

Silk Degumming by Electrolyzed Alkali Water

Yung Dae Kim and In Mo Chung

Department of Agricultural Biology, NIAST, RDA Suwon 441-100, Korea

This study was carried out to develop a novel silk degumming method using electrolyzed alkaline water on the silk degumming process. Pure sericin could be collected from the degummed water, because the degummed water was not contaminated by soap due to using electrolyzed alkali water only. The pH value of electrolyzed alkaline water, around pH 11.6, is maintained for 10 days when it was stored at cool and closed. The degumming ratio of silk depends on the pH of electrolyzed alkali water. For example, the degumming ratio of silk was higher in electrolyzed alkaline water than that of soap and alkaline bath. However, the degumming ratio of silk was almost the same as soap and alkaline solution when electrolyzed alkali water adjusts at pH 11.0. In the case of electrolyzed water degumming process, the pH difference of degumming water between before and after degumming process is largely decreased compared to that of soap and alkaline bath. The tenacity and elongation of degummed silk using electrolyzed alkali water adjusted at pH 10.5 and 11.0 were low value compared to those of degummed silk using electrolyzed alkali water, soap and alkaline bath.