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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.

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GROWER SUMMARY

Headline

Several new cultivars introduced for 2016–17 have yielded over 15% higher than standard cultivars. Potential income can be increased by £95/ha for every additional 1% of Class 1 produce marketed.

Background

Duchy College, working in partnership with AHDB, eight national seed houses and local growers, have carried out the evaluation of commercially available autumn, winter cauliflower and spring greens cultivars over the past 22 years. This has allowed independent comparison of new and established genetics over several seasons, giving growers' confidence when selecting new cultivars.

Initially introduced into the confidential/screening trials and then within the commercially available trials, each cultivar is recorded and evaluated year on year. With the improvement in plant breeding, new cultivars need to be assessed alongside current and established varieties in order to compare yields and quality of produce.

With improved uniformity, disease resistance, and curd protection the need to compare new introductions with current cultivars is even more important in order to plan the production of the crop to meet changing market requirements and provide the best returns for the grower.

Results

The following cultivars are of most interest to the industry. Some are new introductions to compliment cultivars that have been grown as the standards for specific production periods.

The cauliflower trials were transplanted on the 12th and 21st July 2016, similar to previous seasons. The majority of commercial growers transplant from late June to early August.

Many of the late autumn cultivars performed well, as can be seen in the top table below.

Results over several seasons will need to be considered when selecting cultivars for production. Information on all cultivars can be found in the 'Full Trial Report'.

Evaluations of curd protection, leaf colour, disease resistance/susceptibility, uniformity, curd colour and density, suitability for various markets, defects and ease of harvesting are found in the Full Trial report in the Appendices.

The spring greens trial was planted into good conditions on the 12th September 2016 and produced high quality greens that were harvested in early March 2017. Results are found in the Full Trial report in the Appendices.

Autumn Cauliflower 2016 Top performing cultivars

Transplanted at 25,315 plants/hectare (10,249/acre) on both the 12th and 21st July 2016

The majority of cultivars produced curds 11cms in diameter (8 per tray) however a few cultivars produced larger curds (6 per tray) from a very high percentage of Class 1 produce.

Please refer to the 'Full Trial Report' for further details.

Seed House	Cultivar	% Class 1	Trays/Hectare (Acre)		Heading period 10 – 90% dates
			Class 1 (8/tray)	(6/tray)	
Sakata	Jericho	92	2090 (846)	1091 (442)	17.10.16 – 23.10.16
Sakata	Amandine	94	2260 (915)	968 (392)	21.10.16 – 30.10.16
Syngenta	C4040	95	1378 (558)	2158 (874)	23.10.16 – 29.10.16
Monsanto	SV 5965	87	2374 (961)	506 (205)	25.10.16 – 08.11.16
Clause	Optimist	90	2309 (935)	716 (290)	30.10.16 – 10.11.16
Rijk Zwaan	26 - 407	80	2349 (951)	225 (91)	30.10.16 – 12.11.16
Monsanto	SV 5982	90	2793 (1131)	74 (31)	06.11.16 – 22.11.16

Winter Cauliflower 2016 – 17 Top performing cultivars.

Winter cauliflower is typically harvested from early November to April. Most commercial cultivars grown produce a minimum of 70% marketable crop with some cultivars producing 70% + Class 1 cauliflower at the beginning and end of this harvest period, in a typical season.

Yields will vary as there were two transplanting dates (12th and 21st July 2016). Plant spacings were the same for each cultivar within the trials. Summary of both transplanting dates used in table below.

Some cultivars also produced larger curds that are included on the table below.

Transplanted at 21,193 plants/hectare (8580/acre)

Please refer to the 'Full Trial Report' for further details.

Seed House	Cultivar	% Class 1	Trays/Hectare (acre)		Heading period 10 – 90% dates
			Class 1 (8/tray)	(6/tray)	
Enza	Anique	95	1531 (620)	1319 (534)	27.10.16 – 01.11.16
Clause	Navalo	91	1193 (483)	1625 (658)	27.10.16 – 07.11.16
Clause	Diwan	85	1996 (808)	333 (135)	08.11.16 – 20.11.16
Enza	EW40622	96	1699 (688)	1131 (458)	08.11.16 – 26.11.16
Clause	Galiote	87	2225 (901)		17.11.16 – 10.12.16
Syngenta	Leocen	93	2243 (908)	140 (57)	28.11.16 – 17.12.16
Hazera	Lecatis	86	2146 (869)	177 (72)	10.12.16 – 21.12.16
Clause	Triumphant	87	2237 (906)	59 (24)	15.12.16 – 31.12.16
Syngenta	C5049	87	2319 (939)		21.12.16 – 11.01.17
Clause	Jerboam	82	2176 (881)		31.12.16 – 12.01.17
Elsoms	Paciano	91	2455 (994)	106 (43)	07.01.17 – 17.01.17
Elsoms	Baterno	83	2208 (894)		15.01.17 – 28.01.17
Syngenta	5064	87	2119 (858)	247 (100)	25.01.17 – 01.02.17
Hazera	Trevaskis	91	2450 (922)	178 (72)	03.02.17 – 08.02.17
Monsanto	5697	87	2311 (936)		03.02.17 – 10.02.17
Clause	Fleet	87	2285 (925)		05.02.17 – 12.02.17
Clause	Redoutable	82	2174 (880)		05.02.17 – 14.02.17
Syngenta	Britten	85	2198 (890)	59 (24)	06.02.17 – 17.02.17
Syngenta	C5052	87	2274 (921)	30 (12)	11.02.17 – 21.02.17
Monsanto	Carantic	91	2411 (976)		17.02.17 – 23.02.17
Clause	CLX 33611	92	2331 (944)	140 (57)	20.02.17 – 23.02.17
Clause	Mascaret	95	2514 (1018)		20.02.17 – 27.02.17

Elsoms	Madiot	92	2440 (988)		22.02.17 – 03.03.17
Syngenta	C5067	87	2453 (993)	40 (16)	24.02.17 – 04.03.17
Elsoms	Mystique	91	2361 (956)	59 (24)	25.02.17 – 05.03.17
Elsoms	Tempest	88	2334 (945)		04.03.17 – 15.03.17
Hazera	AE 9307	93	2465 (998)		06.03.17 – 13.03.17
Clause	CLX 33518	91	2453 (933)		15.03.17 – 25.03.17

Late heading Winter Cauliflower 2016-17 Top performing varieties

These plots were transplanted on the 12th July 2016 aiming to head in the period of April through to late May 2017. Over recent seasons there has been a shortage of cauliflower for this period, which has resulted in the increase of imported produce to maintain supply to the various market outlets. Although fixed price returns to the grower over this heading period are not guaranteed there is scope to aim for this market share.

The very good growing conditions throughout the autumn and winter months did not have any impact on the later heading cauliflower in regards initiation of the curds and this resulted in the majority of cultivars being harvested up to 14 – 21 days earlier than their expected harvesting slots. Yields, as for the winter heading cultivars, were at least 15% above average.

Transplanted at 21,193 plants/hectare (8,580/acre)

Some cultivars also produced larger curds which are included in the table below.

Please refer to the 'Full Trial Report' for further details.

Seed House	Cultivar	% Class 1	Trays/Hectare (Acre)		Heading period 10 – 90% dates
			Class 1 (8/tray)	(6/tray)	
Syngenta	C5044	93	583 (236)	2507 (1015)	06.03.17 – 13.03.17
Syngenta	C5033	93	1113 (451)	1591 (644)	14.03.17 – 16.03.17
Monsanto	Tenfold	91	1474 (597)	1360 (551)	14.03.17 – 17.03.17
Elsoms	Jerome	89	2358 (955)		14.03.17 – 23.03.17
Hazera	VT 4013	78	2067 (837)		15.03.17 – 23.03.17
Elsoms	Vogue	90	2287 (926)	106 (43)	23.03.17 – 29.03.17
Seminis	SV0890AC	83	2003 (811)	274 (111)	25.03.17 – 03.04.17
Clause	CLX 33116	92	2327 (942)	143 (58)	27.03.17 – 11.04.17
Syngenta	Delon	93	2339 (947)	185 (75)	03.04.17 – 16.04.17
Clause	CLX33612	89	2336 (946)		05.04.17 – 15.04.17
Elsoms	Fletcher	94	2504 (1014)		10.04.17 – 19.04.17

The trials were undertaken at Trevarnon Farm, Gwithian, Cornwall. The soil type is a sandy clay loam. The site is south facing and is part of a farm rotation based around Brassicas, cereals and grass break crops.

The farm has traditionally grown Brassica crops supplying both the multiple and local markets.

The trial itself is treated as a commercial crop undergoing similar field operations as the commercially grown crops. The cultivars are harvested twice a week on a similar basis as commercial crops on the farm.

Spring Green cultivars 2016 – 17 Main Results

<u>Seed house</u>	<u>Cultivar</u>
Monsanto	Winter Supreme
A L Tozer	Winter Green
Nickerson	Kempsy
Monsanto	Winter Special

Seed House Cultivar	Comments and observations on 19.01.2016	Transplanting Date	Harvest dates	Average weight of marketable green
Monsanto Winter Supreme	Very leafy. Slightly leggy frame. Paler inner leaf. Dark green outer leaves. Very Uniform. Excellent greens. 93% of transplanted crop marketable.	12.09.16	08.03.2017	197 grams
A. L. Tozer Wintergreen (Traditional open pollinated variety)	Slightly Crinkled leaf type. Variable size plants/greens. Dark green leaf. Medium height. 90% of transplanted crop marketable.	12.09.16	08.03.2017	230 grams
Nickerson Kempsy	Very Uniform. Medium height. Close internodes on stem. Slightly crinkled leaf. Mid green in colour, slightly paler inner leaves. Good greens. 90% of transplanted crop marketable.	12.09.16	08.03.2017	241 grams
Monsanto Winter Special	Some variation in green sizes. Dark green leaf. Heavy cabbage greens. Easy to cut. Not as tall as Winter Supreme. 87% of transplanted crop marketable.	12.09.16	08.03.2017	305 grams

Main conclusions

All of the cultivars that have performed well during 2016 – 17 are commercially available to growers, each with their own characteristics, traits and qualities. The large number of cultivars available enables growers to select suitable cultivars for their own production systems, which vary from farm to farm and area to area. The cultivars available ensure continuous supply, complimenting each other throughout the production period. However, there is a continuous need to improve output and quality especially in the production period between late December and early February, when yields can be lower. There have been a number of new introductions over this period which have performed very well alongside established cultivars.

Trials have also been undertaken where a number of confidential cultivars from several seed companies have been assessed alongside new named cultivars being introduced into the commercially available cultivar trials for 2017 -18, with more to follow in subsequent years. There is renewed interest in the late heading cultivars for the heading period of April and into mid-May.

SCIENCE SECTION

Introduction

Working in partnership with AHDB and a number of national seed-houses, these trials have evaluated the commercially available Autumn, Winter Cauliflower, Late Winter Cauliflower and Spring Green cultivars, so that improved cultivars can be assessed alongside current and established cultivars. The aim is to improve yields, quality of produce and continuity of supply.

Autumn, Winter and late Winter Cauliflower

The Autumn Cauliflower trial compared established cultivars alongside new introductions for the heading period of early October to early November. Several new cultivars have been introduced this year.

The main Winter Cauliflower trial compares cultivars transplanted in early and late July and provides detailed information on the advantages/disadvantages of staggered transplanting dates, which is commercially practiced in order to maximize the potential of some cultivars. These cultivars mature (head) from November through to April.

Increased interest and opportunities to market later heading winter cauliflower has resulted in a number of new introductions for the May - June period, with several cultivars performing well.

The cauliflower trials provide detailed information on each cultivar including:

- Harvesting period - 10%, 50% and 90% harvest dates.
- Percentage Grade 1, Grade 2 and unmarketable produce.
- Marketable yields.
- Comments on any defects, including disease tolerance especially for *Xanthomonas* and mildew, pest presence, and the suitability for the various market outlets.
- Evaluation on the ease of harvesting, packing, uniformity, depth and quality of curds.
- Comments on curd protection, leaf quality and crop growth.

Varieties and numbered selections included

The Late Variety trial consisted of 12 cultivars replicated twice, transplanted at 21,193 plants/hectare (8,580/acre), transplanted on the 12th July 2016.

The Autumn Cauliflower trial consisted of 9 cultivars replicated twice, transplanted at 25,315 plants/hectare (10,249/acre), transplanted on the 12th July 2016. This was an increase in density from 21,193 plants/hectare (8,580/acre) in 2014-15 to reflect current commercial practice locally.

The Winter Cauliflower trial consisted of 36 cultivars transplanted at 21,193 plants/hectare (8,580/acre), transplanted on the 12th and 21st July 2016.

Spring Green Trial

The Spring Greens Trial compares commercially grown hybrid cultivars transplanted alongside the traditional open pollinated Wintergreen cultivar. These are then assessed for suitability as greens being harvested December to March depending on the cultivar and season.

The field plan is found in the Appendices.

Late Winter Cauliflower Cultivars 2016-17

Transplanted 12th July 2016

<u>Plot</u>	<u>Seed House</u>	<u>Variety</u>	<u>Heading Period</u>
1	Elsoms	Cartagena	Mid May
2	Hazera	VT4013	Early/Mid May
3	Elsoms	Fletcher	Early May
4	Clause	CLX33612 (CHF12-274)	Late April
5	Elsoms	Cartagena	Mid May
6	Hazera	VT4013	Early/Mid May
7	Elsoms	Fletcher	Early May
8	Clause	CLX33612 (CHF12-274)	Late April
9	Elsoms	Douglas	Late April
10	Monsanto	Tenfold	Late April
11	Syngenta	Delon	Mid/Late April
12	Elsoms	Jerome	Mid April
13	Elsoms	Douglas	Late April
14	Monsanto	Tenfold	Late April
15	Syngenta	Delon	Mid/Late April
16	Elsoms	Jerome	Mid April
16B	Seminis	SV0890AC	Mid April
17	Syngenta	C5033	Early April
17B	Seminis	SV0890AC	Mid April
18	Elsoms	Vogue	Early April
19	Syngenta	C5044	End March
20	Clause	CLX 33116 (Avelmore)	Mid April
21	Syngenta	C5033	Early April
22	Elsoms	Vogue	Early April
23	Clause	CLX 33116 (Avelmore)	Mid April
24	Syngenta	C5044	End March

Autumn Cauliflower cultivars 2016-17

First Planting Transplanted 12th July 2016

<u>Plot</u>	<u>Seed House</u>	<u>Variety</u>	<u>Heading Period</u>
81	Sakata	Jericho	Mid October
82	Elsoms	Benidorm	Mid October
83	Monsanto	SV5965AC	Late October
84	Elsoms	Cantabria	Mid/Late October
85	Sakata	Amandine	Late October
86	Rijk Zwaan	26-407	Early November
87	Clause	Optimist	Early November
88	Monsanto	SV5982AC	Early November
89	Syngenta	C4040	Early November

Autumn Cauliflower cultivars 2016-17

Second Planting Transplanted 21st July 2016

<u>Plot</u>	<u>Seed House</u>	<u>Variety</u>	<u>Heading Period</u>
126	Sakata	Jericho	Mid October
127	Elsoms	Benidorm	Mid October
128	Monsanto	SV5965AC	Late October
129	Elsoms	Cantabria	Mid/Late October
130	Sakata	Amandine	Late October
131	Rijk Zwaan	26-407	Early November
132	Clause	Optimist	Early November
133	Monsanto	SV5982AC	Early November
134	Syngenta	C4040	Early November

Winter Cauliflower cultivars

Time of planting Trial First planting 12th July 2016

<u>Plot</u>	<u>Seed House</u>	<u>Variety</u>	<u>Heading Period</u>
90	Elsoms	Telde	November
91	Enza	ANIQUE (202596)	November
92	Clause	Navalo	Mid November
93	Enza	EW40622 (202599)	Mid November
94	Clause	Diwan	Late November
95	Elsoms	Belot	Late November
96	Enza	AGILITY (202597)	Late November
97	Clause	Galiote	Early December
98	Clause	Triomphant	Mid December
99	Syngenta	C5049	Mid December
100	Hazera	Lecatis	Mid December
101	Syngenta	Leocen	Late December
102	Clause	CLX 33422 (Jerboam)	Late December
103	Elsoms	Paciano	Early January
104	Elsoms	Baterno (BJ2589)	January
105	Clause	Brick	Late January
106	Syngenta	C5064	Late January
107	Hazera	Trevaskis	Late Jan/February
108	Clause	CLX 33610	Early Feb
109	Clause	Redoutable	Early February
110	Monsanto	5697	February
111	Syngenta	Bretten	February
112	Clause	Fleet	Mid February
113	Clause	CLX33611	Late February
114	Syngenta	C5067	Late February
115	Clause	Mascaret	Late February
116	Syngenta	C5052	Late February
117	Elsoms	Gerona (BJ 2860)	Late February
118	Syngenta	Caylen	Late Feb/Early March
119	Monsanto	Carantic	Late Feb/Early March
120	Clause	CLX 33518 (CHF 12-273)	Early March
121	Elsoms	Madiot	March
122	Elsoms	Mystique	Mid/End March
123	Elsoms	Isadora	Mid/End March
124	Hazera	AE 9307 (Parotis)	Late March
125	Elsoms	Tempest	Late March

Winter Cauliflower cultivars 2016-17

Time of planting Trial Second planting 21st July 2016

<u>Plot</u>	<u>Seed House</u>	<u>Variety</u>	<u>Heading Period</u>
140	Elsoms	Telde	November
141	Enza	ANIQUE (202596)	November
142	Clause	Navalo	Mid November
143	Enza	EW40622 (202599)	Mid November
144	Clause	Diwan	Late November
145	Elsoms	Belot	Late November
146	Enza	AGILITY (202597)	Late November
147	Clause	Galiote	Early December
148	Clause	Triomphant	Mid December
149	Syngenta	C5049	Mid December
150	Hazera	Lecatis	Mid December
151	Syngenta	Leocen	Late December
152	Clause	CLX 33422 (Jerboam)	Late December
153	Elsoms	Paciano	Early January
154	Elsoms	Baterno (BJ2589)	January
155	Clause	Brick	Late January
156	Syngenta	C5064	Late January
157	Hazera	Trevaskis	Late Jan/February
158	Clause	CLX 33610	Early Feb
159	Clause	Redoutable	Early February
160	Monsanto	5697	February
161	Syngenta	Bretten	February
162	Clause	Fleet	Mid February
163	Clause	CLX33611	Late February
164	Syngenta	C5067	Late February
165	Clause	Mascaret	Late February
166	Syngenta	C5052	Late February
167	Elsoms	Gerona (BJ 2860)	Late February
168	Syngenta	Caylen	Late Feb/Early March
169	Monsanto	Carantic	Late Feb/Early March
170	Clause	CLX 33518 (CHF 12-273)	Early March
171	Elsoms	Madiot	March
172	Elsoms	Mystique	Mid/End March
173	Elsoms	Isadora	Mid/End March
174	Hazera	AE 9307 (Parotis)	Late March
175	Elsoms	Tempest	Late March

SPRING CABBAGE TRIALS 2016 -17

4 rows / variety 25cm spacing in row

Seed house	Cultivar
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Monsanto	Winter Supreme .
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A L Tozer	Winter Green
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Nickerson	Kempsy
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Monsanto	Winter Special
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Transplanted 12th September 2016 into moist soil conditions. 1000 of each cultivar. Module grown transplants.

Winter Green is an open pollinated cultivar, with the remainder being F1 hybrids.

Trial site details

The trials were conducted at Trevarnon Farm, Gwithian, Cornwall, by kind permission of Mr. J. Hosking and Son.

Production details

The trials followed a crop of Winter Greens 2015 – 16 and left fallow prior to field operations in early September 2016.

CULTURAL INFORMATION 2016 – 17

AUTUMN and WINTER CAULIFLOWER TRIALS

Fertiliser

24.06.16	Base Dressing	KESERITE 25% Magnesium @ 247Kg/ha (2cwt/acre) NITRAM 34.5% Nitrogen @ 300Kg/ha (2.42 cwt/acre)
17.08.16	PERLKA	271Kg/ha (2.2 cwt/acre) (Applied inter row through shoots)
03.11.16	Top Dressing	Yara CALCIUM NITRATE 15.5% Nitrogen 247Kg/ha (2.0 cwt/acre)
20.12.16		140 Kg/ha or 1.13 CWT / AC CALCIUM NITRATE 15.5 % N
08.01.17		90 Kg/ha or 0.72 CWT / AC CALCIUM NITRATE 15.5 % N

Weed control

16.07.16	GAMMIT @ 0.15Ltr/ha	SULTAN @0.6Ltrs/ha (First planting). Inter row cultivations.
29.07.16	GAMMIT @ 0.15Ltr/ha	SULTAN @0.6Ltrs/ha MOLYTRAC @ 0.250Ltrs/ha in 300 Litres of water. (Second planting). Inter row cultivations.

Pest control Wire netting prior to transplanting as rabbit control

Chemical plan

14.08.16	BISCAYA @ 0.4Ltr/ha	ACTIVATOR 90 @ 0.3Ltr/ha MOLYTRAC @ 0.250Ltr/ha in 300 Litres of water.
10.09.16	RUDIS @ 0.2Ltr/ha,	DIFCOR @ 0.2Ltr/ha, HALLMARK ZEON@0.05Ltr/ha, BISCAYA @ 0.4Ltr/ha BREAKTHRU@ 0.3Ltr/ha,FARM FOS @ 2Ltr/ha, MAGFLO@1.5Ltr/ha + TDS MAJOR (Slug Pellets)@4Kg/ha. All Trials 1 st FUNGICIDE
30.09.16	White Blister control. FOLIO GOLD@0.75Ltr/ha,	SIGNUM @0.75Kg/ha. ACTIVATOR 90 @ 0.3Ltr/ha in 300 Litres of water. All Trials.
07.11.16	RUDIS@ 0.2Ltrs/ha,	PLOVER@0.2Ltrs/ha, ACTIVATOR 90 @ 0.3Ltr/ha, MAGFLO@3.0Ltr/ha in 300 Litres of water on selected plots due to heading. (3 rd FUNGICIDE)
16.12.16	In 400 Litres water/ha	all trial 4th FUNGICIDE (SELECTED PLOTS)

ONLY due to heading) RUDIS @ 0.4 Ltr/ha, ACTIVATOR 90 @ 0.3Ltr/ha, MAGFLO @ 2 Ltr/ha, COPTREL @ 0.5 Ltr/ha, MOLYTRAC @ 0.25Ltr/ha, FARMFOS @ 2 Ltr/ha

CULTURAL INFORMATION 2016 – 17

Duchy Trial Spring Greens Planted 12/09/16

Fertiliser

01.09.16	Base Dressing	6-18-36@494Kg/ha (4.0cwt/acre)
02.11.16	Top Dressing	CALCIUM NITRATE 15.5%@ 200Kg/ha (1.6cwt/acre)
06.01.17	Top Dressing	CALCIUM NITRATE 15.5%@ 222Kg/ha (1.79cwt/acre)

Weed control

15.09.16 GAMMIT @ 0.15Ltr/ha SULTAN
@1.5Ltrs/ha in 300 Litres of water.
SLUXX@4Kg/ha (Slug Pellets)

Chemical Plan

09.10.16	DECIS@0.3Ltr/ha, ACTIVATOR 90 @ 0.3Ltr/ha, MAGFLO@2.5Ltr/ha, MOLYTRAC @ 0.250Ltrs/ha in 300 Litres of water.
01.11.16	BISCAYA @ 0.4Ltr/ha, ACTIVATOR 90 @ 0.3Ltr/ha DIFCOR @ .3Ltr/ha,MAGFLO@3.0Ltr/ha. MOLYTRAC @ 0.250Ltrs/ha in 300 Litres of water.
02.12.16	PLOVER @ 0.3 Ltr/ha, ACTIVATOR 90 @ 0.3Ltr/ha, MAGFLO @ 2 Ltr/ Ha, COPTREL @ 0.5 Ltr/ha FARMFOS @ 3 Ltr/ha in 300 Litres of water.

Trial design

Each plot consisted of 4 rows with the outer rows being guards. Fifty plants of each cultivar were recorded with harvesting occurring every Monday and Thursday throughout the harvesting period of the trials (October – July 2016-17).

Trial records and data collected

For each autumn and winter cauliflower cultivar the following record sheet is completed at each harvest and on completion of harvesting summaries are made of all data collected supported by visual observations as appropriate. These to be found in the Full Trial report in the Appendices.

[illegible]

Discussion

The weather pattern from transplanting in July through to the end of December played a significant part in the production of cauliflower planned for harvest from late October through to March.

Following favorable planting conditions in July 2016 there was excellent crop establishment in August despite some late cabbage root-fly being present in some crops. With good growing conditions in September, October and November, and above average day and night temperatures, this resulted in some early winter cauliflower cultivars being harvested up to 10 days later than would be normally expected, due to later vernalisation of the curds. By mid December cultivars were back on track in regards harvesting periods with the season finishing earlier than normal for growers concentrating on the December – early April harvest window.

The introduction of Verimark as a new control of cabbage root-fly, along with a broad spectrum activity on a range of other pests clearly impacted on crop establishment. By preventing feeding of early season pests this resulted in strong robust crops going into the winter period which contributed to a very productive season.

The season was exceptional in the fact that nearly all cultivars grown for the harvest period of early November to early June produced yields of Grade 1 produce well over 10% above seasonal averages and in some cases over 20% higher yields. However this did not result in a glut period, rather a much larger quantity of high quality cauliflower available through the harvest period, which found a ready market due to the quality of the product.

Within the trials and in commercial production, the average marketable yields across the harvest period were the highest recorded over the 25 years.

The introduction of some new autumn and winter cauliflower cultivars in 2014 -15 have replaced some of the mainstay cultivars grown over recent years and these again have performed consistently well, as seen in 2015-16. Some new introductions for 2016 – 17 have harvested over 15% above standard cultivars based on 25,315 plants/hectare (10,249/acre) for the autumn cultivars and 21,193 plants/hectare (8,580/acre) for the winter cultivars. Potential income can be increased by £95/ha for every additional 1% Class 1 marketed, which is a real possibility with many producers now on a fixed price for their produce.

The top performing cauliflower cultivars highlighted within the results section are cultivars that have performed above the average yield of 75% Grade 1.

Many of the autumn heading cultivars produced well above 70% Class 1 with some cutting out over 85%. Although the price to the grower is much less than the winter cauliflower price, a greater planting density per hectare would increase yields and returns even at a lower unit price to the grower.

Conclusions

Within the autumn and winter cauliflower cultivars, several seed houses have introduced numbered cultivars, which have performed well alongside established and recently introduced cultivars. As with all new introductions, these need to be evaluated over several seasons to ensure consistent performance under different weather conditions. Those that have done well this season include the following:-

Seed House	Number	Heading period
Syngenta	C4040	Late October
Monsanto	SV5965	Early November
Monsanto	SV5982	Mid November
Enza	EW40622	Mid November
Syngenta	C5049	Late December
Syngenta	5064	Late January
Monsanto	5697	Early February
Syngenta	C5052	Mid February
Syngenta	C5067	Late February
Hazera	AE9307	Early March
Syngenta	C5033	Mid March
Hazera	VT4013	Late March

Each cultivar performs differently from season to season, however data is available over the past 20 seasons with each entry tested for several seasons. This provides a basis upon which growers can make an informed decision on which cultivars to grow in order to provide a continuous supply.

Technology transfer

The trials are harvested twice a week and results are updated weekly at <http://www2.cornwall.ac.uk/research/herring/default.asp>

Open days were held in December 2016, January and March 2017, where the trials were available to be viewed and up to date information was made available to growers and industry representatives. A growers evening also took place on 18th January meeting to update growers on current Brassica developments <https://horticulture.ahdb.org.uk/event/winter-cauliflower-spring-cabbage-20162017-trials-open-day>

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Appendices

The following appendices summarise results of all cultivars in the:

Trials field Plan

Autumn Cauliflower Variety Trials 2016

Winter Cauliflower Variety Trials for 2016– 17

Late Winter Cauliflower Trials 2017

With additional comments regarding each cultivar.

BRASSICA TRIALS FIELD PLAN 2016 -17

Spacing 34" x 21"

CAULIFLOWER

SECOND PLANTING

FIRST PLANTING

Winter	Winter	Winter	Winter	Winter	Autumn	Winter	Winter	Winter	Winter	Winter	Autumn	Autumn	Winter		Late varieties	Winter
												Winter				
4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows	4 rows

														Confidential				
	9 beds	9 beds	9 beds	9 beds	9 beds		9 beds	9 beds	9 beds	9 beds	9 beds	9 beds	9 beds	8 beds	8 beds	8 beds	8 beds	
Guards	170	161	152	143	134		125	116	107	98	89	80	35					
Guards	169	160	151	142	133		124	115	106	97	88	79	single	24	16	8		
Guards	168	159	150	141	132	G	123	114	105	96	87	78	lines	23	15	7	G	
Guards	167	158	149	140	131	U	122	113	104	95	86	77		22	14	6	U	
175	166	157	148	139	130	A	121	112	103	94	85	76		21	13	5	A	
174	165	156	147	138	129	R	120	111	102	93	84	16 single		20	12	4	R	
173	164	155	146	137	128	D	119	110	101	92	83	lines		19	11	3	D	
172	163	154	145	136	127		118	109	100	91	82	Plots	Plots	18	10	2		
171	162	153	144	135	126		117	108	99	90	81	60 - 75	25 - 59	17	9	1		

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		AUTUMN CAULIFLOWER VARIETY TRIAL											
		2016								SPACING 34" X 18"		10249/Acre	
A= Transplanted 12th July		B= Transplanted 21st July											
										Crates / Acre			
VARIETY	PLOT	CUTTING PERIOD			DAYS	Class	Class	Unmarket	Facepack			Class 2	
		10%	50%	90%		1	2	%	8	6	16	12	
Sakata	81A	13.10	17.10	20.10	7	90	2	8	641	683	13	0	
Jericho	126B	22.10	22.10	27.10	5	94	2	4	1050	201	13	0	
A- Transplanted 12th July		B- Transplanted 21st July											
Average		17.10	19.10	23.10	6	92	2	6	846	442	13	0	
Smooth curds. Slightly wide base to curds. Paler inner leaf. Uniform. Very good Facepack material. High % large curds. Good curd cover.										Crates / Acre			
VARIETY	PLOT	CUTTING PERIOD			DAYS	Class	Class	Unmarket	Facepack			Class 2	
		10%	50%	90%		1	2	%	8	6	16	12	
Elcom	82A	31.10	31.10	31.10	5	48	46	6	589	54	282	12	
Sakata	85A	13.10	17.10	20.10	7	90	0	10	626	717	0	0	
	127B	5.12	8.12	12.12	7	72	4	24	922	0	26	0	
Amandine	130B	19.10	19.10	19.10	6	88	25	15	734	69	154	8	
Average		21.10	27.10	30.10	9	94	0	6	915	392	0	0	
Curds upright from slight base to wrapper leaf. Uniform. Small white bracts (5-7% on first planting). Slightly spreading inner smooth curds. Very uniform. Good weight. Slightly wide base to curds. Very good Facepack material. Good curd cover. Smooth curds. Looks very good in trays. Some brown markings on some wrapper leaves.													
Rijk Zwaan	86A	22.10	24.10	31.10	9	68	16	16	820	68	102	0	
26-407	83A	20.10	24.10	31.10	11	90	2	8	1025	171	13	0	
	131B	7.11	14.11	24.11	17	91	0	9	1082	114	0	0	
Average		30.10	3.11	12.11	13	80	8	12	951	91	51	0	
Average		25.10	3.11	8.11	14	87	6	7	961	205	32	8	
Upright frame. Slightly wide base to curds. Paler tight wrapper leaf. Medium depth curds. Slightly crinkled leaf type. Looks very good in trays. Uniform. Tall frame. Slightly wide base to curds, not easy to pack. Medium depth. Twisted leaf over curds. Very good Facepack material. Very few defects. Very Good Facepack material especially from the later planting. Some small white bracts.													
Elcom	84A	17.10	20.10	31.10	14	55	31	14	703	0	201	0	
Clause	87A	22.10	24.10	27.10	5	100	0	0	845	581	0	0	
Optimist	129B	10.11	14.11	24.11	14	76	11	13	898	114	28	57	
	132B	7.11	14.11	24.11	17	80	0	20	1024	0	0	0	
Average		30.10	3.11	10.11	11	90	0	10	935	290	0	0	
Upright frame. Some small white bracts with earlier transplanting. Very heavy curds. Slightly wide base to curds. Good curd cover. Good Facepack material. Uniform. Upright leaf. Slightly wide base to curds. Very good Facepack. Good curd cover. Very few defects, a few small curds.													
Smooth curds. Easy to see, cut and pack.													
Monsanto	88A	27.10	31.10	7.11	11	92	0	8	1179	0	0	0	
SV5982	133B	17.11	24.11	8.12	21	88	2	10	1082	59	11	0	
Average		6.11	12.11	22.11	16	90	1	9	1131	30	5	0	
Very tall frame. Strong midrib to leaf. Upright with spreading outer leaves. Very uniform smooth curds. Looks very good in trays. Good Facepack.													
Syngenta	89A	13.10	13.10	17.10	4	94	0	6	688	696	0	0	
C4040	134B	3.11	7.11	10.11	7	95	2	3	427	1053	11	0	
Average		23.10	25.10	29.10	6	95	1	4	558	874	6	0	
Dark green leaf. Uniform. Good curd cover. Slightly wide base to curds. Very good Facepack amterial. Very few defects. Medium depth. Paler inner leaf.													

COMPARING LATE AUTUMN CAULIFLOWER VARIETIES

10249plants/acre

(8785plants/acre in 2010-11)

[illegible]

	2016-17		WINTER CAULIFLOWER VARIETY TRIAL											
			First Transplanting 12th July 2016				(First line)		SPACING 8580 Plants/Acre					
			Second Transplanting 21st July 2016				(Second line)			Crates / Acre				
VARIETY	PLOT		CUTTING PERIOD			DAYS	Class	Class	Unmarket	Facepack			Class 2	
			10%	50%	90%		1	2	%	8	6	16	12	
Elsoms	95		7.11	5.12	8.12	31	72	24	4	751	29	129	0	
Belot	145		23.11	12.12	19.12	26	84	9	7	761	182	49	0	
Average			15.11	8.12	13.12	29	78	17	5	756	106	89	0	
Good Facepack material. Dark green leaf. Medium sized frames. Some small white bracts with earlier transplanting.														
Will turn off white if not cut every 4 days. Medium depth curds. Some Xanthomonas on outer leaves of first transplanting.														
Enza	96		22.10	31.10	14.11	23	72	22	6	686	114	118	0	
Agility	146		28.11	5.12	19.12	21	73	10	17	787	0	54	0	
Average			9.11	17.11	1.12	22	72	16	12	737	57	86	0	
Uniform. Xanthomonas on outer leaves, clean inner leaves. Good weight. Good curd cover. Looks good in trays. Good Facepack material.														
26% with small white bracts in earlier transplanting date. Some small plants/curds with later transplanting.														
Clause	97		31.10	23.11	8.12	38	80	12	8	858	0	64	0	
Galiote	147		5.12	8.12	12.12	7	93	0	7	944	0	0	0	
Average			17.11	30.11	10.12	23	87	6	7	901	0	32	0	
Uniform. Medium sized frame. Good wrapper leaf. A few white bracts late October. Good Facepack material. Quick heading period for later transplanting.														
Will turn off white if not cut every 3 or 4 days.														
Clause	98		8.12	15.12	27.12	19	85	8	7	875	48	45	0	
Triomphant	148		22.12	27.12	5.1	14	88	7	5	938	0	40	0	
Average			15.12	21.12	31.12	16	87	7	6	906	24	42	0	
Uniform. Twisted leaf over curds. Very good Facepcak material. Looks very good in trays. Some Xanthomonas on outer leaves, clean inner leaves.														
Upright frame. Easy to cut and bag.														
Syngenta	99		15.12	22.12	5.1	21	85	10	5	912	0	54	0	
C5049	149		27.12	9.1	18.1	22	90	0	10	965	0	0	0	
Average			21.12	31.12	11.1	21	87	5	8	939	0	27	0	
Very good Facepack material. Solid curds. Tight wrapper leaf. Paler inner leaves. Easy to cut and bag. Uniform. Large frame. Very few defects.														

2016-17		WINTER CAULIFLOWER VARIETY TRIAL												
		First Transplanting 12th July 2016					(First line)		SPACING 8580 Plants/Acre					
		Second Transplanting 21st July 2016					(Second line)			Crates / Acre				
VARIETY	PLOT	CUTTING PERIOD				DAYS	Class	Class	Unmarket	Facepack			Class 2	
		10%	50%	90%		1	2	%	8	6	16	12		
Hazera	100	5.12	5.12	15.12	10	84	10	6	794	143	54	0		
Lecatis	150	15.12	15.12	27.12	12	88	4	8	944	0	21	0		
Average		10.12	10.12	21.12	11	86	7	7	869	72	37	0		
Uniform. Very good Facepack material. Good curd cover. Slightly knobbly curds. Medium depth curds. Dark green leaf. Clean leaf.														
Easy to cut and bag. Very few defects.														
Syngenta	101	14.11	5.12	15.12	31	93	0	7	815	114	0	0		
Leocen	152	12.12	12.12	19.12	7	93	0	7	1001	0	0	0		
Average		28.11	8.12	17.12	19	93	0	7	908	57	0	0		
Dark green leaf. Tight wrapper leaves. Medium depth curds. Smooth curds. Xanthomonas on outer leaves. Good Facepack material.														
Uniform. Looks good in trays. Small/medium sized frame. Very quick heading period with later transplanting.														
Clause	102	31.12	9.1	12.1	12	82	7	11	881	0	36	0		
Jerboam	152	31.12	12.1	12.1	12	82	3	15	881	0	24	0		
Average		31.12	10.1	12.1	12	82	5	13	881	0	30	0		
Twisted leaf over curds. Paler inner leaf. Solid curds. Very good Facepack material. Some small plants/curds.														
Elsoms	103	27.12	31.12	12.1	16	94	2	4	1008	0	11	0		
Paciano	153	18.1	19.1	23.1	5	88	2	10	879	86	11	0		
Average		7.1	10.1	17.1	10	91	2	7	944	43	11	0		
Deep curds. Very uniform. Upright leaf. Very good curd cover. Easy to see, cut and bag. Excellent Facepack material.														
Elsoms	104	12.1	23.1	26.1	14	80	10	10	858	0	54	0		
Baterno	154	19.1	26.1	30.1	11	87	4	9	929	0	24	0		
Average		15.1	26.1	28.1	13	83	7	10	894	0	39	0		
Uniform. Good Facepack material. Medium depth. Good curd cover. Easy to cut and pack. Clean leaf.														

2016-17		WINTER CAULIFLOWER VARIETY TRIAL											
		First Transplanting 12th July 2016				(First line)		SPACING 8580 Plants/Acre					
		Second Transplanting 21st July 2016				(Second line)		Crates / Acre					
VARIETY	PLOT	CUTTING PERIOD				DAYS	Class	Class	Unmarket	Facepack		Class 2	
		10%	50%	90%			1	2	%	8	6	16	12
Clause	105	31.1	3.2	6.2	6	74	8	18	729	86	43	0	
Brick	155	2.2	2.2	9.2	7	72	10	18	751	29	54	0	
Average		1.2	3.2	8.2	7	73	9	18	740	58	48	0	
Flattish curds. Tendency to become loose and turn off white. Twisted leaf over curds. Fairly uniform.													
Syngenta	106	23.1	26.1	31.1	8	82	10	8	729	200	43	14	
5064	156	26.1	30.1	2.2	7	92	4	4	987	0	43	0	
		25.1	28.1	1.2	7	87	7	6	858	100	43	7	
Very soft leaves. Paler green inner leaf. Tall frame. Twisted leaf over curds. Uniform. Some large curds from earlier transplanting.													
Very Good Facepack material.													
Hazera	107	3.2	3.2	9.2	6	92	4	4	901	114	21	0	
Trevaskis	157	3.2	6.2	6.2	3	90	4	6	944	29	21	0	
		3.2	4.2	8.2	5	91	4	5	922	72	21	0	
Excellent Facepack material. Very Uniform. Easy to see, cut and bag. Good weight. Good curd cover. Clean leaf.													
Clause	108	9.1	23.1	26.1	17	72	6	22	772	0	21	14	
CLX 33610	158	19.1	3.2	3.2	15	68	16	16	729	0	86	0	
		14.1	28.1	30.1	16	70	11	19	751	0	54	7	
Some variation in plant sizes. 12% small loose curds. Some very good Facepack material. Uniform. Solid curds. Good leaf cover. Looks very good in trays.													
Clause	109	2.2	6.2	9.2	7	88	4	8	944	0	21	0	
Redoutable	159	9.2	14.2	20.2	11	76	6	18	815	0	32	0	
		5.2	10.2	14.2	9	82	5	13	880	0	26	0	
Some yellowing of leaves at base of curds. Solid uniform curds. Very good Facepack material. Few defects. Uniform. Smooth curds. Upright frame.													

2016-17		WINTER CAULIFLOWER VARIETY TRIAL													
		First Transplanting 12th July 2016					(First line)		SPACING 8580 Plants/Acre						
		Second Transplanting 21st July 2016					(Second line)				Crates / Acre				
				CUTTING PERIOD			DAYS	Class	Class	Unmarket	Facepack			Class 2	
			10%	50%	90%		1	2	%	8	6	16	12		
Monsanto	110		31.1	31.1	6.2	6	90	2	8	965	0	11	0		
5697	160		6.2	6.2	13.2	7	84	2	14	906	0	12	0		
Average			3.2	3.2	10.2	7	87	2	11	936	0	12	0		
Excellent Facepack material. Solid curds. Easy to see, cut and bag. Very uniform. Good cover leaves. A few small plants/curds.															
No other defects.															
Syngenta	111		3.2	9.2	14.2	11	86	8	6	922	0	43	0		
Britten	161		9.2	14.2	20.2	11	83	5	12	858	48	27	0		
Average			6.2	12.2	17.2	11	85	6	9	890	24	35	0		
Uniform. Clean leaf. Good wrapper leaves. Solid curds. Very good Facepack material. A few small plants/curds. Very few other defects.															
Clause	112		3.2	3.2	9.2	6	90	4	6	965	0	21	0		
Fleet	162		6.2	9.2	14.2	8	83	7	10	884	0	40	0		
Average			5.2	6.2	12.2	7	87	5	8	925	0	30	0		
Very Uniform. Clean Leaf. Good curd cover, Very Good Facepack material. Easy to see, cut and bag. Looks very good in trays. Very few defects.															
Clause	113		20.2	20.2	23.2	3	88	4	8	944	0	21	0		
CLX 33611	163		20.2	20.2	23.2	3	96	2	2	944	114	11	0		
Average			20.2	20.2	23.2	3	92	3	5	944	57	16	0		
Very Uniform. Very good Facepack material. Easy to cut and pack. Good curd protection. Medium/heavy curds.															
Syngenta	114		20.2	23.2	2.3	10	88	8	4	944	0	43	0		
C5067	164		27.2	2.3	8.3	9	86	10	4	922	32	29	0		
Average			24.2	27.2	4.3	10	87	9	4	933	16	36	0		
Heavy leaf drop. Some yellowing of leaves at base of curds. Very Good Facepack material.															

	2016-17		WINTER CAULIFLOWER VARIETY TRIAL										
			First Transplanting 12th July 2016				(First line)		SPACING 8580 Plants/Acre				
			Second Transplanting 21st July 2016				(Second line)			Crates / Acre			
VARIETY	PLOT		CUTTING PERIOD			DAYS	Class	Class	Unmarket	Facepack			Class 2
			10%	50%	90%		1	2	%	8	6	16	12
Clause	115		20.2	23.2	27.2	7	96	2	2	1029	0	11	0
Mascaret	165		20.2	23.2	27.2	7	94	4	2	1008	0	11	14
Average			20.2	23.2	27.2	7	95	3	2	1018	0	11	7
Pale inner leaf. Difficult to see curds due to tight twisted wrapper leaves. Very good Facepack material. Very few defects. Solid curds.													
Syngenta	116		9.2	14.2	20.2	11	83	7	10	876	24	36	0
C5052	166		14.2	20.2	23.2	9	90	2	8	965	0	9	0
Average			11.2	17.2	21.2	10	87	4	9	921	12	23	0
Smooth curds. Upright leaf. Very uniform. Slight twist to wrapper leaf over curds. Very good Facepack material.													
Elsoms	117		2.2	20.2	20.2	18	55	36	9	548	0	191	0
Gerona	167		20.2	20.2	27.2	7	84	10	6	901	0	54	0
Average			11.2	20.2	23.2	13	70	23	7	725	0	123	0
Small frame. Upright leaf. Small curds. Strap like leaves. Tendency to turn off white. Open frame. Much better from a later planting.													
Syngenta	118		14.2	20.2	27.2	13	80	2	18	787	95	9	0
Caylen	168		27.2	2.3	6.3	7	80	0	20	815	57	0	0
Average			21.2	25.20	3.30	10	80	1	19	801	76	5	0
Some small plants/curds otherwise fairly uniform (18%). Good cover. Easy to see, cut and pack. Slightly paler inner leaf. Good Facepack material.													
Monsanto	119		14.2	20.2	23.2	9	90	8	2	965	0	43	0
Carantic	169		20.2	20.2	23.2	3	92	0	8	987	0	0	0
			17.2	20.2	23.2	6	91	4	5	976	0	22	0
Very uniform. Excellent Facepack material. Very few defects. Clean leaf. Good curd cover.													

	2016-17		WINTER CAULIFLOWER VARIETY TRIAL										
			First Transplanting 12th July 2016					(First line)	SPACING 8580 Plants/Acre				
			Second Transplanting 21st July 2016					(Second line)		Crates / Acre			
VARIETY	PLOT		CUTTING PERIOD			DAYS	Class	Class	Unmarket	Facepack			Class 2
			10%	50%	90%		1	2	%	8	6	16	12
Clause	120		15.3	20.3	25.3	10	91	0	9	879	0	0	0
CLX 33518	170		16.3	19.3	25.3	9	92	4	4	987	0	21	0
Average			15.3	19.3	25.3	10	91	2	7	933	0	10	0
Dark green leaf. Uniform. Well covered. Slightly wide base to curds. Very good Facepack material.													
Elsoms	121		20.2	23.2	27.2	7	92	6	2	987	0	32	0
Madiot	171		23.2	1.3	6.3	11	92	2	6	988	0	11	0
Average			22.2	26.2	3.3	9	92	4	4	988	0	21	0
Very uniform. Clean leaf. Medium depth curds. Good curd protection. Very good Facepack material. Easy to cut and bag. Very few defects.													
Elsoms	122		20.2	27.2	6.3	14	92	3	5	947	48	18	0
Mystique	172		2.3	6.3	8.3	6	90	0	10	965	0	0	0
Average			25.2	3.2	7.3	10	91	2	7	956	24	9	0
Very uniform. Slightly paler inner leaf. Very good Facepack material. Clean leaf. Very few defects. Looks very good in trays.													
Elsoms	123		23.2	27.2	2.3	7	78	18	4	837	0	97	0
Isadora	173		27.2	6.3	8.3	9	84	0	16	901	0	0	0
Average			25.2	3.2	5.3	8	81	9	10	869	0	49	0
Open frame. Some off white curds. Paler inner leaf. Uniform in size. Some good Facepack material. A few small plants/curds.													
Hazera	124		6.3	13.3	13.3	7	92	4	4	987	0	21	0
AE 9307	174		6.3	13.3	13.3	7	94	2	4	1008	0	11	0
Average			6.3	13.3	13.3	7	93	3	4	998	0	16	0
Very uniform. Good curd cover. Very good Facepack material. Easy to cut and pack. Medium depth curds. Clean leaf. Looks very good in trays.													

	2016-17		WINTER CAULIFLOWER VARIETY TRIAL										
			First Transplanting 12th July 2016				(First line)		SPACING 8580 Plants/Acre				
			Second Transplanting 21st July 2016				(Second line)			Crates / Acre			
VARIETY	PLOT		CUTTING PERIOD			DAYS	Class	Class	Unmarket	Facepack		Class 2	
			10%	50%	90%		1	2	%	8	6	16	12
Elsoms	125		2.3	8.3	13.3	11	90	0	10	965	0	0	0
Tempest	175		6.3	13.3	16.3	10	86	2	12	924	0	11	0
Average			4.3	11.3	15.3	11	88	1	11	945	0	5	0
Very uniform. Excellent Facepack material. Tight wrapper leaf. Slightly wide base to curds. Dark green leaf. A few small curds.													

2016-17		LATE WINTER CAULIFLOWER VARIETY TRIAL													
										SPACING 8580 Plants/Acre					
										Crates / Acre					
VARIETY	PLOT	CUTTING PERIOD				DAYS	Class	Class	Unmarket	Facepack				Class 2	
		10%	50%	90%		1	2	%	8	6	16	12			
Elsoms	1	14.4	22.4	26.4	12	73	18	9	739	64	95	0			
Cartagena	5	14.4	17.4	26.4	12	71	20	9	763	0	107	0			
Average		14.4	20.4	26.4	12	72	19	9	751	32	101	0			
Dark green leaf. Strong habit. Uniform. Loose wrapper leaves. Will turn off white if not cut every 3 days. Good Facepack material.															
Medium depth. Slightly open frame.															
Hazera	2	15.3	15.3	20.3	5	82	8	10	879	0	43	0			
VT 4013	6	15.3	16.3	25.3	10	74	13	13	794	0	70	0			
Average		15.3	16.3	23.3	8	78	10	12	837	0	57	0			
Crinkled leaf. Slightly wide base to curds. Slightly twisted wrapper leaf over curds. Uniform. Very good Facepack material. Soft leaf.															
Looooks very good in trays.															
Elsoms	3	7.4	14.4	17.4	10	98	0	2	1051	0	0	0			
Fletcher	7	14.4	14.4	21.4	7	91	5	4	977	0	24	0			
Average		10.4	14.4	19.4	9	94	3	3	1014	0	12	0			
Very uniform. Excellent Facepack material. Deep solid curds. Dark green leaf. Very good curd cover. Clean leaf. Looks very good in trays.															
Clause	4	3.4	7.4	14.4	11	83	3	14	884	0	36	0			
CLX33612	8	7.4	7.4	17.4	10	94	4	2	1008	0	21	0			
Average		5.4	7.4	15.4	10	89	3	8	946	0	28	0			
Wide base to curds. Not easy to pack. Good leaf cover. Dark green leaf. Very Uniform. Slightly knobbly curds. Medium depth.															
Good Facepack material. Solid curds. A few small plants/curds.															
Elsoms	9	25.3	29.3	3.4	9	74	2	24	772	29	11	0			
Douglas	13	25.3	29.3	3.4	9	60	16	24	601	57	64	29			
Average		25.3	29.3	3.4	9	67	9	24	687	43	37	15			
Dark green leaves. Light curds. Some small curds. Large leafy frame. Some good Facepack material. Some frosted curds in early April.															
A few multi headed stumps. Some small plants/curds.															

2016-17		LATE WINTER CAULIFLOWER VARIETY TRIAL											
		Transplanted 12th July				SPACING 8580 Plants/Acre							
						Crates / Acre							
VARIETY	PLOT	CUTTING PERIOD			DAYS	Class	Class	Unmarket	Facepack		Class 2		
		10%	50%	90%		1	2	%	8	6	16	12	
Monsanto	10	13.3	15.3	15.3	2	91	2	7	787	276	12	0	
Tenfold	14	15.3	15.3	18.3	3	92	4	4	407	826	21	0	
Average		14.3	15.3	17.3	3	91	3	6	597	551	16	0	
Dark green leaf. Solid curds. High stump. Good curd cover. Will turn off white if not every 2 or 3 days. Good Facepack material.													
Syngenta	11	3.4	7.4	14.4	11	91	4	5	930	64	24	0	
Delon	15	3.4	7.4	17.4	14	96	0	4	965	86	0	0	
Average		3.4	7.4	16.4	13	93	2	5	947	75	12	0	
Very uniform. Strong vein to leaves. Slight twist to leaf over curds. Slightly wide base to curds. Very good Facepack material.													
Very few defects. Easy to cut and bag. Heavy, solid curds.													
Elsoms	12	15.3	15.3	25.3	10	92	0	8	987	0	0	0	
Jerome	16	13.3	15.3	20.3	7	86	2	12	922	0	11	0	
Average		14.3	15.3	23.3	9	89	1	10	955	0	6	0	
Solid curds. Medium depth. Dark green short upright leaves. Very uniform. Very good Facepack material. Some ringspot on outer leaves.													
Good curd cover. Slightly crinkled leaves. Small /medium sized frame. Inner leaves clean.													
Seminis	16B	25.3	25.3	3.4	9	84	2	14	763	191	12	0	
SV0890AC	17B	25.3	29.3	3.4	9	82	5	13	858	32	24	0	
Average		25.3	27.3	3.4	9	83	4	13	811	111	18	0	
Large frame. Very pale yellow inner leaves. Solid curds. Slightly off white. Fairly uniform. Slightly pointed curd cover. Well covered.													
Some variation in plant/curd sizes.													
Syngenta	17	13.3	13.3	15.3	2	100	0	0	815	172	0	0	
C5033	21	15.3	15.3	16.3	2	86	2	12	86	1115	11	0	
Average		14.3	14.3	16.3	2	93	1	6	451	644	5	0	
Large frame. Pale green inner leaves. Slightly wide base. Some large curds. Uniform. Very quick heading period.													
Good curd cover. Very good Facepack material.													

	2016-17		LATE WINTER CAULIFLOWER VARIETY TRIAL										
			Transplanted 12th July						SPACING 8580 Plants/Acre				
										Crates / Acre			
VARIETY	PLOT		CUTTING PERIOD			DAYS	Class	Class	Unmarket	Facepack			Class 2
			10%	50%	90%		1	2	%	8	6	16	12
Elsoms	18		20.3	29.3	29.3	9	87	5	8	930	0	24	0
Vogue	22		25.3	25.3	29.3	4	92	8	0	922	86	42	0
Average			23.3	27.3	29.3	6	90	6	4	926	43	34	0
Very uniform. Good curd protection. Very good Facepack material. Solid smooth curds. A few off white curds.													
Syngenta	19		6.3	8.3	13.3	7	94	2	4	236	1029	11	0
C5044	24		6.3	8.3	13.3	7	92	0	8	236	1001	0	0
Average			6.3	8.3	13.3	7	93	1	6	236	1015	5	0
Very pale leaf. Slightly wide base. Large wrapper leaves over curds. Very large heavy curds. Very large frame. Very uniform.													
Clause	20		29.3	3.4	14.4	16	92	8	0	987	0	43	0
CLX33116	23		25.3	3.4	7.4	13	92	6	2	897	116	33	0
Avelmore													
Average			27.3	3.4	11.4	15	92	7	1	942	58	38	0
Very Uniform. Medium sized frame. Very good curd cover. Medium depth solid curds. Very good Facepack material.													
Upright dark green leaves. Slightly paler green inner leaf.													