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Lupinus mutabilis, strategic food to promote a nutritious and healthy diet

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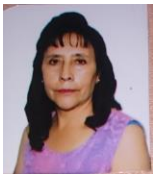

Abstract

In Latin America and the Caribbean, the number of undernourished people in the region increased by 2.4 million between 2015 and 2016, reaching a total of 42.5 million, equivalent to 6.6% of the population. In South America there is a significant increase in the evolution of undernourishment between 2000 and 2016. On the other hand, the phenomenon of overweight and obesity is increasingly present in all countries of the region, in all age groups and regardless of their level of wealth or geographic location. In 24 countries the prevalence of obesity in the adult population is close to or greater than 20% of the population. Another indicator of malnutrition is the lack of micronutrients. In 2016, 22% of women of childbearing age in LAC were affected by iron deficiency or anemia. The lupine species L. mutabilis could respond to the nutritional and food requirements of many populations of these populations, due to its high content of nutrients, among which protein, fat and minerals stand out. The potential production of this legume is 765 kg of protein and 300 kg of oil per hectare. A fraction of lupine proteins is of special importance in the control of blood glucose levels, useful property for diabetics and people concerned about their health care. This nutrient along with dietary fiber (>35%) give the grain satiating properties, which is used in weight reduction diets. The quality of lupine oil is similar to soybean oil, with a low content of saturated fatty acids and 80% of unsaturated fatty acids. The crude oil of the Andino-451 variety presents an average of 746.95 ppm of γ-tocopherol, among the phytosterols the Stigmast-4eno-3-one stands out, with an average of 25 mg / 100 g, in the three commercial varieties of lupine. Preliminary studies show that the oil has lipid-lowering and hypoglycemic properties. Among the minerals, calcium (0.43-0.48% BS) and iron (1.5-2.0 mg / 100 g BS) stand out. L. mutabilis also presents compounds with antioxidant properties such as polyphenols and carotenoids.

Biography:

Elena Villacrés is candidate PhD from Valencia a University. She is principal researcher of Nutrition and Food Quality Department of INIAP, Ecuador. She has directed several research and development projects and She has published more than 20 papers in reputed journals.

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