Project title	Field vegetables: An evaluation of autumn/winter cauliflower, spring cabbage cultivars and other winter Brassica crops.
Project number:	FV 202c
Project leader:	Bill Herring, Duchy College
Report:	Annual report May 2007
Previous report	First report
Key staff:	Bill Herring Malcolm Millar Ellis Luckhurst
Location of project:	Trevarnon Farm, Gwithian, Cornwall.
Project coordinator:	Ellis Luckhurst
Date project commenced:	1st April 2006
Date project completed:	31st March 2009
Key words:	Winter Cauliflower, Autumn Cauliflower Spring Cabbage variety Trials.

The results and conclusions in this report are based on an investigation conducted over a one-year period. The conditions under which the experiments were carried out and the results have been reported in detail and with accuracy. However, because of the biological nature of the work it must be borne in mind that different circumstances and conditions could produce different results. Therefore, care must be taken with interpretation of the results, especially if they are used as the basis for commercial product recommendations.

AUTHENTICATION

We declare that this work was done under our supervision according to the procedures described herein and that the report represents a true and accurate record of the results obtained.

[Name]
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CONTENTS

Grower Summary

Headline

Some new Autumn and Winter Cauliflower varieties can increase income by £486/ha where marketable Grade 1 product is 10% above standard varieties currently available.

Background and expected deliverables

Duchy College working in partnership with a number of National seed houses and local growers have carried out the evaluation of commercially available Autumn, Winter Cauliflower and Spring greens varieties over the past 10 years. With the improvement in plant breeding and new cultivars being introduced these need to be assessed alongside current and established varieties in order to improve yields and quality of produce.

The expected deliveries from this work include:-

1. Detailed information on each variety including the following:-
    - Harvesting period. 10% 50% and 90% harvest dates % Grade 1, 2 and unmarketable
    - Marketable yields/Acre (Hectare)
    - Comments on any defects, disease tolerance, and suitability for various market outlets.
    - Evaluation on ease of harvest, frost protection, uniformity, depth and quality of curds.

2. Comparing Winter Cauliflower varieties transplanted at two transplanting dates and at two different spacings. Early and mid July transplanting dates at 7096 and 8580 plants/ac (17527 and 21193/ha).
    - Detailed information for each cultivar as above.

3. Cultural information on the production of the crops

4. Website updated weekly providing results throughout the harvest period of October to May.

Summary of the project and main conclusions

- 13 Autumn varieties from 5 seedhouses were evaluated. Transplanted 17/07/06 at a spacing of 10249/Acre (25315/Hectare). Harvested between 09/10/06 and 10/11/06 producing between 40 and 82% Class 1 yields.

- 66 Winter varieties from 7 seedhouses were evaluated. Transplanted on the 06/07/06 and 17/07/06 at 7096/ac (17527/ha) and 8580/ac (21193/ha). In general the earlier transplantings at the wider spacing harvested earlier with a higher % class 1 product, but the highest marketable yield class 1 came from the closer spacing.

- Some of the new introductions performed well compared to standard varieties and provide alternative options when planning successional harvesting over a long period.

- Spring greens. The traditional variety of Wintergreen harvested over a longer harvesting period than other varieties within the Trial. In comparing transplanting dates the last two transplantings on the 28th September and 7th October failed to produce marketable yields until mid April 2007 compared to earlier transplantings harvested in late February and early march 2007. This was due to a very wet November and December after transplanting resulting in poor establishment

Financial benefits

- By selecting new varieties that have performed well to compliment established varieties the financial benefits can be in the region of an extra income of £197/ac (£486/ha) for a variety producing an extra 10% Grade 1 marketable yield (858 curds@23p).

- By using the Trials data to select the best new varieties growers will save in the region of £1000/ac (£2470/ha) in trials costs on their own farms.

Action points for growers

- To visit the website to compare variety performance and heading dates. Google - Rosewarne Brassica Trials

- To incorporate new varieties into crop planning and harvesting strategies.

Science Section

Summary of Results

Autumn Cauliflower Varieties.
Top performing varieties

Seed house	Variety	%	Trays/acre	Heading period Grade1
Seminis	SVR 5991	74	912	21.10.06 - 04.11.06
Syngenta	Cartier	82	999	09.10.06 - 17.10.06
Nickerson	Vil 7012	73	865	10.10.06 - 23.10.06
Elsoms	BJ 2669	65	766	16.10.06 - 04.11.06

Winter Cauliflower Varieties.
Top performing varieties

Seed house	Variety	%	Trays/acre	Heading period Grade1
Elsoms	Belot	50	536	23.11.06 - 27.12.06
Clause	Triomphant	55	590	06.12.06 - 02.01.07
Seminis	RX5593	55	590	10.01.07 - 29.01.07
Syngenta	Buren	55	570	11.01.07 - 08.02.07
Syngenta	SG 4397	60	644	22.01.07- 12.02.07
Syngenta	Alpen	65	697	22.01.07 - 05.02.07
Tozer	1018	60	643	22.01.07 - 05.02.07
Tozer	1011	75	804	29.01.07 - 26.02.07
Seminis	Treknow	62	664	29.01.07 - 19.02.07
Seminis	Tintagel	70	751	01.02.07 - 19.02.07
Elsoms	Medaillon	75	804	01.02.07 - 26.02.07
Clause	33411	72	775	12.02.07 - 26.02.07
Clause	Brick	79	847	15.02.07 - 26.02.07
Clause	Redoutable	81	868	15.02.07 - 26.02.07
Syngenta	Clemen	95	1037	19.02.07 - 01.03.07
Syngenta	SG 4716	80	858	19.02.07 - 10.03.07
Tozer	2030	80	876	22.02.07 - 01.03.07
Syngenta	Boulen	75	804	26.02.07 - 05.03.07
Clause	33508	75	840	26.02.07 - 08.03.07
Tozer	2042	74	809	26.02.07 - 05.03.07
Seminis	Cadal	95	1037	26.02.07 - 01.03.07
Seminis	Trewint	90	983	26.02.07 - 08.03.07
Tozer	2027	80	858	26.02.07 - 05.03.07
Syngenta	Broden	75	80	01.03.07 - 12.03.07
Elsoms	Madiot	88	938	01.03.07 - 08.03.07
Elsoms	Mystique	90	965	05.03.07 - 19.03.07
Elsoms	Isadora	75	804	05.03.07 - 12.03.07
Nickerson	Kernis	90	965	08.03.07 - 02.04.07
Vilmorin	6322	95	1018	12.03.07 - 29.03.07
Syngenta	Charif	90	965	15.03.07 - 02.04.07
Elsoms	Invicta	80	876	15.03.07 - 19.03.07

Seed house	Variety	%	Trays/acre	Heading period Grade1
Nickerson	Taranis	94	832	26.03.07 - 05.04.07
Elsoms	Vogue	85	911	29.03.07 - 07.04.07
Seminis	Trenale	85	912	29.03.07 - 09.04.07

Spring Green Varieties

See table on next page.

The results of the trials for the 2006-07 season clearly show the influences of the time of planting, spacing and the weather on the varietal performance. These variables need to be considered when using the data from the trials and variety performance over a number of seasons needs to be considered when selecting suitable varieties.

Spring greens Variety Trial 2006 - 07

VARIETY	TRANSPLANTING DATE	COMMENTS	HARVEST DATE	PACK OUT YIELD TRAYS/ACRE (10 bags x 550grams)
ELSOMS	08.09.06	Paler inner leaf. Good greens.	1.1.07	880
PUNCH			11.3.07	953
SEMINIS	08.09.06	Dark green leaf. Uniform. Very good	1.1.07	896
(R.Sluis)		greens. Medium height.	11.3.07	971
7004				
SEMINIS	08.09.06	Slightly more compact than 7004.	1.1.07	920
(R.Sluis)		Dark green leaf. Very good greens.	11.3.07	1015
7003				
A.L.TOZER	08.09.06	Some variation in size. Light green	1.1.07	833
WINTERGREEN		leaf. Stalky. Some good greens.	11.3.07	813
NICKERSON-ZWAAN	08.09.06	Bluey green leaf. Fairly uniform.	1.1.07	821
MASTERCUT		Good greens.	11.3.07	799
NICKERSON-ZWAAN	08.09.06	Low to the ground. Spreading habit.	1.1.07	855
MASTERGREEN		Slightly crinkly leaf. Paler inner leaf.	11.3.07	910
		Good greens.		

Appendices

Cultural information, trial plans and a list of varieties trialled are given in the following Appendices to this section as follows:

Appendix 1
Cultural information 2006
Cultural Information including Base and top dressings, weed control, pest control, diseases control, transplanting dates, and weather summary for growing period.

Appendix 2
Trials plan
The Trial site is situated in the middle of an area that has grown Autumn and Winter Brassica crops for over 100 years and is on a holding growing in excess of 150 Acres (61Hectares) of Cauliflower and cabbage to a high standard. All operations in regards crop production are as practiced on the commercial holding.
Each plot consisting of two guard rows and two recorded rows grown under commercial conditions, harvested twice a week and graded to EEC marketing standards. A minimum of 40 recordable plants per variety. Plots replicated.

Appendix 3
List of Varieties

Appendix 4
Full Trials Results Tables
Autumn Cauliflower Variety Trial
Time of planting and spacing trial

APPENDIX: 1

CULTURAL INFORMATION 2006 - 07
AUTUMN and WINTER CAULIFLOWER TRIALS

Fertiliser		Base Dressing 1112 kg/ha Yara 5-10-30 +Boron
	10.10.06	Top Dressing 494 kg/ha Yara Calcium Nitrate
	28.12.06	275 kg/ha Yara Calcium Nitrate
Weed control		Treflan 2.3 l/ha
		Inter row cultivations on 3 occasions
Pest control		Wire netting prior to transplanting as rabbit control
		Cyren " Dursban" @ 2 l/ha applied with the Treflan
	15.08.06	Aphox @ 280 g/ha (Aphid control)
		Bandu @300 ml/ha (Caterpillar control)
		Wetta @ 100 ml/ha in 400 Litres of water
	26.09.06	Aphox @ 400 g/ha (Aphid control)
		Hallmark @ 50 ml/ha (Caterpillar control)
		Wetta @ 100 ml/ha in 400 Litres of water
Disease control	26.09.06	Plover @ 300 ml/ha
	16.12.06	Plover @ 300 ml/ha + wetter
	03.02.07	Plover @ 300 ml/ha + wetter on later varieties
Transplanting dates		Time of Planting Trial 6th and 17th July 2006
		Autumn Variety Trial 11th July 2006
		Late Variety Trial 6th July 2006
		Confidential plots 11th July 2006

SPRING CABBAGE

Fertiliser		Base Dressing 741 kg/ha Yara 5-10-30
	16.10.06	Top Dressing 494 kg/ha Yara Calcium Nitrate
Weed control		Treflan 2.3 l/ha
		Inter row cultivations on 2 occasions
Pest control		Wire netting prior to transplanting as rabbit control
		Cyren " Dursban" @ 2 l/ha applied with the Treflan
01.11.06		Hallmark@ 50 ml/ha (Caterpillar control)
		Biscaya @ 400 ml/ha (Aphid control)
		Wetta @ 100 ml/ha in 400 l of water
Disease control		Plover @ 300 ml/ha
Transplanting date conditions.		Spring Greens Variety Trial 8th September into excellent

Weather:-
Very dry conditions when transplanting in July. Both the air maximum and minimum temperature averages above normal in July, August, September and early October. Only 2 days of significant rainfall in August and 4 days in September. First ground Frost recorded at Rosewarne on the 31st October. Heavy rainfall throughout November and December, with well above average day and night temperatures.

January and February continued high temperatures with above average rainfall in February.

APPENDIX 2: Trials Plan 2006 – 07

FIELD PLAN FOR DUCHY BRASSICA TRIALS 2006 - 07 GWITHIAN - CORNWALL

F	H															
A	E	24	24A	Confidential Seminis Autumn Varieties											217	218
R	R	22	23			68	69								215	216
M	B	20	21			66	67	89	90						213	214
	I	18	19	43	44	64	65	87	88						211	212
	C	16	17	41	42	62	63	85	86	Confidential Clause/Tezier				F	209	210
C	D	14	15	39	40	60	61	84	84A					A	207	208
R	E	12A	13	37	38	58	59	82	83	Confidential Seminis Winter Varieties				R	204	206
O		11	12	35	36	56	57	80	81					M	202	203
P	T	9	10	33	34	54	55	78	79						200	201
	R	7	8	31	32	52	53	76	77	103	104	105	106	C	198	199
	I	5	6	29	30	50	51	74	75	99	100	101	102	R	196	197
	A	3	4	27	28	47	49	72	73	95	96	97	98	O	194	195
	L	1	2	25	26	45	46	70	71	91	92	93	94	P	192	193

A B C D A B C D A B C D A B C D A B C D A B C D

Alpen | AUTUMN VARIETY TRIAL | TIME OF PLANTING/SPACING TRIAL | CONFIDENTIAL | LATE VARIETIES

4 ROWS 8 ROWS 8 ROWS 8 ROWS 8 ROWS 8 ROWS 8 ROWS 8 ROWS 8 ROWS 8 ROWS 8 ROWS 8 ROWS

TREVARNON FARM LANE

APPENDIX 3: List of Varieties

AUTUMN CAULIFLOWER VARIETY TRIAL 2006 - 07

SPACING 34 X 18

10249 plants/ac (25315/ha) 4-row plots Transplanted 11th July 2006

PLOT NO	SEEDHOUSE	VARIETY	
1	SEMINIS	RX 5650	
2	SEMINIS	AMIATA	(RX 5539)
3	SEMINIS	ARICA	(RX5278)
4	SEMINIS	SVR 5991	
5	SYNGENTA	CARTIER	
6	VILMORIN	7012	
7	CLAUSE/TEZIER	RAFALE	
8	CLAUSE/TEZIER	REGATA	
9	CLAUSE/TEZIER	INTREPID	
10	CLAUSE/TEZIER	OPTIMIST	
11	CLAUSE/TEZIER	MERIDIEN	
12	CLAUSE/TEZIER	AMISTAD	
12A	ELSOMS	BJ 2669	
13	SEMINIS	RX 5650	
14	SEMINIS	AMIATA	(RX 5539)
15	SEMINIS	ARICA	(RX5278)
16	SEMINIS	SVR 5991	
17	SYNGENTA	CARTIER	
18	VILMORIN	7012	
19	CLAUSE/TEZIER	RAFALE	
20	CLAUSE/TEZIER	REGATA	
21	CLAUSE/TEZIER	INTREPID	
22	CLAUSE/TEZIER	OPTIMIST	
23	CLAUSE/TEZIER	MERIDIEN	
24	CLAUSE/TEZIER	AMISTAD	
24A	ELSOMS	BJ 2669	

TIME OF PLANTING and SPACING TRIAL 2006 - 07

SPACINGS 34 X 21.5" (8580/Acre) and 34 X 26" (7096/Acre)

Transplanting dates 6th and 17th July 2006 8 row plots

PLOT NO	SEEDHOUSE	VARIETY	HEADING PERIOD
25	CLAUSE/TEZIER	GALIOTE	Early December
26	ELSOMS	BELOT	Early/mid December
27	SYNGENTA	DRAKE	Early/mid December
28	NICKERSON-ZWAAN	CENDIS	Early December
29	SAKATA	CAU-G34	Early/mid December
30	SYNGENTA	LORIEN	Early December
31	TOZER	1026	Mid December
32	SEMINIS	RX 5993	Mid December
33	TOZER	1016	Mid December
34	ELSOMS	MAGINOT	Mid December
35	TOZER	1001	Mid/Late December
36	SYNGENTA	BUREN	Late December
37	TOZER	1014	Late December
38	SYNGENTA	SG 4397	Late December
39	CLAUSE/TEZIER	TRIOMPHANT	Early January
40	SYNGENTA	ALPEN	January
41	SEMINIS	RX 5994	January
42	TOZER	1020	Mid January
43	TOZER	1008	Late January
44	CLAUSE/TEZIER	BRICK	Late January
45	TOZER	1011	Late January
46	CLAUSE/TEZIER	CLX 33406	Late January
47	CLAUSE/TEZIER	HERMINE	Late Jan/Early February
48	no plot		
49	CLAUSE/TEZIER	REDOUTABLE	Early February
50	NICKERSON-ZWAAN	OURASIS	Early February
51	TOZER	1018	Early February
52	CLAUSE/TEZIER	33411	Early February
53	TOZER	2017	Early February
54	CLAUSE/TEZIER	33508	Early February
55	SEMINIS	TREKNOW	Early/mid February
56	TOZER	2022	Early/mid February
57	SYNGENTA	BOULEN	Early/mid February
58	CLAUSE/TEZIER	MATELOT	Mid February

TIME OF PLANTING and SPACING TRIAL cont **2006 - 07**

PLOT NO	SEEDHOUSE	VARIETY	HEADING PERIOD
59	SEMINIS	TINTAGEL	Mid February
60	ELSOMS	MEDAILLON	Mid February
61	CLAUSE/TEZIER	FARMAN	Mid February
62	TOZER	2042	Mid February
63	SYNGENTA	BRODEN	Mid/Late February
64	SEMINIS	TREWINT	Mid/Late February
65	CLAUSE/TEZIER	MASCARET	Mid/Late February
66	SYNGENTA	CLEMEN	Mid/Late February
67	SEMINIS	CADAL	Mid/Late February
68	TOZER	2030	Mid/Late February
69	SEMINIS	ABRUZZI	Mid/Late February
70	TOZER	2029	Late Feb/Early March
71	ELSOMS	MADIOT	Early March
72	CLAUSE/TEZIER	MORSOUIN	Early March
73	TOZER	2032	Mid March
74	ELSOMS	MYSTIQUE	Mid March
75	ELSOMS	TWILIGHT	Mid March
76	TOZER	2038	Mid/Late March
77	ELSOMS	ISADORA	Mid/Late March
78	ELSOMS	VOGUE	Mid/Late March
79	TOZER	2047	Mid/Late March
80	NICKERSON-ZWAAN	KERNIS	Mid/Late March
81	SYNGENTA	SG 4716	Late March
82	SYNGENTA	CHARIF	Late March
83	ELSOMS	TEMPEST	Late March
84	ELSOMS	INVICTA	Late March
84A	Confidential plot		
85	TOZER	2027	Late March/Early April
86	NICKERSON-ZWAAN VIL	6322	Early April
87	ELSOMS	NOMAD	Early/Mid April
88	NICKERSON-ZWAAN	TARANIS	Early/Mid April
89	SEMINIS	TRENALE	Mid April
90	SEMINIS	ALBINO	Late April

SPRING CABBAGE OBSERVATION VARIETY TRIAL 2006 – 07

This trial was planted on 8th September 2006 using a 5 row transplanter into excellent conditions.

5 Rows to a bed

Approximately 2000 plants of each variety,

All module plants (216/tray)

SEMINIS (R. Sluis) Winter Special 7003

SEMINIS (R. Sluis) 7004

NICKERSON – ZWAAN Mastergreen

A. L. TOZER Winter green

ELSOMS Punch

NICKERSON – ZWAAN Mastercut

AUTUMN CAULIFLOWER VARIETY TRIAL

EARLY VARIETIES 2006 - 07

SPACING 34" X 18" 10249/Acre

VARIETY	PLOT	CUTTING PERIOD 10%	CUTTING PERIOD 50%	CUTTING PERIOD 90%	DAYS	Class 1	Class 2	Unmarket	Crates / Acre Facepack 8	Facepack 6	16	Class 2 12
RX 5650	**1**	16.10	19.10	26.10	10	43	36	21	549	0	214	20
	13	16.10	19.10	30.10	14	55	15	30	704	0	96	0
Average		**16.10**	**19.10**	**28.10**	**12**	**49**	**25.5**	**25.5**	**627**	**0**	**155**	**10**

Tall frame. Slightly crinkle dark green leaf. Some good Facepack material. Slightly open frame. Will turn off white if not cut every 2 or 3 days. Some curds with small white bracts. Easy to see, cut and bag.

AMIATA	**2**	19.10	30.10	9.11	21	53	40	7	641	43	240	21
	14	16.10	26.10	11.11	26	58	18	24	705	43	96	21
Average		**17.10**	**28.10**	**10.11**	**23**	**55.5**	**29**	**15.5**	**673**	**43**	**168**	**21**

Tall frame. Slight crinkle to leaf. Some good Facepack material. Dark green leaf. Slightly open frame. Some curds loose with white bracts. Some curds turning off white if not cut every 2 or 3 days.

ARICA	**3**	23.10	26.10	8.11	16	60	18	22	769	0	112	0
	15	23.10	26.10	9.11	17	72	5	23	928	0	16	21
Average		**23.10**	**26.10**	**8.11**	**16.5**	**66**	**11.5**	**22.5**	**848**	**0**	**64**	**10**

Tall frame. Slightly wide base to curd. Good curd. Uniform. Slightly knobbly curd. Easy to see, cut and bag. A few loose small curds. Good curd/Facepack material. Some small plants/curds (15%).

SVR 5991	**4**	23.10	2.11	9.11	17	85	7	8	1088	0	48	0
	16	19.10	19.10	30.1	11	63	15	22	737	85	96	0
Average		**21.10**	**26.10**	**4.11**	**14**	**74**	**11**	**15**	**912**	**42**	**72**	**0**

Compact. Tight leaf over curd. Dark green leaf. Heavy curds. Very good Facepack material. Looks good in tray. Few defects.Slightly knobbly curd.

CARTIER	**5**	9.10	16.10	19.10	10	80	3	17	897	171	16	0
	36	9.10	16.10	16.10	7	83	2	15	1100	0	0	22
Average		**9.10**	**16.10**	**17.10**	**8.5**	**82**	**2.5**	**16**	**999**	**86**	**8**	**11**

Very crinkly leaf. Good curd protection. Medium height frame. Dark green leaf. Very good Facepack material. A few small plants/curds. Few defects.

AUTUMN CAULIFLOWER VARIETY TRIAL

EARLY VARIETIES 2006 - 07

SPACING 34" X 18" 10249/Acre

VARIETY	PLOT		CUTTING PERIOD			DAYS	Class 1	Class 2	Unmarket	Facepack			Class 2
			10%	50%	90%					8	6	16	12
VIL 7012	**6**		12.10	19.10	6.11	25	80	7	13	929	128	16	43
	18		9.10	12.10	16.10	7	65	15	20	801	43	96	0
Average			**10.10**	**15.10**	**23.10**	**13**	**72.5**	**11**	**16.5**	**865**	**85**	**56**	**22**

Crinkly dark green leaf. Slightly wide base to curd. Tall frame. Good curd protection. Very good Facepack material. Few defects. Slight purpling of leaf at base of florets. Medium depth curds. Smooth curd. Easy to see, cut and pack.

RAFALE	**7**		9.10	19.10	30.10	21	45	35	20	577	0	208	21
	19		16.10	19.10	23.10	7	50	15	35	641	0	96	0
Average			**12.10**	**19.10**	**26.10**	**14**	**48**	**25**	**27**	**609**	**0**	**152**	**11**

Tough Roscoff type of leaf. Very good curd protection. Prominent mid rib to leaf. Base of curd low to the ground. Heavy curds. Some irregular curds. Not easy to cut and bag. Some tip burn on outer leaves.

REGATA	**8**		16.10	19.10	23.10	7	60	12	28	641	171	54	21
	20		12.10	19.10	23.10	11	60	13	27	673	128	80	0
Average			**14.10**	**19.10**	**23.10**	**9**	**60**	**13**	**27**	**657**	**150**	**67**	**11**

Wide base to curds. Prominent mid rib to leaf. Will turn off white if not cut every 3 or 4 days. Good curd protection. Some large curds. Low squat frame. Some irregular shaped curds.

INTREPID	**9**		16.10	23.10	8.11	23	53	13	34	673	0	64	21
	21		16.10	23.10	30.10	14	38	35	27	480	0	224	0
Average			**16.10**	**23.10**	**3.11**	**18**	**45.5**	**24**	**30.5**	**576**	**0**	**144**	**11**

Tall frame. Slight pink to curds. Uniform. Some very good Facepack material. Slightly wide base to curd. Heavy curds. A few small plants/curds.

OPTIMIST	**10**		16.10	19.10	2.11	17	35	38	27	416	43	208	43
	22		16.10	19.10	2.11	17	45	28	27	512	85	176	0

Average		**16.10**	**19.10**	**2.11**	**17**	**40**	**33**	**27**	**464**	**64**	**192**	**22**

Spreading habit. Open frame. Dark leaf. Some good Facepack material. A few white bracts on curds.
A number of small plants/curds. Needs cutting every 2 or 3 days or will turn creamy.

AUTUMN CAULIFLOWER VARIETY TRIAL

EARLY VARIETIES 2006 - 07

SPACING 34" X 18" 10249/Acre

VARIETY	PLOT		CUTTING PERIOD			DAYS	Class 1	Class 2	Unmarket	Crates / Acre Facepack			Class 2
			10%	50%	90%					8	6	16	12
MERIDIAN	**11**		9.10	16.10	23.10	14	48	30	22	577	43	144	64
	23		9.10	16.10	18.10	9	59	17	24	580	244	61	61
Average			**9.10**	**16.10**	**20.10**	**12**	**54**	**23**	**23**	**579**	**146**	**102**	**62**

Slightly wide base. Twisted leaf over curd. Prominent vein to leaf. Some leaf scorch on outer leaves.Some good Facepack material. Knobbly heavy curd.

AMISTAD	**12**		16.10	26.10	11.11	26	58	10	32	737	0	64	0
	24		16.10	30.10	9.11	24	38	33	29	459	44	181	44
Average			**16.10**	**28.10**	**10.11**	**25**	**48**	**21.5**	**30.5**	**598**	**22**	**122**	**22**

Wide base to curd. Some yellowing at base of leaves. Knobbly curd. Some good Facepack material. Some variation in plant size.

BJ 2669	**12A**		16.10	19.10	13.11	28	57	20	23	732	0	110	24
	24A		16.10	19.10	26.10	10	73	10	17	800	170	18	21
Average			**16.10**	**19.10**	**4.11**	**19**	**65**	**15**	**20**	**766**	**85**	**64**	**23**

Uniform. Good Facepack material. Some large curds. Easy to see, cut and bag. Reasonable curd protection. Slightly wide base to curd.

TIME OF PLANTING AND SPACING TRIAL **2006 - 07**

A 8580/Acre Transplanted 6 July 2006 **B 8580/Acre Transplanted 17 July 2006**

C 7096/Acre Transplanted 6 July 2006 **D 7096/Acre Transplanted 17 July 2006**

VARIETY	PLOT	CUTTING PERIOD			DAYS	Class 1	Class 2	Unmkt		Facepack Class 1		Class 2	
											Crates/Acre		
		10%	50%	90%		%	%	%		8	6	16	12
Clause	25A	26.10	9.11	27.11	32	20	30	50		161	71	161	0
Tezier	25B	8.11	23.11	14.12	36	35	40	25		375	0	215	0
GALIOTE	25C	26.10	16.11	30.11	35	32	50	18		277	0	222	0
	25D	8.11	23.11	18.12	40	25	38	37		222	0	166	0
Some ricey/white bracts and pinking of curds with earlier transplanting date. Small frame and curds. Later transplanting producing smaller curds.													
Elsoms	26A	26.10	11.11	27.11	32	20	25	55		214	0	134	0
BELOT	26B	23.11	6.12	27.12	34	50	35	15		536	0	188	0
	26C	26.10	8.11	16.11	21	6	18	76		52	0	78	0
	26D	23.11	6.12	18.12	25	50	31	19		443	0	139	0
Some white bracts (Grade 2 produce) and pinking of curds on early transplanting. Several hollow stumps. Very high% of curds with white bracts.													
45% with hollow stumps on early transplanting. Much improved on later transplanting with only a few white bracts. Reasonable weight.													
Syngenta	27A	26.10	2.11	9.11	14	35	35	30		375	0	188	0
DRAKE	27B	9.11	16.11	27.11	18	35	20	45		375	0	107	0
	27C	30.10	2.11	9.11	10	38	38	24		333	0	166	0
	27D	9.11	16.11	27.11	18	38	56	6		333	0	249	0
Small white bracts on earlier transplantings. (35%) down grading curds to Class 2. Smooth white curds. Good protection . Easy to see, cut and bag.													
Good Facepack material. Uniform. Will turn off white if not cut every 3 or 4 days.													
Nickerson	28A	26.10	30.10	23.11	28	45	30	25		429	72	161	0
Zwaan	28B	11.11	23.11	4.12	23	50	20	30		536	0	107	0
CENDIS	28C	26.10	30.10	16.11	21	44	44	12		333	74	166	37
	28D	16.11	27.11	30.11	14	56	37	7		499	0	166	0
Some small white bracts on earlier transplantings, down grading curds to Class 2. Uniform. Easy to see, cut and bag. Good Facepack material.													
Few defects except for white bracts.													

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A 8580/Acre Transplanted 6 July 2006 **B 8580/Acre Transplanted 17 July 2006**

C 7096/Acre Transplanted 6 July 2006 **D 7096/Acre Transplanted 17 July 2006**

VARIETY	PLOT	CUTTING PERIOD			DAYS	Class 1	Class 2	Unmkt		Facepack Class 1		Class 2	
											Crates/Acre		
		10%	50%	90%		%	%	%		8	6	16	12
Sakata	29A	16.11	20.11	23.11	7	10	60	30		107	0	322	30
CAU-G34	29B	23.11	30.11	4.12	11	25	45	30		268	0	241	0
	29C	11.11	16.11	27.11	16	31	44	25		111	222	139	74
	29D	16.11	27.11	30.11	14	38	19	43		277	74	83	0
Curds very low to the ground. Difficult to see curds. Tight pale green wrapper leaves. Wide base to curds. Some irregular shaped curds.													
Smooth curd. Soft inner leaf. Good weight.													
Syngenta	30A	2.11	11.11	23.11	21	45	40	15		483	0	215	0
LORIEN	30B	16.11	27.11	4.12	18	40	35	25		375	72	188	0
	30C	8.11	9.11	23.11	15	31	50	19		277	0	222	0
	30D	16.11	30.11	4.12	18	62	31	7		554	0	139	0
Knobbly, off white curds with early transplanting. Generally poor shaped curds. Some good Facepack material. Easy to see, cut and bag.													
Much more uniform and better quality curds with later transplantingdate. Small upright frame.													
Tozer	31A	16.11	26.11	4.12	18	15	30	55		161	0	161	0
1026	31B	4.12	2.1	15.1	42	45	30	25		483	0	161	0
	31C	136.11	6.12	18.12	32	39	22	39		345	0	99	0
	31D	4.12	18.12	15.1	42	63	18	19		554	0	83	0
Creamy curds. Generally flattish open frame. Good sized frame but smallish curds on early transplanting. Some stump rot into base of curds.													
Much improved on later transplanting and at the wider spacing. Good weight and good Facepack material on later transplantings.													
Seminis	32A	14.12	18.12	2.1	19	30	40	30		322	0	215	0
RX 5593	32B	10.1	15.1	29.1	19	55	20	25		590	0	107	0
	32C	6.12	14.12	2.1	27	56	13	31		444	74	55	0
	32D	2.1	18.1	29.1	27	63	19	18		554	0	83	0
Untidy leaf type. Paler inner leaf. Good weight curd. Some small white bracts and off white curds with earlier transplantings. Not easy to see.													
Curds have a tendency to soon turn creamy in colour. Not easy to see curds. Some good Facepack material.													

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TIME OF PLANTING AND SPACING TRIAL **2006 - 07**

A 8580/Acre Transplanted 6 July 2006 **B 8580/Acre Transplanted 17 July 2006**

C 7096/Acre Transplanted 6 July 2006 **D 7096/Acre Transplanted 17 July 2006**

VARIETY	PLOT	CUTTING PERIOD			DAYS	Class 1	Class 2	Unmkt		Facepack Class 1		Class 2
											Crates/Acre	
		10%	50%	90%		%	%	%		8	6	16
Tozer	37A	23.11	11.12	2.1	40	40	40	20		429	0	215
1014	37B	6.12	11.1	15.1	40	35	25	40		375	0	134
	37C	26.11	11.12	2.1	37	31	50	19		277	0	222
	37D	18.12	2.1	15.1	28	63	25	12		554	0	111
Creamy flattish curds with earlier transplanting. Loose and creamy curds with later transplanting. Lightish curds. Some good Facepack material.												
Syngenta	38A	2.1	18.1	29.1	27	45	25	30		483	0	134
SG 4397	38B	22.1	5.2	12.2	21	60	15	25		644	0	80
	38C	10.1	18.1	22.1	12	81	0	19		721	0	0
	38D	29.1	1.2	5.2	7	81	6	13		721	0	28
Good Facepack material with early transplantings but some small unmarketable curds at the closer spacing. Few other defects. Good quality leaf.												
Good weight. Some off white curds. Performed much better at the wider spacing.												
Clause	39A	11.11	23.11	6.12	25	30	50	20		322	0	268
Tezier	39B	6.12	11.12	2.1	27	55	25	20		590	0	134
Triomphant	39C	11.11	20.11	26.11	15	31	50	19		277	0	222
	39D	23.11	4.12	2.1	40	56	37	7		499	0	166
Slightly knobbly curds with small white bracts in the early transplantings. Good weight. Easy to see, cut and bag.												
Later transplanting heavier and less bracting. Bracting down grading produce to Class 2.												
Syngenta	40A	11.12	15.1	22.1	42	70	10	20		751	0	54
ALPEN	40B	22.1	1.2	5.2	14	65	15	20		697	0	80
	40C	4.12	21.12	11.1	38	81	6	13		721	0	28
	40D	15.1	18.1	29.1	14	69	13	18		610	0	55
Upright frame. Solid curds. Easy to see, cut and bag. Uniform. Much larger curds from wider spacing and earlier transplanting.												
Some very good Facepack material. No white bracts. Approximately 15% sibs/very small plants.												

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C 7096/Acre Transplanted 6 July 2006 **D 7096/Acre Transplanted 17 July 2006**

VARIETY	PLOT	CUTTING PERIOD			DAYS	Class 1	Class 2	Unmkt		Facepack Class 1	Class 2 Crates/Acre	
		10%	50%	90%		%	%	%		8	6	16
Nickerson	50A	18.1	29.1	12.2	25	65	20	15		697	0	107
Zwaan	50B	29.1	12.2	19.2	21	65	15	20		697	0	80
OURASIS	50C	15.1	25.1	12.2	28	56	19	25		499	0	83
	50D	15.1	5.2	12.2	28	75	25	0		665	0	111
Some very good Facepack material. A few smallplants/curds. Will turn off white if not cut every 3 or 4 days.												
Generally not a lot of difference between planting dates and spacings.												
Tozer	51A	15.1	22.1	1.2	17	60	35	5		644	0	187
1018	51B	22.1	29.1	5.2	14	60	15	25		643	0	80
	51C	10.1	18.1	12.2	33	75	12	13		610	74	55
	51D	22.1	1.2	12.2	21	75	6	19		665	0	28
Very good Facepack material. Uniform. Easy to see, cut and pack. Good curd protection. Good weigh. Strong frame.												
Overall slightly better than 1008. Some small plant/curds especially in the later transplantings.												
Clause/Tezier	52A	5.2	12.2	15.2	10	75	20	5		804	0	107
33411	52B	12.2	15.2	26.2	14	72	11	17		775	0	60
	52C	5.2	5.2	12.2	7	93	7	0		721	148	28
	52D	5.2	15.2	19.2	14	82	0	18		678	70	0
Very Good Facepack materialTwisted leaf over curd. Slightly wide base. Not easy to pack into tray. Uniform. Few defects												
Tozer	53A	5.2	19.2	22.2	17	53	21	26		564	0	113
2017	53B	15.2	19.2	22.2	7	52	29	19		562	0	153
	53C	5.2	12.2	19.2	14	56	44	0		499	0	194
	53D	12.2	15.2	19.2	7	50	31	19		444	0	139
Loose leaves over curd. Difficult to see the curd. Will turn off white. Some small framedplants/curds.												

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C 7096/Acre Transplanted 6 July 2006 **D 7096/Acre Transplanted 17 July 2006**

VARIETY	PLOT	CUTTING PERIOD			DAYS	Class 1	Class 2	Unmkt		Facepack Class 1		Class 2
											Crates/Acre	
		10%	50%	90%		%	%	%		8	6	16
Tozer	62A	26.2	26.2	1.3	3	85	5	10		804	143	27
2042	62B	26.2	1.3	5.3	7	74	11	15		734	75	56
	62C	26.2	26.2	1.3	3	94	0	6		610	296	0
	62D	26.2	1.3	1.3	1	88	6	6		554	296	28
Uniform. Wide base to curd. Few defects. Easy to see and cut. Clean leaf. Slightly domed shaped curd. Dark leaf.												
Syngenta	63A	22.2	5.3	12.3	18	90	0	10		965	0	0
Broden	63B	1.3	5.3	12.3	11	75	10	15		804	0	54
	63C	26.2	1.3	12.3	14	69	13	18		610	0	55
	63D	26.2	8.3	12.3	14	81	6	13		665	74	28
Good solid curds. Medium to deep curds. A few small plants and curds. Better at the wider spacing. Good Facepack material. A few plants with leaf scorch. Few other defects. Fairly uniform.												
Seminis	64A	26.2	1.3	8.3	10	80	5	15		858	0	27
Trewint	64B	26.2	1.3	8.3	10	90	0	10		912	72	0
	64C	22.2	1.3	1.3	7	88	0	12		721	74	0
	64D	26.2	1.3	1.3	3	75	0	25		665	0	0
Very good Facepack material. Uniform. Easy to see, cut and pack. Very few defects. A few small plants/curds.												
Clause/Tezier	65A	1.3	8.3	12.3	11	75	5	20		536	358	27
	65B	8.3	8.3	12.3	4	90	5	5		804	214	27
	65C	28.2	5.3	8.3	8	100	0	0		776	148	0
	65D	5.3	8.3	12.3	7	94	0	6		554	296	0
Very tight leaf over curd. Uniform. Good Facepack material. Slightly wide base to curds. Will produce large curds. Few defects.												

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C 7096/Acre Transplanted 6 July 2006 **D 7096/Acre Transplanted 17 July 2006**

VARIETY	PLOT	CUTTING PERIOD			DAYS	Class 1	Class 2	Unmkt		Facepack Class 1		Class 2
											Crates/Acre	
		10%	50%	90%		%	%	%		8	6	16
Elsoms	74A	1.3	8.3	19.3	18	80	5	15		858	0	27
Mystique	74B	5.3	12.3	19.3	14	90	0	10		965	0	0
	74C	1.3	8.3	12.3	11	69	25	6		554	74	111
	74D	5.3	8.3	12.3	7	81	0	19		554	222	0
Uniform. Easy to see, cut and bag. Looks good in tray. Very good Facepack material. Very few defects. Quick heading period.												
Elsoms	75A	1.3	8.3	12.3	11	80	10	10		858	0	0
Twilight	75B	5.3	12.3	15.3	10	70	15	15		751	0	80
	75C	28.2	8.3	12.3	12	88	6	6		776	0	28
	75D	5.3	8.3	15.3	10	100	0	0		887	0	0
Good Facepack material. Easy to see, cut and pack. Few defects. A few small plants and curds. Some deep curds. Very good at the wider spacing.												
Tozer	76A	1.3	5.3	8.3	7	65	5	30		697	0	27
2038	76B	5.3	8.3	12.3	7	65	5	30		697	0	27
	76C	19.2	1.3	8.3	17	81	6	13		665	74	28
	76D	1.3	1.3	8.3	7	82	6	12		610	148	28
Well protected curd. Upright frame. Easy to see, cut and bag. Medium depth. Very Good Facepack material. Dark green leaf.												
Much better at the wider spacing.												
Elsoms	77A	1.3	5.3	8.3	7	70	5	25		697	72	27
Isadora	77B	5.3	8.3	12.3	7	75	5	20		804	0	27
	77C	26.2	1.3	8.3	10	100	0	0		776	148	0
	77D	5.3	8.3	8.3	3	94	0	6		832	28	0
Very good Facepack material. Clean slightly crinkled leaf. Easy to see, cut and bag. Looks very good in tray. Good shape.												
Better at the wider spacing												

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A 8580/Acre Transplanted 6 July 2006 **B 8580/Acre Transplanted 17 July 2006**

C 7096/Acre Transplanted 6 July 2006 **D 7096/Acre Transplanted 17 July 2006**

VARIETY	PLOT	CUTTING PERIOD			DAYS	Class 1	Class 2	Unmkt		Facepack Class 1		Class 2	
											Crates/Acre		
		10%	50%	90%		%	%	%		8	6	16	12
Vilmorin	86A	1.3	12.3	22.3	21	85	5	10		858	72	27	0
6322	86B	12.3	19.3	29.3	17	95	0	5		1018	0	0	0
	86C	28.2	12.3	15.3	15	88	0	12		776	0	0	0
	86D	12.3	15.3	19.3	7	93	0	7		665	222	0	0
Paler inner leaf. Uniform. Very good Facepack material. Medium/deep curds. Few defects. Easy to see, cut and bag.													
Elsoms	87A	12.4	16.4	16.4	4	85	5	10		858	72	27	0
Nomad	87B	12.4	16.4	16.4	4	55	10	35		590	0	54	0
	87C	2.4	12.4	16.4	14	82	0	18		665	74	0	0
	87D	9.4	12.4	16.4	7	69	6	25		449	148	28	0
Deep solid curds. Heavy well protected curds. Few defects. 18% of plants with collapsed stumps (not typical of variety). Looks very good in tray.													
Very good Facepack material.													
Nickerson	88A	15.3	29.3	2.4	18	85	5	10		751	143	27	0
Zwaan	88B	26.3	2.4	5.4	10	94	0	6		832	0	0	0
Taranis	88C	15.3	26.3	29.3	14	94	0	6		721	148	0	0
	88D	19.3	26.3	2.4	14	81	6	13		665	74	28	0
Large frame. Slightly wide base to curds. Uniform. Medium depth curds. Very few defects. Very good Facepack material.													
Seminis	89A	29.3	2.4	9.4	11	92	0	8		901	114	0	0
Trenale	89B	29.3	5.4	9.4	11	85	5	10		912	0	27	0
	89C	29.3	2.4	2.4	4	94	0	6		721	148	0	0
	89D	29.3	29.3	9.4	11	88	6	6		721	74	28	0
Uniform. Very good Facepack material. Good curd cover. Looks very good in tray. Dark green leaf. Easy to cut and bag.													
Seminis	90A	2.4	2.4	5.4	3	45	10	45		483	0	54	0
Albino	90B	2.4	5.4	12.4	10	30	15	55		322	0	80	0
	90C	29.3	2.4	9.4	11	63	6	31		554	0	28	0
	90D	2.4	2.4	9.4	7	63	6	31		554	0	28	0
A high % of small curds. Very tall frame. Knobbly curds. Some multi stemmed/heads. Slightly better at the wider spacing.													