



## Properties of Commercially Hammer Milled Red Lentil<sup>1</sup> Flours

Flour Properties <sup>2,3</sup>	Split Flour	Whole Flour
<b>Special Crops Code:</b>	SC213-12	SC214-12
<b>Particle Size Distribution:</b>		
d (0.1) µm	17.6 ± 0.20 <sup>b</sup>	20.4 ± 0.16 <sup>a</sup>
d (0.5) µm	245.9 ± 2.38 <sup>b</sup>	276.9 ± 0.08 <sup>a</sup>
d (0.9) µm	552.1 ± 38.11 <sup>a</sup>	582.7 ± 3.97 <sup>a</sup>
Volume Weighted Mean, µm	265.5 ± 4.27 <sup>b</sup>	289.6 ± 1.05 <sup>a</sup>
<b>Composition<sup>4</sup>:</b>		
Protein, %	28.9 ± 0.06 <sup>a</sup>	26.3 ± 0.02 <sup>b</sup>
Total Starch, %	47.5 ± 0.40 <sup>a</sup>	43.5 ± 0.76 <sup>b</sup>
Total Dietary Fibre, %	11.1	12.9
Soluble Fibre, %	1.1	1.5
Insoluble Fibre, %	10.0	11.4
<b>Pasting Properties:</b>		
Peak Viscosity, RVU	74	103
Hot Paste Viscosity, RVU	73	101
Breakdown, RVU	2	2
Final Viscosity, RVU	129	174
Setback, RVU	56	73
Pasting Time, min	6.92	4.85
<b>Functional Properties:</b>		
Starch Damage, %	1.34 ± 0.07 <sup>a</sup>	1.15 ± 0.03 <sup>b</sup>
Water Absorption Capacity, g/g	1.02 ± 0.04 <sup>b</sup>	1.24 ± 0.00 <sup>a</sup>
Oil Absorption Capacity, g/g	0.59 ± 0.00 <sup>a</sup>	0.65 ± 0.04 <sup>a</sup>
Foam Stability, % 10 min	89.8 ± 1.27 <sup>a</sup>	88.4 ± 1.27 <sup>a</sup>
30 min	72.9 ± 8.77 <sup>a</sup>	80.4 ± 7.57 <sup>a</sup>
60 min	61.7 ± 4.81 <sup>a</sup>	65.2 ± 3.82 <sup>a</sup>
120 min	52.9 ± 4.10 <sup>a</sup>	53.1 ± 4.45 <sup>a</sup>
Foam Capacity, %	28.0 ± 2.83 <sup>a</sup>	13.0 ± 1.41 <sup>b</sup>
Emulsifying Activity, %	39.2 ± 0.92 <sup>a</sup>	40.8 ± 2.55 <sup>a</sup>
Emulsifying Stability, %	7.4 ± 3.54 <sup>a</sup>	1.0 ± 0.07 <sup>a</sup>
<b>Colour:</b>		
L*	70.8 ± 0.00 <sup>a</sup>	63.4 ± 0.00 <sup>a</sup>
a*	15.39 ± 0.04 <sup>a</sup>	7.39 ± 0.01 <sup>b</sup>
b*	29.9 ± 0.08 <sup>a</sup>	22.2 ± 0.01 <sup>b</sup>

<sup>1</sup> Variety: CDC Meadow.

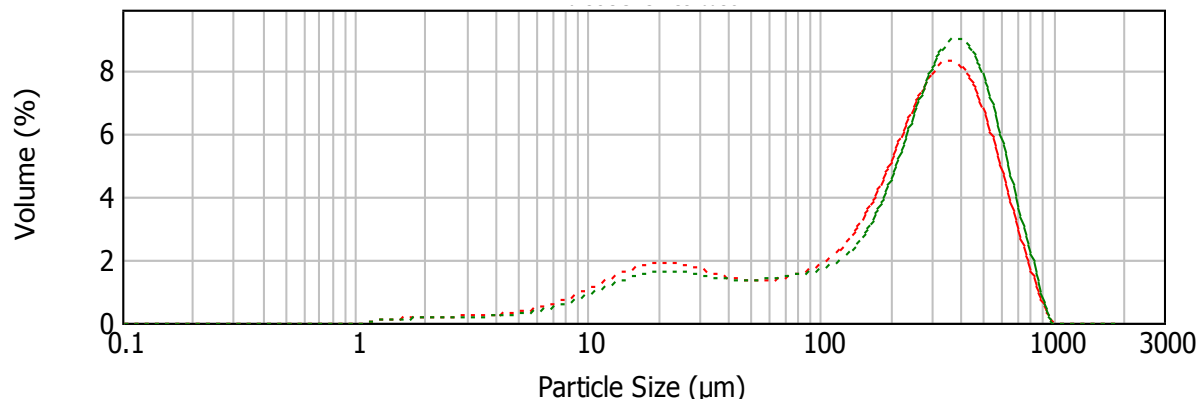
<sup>2</sup> For explanation of testing methodology refer to Glossary of Analytical Terminology.

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

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



## Particle Size Distribution Curves for Commercially Hammer Milled Red Lentil Flours



- Split Red Lentil Flour
- Whole Red Lentil Flour

### CONTACT US

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