

## Properties of Commercially Stone Milled Yellow Pea<sup>1</sup> Flours

Flour Properties <sup>2,3</sup>	Split Flour	Whole Flour
Special Crops Code:	SC074-12	SC075-12
Particle Size Distribution:		
d (0.1) µm	18.8 ± 0.30 <sup>a</sup>	41.59 ± 18.95 <sup>a</sup>
d (0.5) µm	306.6 ± 7.89 <sup>b</sup>	554.3 ± 60.10 <sup>a</sup>
d (0.9) µm	706.2 ± 16.95 <sup>b</sup>	1142.3 ± 56.53 <sup>a</sup>
Volume Weighted Mean, µm	329.5 ± 8.90 <sup>b</sup>	595.6 ± 58.92 <sup>a</sup>
Composition <sup>4</sup> :		
Protein, %	24.4 ± 0.08 <sup>a</sup>	23.5 ± 0.16 <sup>b</sup>
Total Starch, %	48.5 ± 0.84 <sup>a</sup>	44.3 ± 1.10 <sup>b</sup>
Total Dietary Fibre, %	14.6	17.8
Soluble Fibre, %	1.4	2.4
Insoluble Fibre, %	13.3	15.5
Pasting Properties:		
Peak Viscosity, RVU	110.42 ± 0.83 <sup>a</sup>	103.46 ± 4.07 <sup>a</sup>
Hot Paste Viscosity, RVU	103.17 ± 1.65 <sup>a</sup>	89.54 ± 2.42 <sup>b</sup>
Breakdown, RVU	7.25 ± 0.82 <sup>b</sup>	13.92 ± 1.65 <sup>a</sup>
Final Viscosity, RVU	175.29 ± 3.95 <sup>a</sup>	134.25 ± 3.42 <sup>b</sup>
Setback, RVU	72.13 ± 2.30 <sup>a</sup>	44.71 ± 1.00 <sup>b</sup>
Pasting Time, min	5.49 ± 0.05 <sup>a</sup>	4.89 ± 0.05 <sup>b</sup>
Functional Properties:		
Starch Damage, %	1.54 ± 0.02 <sup>a</sup>	1.12 ± 0.03 <sup>b</sup>
Water Absorption Capacity, g/g	1.12 ± 0.04 <sup>b</sup>	1.88 ± 0.05 <sup>a</sup>
Oil Absorption Capacity, g/g	0.76 ± 0.01 <sup>b</sup>	0.82 ± 0.01 <sup>a</sup>
Foam Stability, % 10 min	79.2 ± 7.71 <sup>a</sup>	81.0 ± 3.23 <sup>a</sup>
30 min	63.5 ± 19.02 <sup>a</sup>	58.1 ± 6.29 <sup>a</sup>
60 min	42.7 ± 15.70 <sup>a</sup>	40.8 ± 7.14 <sup>a</sup>
120 min	31.1 ± 10.47 <sup>a</sup>	25.0 ± 0.00 <sup>a</sup>
Foam Capacity, %	20.0 ± 8.49 <sup>a</sup>	16.5 ± 2.12 <sup>a</sup>
Emulsifying Activity, %	47.0 ± 2.62 <sup>a</sup>	43.4 ± 3.68 <sup>a</sup>
Emulsifying Stability, %	36.2 ± 2.05 <sup>a</sup>	10.0 ± 0.57 <sup>b</sup>
Colour:		
L*	73.7 ± 0.00 <sup>a</sup>	72.7 ± 0.01 <sup>b</sup>
a*	2.92 ± 0.01 <sup>a</sup>	1.26 ± 0.04 <sup>b</sup>
b*	36.7 ± 0.00 <sup>a</sup>	35.2 ± 0.01 <sup>b</sup>

<sup>1</sup> Variety: unknown.

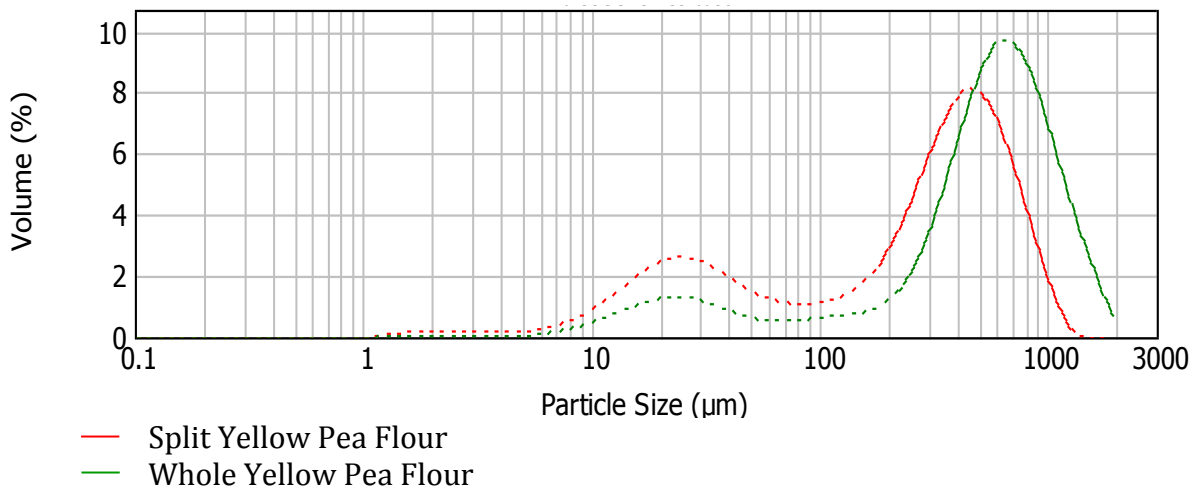
<sup>2</sup> For explanation of testing methodology refer to Glossary of Analytical Terminology.

<sup>3</sup> Values with the same letter within a row are not significantly different (p < 0.05). Significant differences for fibre not established.

<sup>4</sup> Dry weight basis.



## Particle Size Distribution Curves for Commercially Stone Milled Yellow Pea Flours



### CONTACT US

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### Project Partners and Funders



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