

TAL 797 – Seminário

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## POTENTIAL AND APPLICABILITY OF LUPINE LEGUMINOUS FOR THE FOOD INDUSTRY

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The search for alternative sources to animal proteins has intensified in recent years, due to population growth, sustainability, health, ethical issues and climate change related to the provision of safe and renewable food. Among the possibilities studied, legumes have a greater potential for acceptance, as they are part of the diet of several peoples, enrich the soil by fixing nitrogen, have a low cost, are a sustainable source of proteins, have functional/technological properties with wide industrial applicability in the functional development of food and adapt to different climatic conditions. Despite presenting anti-nutritional factors and allergenicity, alternatives in processing have been studied to overcome this situation. Legumes provide highly digestible proteins, complex carbohydrates, dietary fiber, minerals and vitamins. In addition, they are gluten free and have antioxidant and anticarcinogenic properties. Soy stands out for the high percentage of proteins, although, it is one of the eight main allergenic foods and has genetically modified varieties. However, there are other legume options with the same potential as soybeans, but without these adversities. Among them, lupine stands out, which has a high protein content, with a biological activity capable of reducing blood glucose, cholesterol, triglycerides and with antihypertensive properties. In addition, its flour and aqueous extract have specific functionalities such as good emulsion stability, wide solubility and foam stability, which allows its application in a wide variety of foods, as it has a little pronounced flavor. Given the above, it is possible to conclude that legumes can be a sustainable solution to the challenge of providing quality protein to the growing population and that lupine, due to its technological/functional and nutraceutical potential, could play a valuable role for the food industry.

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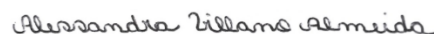
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