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Effect of mixing of salt in scraped lac during rainy season

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Mixing of salt in fresh scraped lac of rainy season crop is commonly practiced in Gujarat to avoid lump formation during storage and transportation. The fresh kusmi lac, mixed with common salt (5%) and a control sample were stored in jute sacks separately for three years. It was observed that control scraped lac coalesced together and lump formation took place, while salt mixed lac remained normal (separated), during the period of storage. Jute sack having control lac sample degraded and decomposed on the point of contact with surface and a big hole was created while sack having salt mixed lac did not have any effect. After one year of storage, salt mixed lac showed fungal attack in rainy season may be due to salt absorbed water.

Properties of the lacs were studied for three years at regular interval of six months. The scraped lacs were washed with 0.1% washing soda and converted in to seedlacs. During washings, it was observed that more color came out in salted lac in comparison to control scraped lac sample. Yield of the seedlac obtained from salted lac was less (approximately 8%) in comparison to that obtained from control lac sample. Except life under heat, other physico-chemical properties such as flow, hot alcohol insoluble %, color index and rate of filtration were better in salted lac than those of control lac sample. Coating properties such as gloss, scratch hardness, impact resistance and flexibility was inferior in seedlac obtained from salted lac to that of seedlac obtained from control lac sample.

Biography

Mohammad Fahim Ansari is currently Senior Scientist in Indian Institute of Natural Resins and Gums Ranchi-834 010. He completed his Ph.D. on 'Development of surface coating compositions based on shellac-synthetic resin/polymer blends" from BIT Mesra Ranchi on July 29, 2013. He has developed some lac based formulations for surface finish. He has also developed lac based dental base plate and the technology has been commercialized. He was awarded the Distinguished Worker Award - 2013 by IINRG (ICAR), Ranchi. He received the best paper award (B. C. Haldar Memorial Award) for one of his research paper in 1997, at Rubber Research Institute, Kottayam, Kerala. He qualified Junior Research Fellowship (JRF) in June, 1999, conducted by CSIR-UGC.

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