1. ABOUT THE DATASET

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Title: Data used in the article ‘Fortification of Pea and Potato Protein Isolates in Oat-Based Milk Alternatives; Effects on the Sensory and Volatile Profile”

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Organisation: University of Reading

Rights-holder(s): University of Reading

Publication Year: 2025

Description: This dataset contains data in Chater 3 of thesis. Obtained from experimental measurements of the physical, volatile and sensory properties of oat-based milks after fortification with pea and potato protein isolates.

The data was obtained using a GC-MS, a Mastersizer, and colorimeter. The sensory analysis data was obtained from trained panellists from MMR Research Worldwide Ltd.

Cite as: McCarron, Roisin, Lignou, Stella and Methven, Lisa (2025): Data used in the article ‘Fortification of pea and potato protein isolates in oat-based milk alternatives; effects on the sensory and volatile profile” – chapter 3 of thesis. University of Reading. Dataset. <https://doi.org/10.17864/1947.001420>

Related publication:

McCarron, R., Methven, L., Grahl, S., Elliott, R. and Lignou, S. (2024) *Fortification of pea and potato protein isolates in oat-based milk alternatives; effects on the sensory and volatile profile.* Foods, 13 (13). 2075. ISSN 2304-8158 doi: [10.3390/foods13132075](https://doi.org/10.3390/foods13132075)

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2. PROJECT AND FUNDING INFORMATION

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3. CONTENTS

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Data processing and preparation activities

Data was collected in Excel files. Different tabs have been assigned for different measurements/figures.

File listing

Protein\_data\_Chapter3.xlsx

Tabs:

**GC-MS:** Data set for table 3.4 - showing volatile compounds measured within samples

Sample: milk sample extracted for GC-MS

Rep: full batch and extraction rep (technical reps combined)

**Sensory:** Data set for table 3.3 - showing sensory analyses for each sample obtained by the sensory panel

Rep: new sample given to panellist

**Particle size:** Data set for figure 3.3 and 3.4 - showing particle size measurements obtained through a mastersizer

Sample: milk sample

Rep: sample rep and technical rep on mastersizer

**Colourimeter:** Data set for figure 3.5 - showing colour measurements for samples

Sample: milk sample

Rep: technical rep

4. METHODS

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Please see Materials and Methods section in the related article:

https://doi.org/10.3390/foods13132075

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