

HOW IT IS POSSIBLE TO EXTEND SHELF LIFE OF SEED SPROUTS

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Germination of seed involves a complex series of metabolic processes such as water imbibition, respiration, mobilization of food reserves, protein synthesis, cell differentiation and growth. There are various sprout production methods and types of sprouting equipments as industrial scale or home production. Sprouts are considered healthy foods as functional ingredient or functional food in the world but the shelf life of sprouts is very short and also there are microbiological risks at room temperature. On the other hand, the shelf life of sprouts is approximately one week in the refrigeration whereas, texture, colour and taste of sprouts is changing day after day during this period. Packaging plays a fundamental role on food conservation, distribution and marketing of sprouts. Some functions of packaging are to contain the food, to protect it from physical, chemical and microbiological action and to maintain food quality. Also, freezing is a very important preservation process for extending the shelf life of sprouts whereas, nutritive quality of frozen sprouts is closely linked to the mildness of blanching. In this study the effects of edible films and coatings on the shelf life of sprouts and also blanching conditions previous to freezing and frozen storage on texture, surface colour and nutritional value of sprouts were investigated.

Keywords: Sprouts, shelf life, freezing, blanching, edible films, edible coatings

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