



Agriculture & Horticulture
DEVELOPMENT BOARD



Grower Summary

FV 202f

Field Vegetables: An evaluation of autumn/winter cauliflower, spring cabbage cultivars and other winter brassica crops.

Annual 2013

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Headline

The introduction of new autumn and winter cauliflower cultivars has again increased grade 1 marketable product many being 10% above standard cultivars based on 19760 plants/Hectare (8000/Acre). Potential income can be increased by £829/Ha. This is a real possibility with many producers now on a fixed price for their produce.

Background

Duchy College working in partnership with seven national seed houses and local growers have carried out the evaluation of commercially available autumn, winter cauliflower and spring greens cultivars over the past 16 years. Initially introduced into the confidential/screening trials and then within the commercially available trials each cultivar has been recorded and evaluated year on year. With the improvement in plant breeding and new cultivars being introduced these 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 with current cultivars is even more important in order to plan the production of the crop in order to meet market requirements and provide the best returns to 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 standard cultivars for specific production periods.

Overall the 2012-13 season was predominately wet but produced a higher cut out rate across many cultivars than an average season. Difficult transplanting conditions during July meant that the trial was two weeks later planted than in most seasons which reflected practice in the industry. However a wet, but warm autumn enabled the crop to get a way well producing strong plants for the late autumn and winter. This resulted in high grade 1 cut outs for a number of cultivars.

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

Comments on curd protection, disease, uniformity, suitability for various markets, defects and ease of harvesting are found in the full trial report in the appendices.

Autumn Cauliflower 2012. Top performing cultivars

Seed House	Cultivar	% Class 1	Trays/Hectare (Acre)		Heading period 10 – 90% dates
			Grade 1	(8/tray)	
Monsanto	Forata	81	2499	(1012)	16.10.12 – 25.10.12
Monsanto	5879	86	2499	(1012)	16.10.12 – 27.10.12
Syngenta	C4010	89	2221	(877)	19.10.12 – 27.10.12
Monsanto	Aquata	85	2702	(1094)	21.10.12 – 27.10.12
Syngenta	SG4008	94	2719	(1101)	23.10.12 – 01.11.12
Clause	Meridian	87	2687	(1088)	23.10.12 – 12.11.12
Clause	Rafale	91	2880	(1166)	25.10.12 – 01.11.12
Clause	Regata	88	2687	(1088)	27.10.12 – 08.11.12
Clause	Naruto	87	2626	(1063)	28.10.12 – 11.11.12
Monsanto	Appia	89	2673	(1082)	01.11.12 – 15.11.12
Monsanto	5965	90	2784	(1127)	03.11.12 – 17.11.12
Clause	Optimist	88	2719	(1101)	03.11.12 – 17.11.12
Rijk Zwaan	Bellamy	93	2687	(1166))	05.11.12 – 17.11.12
Monsanto	5982	88	2707	(1096)	08.11.12 – 20.11.12
Monsanto	2319	85	2658	(1076)	15.11.12 – 26.11.12
Monsanto	2334	91	2759	(1117)	19.11.12 – 26.11.12

Winter Cauliflower 2012-13. Top performing cultivars.

Yields will vary as there were two transplanting dates (19th and 26th July 2012) although spacings were the same for each cultivar within the trials.

Please refer to the 'full trial report' for details.

Seed House	Cultivar	% Class 1	Trays/Hectare (Acre)		Heading period 10 – 90% dates
			Grade 1	(8/tray)	
Clause	Navalo	95	2517	(1019)	08.11.12 – 15.11.12
Clause	Diwan	96	2544	(1030)	19.11.12 – 03.12.12
Clause	Galiote	88	2223	(900)	19.11.12 – 10.12.12
Elsoms	Belot	80	2119	(858)	29.11.12 – 20.12.12
Elsoms	Telde	86	2277	(922)	30.11.12 – 24.12.12
Syngenta	4013	86	2277	(922)	03.12.12 – 20.12.12
Monsanto	Typical	82	2171	(879)	06.12.12 – 24.12.12
Syngenta	Lestern	87	2292	(928)	13.12.12 – 24.12.12
Clause	Triomphant	84	2235	(905)	24.12.12 – 03.01.13
Vilmorin	Lecatis	90	2316	(938)	24.12.12 – 01.01.13
Syngenta	Alpen	87	2253	(912)	07.01.13 – 24.01.13
Elsoms	Paciano	86	2295	(929)	07.01.13 – 21.01.13
Clause	CHF12-121	84	2235	(905)	09.01.13 – 28.01.13
Monsanto	Treknow	80	2120	(858)	09.01.13 – 21.01.13
Tozer	1018	78	2067	(837)	14.01.13 – 28.01.13
Vilmorin	Altadis	76	2001	(810)	17.01.13 – 04.02.13

Seed House	Cultivar	% Class 1	Trays/Hectare (Acre)		Heading period 10 – 90% dates
			Grade 1	(8/tray)	
Monsanto	Tintagel	80	2120	(858)	21.01.13 – 04.02.13
Vilmorin	Dionis	90	2490	(1008)	24.01.13 – 11.02.13
Syngenta	Arkwright	78	2067	(837)	28.01.13 – 07.02.13
Monsanto	5697	84	2225	(901)	28.01.13 – 14.02.13
Clause	Brick	84	2235	(905)	28.01.13 – 31.01.13
Vilmorin	Trevaskis	86	2295	(929)	28.01.13 – 04.02.13
Vilmorin	Trevignis	93	2472	(1001)	31.01.13 – 14.02.13
Syngenta	Canten	88	2332	(944)	04.02.13 – 18.02.13
Clause	Redoubtable	84	2238	(906)	04.02.13 – 18.02.13
Clause	Fleet	87	2295	(929)	05.02.13 – 14.02.13
Syngenta	Brillen	86	2277	(922)	07.02.13 – 18.02.13
Monsanto	Carantic	78	2060	(834)	07.02.13 – 18.02.13
Syngenta	5022	93	2470	(1000)	11.02.13 – 18.02.13
Monsanto	Trewint	95	2529	(1024)	11.02.13 – 18.02.13
Tozer	2038	84	2238	(906)	11.02.13 – 23.02.13
Syngenta	Clemen	87	2295	(929)	18.02.13 – 28.02.13
Elsoms	Madiot	78	2065	(836)	18.02.13 – 10.03.13
Clause	Matelot	92	2438	(987)	23.02.13 – 10.03.13
Syngenta	5007	85	2253	(912)	23.03.13 – 10.03.13
Clause	Mascaret	91	2413	(977)	28.02.13 – 10.03.13
Syngenta	5008	85	2250	(911)	10.03.13 – 25.03.13
Syngenta	Charif	91	2413	(977)	18.03.13 – 11.04.13
Syngenta	Danden	90	2383	(965)	21.03.13 – 08.04.13
Syngenta	Drunen	83	2186	(885)	25.03.13 – 15.04.13

Late heading winter cauliflower 2012-13

These plots were transplanted on the 19th July 2012 aiming to head in the period of April through to late May. 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.

Seed House	Cultivar	% Class 1	Trays/Hectare (Acre)		Heading period 10 – 90% dates
			Grade 1	(8/tray)	
Syngenta	C5025	91	2413	(977)	15.04.13 – 22.04.13
Tozer	2072	83	2119	(858)	18.04.13 – 25.04.13
Syngenta	SG 4732	88	2326	(942)	18.04.13 – 09.05.13
Clause	CH10-106	95	2408	(975)	25.04.13 – 02.05.13
Elsoms	Fletcher	88	2344	(949)	25.04.13 – 02.05.13
Syngenta	Delon	97	2591	(1049)	25.04.13 – 02.05.13
Tozer	3007	95	2586	(1047)	09.05.13 – 24.05.13
Tozer	3064	93	2472	(1001)	09.05.13 – 16.05.13
Tozer	3008	80	2119	(858)	20.05.13 – 03.06.13

Spring green cultivars

Due to very wet conditions at transplanting in mid-September, the spring cabbage greens trial crop failed to grow to a marketable size.

The trials were undertaken at Trevarnon Farm, Gwithian, Cornwall. The soil type being 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.

Main conclusions

All of the cultivars that have performed well during 2012-13 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 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 where 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 a range of seed companies have been assessed with some new named cultivars being introduced into the commercially available cultivar trials for 2012 -13 and a number to follow in subsequent years.

The inclement weather patterns of both the 2009-10 and 2010-11 seasons has enabled growers to observe those cultivars that have performed consistently despite the inclement growing conditions. 2012-13 proved to be one of the highest yielding seasons in the last 20 years with many cultivars performing well despite the very wet Autumn period.

