Quality evaluation of adzuki beans during storage and its products

Shuo Feng
Iwate University, Japan

The one aim of this study is to evaluate the quality of the adzuki beans were stored at 25°C for 9 months and that is usually used for storing the adzuki beans in Hokkaido. The polyphenol content and DPPH radical scavenging activity of adzuki beans didn't decrease during storage. However after 9 months, there was a decrease of 33.2% in free fatty acids and 12.9%, 0.96 μs/cm, 0.5% increase in insoluble pectin, electrical conductivity of soaking liquid and Brix of soaking liquid, respectively. These changes have caused bean to harden (79% increase) and a low yield bean paste (6.2% decreases). Therefore, it limits Japanese sweet use. On the other hand, in order to effectively utilize adzuki beans that were stored, we added solution of adzuki bean into the soybean milk for improving the flavor and functionality. We evaluated the antioxidant activity and sensory of the mix bean milk. The results show that DPPH radical scavenging activity of mix bean milk improved about 4 times by the addition of 25% solution of adzuki beans. In addition to the beany flavor, mouth feel and total evaluation were also improved in sensory evaluation. Accordingly, it is thought that addition of adzuki beans that were stored can be effectively used to processing of soybean milk.

Biography

Shuo Feng is a Ph.D. student at Graduate School of Agricultural Science of Iwate University, Japan. She came to japan to study for four years. In recent years, she has attended Japanese Society and published her research results for many times. A manuscript is been written based on the research introduced in results of this present abstract. During the master's and doctoral programs, she got several scholarships by her academic record and efforts.

feng.shuo@hotmail.com