



PGRO Variety Trials Results 2021

Vining Peas

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WEATHER FOR THE 2020 SEASON.

Comments below are a summary taken from the meteorology website for the UK <https://www.metoffice.gov.uk/research/climate/maps-and-data/summaries/index>.

Winter

The winter overall was colder than average but became milder in mid-December and in the second half of February. The first half of February saw some severe frosts and snowfall. For the whole winter rainfall totals were well above average in most areas and were highest in the East of the country.

Spring 2021

This spring was colder than average, with regular frosts in many areas, however there were warm spells at the end of March and the end of May. March rainfall totals were below average in most areas, this was followed by the driest April since 1980, with 28% of average rainfall for the UK. By contrast, May was very wet, characterised by bands of rain and heavy showers, with 171% of average overall.

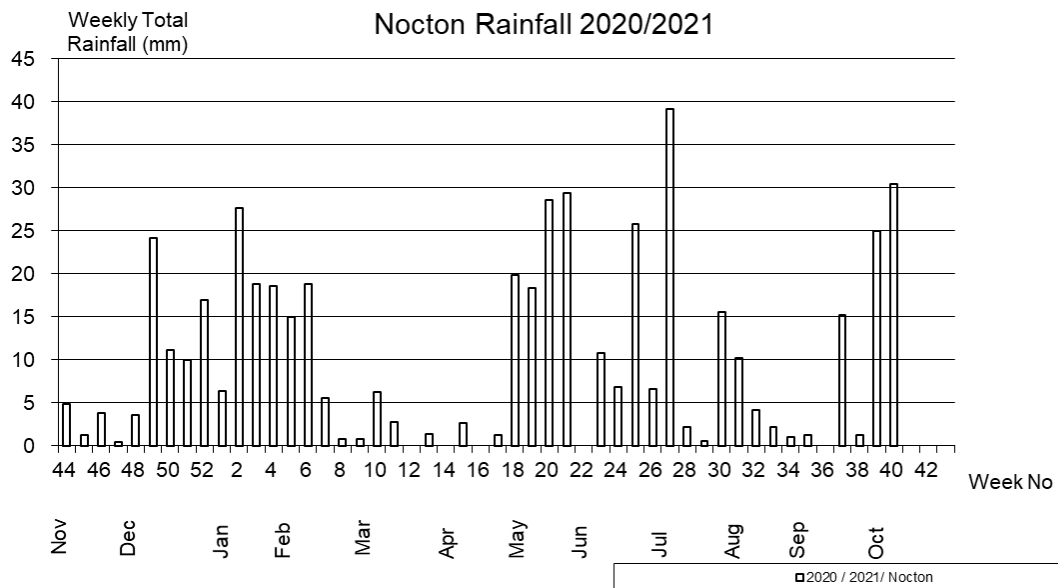
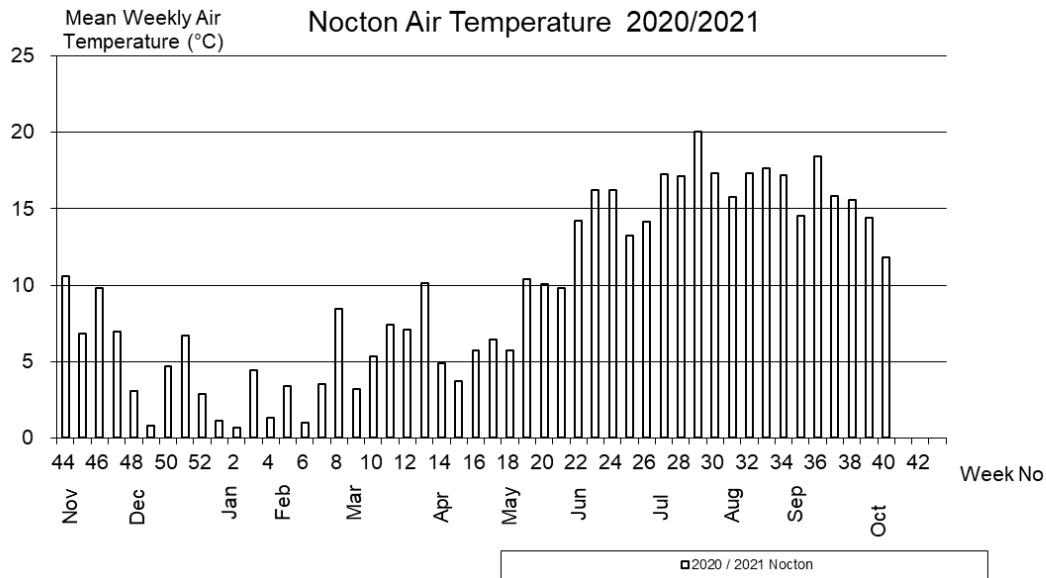
Summer 2021

June was generally settled and warm, with temperatures reaching 29.7 °C on the 14th. June was also drier than average with 59% of normal rainfall. Thunderstorms and showers meant that July had a more typical summer rainfall with 93% of average. The end of July was even hotter with 32.2 °C recorded on the 20th of July.

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METEROLOGICAL DATA - 2020 / 2021 season



Nocton monthly rainfall totals (mm) 2020/2021

Month	2020/2021 Monthly Rainfall (mm) Nocton
November	11.2
December	62.2
January	72.6
February	39.2
March	11.0
April	6.2
May	93.8
June	50.0
July	64.6
August	11.6
September	41.6
October	-

VINING PEAS

SUMMARY

In **2019**, February 21 to 27 saw record-breaking temperatures and plenty of dry, sunny weather. Overall the spring was 2°C warmer than average in the South and East. The first half of March was wet with storms Freya and Gareth passing through. The second half of March was dry and the dry spell continued well into April. May was a little cooler than average and rainfall a little below average. Sunshine was well above average.

The first two-thirds of June was generally very wet in most areas, and cooler than average, but the latter part of June and most of July were more settled with some warm spells. The warmth peaked on June 29th, and again on July 25th with a new UK maximum temperature record being set. Numerous thundery outbreaks occurred during the second half of July too, making the month somewhat wetter than average overall. The majority of August was unsettled and showery, though there was a drier spell later on during which it became hot especially in south-eastern areas.

In **2020**, the spring was generally warmer than average. Following a very wet February, March, April and May were very dry months receiving only around 20% average rainfall for the area.

Most of June was wetter and cooler than average. The last week of June saw some high maximum temperatures peaking on 26 June at 29.9°. The end of July was even hotter with temperatures peaking at 33.4 °C on 31 July. Rainfall in August was well above average due to heavy thunderstorms and down pours.

In **2021**, the spring was colder than average, with regular frosts in many areas, however there were warm spells at the end of March and the end of May. March rainfall totals were rather below average in most areas, this was followed by the driest April since 1980, with 28% of average rainfall for the UK. By contrast, May was very wet, characterised by bands of rain and heavy showers, with 171% of average overall.

June was generally settled and warm, with temperatures reaching 29.7 °C on the 14th. June was also drier than average with 59% of normal rainfall. Thunderstorms and showers meant that July had a more typical summer rainfall with 93% of average. The end of July was even hotter with 32.2 °C recorded on the 20th of July.

Standard Size Varieties, Nocton 2019 – 2021 Tables 1 & 2

Varieties were evaluated in Standard Preliminary Trial 2019 and Standard Main Trials 2020 and 2021.

This 3 year data set comprises data from only the Nocton site.

Two varieties, Marquis and CS-464AF completed 3 years of evaluation in 2021.

Yields from the yield standard Oasis were lowest in 2020 (7.62 t/ha) and highest in 2021 (11.02 t/ha) at TR100. Maturity of Oasis when compared to Avola was +11 days in all three years.

Sherwood, a possible replacement for Avola, gave higher yields than Avola in both years it was trialled. Maturity of Sherwood relative to Avola was -2 in 2021 and +1 in 2019.

Marquis (van Waveren) was semi-leafless and matured 2 days earlier than Oasis. Yields (74%) at TR100 and 68% at TR120 were significantly lower than Oasis. Produce was smaller than Oasis, medium-small size grade. Marquis had a standing ability of 9 which was much better than Oasis (3). Marquis and Oasis had similar haulm lengths (54 & 53 cm).

CS-464AF (Crites Seed) was semi-leafless and matured 1 day earlier than Oasis. Yields (92 & 90%) were lower than Oasis but not significantly so. Yields were highest in 2019. Produce was similar size to Oasis, medium-large size grade. Standing ability was better than Oasis (5) but varied a lot between the years, from 2.7 in 2019 to 7.3 in 2020.

TRIALS IN 2021

Standard size varieties were evaluated in Main, Preliminary and Screening Trials at Nocton, Lincs. Trials of standard and petits pois varieties were evaluated at Holbeach, South Lincolnshire. A trial of varieties selected by the vining pea grower groups and funded by the Agriculture and Horticulture Development Board (AHDB-Horticulture) was grown near Holbeach, Lincolnshire. Data from this trial will be presented in an AHDB report.

Promising varieties from 2019 and 2020 Preliminary Trials were assessed in the Main Trial. Preliminary Trial varieties were at National List stage of testing in an EU member country.

Due to the loss of seed treatment options for 2022, seed of all varieties was sown untreated to mimic the sowing conditions for the following year. This means there was less protection than in previous seasons for damping off, downy mildew and *Ascochyta* diseases. Avola was the standard variety for maturity (Sherwood was also included as a potential replacement for Avola); Oasis was the yield standard and Ambassador was the late maturing standard. Waverex was the petits pois yield and maturity standard.

Nocton trials were drilled on 24 March and Holbeach trials on 28 April. At Nocton, the peas emerged with few losses, but early growth was slow in the dry conditions. At Holbeach drilling conditions were good with the peas going into a layer of retained moisture. The peas emerged well and had no notable establishment issues. At Nocton, broad-leaved weeds were controlled with pre and post-emergence herbicides. Aphid (*Acyrtosiphon pisum*) and pea moth (*Cydia nigricana*) were controlled with insecticide. At Holbeach inputs were the same as the surrounding commercial crop.

The vining pea harvest started early about 10 days later than 2020 on the 25 June and was completed on 27 July. Pea colour for most varieties was very good and unless otherwise stated the uniformity of colour was also very good.

A sample from all trials were frozen for later colour and Brix assessments. Most varieties became a little darker in colour after freezing and defrosting than in the raw state.

Standard Pea Main Trial, Nocton - Tables 3 & 4

Growth at this site was generally good in comparison to 2020, though some of the early varieties struggled to get going with the initial drier weather. The weather was relatively consistent during harvest leading to most varieties maturing evenly.

Yields from the standard Oasis (11.02 t/ha) were 3.4 t/ha higher than in 2020 at TR100. However 2020 was a particularly low yielding year across all varieties.

Early varieties Orient and SV5795QE matured one and two days later than Avola respectively. Agilar was mature six days after Avola. Marquis was ready two days before Oasis (+11) and CS-464AF. Trinity and Ambassador matured one day later than Oasis and were the last main trial varieties to reach maturity.

Oasis was the highest yielding variety, having had an especially high yield at this site. CS-464AF had the second highest yield at TR100 (91%) and was among the highest at TR120 (84%). Ambassador (89 & 90%) and Trinity (87 & 84%) gave the next highest yields.

Marquis and SV5795QE both gave smaller peas than most varieties, with a greater amount of medium size grade at both TR100 and TR120

Marquis had the best standing ability (8.7), though Orient (6.3), CS-464AF (6.0) and Trinity (6.0) also had better standing ability than the standards.

Standard Pea Preliminary Trial, Nocton – Tables 5 & 6

Two varieties were entered into the Preliminary Trial.

CS-494DAF was mature 8 days after Avola. Both Oasis and Darlin matured at 11 days after Avola. Ambassador was the latest variety to mature 12 days later than Avola.

Both varieties tested had lower yields than Oasis, CS-494DAF was at 73% and 71% of Oasis at TR 100 and TR120 respectively. Darlin came in at 78% and 87% for the same TR values.

Darlin and CS-494DAF both had excellent standing abilities.

Standard Pea Screening Trial, Nocton – Tables 7 & 8

Five Screening trial varieties were evaluated.

Sherwood was the first variety to mature, 13 days before Oasis. SP-45 and 11P42 were early varieties that matured 1 day after Avola. Other varieties had maturities of +11 or +12. Ambassador was the latest to mature 12 days later than Avola.

All varieties tested had yields lower than Oasis and higher than Avola.

The varieties CS-498AF, 92013 and 94195 stand out as having particularly good standing abilities.

Petits Pois Main, Preliminary and Screening Trials, Holbeach – Tables 9 & 10

Waverex, the yield standard, gave higher yields (5.18 t/ha) than in 2020 (3.66 t/ha).

Glorivert had early maturity, maturing 8 earlier than Waverex. Wav 287 matured 2 days before Waverex. Colivert (FDG0049) was the latest to mature 3 days later than Waverex.

Wav 7297 and DGF0071 had notably higher yields than Waverex. Colivert (FDG0049) also had a high yield that compares well with Waverex.

Waverex gave produce with 71% of the peas <8.75mm diameter at TR100. Glorivert (88%) gave the produce with the greatest number of peas <8.75mm diameter.

Wav 287, Lunanvert, and Glorivert had the best standing abilities.

Varietal Susceptibility of Vining Peas to Downy Mildew (*Peronospora viciae*)

It is important that untreated seed is entered for trials so that downy mildew susceptibility can be evaluated.

As part of the variety evaluation work 40 varieties of vining peas were sown in disease observation trials at two locations in Nocton and Bicker. Both trials were situated in a field with a history of pea growing. Plants were scored for infection on two occasions during the season, to include both primary systemically infected seedlings and secondary infection on the foliage and pods. The data were combined to give an indication of the relative susceptibility to downy mildew.

Susceptible 1/2	Moderately Susceptible 3/4	Slightly Susceptible 5/6	Moderate Field Resistance 7/8	Good Field Resistance 9
	Avola	251	648-3	Ashton
	92013	94195	Ebba	Contigo
	11P42	Agilar	Lunanvert	CS-494DAF
	Boogie	Anubis	Aloha	Romango
	CS-498AF	CS-464AF	Boston	Darlin
	Oasis	Larango	Dancer	Idalgo
	SP-45	DGL0062	Lyric	Selune
		Ida	Marquis	
		Orient	SV5795QE	
		Trinity	Wav 287	
		Ambassador	Wav 7297	
		Colivert		
		Kimberley		
		Tomahawk		

The results of these tests and those of previous years were incorporated in the PGRO Descriptive List of Vining Pea Varieties.

TABLE 01 - VINING PEA VARIETY EVALUATIONS. Summary of Standard Vining Peas - Nocton 2019 - 2021

Varieties placed in order of maturity. Standard varieties underlined

Variety	Source	1000 Seed Weight g	@ TR 100				@ TR 120				Haulm length cm	Standing Ability 9=erect 1=lodged	Pea wt. as % of total weight	Raw pea colour 1=pale 6=dark				
			Maturity (± days) Avola	Yield % of Oasis	% in size grades L M S VS				Maturity (± days) Avola	Yield % of Oasis					% in size grades L M S VS			
<u>Sherwood</u>	<u>SVS</u>	<u>186</u>	<u>-1</u>	<u>52-</u>	<u>35</u>	<u>50</u>	<u>13</u>	<u>2</u>	<u>-1</u>	<u>51-</u>	<u>44</u>	<u>45</u>	<u>9</u>	<u>2</u>	<u>57</u>	<u>4</u>	<u>19</u>	<u>4.8</u>
<u>Avola</u>	<u>SVS</u>	<u>195</u>	<u>0</u>	<u>45-</u>	<u>42</u>	<u>40</u>	<u>15</u>	<u>3</u>	<u>0</u>	<u>47-</u>	<u>66</u>	<u>31</u>	<u>3</u>	<u>0</u>	<u>57</u>	<u>4</u>	<u>18</u>	<u>4.7</u>
Marquis	(SL) vW	151	+9	74-	13	44	35	8	+8	68-	18	53	25	4	54	9	21	4.5
CS-464AF	(SL) CS	196	+10	92	30	51	17	2	+10	90	43	49	7	1	57	5	23	4.6
<u>Oasis</u>	<u>LUK</u>	<u>199</u>	<u>+11</u>	<u>100</u>	<u>33</u>	<u>51</u>	<u>14</u>	<u>2</u>	<u>+10</u>	<u>100</u>	<u>44</u>	<u>48</u>	<u>7</u>	<u>1</u>	<u>53</u>	<u>3</u>	<u>26</u>	<u>4.7</u>
				(9.52t/ha)						(10.64t/ha)								
<u>Ambassador</u>	<u>vW</u>	<u>194</u>	<u>+13</u>	<u>87</u>	<u>31</u>	<u>48</u>	<u>18</u>	<u>3</u>	<u>+13</u>	<u>83</u>	<u>40</u>	<u>51</u>	<u>8</u>	<u>1</u>	<u>65</u>	<u>5</u>	<u>20</u>	<u>4.5</u>
Significance @ P=0.05				SD						SD								
LSD @ P=0.05				18.1						22.0								
CV %				13.1						16.2								

KEY: Yield: + Significantly greater than Oasis @ P = 0.05; - Significantly less than Oasis @ P = 0.05

Size grades: L = large > 10.2mm; M = medium 8.75 - 10.2mm; S = small 7.5 - 8.75mm; VS = very small < 7.5mm

SL = Semi-leafless; SF = Semi-fasciated

Source of varieties see Appendix

TABLE 02 - VINING PEA VARIETY EVALUATIONS. Summary of quality data – Standard pea varieties – Nocton 2019 – 2021

Variety	Year	Tenderometer Reading	Appearance				Brix %
			Colour (3-8)	Brightness (1-2)	Uniformity (1-5)	No. of blonds (1-5)	
Sherwood	19	106.0	5.8	1.0	4.7	1.0	12.4
	20						
	21	100.0	6.3	1.0	4.5	1.0	12.9
Avola	19	104.0	5.7	1.0	3.7	2.0	12.5
	20	100.5	5.8	2.0	5.0	1.0	11.8
	21	92.5	6.3	1.0	4.0	1.0	12.6
Marquis	19	100.5	6.5	1.0	5.0	1.0	12.9
	20	105.5	6.5	2.0	5.0	1.0	11.8
	21	98.5	6.0	2.0	4.5	1.0	13.0
CS-464AF	19	101.5	6.0	1.0	4.7	1.0	13.3
	20	96.0	6.2	2.0	4.8	1.0	13.4
	21	101.5	6.0	1.0	4.0	1.0	11.8
Oasis	19	98.5	5.8	1.0	4.2	1.0	12.3
	20	97.0	6.7	2.0	4.2	1.0	11.9
	21	101.5	5.8	1.0	4.0	2.0	11.3
Ambassador	19	97.5	5.5	1.0	3.0	3.0	12.6
	20	96.0	6.2	2.0	5.0	1.0	12.6
	21	94.5	6.5	1.0	3.8	1.0	13.1

KEY: Uniformity; Uniformity; No. of blonds: (1-5) - a high figure indicates that the variety shows the character to a high degree

Colour: a high figure indicates a darker green; Brightness: 1 = bright, 2 = dull; Brix - measured using Atago pocket refractometer PAL-1 and gives an indication of sugar content

TABLE 03 - VINING PEA VARIETY EVALUATIONS. Summary of agronomic data Standard Vining Pea Main Variety Trial, Nocton - 2021

Varieties placed in order of maturity. Standard varieties underlined. All varieties sown on 24 March.

Results are means of three replicates. Target population 100 plants per m² sown in ten 15 cm rows.

Variety	Source	1000 Seed Weight g	@ TR 100				@ TR 120				Haulm length cm	Standing Ability 9=erect 1=lodged	Pea wt. as % of total weight	Raw pea colour 1=pale 6=dark				
			Maturity (± days) Avola	Yield % of Oasis	% in size grades L M S VS				Maturity (± days) Avola	Yield % of Oasis					% in size grades L M S VS			
<u>Sherwood</u>	<u>SVS</u>	<u>189</u>	<u>-2</u>	<u>44</u>	<u>41</u>	<u>45</u>	<u>12</u>	<u>2</u>	<u>-1</u>	<u>40</u>	<u>56</u>	<u>36</u>	<u>7</u>	<u>1</u>	<u>58</u>	<u>5.0</u>	<u>18</u>	<u>4.9</u>
<u>Avola</u>	<u>SVS</u>	<u>182</u>	<u>0(27/6)</u>	<u>41</u>	<u>71</u>	<u>23</u>	<u>5</u>	<u>1</u>	<u>0(29/6)</u>	<u>40</u>	<u>91</u>	<u>8</u>	<u>1</u>	<u>0</u>	<u>67</u>	<u>5.7</u>	<u>17</u>	<u>4.5</u>
Orient	ZKI	193	+1	27	55	39	5	1	+1	25	69	27	3	1	62	6.3	11	4.7
SV5795QE	SVS	134	+2	46	17	55	25	3	+2	42	27	62	9	2	54	3.7	20	4.4
Agilar	ZKI	164	+6	58	58	34	6	2	+6	63	74	20	5	1	65	3.0	24	4.7
Marquis	(SL) vW	150	+9	77	9	46	37	8	+9	72	13	57	26	4	61	8.7	24	4.6
CS-464AF	(SL) CS	176	+11	91	43	46	10	1	+11	84	58	37	5	0	65	6.0	24	4.6
<u>Oasis</u>	<u>LUK</u>	<u>186</u>	<u>+11</u>	<u>100</u>	<u>46</u>	<u>43</u>	<u>9</u>	<u>2</u>	<u>+11</u>	<u>100</u>	<u>52</u>	<u>40</u>	<u>7</u>	<u>1</u>	<u>58</u>	<u>2.3</u>	<u>28</u>	<u>4.6</u>
				(11.02t/ha)						(12.00t/ha)								
Trinity	ZKI	170	+12	87	62	32	5	1	+12	84	72	25	3	0	60	6.0	26	4.5
<u>Ambassador</u>	<u>vW</u>	<u>207</u>	<u>+12</u>	<u>89</u>	<u>51</u>	<u>40</u>	<u>8</u>	<u>1</u>	<u>+12</u>	<u>90</u>	<u>63</u>	<u>32</u>	<u>4</u>	<u>1</u>	<u>70</u>	<u>3.7</u>	<u>21</u>	<u>4.6</u>

KEY: Size grades: L = large > 10.2mm; M = medium 8.75 - 10.2mm; S = small 7.5 - 8.75mm; VS = very small < 7.5mm

SL = Semi-leafless; SF = Semi-fasciated

Source of varieties see Appendix.

TABLE 04 - VINING PEA VARIETY EVALUATIONS. Summary of quality data - Standard Vining Pea Main Variety Trial, Nocton - 2021

Variety	Tenderometer Reading	Appearance				Brix %
		Colour (3-8)	Brightness (1-2)	Uniformity (1-5)	No. of blonds (1-5)	
Sherwood	100.0	6.3	1.0	4.5	1.0	12.9
Avola	92.5	6.3	1.0	4.0	1.0	12.6
Orient	100.0	6.0	1.0	4.5	1.0	13.3
SV5795QE	102.0	5.3	1.0	3.8	1.0	13.1
Agilar	101.5	6.5	1.0	5.0	1.0	12.5
Marquis	98.5	6.0	1.0	4.5	1.0	13.0
CS-464AF	101.5	6.0	1.0	4.0	1.0	11.8
Oasis	101.5	5.8	1.0	4.0	2.0	11.3
Ambassador	94.5	6.5	1.0	3.8	1.0	13.1
Trinity	101.5	6.0	1.0	4.5	1.0	11.2

KEY: Uniformity; Uniformity; No. of blonds; (1-5) - a high figure indicates that the variety shows the character to a high degree

Colour: a high figure indicates a darker green; Brightness: 1 = bright, 2 = dull; Brix - measured using Atago pocket refractometer PAL-1 and gives an indication of sugar content

TABLE 05 - VINING PEA VARIETY EVALUATIONS. Summary of agronomic data Standard Vining Pea Preliminary Variety Trial, Nocton - 2021

Varieties placed in order of maturity. Standard varieties underlined. All varieties sown on 24 March.

Results are means of three replicates. Target population 100 plants per m² sown in ten 15 cm rows.

Variety	Source	1000 Seed Weight g	@ TR 100							@ TR 120							Standing Ability 9=erect 1=lodged	Pea wt. as % of total weight	Raw pea colour 1=pale 6=dark
			Maturity (± days) Avola	Yield % of Oasis	% in size grades				Maturity (± days) Avola	Yield % of Oasis	% in size grades				Haulm length cm				
					L	M	S	VS			L	M	S	VS					
<u>Sherwood</u>	<u>SVS</u>	<u>189</u>	<u>-2</u>	<u>44</u>	<u>41</u>	<u>45</u>	<u>12</u>	<u>2</u>	<u>-1</u>	<u>40</u>	<u>56</u>	<u>36</u>	<u>7</u>	<u>1</u>	<u>58</u>	<u>5.0</u>	<u>18</u>	<u>4.9</u>	
<u>Avola</u>	<u>SVS</u>	<u>182</u>	<u>0(27/6)</u>	<u>41</u>	<u>71</u>	<u>23</u>	<u>5</u>	<u>1</u>	<u>0(29/6)</u>	<u>40</u>	<u>91</u>	<u>8</u>	<u>1</u>	<u>0</u>	<u>67</u>	<u>5.7</u>	<u>17</u>	<u>4.5</u>	
CS-494DAF	(SL) CS	139	+8	73	11	47	36	6	+8	71	20	58	20	2	54	8.7	23	4.5	
Darlin	(SL) vW	146	+11	78	4	32	44	20	+11	87	7	49	35	9	59	9.0	22	4.5	
<u>Oasis</u>	<u>LUK</u>	<u>186</u>	<u>+11</u>	<u>100</u>	<u>46</u>	<u>43</u>	<u>9</u>	<u>2</u>	<u>+11</u>	<u>100</u>	<u>52</u>	<u>40</u>	<u>7</u>	<u>1</u>	<u>58</u>	<u>2.3</u>	<u>28</u>	<u>4.6</u>	
				(11.02t/ha)						(12.00t/ha)									
Ambassador	vW	207	+12	89	51	40	8	1	+12	90	63	32	4	1	70	3.7	21	4.6	

KEY: Size grades: L = large > 10.2mm; M = medium 8.75 - 10.2mm; S = small 7.5 - 8.75mm; VS = very small < 7.5mm

SL = Semi-leafless; SF = Semi-fasciated

Source of varieties see Appendix

TABLE 06 - VINING PEA VARIETY EVALUATIONS. Summary of quality data - Standard Vining Pea Preliminary Variety Trial, Nocton - 2021

Variety	Tenderometer Reading	Appearance				Brix %
		Colour (3-8)	Brightness (1-2)	Uniformity (1-5)	No. of blonds (1-5)	
Sherwood	100.0	6.3	1.0	4.5	1.0	12.9
Avola	92.5	6.3	1.0	4.0	1.0	12.6
CS-494DAF	101.0	6.5	1.0	4.5	1.0	14.8
Darlin	99.0	6.0	1.0	4.5	1.0	13.3
Oasis	101.5	5.8	1.0	4.0	2.0	11.3
Ambassador	94.5	6.5	1.0	3.8	1.0	13.1

KEY: Uniformity; Uniformity; No. of blonds; (1-5) - a high figure indicates that the variety shows the character to a high degree

Colour: a high figure indicates a darker green; Brightness: 1 = bright, 2 = dull; Brix - measured using Atago pocket refractometer PAL-1 and gives an indication of sugar content

TABLE 07 - VINING PEA VARIETY EVALUATIONS. Summary of agronomic data Standard Vining Pea Screening Variety Trial, Nocton - 2021

Varieties placed in order of maturity. Standard varieties underlined. All varieties sown on 24 March.

Results are means of two replicates. Target population 100 plants per m² sown in ten 15 cm rows.

Variety	Source	1000 Seed Weight g	@ TR 100							@ TR 120							Standing Ability 9=erect 1=lodged	Pea wt. as % of total weight	Raw pea colour 1=pale 6=dark
			Maturity (± days) Avola	Yield % of Oasis	% in size grades				Maturity (± days) Avola	Yield % of Oasis	% in size grades				Haulm length cm				
					L	M	S	VS			L	M	S	VS					
<u>Sherwood</u>	SVS	<u>189</u>	<u>-2</u>	<u>46</u>	<u>36</u>	<u>49</u>	<u>13</u>	<u>2</u>	<u>-1</u>	<u>42</u>	<u>51</u>	<u>40</u>	<u>8</u>	<u>1</u>	<u>60</u>	<u>5.0</u>	<u>18</u>	<u>4.8</u>	
<u>Avola</u>	SVS	<u>182</u>	<u>0(27/6)</u>	<u>40</u>	<u>69</u>	<u>24</u>	<u>6</u>	<u>1</u>	<u>0(29/6)</u>	<u>40</u>	<u>90</u>	<u>9</u>	<u>1</u>	<u>0</u>	<u>66</u>	<u>5.5</u>	<u>16</u>	<u>4.5</u>	
SP-45	PLS	223	+1	53	48	38	12	2	+1	49	70	30	0	0	63	4.0	18	4.6	
11P42	(SL) PLS	157	+1	59	30	47	18	5	+2	54	47	41	10	2	54	6.5	20	4.2	
CS-498AF	(SL) CS	160	+11	86	4	32	48	16	+10	83	7	39	45	9	62	9.0	24	4.5	
92013	(SL) PLS	198	+11	87	29	52	17	2	+11	89	39	50	10	1	54	8.5	27	4.8	
<u>Oasis</u>	<u>LUK</u>	<u>186</u>	<u>+11</u>	<u>100</u>	<u>44</u>	<u>44</u>	<u>10</u>	<u>2</u>	<u>+11</u>	<u>100</u>	<u>52</u>	<u>40</u>	<u>7</u>	<u>1</u>	<u>60</u>	<u>2.5</u>	<u>27</u>	<u>4.6</u>	
				(11.07t/ha)						(11.98t/ha)									
<u>Ambassador</u>	vW	<u>207</u>	<u>+12</u>	<u>92</u>	<u>50</u>	<u>41</u>	<u>8</u>	<u>1</u>	<u>+12</u>	<u>93</u>	<u>63</u>	<u>32</u>	<u>4</u>	<u>1</u>	<u>73</u>	<u>4.5</u>	<u>21</u>	<u>4.6</u>	
94195	(SL) PLS	196	+12	79	40	49	10	1	+13	83	59	39	2	0	74	9.0	22	4.5	

KEY: Size grades: L = large > 10.2mm; M = medium 8.75 - 10.2mm; S = small 7.5 - 8.75mm; VS = very small < 7.5mm

SL = Semi-leafless; SF = Semi-fasciated

Source of varieties see Appendix

TABLE 08 - VINING PEA VARIETY EVALUATIONS. Summary of quality data - Standard Vining Pea Screening Variety Trial, Nocton - 2021

Variety	Tenderometer Reading	Appearance				Brix %
		Colour (3-8)	Brightness (1-2)	Uniformity (1-5)	No. of blonds (1-5)	
Sherwood	100.0	6.3	1.0	4.5	1.0	12.9
Avola	92.5	6.3	1.0	4.0	1.0	12.6
SP-45	101.5	6.0	1.0	4.5	1.0	12.5
11P42	95.5	6.0	1.0	4.5	1.0	12.3
CS-498AF	100.5	6.0	1.0	4.0	1.0	12.1
92013	100.0	6.5	1.0	4.5	1.0	12.5
Oasis	101.5	5.8	1.0	4.0	2.0	11.3
Ambassador	94.5	6.5	1.0	3.8	1.0	13.1
94195	99.5	6.0	1.0	4.5	1.0	12.6

KEY: Uniformity; Uniformity; No. of blonds; (1-5) - a high figure indicates that the variety shows the character to a high degree

Colour: a high figure indicates a darker green; Brightness: 1 = bright, 2 = dull; Brix - measured using Atago pocket refractometer PAL-1 and gives an indication of sugar content

TABLE 09 - VINING PEA VARIETY EVALUATIONS. Summary of agronomic data Vining Pea Petits Pois Main & Preliminary Variety Trials, Holbeach - 2021
 Varieties placed in order of maturity. Standard varieties underlined. All varieties sown on 28 April.
 Results are means of two replicates. Target population 100 plants per m² sown in ten 15 cm rows.

Variety	Source	1000 Seed Weight g	@ TR 100							@ TR 120							Standing Ability 9=erect 1=lodged	Pea wt. as % of total weight	Raw pea colour 1=pale 6=dark
			Maturity (± days) Waverex	Yield % of Waverex	% in size grades				Maturity (± days) Waverex	Yield % of Waverex	% in size grades				Haulm length cm				
PP Standard																			
<u>Waverex</u>	<u>vW</u>	<u>134</u>	<u>0(21/7)</u>	<u>100</u> (5.18t/ha)	<u>3</u>	<u>26</u>	<u>42</u>	<u>29</u>	<u>0(23/7)</u>	<u>100</u> (5.18t/ha)	<u>6</u>	<u>41</u>	<u>41</u>	<u>12</u>	<u>54</u>	<u>2.0</u>	<u>16</u>	<u>4.5</u>	
PP Main Trial																			
Wav 287 (Eloise)	(SL)	vW	111	- 2	71	1	17	52	30	- 2	82	2	36	70	0	56	5.0	14	4.2
Wav 7297 (Noelle)		vW	144	0	127	1	16	60	23	0	128	1	21	64	14	49	2.0	20	4.3
Lunanvert		Syn	91	+ 1	90	3	26	51	20	+ 1	90	3	29	51	17	64	5.5	18	4.3
PP Preliminary Trial																			
Glorivert		Syn	100	- 8	56	1	11	45	43	- 8	56	2	15	55	28	55	6.0	14	4.4
DGL0069		Syn	121	+ 1	95	3	30	52	15	+ 1	95	4	36	55	5	66	3.0	16	4.3
DGF0071		Syn	100	+ 2	125	2	19	52	27	+ 2	126	2	25	58	15	66	3.0	20	4.5
Colivert(FDG0049)		Syn	118	+ 3	101	1	24	56	19	+ 3	107	2	29	58	11	58	4.5	19	4.2

KEY: Size grades: L = large > 10.2mm; M = medium 8.75 - 10.2mm; S = small 7.5 - 8.75mm; VS = very small < 7.5mm

SL = Semi-leafless; SF = Semi-fasciated

Source of varieties see Appendix

TABLE 10 - VINING PEA VARIETY EVALUATIONS. Summary of quality data - Standard Vining Pea Petis Pois Variety Trials, Holbeach - 2021

Variety	Tenderometer Reading	Appearance				Brix %
		Colour (3-8)	Brightness (1-2)	Uniformity (1-5)	No. of blonds (1-5)	
Waverex	102.5	6.0	1.0	4.0	1.0	12.4
Wav 287 (Eloise)	104.5	5.3	2.0	3.5	1.0	11.0
Wav 7297 (Noelle)	97.5	6.0	1.0	4.0	1.0	11.8
Lunanvert	99.5	5.5	1.0	3.3	1.0	9.7
Glorivert	101.5	6.3	1.0	4.0	1.0	12.7
DGL0069	101.5	5.5	1.0	3.8	1.0	11.0
DGF0071	102.5	6.0	1.0	4.3	1.0	11.8
Colivert(FDG0049)	104.0	5.5	1.0	3.3	1.0	10.0

KEY: Uniformity; Uniformity; No. of blonds; (1-5) - a high figure indicates that the variety shows the character to a high degree

Colour: a high figure indicates a darker green; Brightness: 1 = bright, 2 = dull; Brix - measured using Atago pocket refractometer PAL-1 and gives an indication of sugar content

APPENDIX 1

KEY TO SOURCE OF VARIETIES

CS	Crites Seed Inc., USA
EI	Elsoms Seeds Ltd, UK
GA	General Availability
LUK	Limagrain UK Ltd, UK
PFR	The New Zealand Institute for Plant and Food Research Ltd
PLS	Pure Line Seeds Inc., USA
SVS	Seminis Vegetable Seeds, UK
Syn	Syngenta Seeds, UK
vW	van Waveren, Germany
ZKI	ZKI, Hungary