



Bachelor thesis –Project work – Master thesis

Sensory improve legume and mycoproteins from fermentation with basidiomycetes as new vegan protein alternatives

The primary goal here is to achieve a nutritional, sensory and functional improvement of legume proteins and to develop them as a vegan protein alternative. A reliable approach is the combination of mushroom fermentations with new digestion and separation processes of fermented legume proteins, which significantly reduces or even eliminates legume allergens and off-flavors of the legume proteins and at the same time valuable mycoprotein can be obtained. In the sense of circular economy solutions, currently unused by-products are extracted from the production of legume proteins and legume protein-based products used as a source of nutrients for the cultivation of basidiomycetes. In addition, side streams from the soy industry are also being tapped as an additional source of nutrients for the fungi. With a view to the planned commercial application, the new fermented legume and mycoproteins are already adapted during the fermentation process according to the desired technical functionality and sensory properties as alternatives to meat and dairy products.

