

TOP 3 of Legumes for Human and Planetary Health

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Objectives: The identification of the TOP3 of Legumes for the promotion of Human and Planetary Health.

Methods: We analyzed 10 legumes, according to 10 main nutritional characteristics highlighted by the Food and Agriculture Organization of the United Nations (FAO) as the main reasons for their consumption, in a step-by-step approach integrating risks and benefits, according to three levels of analysis: Identification of health effects associated with its consumption; Assessment of the nutritional contribution of its consumption to the Daily Reference Value (%DRV); and Integration of health and sustainability components.

Results: It was found that all legumes seem to promote improvements in risk factors associated with the development of chronic diseases. As for the nutritional contribution of each legume, analyzed

according to official recommendations, considering its protective components (protein, fiber, iron, folate, and potassium), the Common Lupine, Cowpea, and Soybean, were ranked as the most beneficial for health. Considering its components to be limited (glycemic index, saturated fat, cholesterol, and sodium) the Azuki Bean and Chickpea seem to be the least harmful legumes for human health. Regarding the link between health and sustainability, the pulses presenting better impact for human and planetary health are Fava, followed by Common Lupine and Common Beans, if cooked without salt and produced locally.

Conclusions: As an integral part of a balanced dietary pattern, this study strengthens the evidence that the consumption of legumes, which are dense in protective nutrients when compared with the concentrations of harmful nutrients, plays an important role in the promotion of human and planetary health, and its consumption should be privileged and promoted in Portugal.

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