

RELENTLESSLY NUTRITIOUS

Lentils are nutrient dense plant-based foods that are high in protein, fibre, vitamins and minerals. Lentils contain up to twice the amount of protein than cereal grains like rice, quinoa and oats and two to five times the amount of fibre than quinoa, brown rice and barley¹. Incorporating lentils in food products can improve their nutritional profile, providing new opportunities for nutrient and health claims.



NUTRITIONAL POWERHOUSE

| | Energy (kcal) | Protein (g) | Fibre (g) | Iron (mg) | Folate (µg) | Potassium (mg) |
|---------------|---------------|-------------|------------|-------------|-------------|----------------|
| Lentil | 116 | 9.02 | 7.9 | 3.33 | 181 | 369 |
| Quinoa | 120 | 4.4 | 2.8 | 1.49 | 42 | 172 |
| Oatmeal | 71 | 2.54 | 1.7 | 0.9 | 6 | 70 |
| Barley | 123 | 2.26 | 3.8 | 1.33 | 16 | 93 |
| Rice | 123 | 2.74 | 1.6 | 0.56 | 9 | 86 |

Values from cooked grain, per 100 g; FDA Legacy Database (Lentils (FDC(172421); Oatmeal (unenriched; FDC ID: 173905); Quinoa (cooked, FDC: 168917); Barley (cooked, FDC: 170285); Brown Rice (FDC: 169704))



High in Protein

A 1/2 cup serving of lentils provides 9 grams of plant protein.



Excellent Source of Fibre

A 1/2 cup serving of lentils provides 8 grams of fibre.



Quality Carbohydrates

Lentils are high in fibre and have a low glycemic index.



Cholesterol-Free

Unlike many protein sources, lentils do not contain any cholesterol.



Vitamins & Minerals

Lentils are a good source of iron, folate, potassium and other nutrients.



Gluten-Free

Lentils are a gluten-free ingredient.



HEALTH BENEFITS

GLYCEMIC INDEX

Lentils have a low glycemic index, meaning they have less of an impact on blood sugar than other common carbohydrate sources like oatmeal, bread, rice or potatoes. Minimizing spikes in blood sugar and insulin levels is particularly important for managing diabetes².

| Food | Glycemic Index |
|-----------------------|----------------|
| Split red lentils | 21 |
| Green lentils | 22 |
| Whole red lentils | 21 |
| Oatmeal (rolled oats) | 58 |
| Quinoa | 50 |
| White rice | 89 |
| Potato | 98 |
| Durum wheat pasta | 53 |

Source: International GI Database [Internet]. Sydney, Australia: The University of Sydney, Human Nutrition Unit School of Molecular Biosciences. Available from: <http://www.glycemicindex.com/index.php>

FIBRE

Lentils are rich in two types of fibre: insoluble fibre, which supports healthy digestion, and soluble fibre, which can help lower cholesterol and maintain steady blood sugar levels after meals³. Lentils also contain a range of prebiotic carbohydrates, such as oligosaccharides, sugar alcohols, and resistant starch which are fermented by beneficial bacteria in the colon and can impart health benefits to the consumer⁴.

PHENOLIC COMPOUNDS

Lentils are rich in bioactive phenolic compounds. Lentils contain as many as 35 different phenolic compounds, the most common being phenolic acids, flavonols, and anthocyanins. These compounds can play an important role in disease prevention due to their antioxidant activity, and are reported to have antidiabetic, cardioprotective and anticancer activities⁵.



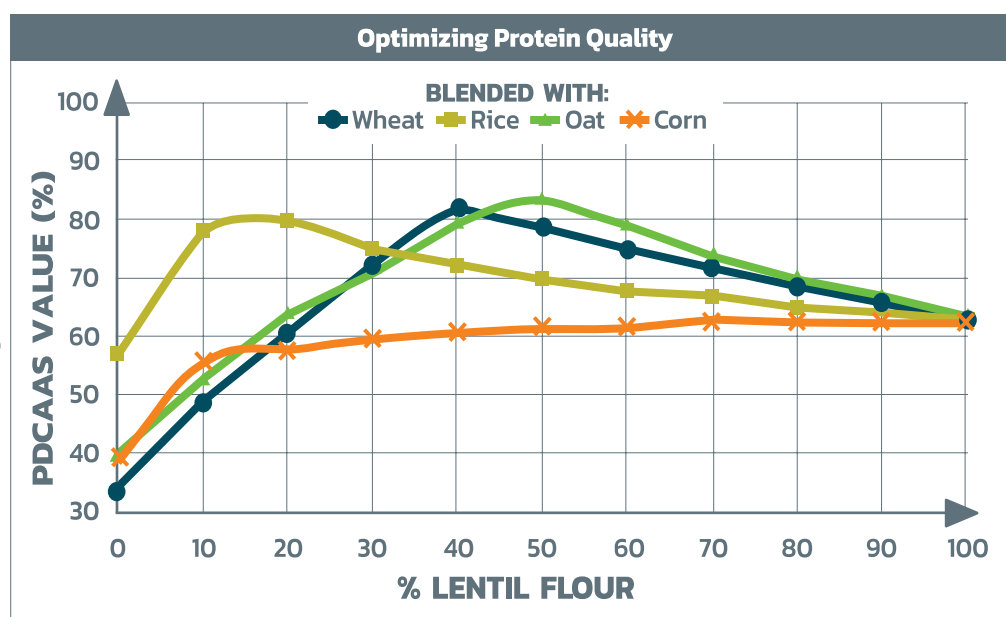
THE POWER OF REFORMULATING WITH LENTILS

Incorporating lentil ingredients can boost nutritional value by adding protein, fibre and many essential micro-nutrients all while supporting sustainability goals with their exceptionally low-carbon footprint. Find out how reformulating with lentils can better align your product with consumer values.

BUILD BETTER PROTEINS

The amino acid profile of lentils complements proteins from other plants like cereals and nuts, helping you create higher-quality protein blends. For example, reformulating wheat pasta with 25% lentil flour can increase the protein content *and*

quality, making the pasta eligible for “good source of” protein claims in the U.S.



PDCAAS – Protein Digestibility–Corrected Amino Acid Score, a measure of protein quality

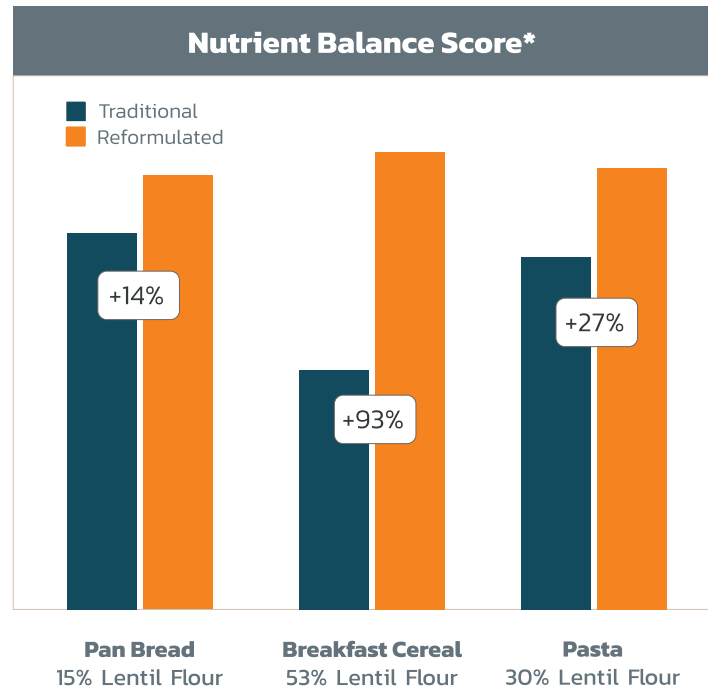
| | Conventional Pasta 100% Durum Wheat Flour | Reformulated Pasta 25% Lentil Flour / 75% Durum Wheat Flour |
|-------------------------------------|--|---|
| Protein Content (%) | 11.7 | 14.7 |
| PDCAAS | 0.43 | 0.71 |
| Reference Amount for Pasta (g) | 55 | 55 |
| Protein per Reference Amount (g) | 6.4 | 8.1 |
| Daily Value for Protein (g) | 50 | 50 |
| % DRV | 5.6 | 11.5 |
| Protein Claim Permitted | NONE | GOOD SOURCE OF PROTEIN |

Calculation based upon the 1989 WHO/ FAO Expert Consultation on Protein Quality Evaluation and on PDCAAS values for lentils from independent studies for Pulse Canada (House et al., 2011, 2014)



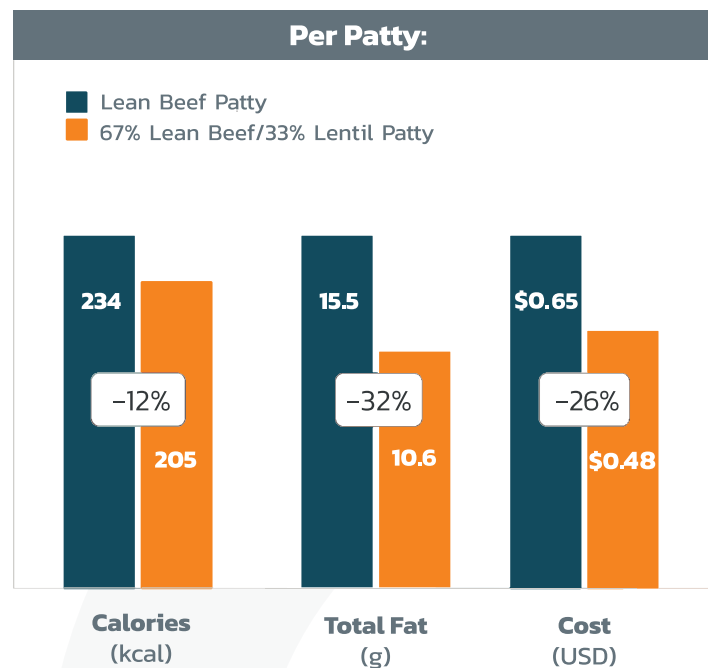
BOOST NUTRIENT BALANCE

Reformulating breakfast cereal, pan bread, and pasta with lentil flour has been shown to increase Nutrient Balance Scores* across the board⁶. This score reflects a product's overall nutritional quality, balancing qualifying nutrients like protein, fibre, and vitamins against disqualifying ones like salt and fat.



EXTEND INGREDIENTS AND SAVE

Incorporating lentils into meat products offers powerful benefits. Reformulating a beef burger patty with 33% lentil puree significantly enhanced its nutritional profile, delivering more balanced and health-focused options for consumers⁷. Plus, it reduced cost by 26%. Lentils are among the most cost-effective proteins and can go a long way in extending other proteins and ingredients.



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QUESTIONS?

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Tanya Der,
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