



Agriculture & Horticulture
DEVELOPMENT BOARD



Grower Summary

FV 154c

Vining Peas: Evaluation of new varieties sown at appropriate commercial timings

Annual 2013

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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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HDC is a division of the Agriculture and Horticulture Development Board.

Project Number: FV 154c

Project Title: Vining Peas: Evaluation of new varieties sown at appropriate commercial timings

Project Leader: Mr S.J. Belcher (PGRO)

Contractor: Processors and Growers Research Organisation

Industry Representative: Mr. R Fitzpatrick, Holbeach Marsh Co-op, Manor Farm, Holbeach Hurn, Spalding, PE12 8LR

Report: Annual Report 2012

Publication Date: 22 March 2012

Previous report/(s): Annual Report 2011 (February)

Start Date: 1 March 2010

End Date: 31 December 2013

Project Cost: £50,304

Headline

This work will enable growers to have further information on relative yields and maturities of vining pea varieties at commercial harvesting times.

Background

Varietal selection is an important and key element of vining pea crop production to ensure a programmed harvest period and to maintain high quality produce.

PGRO evaluates around 15 varieties annually at National List stage funded by PGRO Levy and the most promising are evaluated in trials for a further two years. Trials are usually sown early and to improve and refine the evaluation process, additional information is needed to supplement data from established trials. Growers indicate that up to 35% of sowings occur in May, but PGRO trials are sown in March – April. Data are therefore required from varieties sown at a timing appropriate for their maturity.

Summary of results and main conclusions

Because of delayed sowing by wet weather and bird damage the mid-season and Late-season trials were not taken through to harvest in 2012. These trials will be repeated in 2013. However data for the downy and powdery mildew disease trials were obtained.

For full and comprehensive results please refer to the full trials report.

Variety Name	Leaf Type	Source	Maturity
Pizarro	Semi-leafless	Seminis Vegetable Seeds, France	-1
Avola	Conventional	Seminis Vegetable Seeds, France	0
Salinero	Conventional	Seminis Vegetable Seeds, France	0
Sherwood	Conventional	Seminis Vegetable Seeds, France	+1
Anubis	Conventional	Limagrain, UK	+1
Hesbana	Semi-leafless	Nunhems Seeds, Netherlands	+1
Cosima	Conventional	van Waveren, Germany	+3
Romance	Semi-leafless	Seminis Vegetable Seeds, France	+3
Superana	Conventional	Nunhems Seeds, Netherlands	+4
Premio	Semi-leafless	Maribo Seeds, Denmark	+5
Chinook	Semi-leafless	Limagrain UK	+6
Bingo	Semi-leafless	Syngenta Seeds, France	+7
Bikini	Semi-leafless / semi-fasciated	Syngenta Seeds, France	+8
Biktop	Semi-leafless / semi-fasciated	Syngenta Seeds, France	+8
Ashton	Conventional	Seminis Vegetable Seeds, France	+9
Tommy	Semi-leafless	Limagrain UK	+9
Spandimo	Semi-leafless	Seminis Vegetable Seeds, France	+9

Variety Name	Leaf Type	Source	Maturity
Boogie	Semi-leafless	Nunhems Seeds, Netherlands	+9
Zephyr	Semi-leafless	Limagrain UK	+11
Butana	Semi-leafless	Nunhems Seeds, Netherlands	+11
Ambassador	Conventional	van Waveren, Germany	+12
Hippee	Semi-leafless	Maribo Seeds, Denmark	+12
Naches	Semi-leafless	Crites Seeds, USA	+13
Kenobi	Semi-leafless	Maribo Seeds, Denmark	+13

Trial site details

Variety Trials and powdery mildew trial: PGRO, The Research Station, Great North Road, Thornhaugh, Peterborough PE8 6HJ. OS Grid Ref: TF070017.

Downy Mildew Trials: 2012 Silt loam soil. OS Grid Ref TF436310. Red House Farm, Holbeach St Matthew, Lincs & silt loam soil. OS Ref TL500927, Manea, Cambs.

Tables of % yield, % size grade, haulm length and standing ability - 2012

Early-season Trial

Variety	@TR100				@TR120		Standing Ability 9=erect 1=lodged	
	Yield % of Bikini	% in size grades L M S VS				Yield % of Bikini		Haulm length cm
Avola	94	24	41	29	6	87	53	2
Pizarro	81	14	44	34	8	90	54	4
Salinero	109	15	41	34	10	112	46	2
Sherwood	101	13	40	37	10	119	54	2
Hesbana	66-	6	40	43	11	76-	62	3
Anubis	87	15	36	37	12	94	57	3
Romance	151+	15	44	33	8	162+	54	4
Cosima	103	18	45	30	7	107	54	3
Premio	67-	16	44	29	11	77-	60	4
Bikini	100 (4.8t/ha)	20	51	25	4	100 (5.5t/ha)	41	5

Full information on all varieties can be found in the Full Trial Report.

Standard Pea Early Season Trial, Thornhaugh

Bikini the yield standard gave average yields considering the seasonal weather.

Avola matured first 10 days before Bikini and was lodged at harvest. Yields were lower than Bikini, but not significantly so. Produce was medium-large size grade.

Semi-leafless **Pizarro** matured at the same time as Avola. Haulm was similar in length to

Avola and the variety stood a little better. Yields were similar to Avola at TR120. Produce was medium-small size grade at TR100 and medium-large size grade at TR120.

Maturing one day later than Avola, **Salinero** was a little shorter in haulm length than Avola and had and was lodged at harvest. Yields were good, higher than Bikini, but not significantly so. Produce was medium-small size grade at TR100 and medium-large size grade at TR120.

Sherwood matured 2 days later than Avola. Haulm was similar in length to Avola and the variety was lodged at harvest. Yields were similar to Bikini at TR100 and higher, but not significantly higher than Bikini at TR120. Produce was medium-small size grade at TR100 and medium size grade at TR120.

Semi-leafless **Hesbana** matured 3 days later than Avola. Haulm was longer than Avola and the variety was lodged at harvest. Yields of medium-small size grade peas were lower than Avola and significantly lower than Bikini.

Romance and Cosima matured 6 days later than Bikini.

Romance was semi-leafless and had lower than average standing ability. Yields were very high, significantly higher than Bikini and the highest in this trial. Produce was medium-small size grade at TR100 and medium size grade at TR120.

Cosima had similar length haulm to Avola and was lodged at harvest. Yields of medium-small size grade peas were higher than Avola and similar to Bikini.

Premio was later maturing this year, maturing at the same time as Bikini. Haulm was a little longer than Avola and the variety had lower than average standing ability. Yields were low, significantly lower than Bikini. Produce was medium-small size grade at TR100 and medium size grade at TR120.

Bikini matured 10 days later than Avola. Bikini was semi-leafless and semi-fasciated and gave average yields. Haulm was short and the variety had average standing ability. Produce was medium-large size grade

Main Conclusions

The varieties have been trialed in three very contrasting years.

In comparison to Bikini, many of the early varieties gave better yields in 2012. The exception was Premio, which gave lower yields in 2012. In 2010 and 2011 Premio gave higher yields.

Varietal differences in maturity is key in planning sowing and harvesting programmes and it is reassuring to find that there were no major variances from previous data. Pizarro, Salinero, Sherwood and Anubis matured at the same time as in previous trials. Hesbana, Cosima, Romance and Premio all matured one day later on average than seen in previous trials.

Overall yields for most varieties at TR100 were similar to those seen in previous trials. Salinero and Romance gave high yields in 2012 and overall yields were higher at TR100 and TR120 than previously seen. Premio gave a smaller yield increase on previous results. Pizarro and Sherwood gave yield increases on previous results at TR120. Anubis gave slightly lower yields than previously seen.

Overall size grade profiles and haulm lengths for the varieties have remained similar to previous data.

Downy mildew is an important disease of peas. Romance and Premio gave very good field resistance to the disease, closely followed by Salinero, which showed moderate field resistance. Cosima gave a susceptible rating followed by Sherwood and Anubis having a moderately susceptible rating. No data has been obtained for Hesbana as only treated seed was supplied. Powdery mildew is of little importance in early peas, but Hesbana and Anubis were resistant.