Grower Summary

FV 202f

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

Annual 2012

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Before using all pesticides check the approval status and conditions of use.

Read the label before use: use pesticides safely.

Further information

If you would like a copy of the full report, please email the HDC office (hdc@hdc.ahdb.org.uk), quoting your HDC number, alternatively contact the HDC at the address below.

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Project Number:	FV 202f
Project Title:	Field Vegetables: An evaluation of autumn/winter cauliflower, spring cabbage cultivars and other winter brassica crops.
Project Leader:	Bill Herring
Contractor:	Duchy College
Industry Representative:	Ellis Luckhurst
Report:	Annual Report 2012
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Previous report/(s):	Annual Report 2011
Start Date:	01 April 2011
End Date:	30 June 2014
Project Cost (total project cost):	£29,700 (£54,790)

Headline

Some of the newly introduced autumn and winter cauliflower cultivars can increase income by £691/Ha where Grade 1 product is 10% above standard cultivars based on 19760 plants/Hectare (8000/Acre). This is a real possibility with many producers now on a fixed price for each cauliflower produced.

Background

Duchy College working in partnership with six National seed houses and local growers has carried out the evaluation of commercially available autumn, winter cauliflower and spring greens cultivars over the past 15 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 improve yields and quality of produce.

Results

The following cultivars are of most interest to the industry. These have performed well during the 2011 -12 season where the weather has had a big influence especially during February 2012 when ground frosts were recorded as low as -7.4C. 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. Top performing cultivars

Seed House	Cultivar	% Class 1	Trays/Hectare (Acre)	Heading period
Elsoms	Skywalker	79	2695 (1091)	08.10.11 - 15.10.11
Clause	Naruto	81	2571 (1041)	08.10.11 - 17.10.11
Clause	Meridian	78	2507 (1015)	06.10.11 - 16.10.11
Clause	Rafale	80	2697 (1092)	08.10.11 - 15.10.11
Monsanto	RX 5710	75	2447 (991)	08.10.11 - 13.10.11
Monsanto	Agenda	78	2539 (1028)	11.10.11 - 20.10.11
Monsanto	Appia	76	2420 (980)	17.10.11 - 27.10.11
Monsanto	Amiata	75	2445 (990)	20.10.11 - 29.10.11

Winter cauliflower. Top performing cultivars.

Yields will vary as there were two transplanting dates and three different spacings 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
Clause	Navalo	87	2410 (976)	13.10.11 - 20.10.11
Monsanto	RX 5965	90	2517 (1019)	13.10.11 - 24.10.11
Monsanto	Arica	78	2185 (885)	17.10.11 - 24.10.11
Monsanto	RX 5982	86	2332 (944)	24.10.11 - 31.10.11
Clause	Diwan	77	2079 (842)	31.10.11 - 10.11.11
Nickerson	Cendis	81	2200 (891)	08.11.11 - 27.11.11
Monsanto	Typical	77	1860 (753)	03.11.11 - 20.11.11
Syngenta	Loroen	78	1874 (759)	03.11.11 - 24.11.11
Syngenta	C 4013	79	2166 (877)	10.11.11 - 24.11.11
Syngenta	C 5016	80	1912 (774)	14.11.11 - 24.11.11
Elsoms	Maginot	78	1874 (759)	14.11.11 - 28.11.11
Syngenta	C 5020	88	2386 (966)	17.11.11 - 20.11.11
Nickerson	AC 9130	78	1867 (756)	17.11.11 - 01.12.11
Clause	Triomphant	88	2067 (837)	20.11.11 - 01.12.11
Tozer	1043 CMS	73	1741 (705)	24.11.11 - 19.12.11
Monsanto	Tintagel	88	2090 (846)	29.12.11 - 23.01.12
Tozer	1018	78	1850 (749)	02.01.12 - 26.01.12
Nickerson	AB 1004	88	2089 (846)	03.01.12 - 19.01.12
Monsanto	RX 5697	84	1993 (807)	12.01.12 - 06.02.12
Nickerson	Dionis	92	2183 (884)	16.01.12 - 06.02.12
Monsanto	RX 5738	80	2169 (878)	19.01.12 - 11.02.12
Nickerson	AC 7111	80	1899 (769)	23.01.12 - 06.02.12
Syngenta	C 5022	84	1993 (807)	23.01.12 - 23.02.12
Clause	Brick	86	2102 (851)	26.01.12 - 17.02.12
Tozer	2067	76	2062 (835)	30.01.12 - 27.02.12
Monsanto	RX 5702	86	2331 (944)	06.02.12 - 27.03.12
Clause	Redoutable	90	2136 (865)	17.02.12 - 27.02.12
Clause	Fleet	80	2171 (879)	20.02.12 - 27.02.12
Monsanto	Trewint	82	2213 (896)	20.02.12 - 05.03.12
Syngenta	SGC 5008	85	2316 (938)	23.02.12 - 12.03.12
Clause	Matelot	92	2532 (1025)	01.03.12 - 08.03.12
Syngenta	SGC 5007	92	2470 1000)	01.03.12 - 12.03.12
Elsoms	Isadora	87	2351 (952)	01.03.12 - 12.03.12
Clause	Mascaret	86	2331 (944)	01.03.12 - 15.03.12
Elsoms	Capulet	92	2374 (961)	05.03.12 - 12.03.12
Tozer	2038	93	2514 (1018)	05.03.12 - 16.03.12
Elsoms	Mystique	95	2623 (1062)	05.03.12 - 12.03.12
Elsoms	Madiot	90	2440 (988)	08.03.12 - 16.03.12
Syngenta	Charif	93	2529 (1024)	12.03.12 - 29.03.12
Elsoms	Tempest	92	2485 (1006)	16.03.12 - 26.03.12
Syngenta	SGC 4717	93	2571 (1041)	29.03.12 - 06.04.12
Syngenta	SG 4732	96	2603 (1054)	30.04.12 - 07.05.12

Spring green cultivars

Seed House Cultivar	Comments	Transplanting Date	Harvest dates	Pack out yield Trays/Acre (10 bags x 550grams)
Monsanto RX 7014	Slightly crinkled leaf type. Paler inner leaf. Very uniform. Heavy cabbage greens..	02.09.11	01.12.11	618
Tozer Wintergreen	Crinkled leaf type. Variable size greens. Dark green leaf.	02.09.11	01.12.11	510
Seminis Winter Special	Uniform. Slightly crinkled leaf type. Some variation in size.	02.09.11	01.12.11	525
Monsanto RX 7027	Upright frame. Paler inner leaf. Tall. Uniform.	02.09.11	01.12.11	447
Monsanto Summer green	Softer leaf type. Compact. Uniform. Rosette type. Paler inner leaf.	02.09.11	01.12.11	420
Monsanto Evergreen	Similar to RX 7027. Leggy frame. Some variation in plant size.	02.09.11	01.12.11	470

The trials were undertaken at Trevarnon Farm, Gwithian, Cornwall. The soil type was 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 2010-11 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 that has performed 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 2011 -12 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.