PRODUCTION OF SOYBEAN (*Glycine max*) SPROUTS AND THEIR UTILIZAION

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Soybean is mainly used for oil extraction and as a protein source. Incorporation of soybean to the diet is an effective solution to overcome protein deficiency among people. Sprouting is an efficient method for improving nutritional quality and palatability of soybean while reducing anti-nutritional effects. Therefore, present study was conducted to develop a proper method for production and utilization of soybean sprouts from locally recommended varieties namely PB-1 and PM-13. Four soaking times were used as 4, 6, 8 and 10 h to find out the optimum soaking time and germination percentage of varieties was recorded. Optimum germinating time for two varieties was evaluated within the period of 1 to 4 days considering sprout length. Experiments were conducted using Complete Randomized Design with three replicates. Sprouts were steamed for 5, 8 and 11 min and the best duration was found by conducting a ranking test. At the end, soybean sprouts salad was prepared from both varieties, using spices and other ingredients. The formula was developed by trial and error technique. Sensory properties of salads were evaluated by a sensory evaluation using a five point hedonic scale. Parametric data were analyzed using SAS and sensory data were analyzed by Kruskal Wallis test using Minitab. There was no significant effect *($p>0.05$)* of different soaking times on the germination percentage. Hence, 4 h soaking time was selected as the suitable soaking time. Optimum germination time was 2 days that resulted edible sprouts with desired length. Optimum steaming time was 11min and 8 min for PB-1 and PM-13, respectively. Sensory evaluation data showed that there were no significant differences among *($p>0.05$)* treatments. Therefore, both varieties are suitable for salad sprout production. Both products were safe for consumption according to microbial analysis of the final products. Thus, there is a high potential to utilize soybean by sprouting and to incorporate them as a salad into human diet.

Keywords: Germination, Soybean, Sprouts