



Grower Summary

FV 340a

Vining Peas: Extension of
variety evaluation trials

Final 2015

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

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Further information

If you would like a copy of this 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 340a

Project Title: Vining Peas: Extension of variety evaluation trials

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Contractor: PGRO

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Previous report(s): FV 340 - Final report 2011
FV 340a - Annual report 2012

Start Date: 1 March 2011

End Date: 28 February 2015

Project Cost: £26,960

GROWER SUMMARY

Headline

This project will provide vining pea growers with independent, relevant and accurate trials evaluations on vining pea varieties, so that a considered and informed variety choice can be made.

Background

Currently vining varieties are evaluated at just one site at PGRO, Thornhaugh with petits pois varieties being evaluated on a silt soil type in South Lincolnshire (trials funded by seedsmen). The soil type at Thornhaugh is representative of only a proportion of the national pea growing production area and varieties can often perform differently in other soil types and areas. These trials on a fertile silt soil type in S. Lincolnshire will give additional data to enable growers to make an appropriate variety choice.

Summary

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

Table of varieties, leaf type, source and approximate maturity - 2014

Variety Name	Leaf Type	Source	Maturity
CS 430 AF	SL	Crites Seed, USA	0
Aloha	C	van Waveren, Germany	0
Avola	C	Seminis Vegetable Seeds, France	0
Kiss	C	van Waveren, Germany	+ 1
Papillon	C	Limagrain, UK	+ 3
Olinda(FP2332)	C	Syngenta Seeds, France	+ 5
Jubilee	C	Limagrain, UK	+ 6
Gusty	SL	van Waveren, Germany	+ 7
Payton(PLS167)	SL	Pure Line Seeds, USA	+ 9
CS 426 AF	SL	Crites Seed, USA	+10
Bikini	SLSF	Syngenta Seeds, France	+11
08570957	SL	Seminis Vegetable Seeds, France	+11
D85178	C	Syngenta Seeds, France	+12
D85410	C	Syngenta Seeds, France	+13
D165250	SL	Syngenta Seeds, France	+13
Oasis	C	Limagrain, UK	+15
Standana	SL	Nunhems Seeds, Netherlands	+15
Ambassador	C	van Waveren, Germany	+16
Acclaim	C	Plant & Food Research Ltd, New Zealand	+16
Maurice	SL	Seminis Vegetable Seeds, France	+17

C=Conventional-leaved; SL=Semi-leafless; SF=Semi-fasciated

Trial site details

Variety Trial Site: Fertile light silt soil in a commercial crop of Vining Peas, near Holbeach Hurn, South Lincolnshire. OS Ref: TF366319.

Downy Mildew Trials: Grid reference TL361851 Gaunt Fen near Chatteris OS Ref: TL361851 and Bicker OS Ref: TF235380.

Table of % yield, % size grade, haulm length and standing ability - 2014

Variety	@TR100				@TR120		Haulm length cm	Standing Ability 9=erect 1=lodged
	Yield % of Oasis	% in size grades L M S VS				Yield % of Oasis		
CS 430 AF	73	27	52	19	2	96	53	4
Aloha	63	41	42	13	4	74	58	3
<u>Avola</u>	<u>56</u>	<u>57</u>	<u>28</u>	<u>12</u>	<u>3</u>	<u>75</u>	<u>59</u>	<u>4</u>
Kiss	73	35	41	20	4	82	64	4
Papillon	62	42	36	17	5	77	56	4
Olinda(FP2332)	62	29	48	19	4	75	64	4
Jubilee	73	29	46	21	4	74	66	3
Gusty	97	44	46	9	1	95	68	2
Payton(PLS167)	80	19	52	25	4	85	68	3
CS 426 AF	83	25	47	24	4	99	70	4
<u>Bikini</u>	<u>67</u>	<u>48</u>	<u>41</u>	<u>10</u>	<u>1</u>	<u>95</u>	<u>52</u>	<u>2</u>
08570957	78	34	55	10	1	84	60	3
D85178	83	21	57	19	3	88	78	4
D85410	77	25	52	20	3	90	76	4
D165250	79	37	47	14	2	85	62	4
<u>Oasis</u>	<u>100</u>	<u>36</u>	<u>46</u>	<u>16</u>	<u>2</u>	<u>100</u>	<u>76</u>	<u>4</u>
	(15.07t/ha)					(15.44t/ha)		
Standana	87	16	56	26	2	92	76	6
<u>Ambassador</u>	<u>88</u>	<u>39</u>	<u>47</u>	<u>12</u>	<u>2</u>	<u>86</u>	<u>90</u>	<u>4</u>
Acclaim	83	19	48	28	5	86	66	3
Maurice	101	26	49	20	5	99	79	7
CS 430 AF	73	27	52	19	2	96	53	4
Aloha	63	41	42	13	4	74	58	3
<u>Avola</u>	<u>56</u>	<u>57</u>	<u>28</u>	<u>12</u>	<u>3</u>	<u>75</u>	<u>59</u>	<u>4</u>
Kiss	73	35	41	20	4	82	64	4
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Full information on all varieties can be found in the Full Trial Report.

None of the varieties were found to be unsuitable for UK production

Maturity was a little extended at this site: Bikini +11, Oasis +15 and Ambassador +17. Other varieties showed a similar pattern, but maturity is always judged against the later standards.

Yields from this site were exceptionally high. Oasis gave very high yields, but Maurice gave similar yields. Gusty, as in 2013 gave yields similar to Oasis. CS 426 AF and D85410 yielded well at TR120.

Growth was vigorous at this site, but semi-leafless varieties Maurice and Standana had the better standing ability.

Conclusions are drawn from a 2 year summary of varieties evaluated in 2013 & 2014.

Vining peas are a unique crop in terms of timely harvesting. Varietal selection is an important and key element of vining pea crop production to ensure a programmed harvest period and to maintain high quality.

Papillon (Limagrain UK) matured 3 days later than Avola. Haulm was a little shorter than Avola and had similar standing ability. Yields were significantly lower than Oasis, but a little higher than Avola at TR100. Produce was large-medium size grade, a little smaller than Avola.

Olinda (FP2332) (Syngenta) matured 4 days later than Avola. Haulm was a little shorter than Avola and had similar standing ability. Yields were lower, but not significantly lower than Oasis. Produce was medium-large size grade, but with a large percentage in the medium size grade. Haul was shorter than Avola and had similar standing ability.

Jubilee (Limagrain UK) matured 5 days later than Avola. Yields were lower, but not significantly lower than Oasis. Produce was medium-large size grade, but with a large percentage in the medium size grade. Haulm was longer than Bikini and standing ability was similar.

Gusty (van Waveren) was semi-leafless and matured 6 days later than Avola. Yields of medium-large size grade peas were lower, but not significantly lower than Oasis. Haulm was longer than Bikini, but standing ability was similar.

D85178 (Syngenta) matured one day later than Bikini. Haulm was long, similar in length to Ambassador and standing ability was similar. Yields of medium size grade peas were lower, but not significantly lower than Oasis.

D165250 (Syngenta) was semi-leafless and matured 2 days later than Bikini. Yields were lower, but not significantly lower than Oasis. Peas were medium-large size grade, similar in size to Oasis. Haulm was shorter than Oasis and standing ability similar.

Acclaim (The New Zealand Institute for Plant and Food Research Ltd) matured at the same time as Ambassador, 13 days later than Avola. Yields were lower, but not significantly lower than Oasis. Produce was medium size grade. Haulm was a little shorter than Oasis.

Financial Benefits

The information and findings of this project provide independent and thorough evaluation of the numerous varieties being developed in the industry at the moment.

Action Points

Growers can maximize financial returns by using this information to select the most appropriate varieties for their circumstances.