED

Scale 1 - 9 (9 = best, 1 = unacceptable)

Variety	Seed sup-plier	THE PLANT				THE FRUIT					
		Foliage growth (1 - 9)	Inter-node length (cm)	State of health (1 - 9)	No. of male flowers	Scale of parthenocarpy (1 - 9)	Colour (1-3)*	Light/dark spines	Warts (1-9)	Index Fruitwall : seed room	Firmness (1-9)
SG 834	S&G	7	10.8	5	Many	6	2	Dark	5	1.55	5
Earlipik	NK	7	14.1	6	Few	4	2	Light	2	1.55	5
Marion F ₁	DP	7	14.4	8	Many	6	3	Light	3	1.80	5
XPH 1337	ASG	5	12.9	3	Many	5	2	-	7	1.54	5
SPH 1253	ASG	6	14.8	4	None	6	2	-	8	2.24	7
SPH 1250	ASG	6	13.5	5	Many	6	2	-	8	1.43	-
Wph. hybrid 823 F ₁	NK	6	14.6	3	None	7	2	Dark	3	1.82	6
MSU 3 x 581	MSU	6	14.7	6	None	9	1	Dark	5	1.69	5
MSU 41 x 581	MSU	6	13.6	6	None	9	1	Light	3	1.97	6
MSU 41 x 669	MSU	5	13.5	5	None	9	2	Light	2	1.47	6
MSU 3488 x 669	MSU	5	14.5	4	None	9	2	Dark	4	1.42	5

Source: Solberg & Barsnes, NLH 1980.

*Colour scale: 1 = light green, 2 = medium green, 3 = dark green.

EGGPLANT VARIETY TRIAL 1980 - Greenhouse

Variety	Seed supplier	Yield						Comments
		Class I			Total			
		% Class I	kg/m ²	Weight per fruit in g	kg/m ²	Weight per fruit in g	Weight per fruit in g	
Black Magic	ASM	90	3.23	369	3.57	343	Large, round, well formed fruits. Good quality.	
R 2425	OEK	69	1.69	313	2.45	256	Medium sized fruits, well formed, late maturing.	
Baren F ₁	LC	75	2.51	302	3.34	268	Long, slender, pale purple fruits. Sometimes with lighter stripes.	
Nr. 5501	BRU	76	2.28	254	3.00	222	Large, dark purple, well formed fruits.	
Easter Egg	BALL	100	1.89	66	1.89	66	Small, white, egg-shaped fruits which sometime achieve a bright yellow colour later in the season. Produce up to 35 fruits per sq.m.	
Adona	RZ	86	1.65	284	1.91	256	Medium sized fruits, good quality, dark in colour.	
PSX 3977	PS	76	1.79	205	2.34	170	Medium sized, with a dark purple colour.	
Gator	ASG	86	1.43	313	1.65	264	Long, slightly club-shaped, but good quality. Late variety.	
Classic	HAR	80	2.08	279	2.60	250	Large, compact, good quality, dark colour.	
Dobrix	VDB	84	2.46	281	2.91	259	Large, longish and good quality. Dark colour.	

2 main stems per plant

Replications: 3

Sown: 20/5

Planted into peat sacks: 30/6

MELON VARIETY TRIAL 1980

Unheated polyethylene tunnels

Variety	Seed supplier	Total kg/m ² up to Aug. 15	Total yield kg/m ²	Average per cent Class I	FRUIT					
					Fruit size (g) Class I	Fruit shape	Rib	Net	Rind colour	Flesh colour
*Honey Dip	TA	2.411	3.256	76.4	885	Round	(Slight)	None	Yellow/green	Green
Aroma	HG	3.913	5.136	53.8	1116	Round	Slight	Medium	Yellowish orange	Orange
Polidor (RS 815)	RS	2.543	3.121	81.8	910	Round/oval	Medium (Heavy green)	Slight	Yellowish green	Yellow/light green
*Green Pearl	TA	0.528	2.790	100.0	633	Round	Slight	Heavy	Taint green yellow	Green
Overgen	SG	1.740	4.783	87.0	851	Round	Medium	Medium	Yellow	Green
No. 19-1 F ₁	LD	2.807	2.875	71.2	500	Round/oblate	Slight	None	Yellow	Yellow/orange
*Honingtopf F ₁	SPER	2.685	2.886	84.3	548	Round	Slight	Medium	Yellow	Light yellow Light green ring
*XPH 771	ASG	1.188	2.378	91.1	771	Oval	Heavy	Heavy	Grey-green	Orange
*Summet	ASG	0.286	0.682	27.1	563	Oval/elongated	Heavy	Heavy	Yellowish green	Yellow-orange
*Harmony	ASG	0.815	2.474	77.7	631	Elongated	Medium	Medium	Grey-green	Yellow-orange
*Summer Dream	TA	0.556	4.111	78.7	621	Oval	Slight/none	None	White/green	Orange, green ring
*Wormser Goldzucker	WAV	0.529	3.022	86.4	671	Elongated	Slight	Heavy	Yellowish green	Orange
Minnesota Midget	T&M	3.836	4.003	86.2	386	Round	Medium	Medium	Green	Orange

Replications: 2
 Pre-germinated: May 8 (30°)
 Germinated seeds sown: May 12
 Planted in Floralux
 peat bags: June 9

*Topped: June 5
 3 plants in each bag: A plot
 Plot size: 1.8 m²
 The soil was covered with black polyethylene film.

Drip irrigation: Eventricke
 Fertilizer: Superba + Viking Ship CaNO₃
 Electrical heating cables on the ground close to the peat bags (17 watt per plant).

ONION VARIETY TRIAL 1980

Variety	Seed supplier #	Total yield kg/daa	Average weight per onion in gram	Number harvested				Form	Outer colour (1 - 9)
				% Class I	% Class II	% Discarded	% <1.15 cm		
Hyper F ₁		13950	41.6	97.3	2.1	0.3	0.3	Round	5
Stuart		10050	43.1	96.3	2.3	2.1	0.3	Flat-round	7
Pop ³ St. I x W		12150	41.5	88.4	10.5	0.1	1.1	High-round	5
Lucrato		7150	26.2	89.3	7.3	0.2	3.2	Round	3
Sublima		9000	36.5	83.1	12.4	1.5	3.0	High-round	4
Adina		10800	37.0	84.6	11.6	1.5	2.4	High-round	4
Hygro F ₁		11900	43.2	85.0	12.3	0.3	2.5	Round	5
Balstora		12350	37.5	83.3	12.5	0.4	3.9	Round	6
Mabol		11700	36.8	82.8	13.0	-	4.2	Round	5
Solo		9150	43.7	92.1	4.4	0.6	2.8	Round	6
Stuttgarter Diskos		9700	40.5	93.4	4.2	0.4	2.1	Flat-round	7
Jumbo		13900	47.7	93.2	5.1	0.5	1.3	Round/high-round	5

*Landvik

Outer colour scale: 1 = light skinned

Replications: 2

9 = dark skinned

Sown: May 9

Thinned: June 24

Harvested: September 15

Between rows: 13 cm

Between plants: 7 cm

Plot size: 3.5 m²

ONION OBSERVATION TRIAL 1980

Variety	Seed supplier	Total yield kg/daa	Average weight per onion in gram	Number harvested				Form	Outer colour (1 - 9)
				% Class I	% Class II	% Discarded	% <1.15 cm		
Hygro F ₁	BEJO	8200	33.1	88.6	8.3	0.2	2.9	Round	5
Rialto F ₁	ASG	14150	44.6	95.7	3.7	1.2	0.7	Oval	5-6
Produbel	DP	7600	34.9	87.6	8.7	0.9	2.8	High-round	4
Takiis Pride	TA	6600	28.9	83.9	10.2	0.6	5.3	Oval	7-8
Amber Express	TA	1500	5.7	12.7	5.0	1.7	80.7	Flat-round	1
Kyoto Prolific Yellow TA	TA	7350	37.9	93.1	3.3	1.6	1.9	High-round	8
Wijbo	S&G	8750	41.3	90.2	6.5	0.5	2.9	Round	8
Capable	DES	7050	33.6	92.8	2.6	3.3	1.3	Oval	6
Brahma F ₁	DES	6750	25.6	88.0	3.6	2.6	5.8	Oval/Oblong	7-8
Spartan F ₁	DES	10000	30.0	95.6	1.1	1.6	1.7	Oval	7-8
Bumper C	DES	8800	24.7	81.8	6.7	3.0	8.6	Oval/oblong	6
Bullring F ₁	DES	8800	30.8	81.3	9.8	1.0	7.9	Oval/oblong	7
Golden Beauty F ₁	DES	11550	43.0	89.7	7.1	1.4	1.8	Oval	6-7
Mucker F ₁	DES	8000	29.3	89.4	6.1	1.1	3.4	Oval/oblong	8-9
Eyg F ₁	DES	5600	26.0	87.2	5.3	3.6	3.9	High-round	6
Golden Cascade F ₁	DES	7900	34.8	90.1	7.4	-	2.5	Oval	6

Replications: None

Sown: May 13

Thinned: July 1

Harvested: September 15

Between rows: 13 cm

Between plants: 7 cm

Plot size: 2.8 m²

Outer colour scale: 1 = light skinned

9 = dark skinned

RADISH VARIETY TRIAL CONTINUED

Variety	Seed supplier	Average weight of each radish in g	% by weight of foliage	Percentage of total yield at first harvest	Root form	Growth of terminal roots	Growth of secondary roots	Outer colour	Internal colour	Sponginess	Marketing value	Comments
Tip Top	a ASM	5.8	44	26	Cylindrical	Average	3	5	5	5	5	Dark red
	b	9.1	36	100								
Verano	a RZ	6.3	46	49	Round/	Average	4	7	5	6	7	
	b	10.0	35	100	flatround							
WAV 127	a WAV	7.2	54	3	Round	Average	3	5	6	7	6	Rather large leaves
	b	8.3	57	36								

a = Sown on 1/4-80

b = " " 17/4-80

* = Scale 1 - 9, where 9 is for the best character and 1 is not acceptable.

SQUASH/PUMPKIN OBSERVATION TRIALS 1980

Summer squash (bush vars.)

Variety	Seed supplier	\bar{x} weight of fruit in g	No. of fruits per m ²	Yield Class I kg per m ²	Total yield kg per m ²	Description
Chefini	GRI	426	9.7	1.03	4.12	Fruits are a zucchini type, dark green in colour
Cheyenne Bush	USDA	302	3.7	0.55	1.06	Round, slightly flat fruits, light green in colour with dark stripes. Size of large apples.
Goldbar	SW	332	13.3	3.05	4.44	Light yellow, long pear shaped fruits. Not so attractive as Golden Courgette.
Golden Courgette	T&M	148	6.0	0.89	0.89	Long, golden yellow, shining fruits.
Gold Rush	PS	230	11.3	1.83	2.61	Long, slender, decorative, shining yellow fruits, similar to Golden Courgette. Constant large fruit production.
Patty Green Tint	PS	204	13.7	2.38	2.80	Light green, scalloped fruits.
President	LOG	397	9.0	1.29	3.58	Zucchini type fruits.
Redondo	GER	252	16.0	3.41	4.05	Small flat-round, shiny, dark-green fruits.
Table King	STO	310	4.3	1.24	1.35	Weak growth, fruits light green with dark stripes. Small pointed fleshy fruits with a small core.

SQUASH/PUMPKIN OBSERVATION TRIALS 1980

Winter squash/pumpkin

Variety	Seed supplier	\bar{x} weight of fruit in g	No. of fruits per m ²	% Class I	Yield Class I kg per m ²	Total yield kg per m ²	Description
Apple Squash	FM	638	3.7	75	1.76	2.34	Compact round fruits, light green with dark spots and lighter grooves.
Baby Delika	TA	282	2.7	86	0.65	0.75	Small, round green fruits with light stripes and spots.
Black Eagle	NK	485	3.0	32	0.47	1.46	Long, slender fruits with a smooth light green skin colour.
Blue Kuri	TA	442	2.3	37	0.39	1.03	Small oval fruits, light green in colour with darker stripes and spots.
Buttercup	DES	864	2.3	96	1.95	2.02	Typical buttercup form and colour.
Home Delite	SAK	833	3.0	100	2.50	2.50	Fruits are round and pointed with a delicate dark green colour and light stripes.
Howden's Field	HAR	2480	2.7	100	6.61	6.61	Large, compact fruits with shining, green colour and light spots. Thick flesh.
Kjempemelon	LOG	4900	1.3	99	6.44	6.53	Giant yellow fruits, oval-round in shape.
Naked Seeded Type	STO	1110	2.3	80	2.07	2.59	Compact fruits, light green with darker spots and dark green stripes.
Tetsukabuto	TA	282	1.3	100	0.47	0.47	Round, shining green fruits similar to Redondo.
Vegetable Marrow	LOG	1961	2.3	93	4.27	4.58	Normal manner type.
Vegetable Spaghetti	FM	1970	2.7	95	5.05	5.25	Compact, round, pale yellow fruits with typical "spaghetti" contents.
Warren Turban	DES	1996	1.7	96	3.21	3.33	Yellow, large fruits with typical turban shape.

SWEET CORN TRIAL 1980

Deep furrow covered with polyethylene film

Variety	Seed supplier	Number of cobs per plant		Yield g/m ²	Cobs Class I				Seed colour	
		Class I >160 mm	Total		% Class I	Average weight in g	Length in mm	Average diam. in mm		Number of seed rows
Jubilee F ₁	RS	0.7	1.2	56.3	1214	267	175	43	19.0	Yellow
Earliking F ₁	RS	0.6	1.0	62.7	1001	298	175	45	13.5	Dark yellow
Mellogold F ₁	RS	1.1	1.4	80.0	1522	285	185	47	15.5	Yellow
Goldenvee F ₁	STO	0.8	1.1	73.9	981	243	165	42	12.5	Light yellow
Earligem F ₁	STO	1.9	2.4	79.9	2190	247	185	40	12.0	Yellow
Earlivee F ₁	STO	0.4	1.3	34.7	1146	261	155	43	12.0	Yellow
Buttervee F ₁	STO	1.0	1.5	65.6	1547	288	180	48	12.0	Yellow
Kandy Kome	LIV	0.9	1.4	62.7	1221	239	165	44	17.0	Light yellow
Medallion	RB	1.0	1.5	66.7	1411	249	180	43	16.0	Light yellow
Fanfare	RB	1.1	1.6	67.7	1853	311	185	43	20.0	Yellow
Reward	RB	1.0	1.6	66.4	1887	356	198	50	20.0	Yellow
Beacon	RB	1.0	1.5	65.1	1544	313	197	47	15.6	Light yellow
Debut	RB	1.2	1.6	74.3	1896	352	194	50	16.2	Yellow
XP 2547 BC F ₁	ASG	0.9	1.2	78.9	1491	360	217	46	15.3	Light yellow
XP 2539 F ₁	ASG	0.8	1.7	48.2	1400	263	202	42	15.1	Light yellow
XP 2532 F ₁	ASG	0.9	1.0	96.6	1171	319	193	46	19.6	Yellow
DE XP 144 F ₁	DES	0.4	1.1	42.2	899	266	196	41	14.2	Yellow
DE XP 122	DES	0.03	0.5	2.2	567	250	186	38	15.0	Light yellow
XP 2538 F ₁	ASG	0.4	1.3	27.6	1151	276	172	45	18.2	Yellow
XP 2539 F ₁	ASG	0.6	1.2	52.4	1033	251	193	43	15.0	Light yellow

SWEET CORN TRIAL 1980 CONTINUED

Replications:	2
Sown:	May 22
First harvest:	August 29
Between double rows:	40 cm
Between plants:	40 cm
Plot size:	7.8 m ²
Plant number:	30 plants

SWEET PEPPER VARIETY TRIAL 1980

Unheated polyethylene tunnel

Variety	Seed supplier	Yield			
		Total kg/m ²	Per cent Class I	Average fruit weight in grams Class I	Average fruit weight in grams Total
E 6150	ENZA	4.50	35.2	174	118
E 6156	ENZA	3.74	42.3	184	126
Clio	ENZA	2.53	15.7	160	90
Lady Bell	HAR	2.58	44.5	160	107
Neusiedler Ideal	HILD	5.02	25.6	133	86
EXP No. 1933	KEY	2.68	39.2	147	103
Video F ₁	LC	2.95	8.1	216	125
Sonar F ₁	LC	3.34	44.8	177	135
Cadice	LOG	3.62	34.7	146	102
R 2404 F ₁	OEK	4.01	38.2	136	97
RS 916 F ₁	RS	2.72	36.5	134	109
RS 929 F ₁	RS	3.96	50.8	133	96
Park's Sweet Banana	PARK	3.14	58.4	43	39
Rumba	RZ	3.23	34.7	168	47
Ace F ₁	STO	3.66	23.3	102	77
Earliest Red Sweet	STO	3.27	13.9	86	62
Wonder Bell	TA	2.86	31.2	132	85
Szegediner	WAV	3.17	46.5	148	107

Replications:

2

Sown:

March 27

Planted

May 13

Plot size:

1.2 x 2.0 = 2.4 m²

Plany number

10

Between plants

40 cm

Drip irrigation:

Eventrickle

Fertilizer:

Superba + Viking Ship CaNO₃

TOMATO VARIETY TRIAL 1980

In the open

Variety	Seed supplier	Yield kg/daa			Average fruit weight in grams Class I	Height/width in mm	Number of locules	Refractometer value ripe fruit	
		Up to Aug. 20	Total	%					
									Class I
Early Girl	BALL	2950	10450	31.7	25.6	98.7	51.2/61.2	3.8	4.5
Harzfeuer	DSG	2450	9150	36.2	18.5	68.2	46.2/52.7	2.4	3.5
Compaty	ENZA	6050	10950	29.8	28.2	64.4	49.0/55.3	2.1	3.8
Dwarfy	ENZA	4300	10550	37.9	27.2	58.5	45.2/49.9	2.0	4.0
Speedy	S&G	950	7700	17.1	24.5	111.8	55.0/67.8	4.4	3.5
Bonset	RS	1000	11600	27.8	22.4	89.8	53.5/60.7	2.8	3.7
Early Cascade	RS/STO	1350	10600	39.2	26.7	78.6	56.5/57.5	2.9	4.3
Duke F ₁	PS	2900	8350	34.2	24.5	199.4	67.6/78.8	4.5	3.8
Count F ₁	PS	2750	7950	25.0	33.8	156.5	57.7/67.4	4.5	4.0
Granat		2850	7300	31.5	24.3	60.1	47.1/49.5	3.9	4.3

Replications: 2

Sown: April 18

Planted: June 2

First harvest: July 18

Plot size: 1.2 x 1.8 = 2.16 m²

Plant number: 10

Between plants: 30 cm

Between rows: 80 - 40 - 80 cm

Fertilizer: Viking Ship Ca(NO₃)₂

TOMATO VARIETY TRIAL 1980

Unheated polyethylene tunnel

Variety	Seed supplier	Yield in kg/daa			Average fruit weight in grams Class I	Relative yield Class I
		Up to Aug. 20	Total	% Class I		
Early Girl	BALL	3850	11450	57.0	99.3	146
Harzfeuer	DSG	3350	10450	44.5	64.8	100
Compaty	ENZA	5650	9500	50.3	65.2	107
Dwarfy	ENZA	4950	9200	45.6	53.9	93.7
Speedy	S&G	2150	7400	25.6	116.4	42.2
Bonset	RS	1400	10750	50.5	85.9	121.4
Early Cascade	RS/STO	3100	9800	53.1	82.1	116.5
Duke F ₁	PS	1350	6950	38.0	154.3	59.1
Count F ₁	PS	2200	7650	45.0	133.0	77.1
Granat		3600	9250	41.0	63.1	84.6

Replications: 2
 Sown: April 18
 Planted: Mai 30
 First harvest: July 11
 Plot size: 1.2 x 1.8 = 2.16 m²
 Plant number: 10
 Between plants: 30 cm
 Between rows: 80 - 40 - 80 cm
 Fertilizer: Viking Ship Ca(NO₃)₂ + Superba
 Drip irrigation: Eventrickle

Yields were especially reduced this year due to late blight. The summer this year was rather wet.

TOMATO OBSERVATION TRIAL 1980

In the open

Variety	Seed supplier	Yield kg/daa		Fruit			Plant	
		Up to Aug.20	Total	Shape: Oblong(OB) Round (R) Oval (O)	Size: Small (S) Medium(M) Large (L)	Normal(N) Bush (B) Half bush (HB)	Vigour 1 - 9	
Early Rouge	STO	4950	8250	OB	L	N	5	
Starshot	STO	1600	9050	OB	L	B	5	
Basket Vee	STO	-	8900	R	L	N	7	
City Best VF F ₁	PARK	5300	13500	O	M	B	5	
Can Can F ₁	OE	-	5550	R	L	N	10	
Sontex F ₁	OE	1550	4100	OB	L	N	8	
Tarok F ₁	OE	250	8000	R	L	N	10	
Moskovskij osemnij WYR 3626	VAV	50	6500	OB	M	N	10	
Iribovskij A-50 WYR 3596	VAV	1450	12500	OB	L	N	10	
Severianin WYR 3932	VAV	4250	9300	OB	L	B	5	
Pionerskij WYR 3978	VAV	1600	13850	O	M	B	7	
Bigset VFN F ₁	GER	4650	17350	R	L	N	8	
Supersteak	AB	300	1550	OB	L	N	9	
Castlehy	CAS	-	7700	O	L	N	7	
The Juice VF F ₁	BALL	400	10750	OB	L	B	6	
RS 1298	RS	3850	12950	R	L	B	6	
RS 1299	RS	-	6700	R	L	N	6	
RS 1301	RS	50	2850	O	S	B	5	
RS 1302	RS	750	9650	R	M	N	5	
Tulena VF F ₁	LC	6200	17500	OB	L	B	6	
Kosei 51 F ₁	TA	-	6350	R	L	N	10	
Master	TA	700	9700	OB	L	N	10	
E 6278 F ₁	ENZA	900	12150	R	M	B	7	
E 6266	ENZA	1850	10000	OB	L	N	9	
Monidal	RZ	750	10750	R	M	N	10	
Bellina	RZ	900	7150	O	S	N	9	
730-78	WW	7600	11650	R	M	B	4	
Alfresco	CS	6000	15650	OB	M	B	5	
Sleaford Abundance	CS	3150	11800	OB	S	B	4	
Super Fantastic	BALL	50	7200	OB	L	N	7	
Nr. 6751	BRU	3150	11450	OB	L	N	5	
Nr. 6754	BRU	700	7350	R	L	N	5	
Concor F ₁	OE	1000	4000	OB	L	N	9	

TOMATO OBSERVATION TRIAL (CONTINUED)

Replications: No
Sown: April 18
Planted: June 2
Plot size: $1.2 \times 1.2 \text{ m} = 1.44 \text{ m}^2$
Plant per plot: 6
Between plants: 30 cm
Between rows: 80 - 40 - 80 cm
First harvest: July 30
Fertilizer: Viking Ship $\text{Ca}(\text{NO}_3)_2$

TOMATO OBSERVATION TRIAL 1980
in polyethylene tunnel

Variety	Seed supplier	Yield kg/daa	
		Up to Aug. 20	Total
Early Rouge	STO	-	-
Starshot	STO	-	-
Basket Vee	STO	-	-
City Best VF F ₁	PARK	3350	4400
Can Can F ₁	OE	1800	5850
Sontex F ₁	OE	900	3950
Tarok F ₁	OE	200	3000
Moskovskij osennij WYR 3626	VAV	250	4500
Iribovskij A-50 WYR 3596	VAV	1850	7350
Severianin WYR 3932	VAV	4800	5450
Pionerskij WYR 3978	VAV	1500	5900
Bigset VFN F ₁	GER	5600	8650
Supersteak	AB	150	2150
Castlehy	CAS	1000	5100
The Juice VF F ₁	BALL	3650	7250
RS 1278	RS	4350	8850
RS 1299	RS	1550	7850
RS 1301	RS	1200	3900
RS 1302	RS	2350	7900
Tulena VF F ₁	LC	4400	10250
Kosei 51 F ₁	TA	350	6900
Master	TA	2500	6400
E 6278 F ₁	ENZA	2500	10600
E 6266	ENZA	4450	12250
Monidal	RZ	2050	8450
Bellina	RZ	1750	9250
730-78	WW	3600	4150
Alfresco	CS	4400	7650
Sleaford Abundance	CS	900	1900
Super Fantastic	BALL	1900	4200
Nr. 6751	BRU	1650	6850
Nr. 6754	BRU	550	4500
Concor F ₁	OE	1050	4450

TOMATO OBSERVATION TRIAL (CONTINUED)

Replications: No
Sown: April 18
Planted: Mai 30
First harvest: July 18
Plot size: 1.2 x 1.2 m = 1.44 m²
Plant number: 6
Between plants: 30 cm
Between rows: 80 - 40 - 80 cm
Irrigation: Eventrickle
Fertilizer: Viking Ship Ca(NO₃)₂ + Superba

WATER MELON VARIETY TRIAL 1980

Polyethylene tunnels

Variety	Seed supplier	Average number of fruits per plant	Total yield kg/m ²	Per cent Class I	Average fruit size Class I in gram	Fruit shape	Rind colour	Flesh colour
Midget Cream	TA	3.5	6.040	37	1298	Round	Light green, striped dark green	Yellow
Lucky Sweet	TA	1.0	5.572	100	4179	Round	Light green, striped dark green	Red
Ali	S&G	2.0	5.445	100	2042	Round	Dark green, striped slight	Red
Tendergold	WILL	0.8	2.977	100	2720	Oblong	Medium green, striped light green	Yellow
Yellow Doll	GER	3.0	6.548	94	1688	Round	Medium green, striped dark green	Yellow
XP 962	ASG	1.3	7.257	100	4476	Oblong	Dark green	Red
Tatum	ASG	1.8	6.080	100	2552	Round	Medium/dark green, striped slight	Red
XPH 957	ASG	1.5	7.167	100	3583	Round	Dark green, striped slight	Red
Mirage	ASG	1.3	6.375	100	4006	Oblong	Light green, striped med. green	Red
XPH 961	ASG	1.3	6.133	100	4569	Oval	Dark green	Red
R. 2048	OEK	1.8	5.513	100	2641	Round	Light green, striped dark green	Red
Panonia	RS	1.0	6.185	100	4639	Round	Dark green	Red
Sweet Favourite F ₁	T&M	1.3	6.380	100	3872	Oblong	Medium green, striped dark green	Red
Sugar Baby	STO	2.0	5.482	96	2280	Round	Dark green, striped slight	Red

Replications: 2

2 plants in each bag: A plot

Pre-germinated: May 8 (30°C)

Plot size: 1.5 m²

Seedlings transplanted: May 12

The soil was covered with black polyethylene film (weed control)

Planted in peat bags: June 9

Drip irrigation: Eventricle

Fertilizer:

Superba + Viking Ship CaNO₃