

Evaluation of textured milk

Summary of results for Fleurieu Milk and Yoghurt Company

24/8/2016



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Introduction

To make barista style coffee, a technique call texturing or stretching of the milk is used that heats the milk and also results in a micro foam being distributed into the milk. The mouthfeel, taste, and amount of micro foam produced is dictated by the levels of lactose, fat and protein in the milk.

Fleurieu Milk and Yoghurt company had received anecdotal reports from customers using their Jersey Premium Full Cream homogenised milk that it resulted in more coffees per Litre in comparison to other milks. This short report summarises a brief investigation undertaken to verify these anecdotal reports. This work was undertaken by the South Australian Research and Development Institute under a funded Food Technology Program provided by Primary Industries and Regions South Australia.

Methods

On the 23rd August 2016, six alternate full cream milk products were purchased from a supermarket for use in comparing to the Fleurieu Milk and Yoghurt Company's Jersey Premium Full Cream and Farm Fresh Full Cream homogenised milks. A total of 400 grams of milk from each milk product was transferred to a stainless steel jug was consistently textured to 70 °C using a steam spout on a commercial espresso machine. Assessments were undertaken in triplicate. The amount of the resultant textured milk was immediately measured using a 1 Litre glass laboratory measuring cylinder.

Results

Table 1: Results of assessment of different full cream milk products following texturing to 70 °C.

Milk	Volume (mL)	Volume (mL)	Volume (mL)	Average of three replicates	Volume of stretched milk per two Litre bottle [#]	Cups per bottle [*]
	Replicate 1	Replicate 2	Replicate 3			
Jersey Premium Homogenised	740	730	790	753	3655.3	12.2
Farm Fresh Homogenised	620	630	630	627	3043.7	10.1
Alternate product 1	510	510	540	520	2524.3	8.4
Alternate product 2	520	500	510	510	2475.7	8.3
Alternate product 3	490	510	510	503	2441.7	8.1
Alternate product 4	480	510	510	500	2427.2	8.1
Alternate product 5	490	490	500	497	2412.6	8.0
Alternate product 6	470	510	500	493	2393.2	8.0

Notes: This assessment was undertaken on a single time point and has not considered the effect of shelf-life and differing batches. There may also be a seasonal effect and effect of barista.

[#] Estimated using a density of 1.03 g/mL (<http://www.fao.org/docrep/017/ap815e/ap815e.pdf>).

^{*} Estimated using 300 mL of stretched milk per 12 ounce cup.