

Enhancing Jameed quality by improved processing methods for small scale dairy sheep farms in Jordan

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Jameed is a traditional dried dairy product in Jordan that has been produced in the region for centuries and used to prepare the popular traditional cuisine called Mansaf. Jameed processing is an important part of the livelihoods of small ruminants' keepers and contributes up to approximately 20% of the households' income.

Evaluation of the traditional processing method and product quality analysis of collected samples all over Jordan revealed that the traditional processing leads to low churning efficiency and fat rancidity problems during storage. The traditional method depends on yogurt churning to obtain butter. The skimmed yogurt is then transformed into Jameed through drying process.

An improved method for jameed processing was developed and tested at the International Center for Agricultural Research in the Dry Areas (ICARDA) and suggests the use of milk fat separation technique to obtain skimmed milk that is in then processed into skimmed yogurt and then processed directly into Jameed by drying. The 10 batches of jameed produced by the developed method at small scale processing unit had 72% less fat and 11% higher protein content compared to jameed processed by the traditional method. However, the changes in total solids were not significant. Because of the improved fat recovery in the improved method, the ghee yield improved by 29%. Moreover, the product homogeneity was increased by 60% with regard to fat and by 24% in total solids contents. Jameed color produced by the modified method was 4% lighter in color which is preferred by consumers.

A simple cost benefit analysis revealed that the improved method leads up to 60% reduction in energy and water consumption. Moreover, the cost savings and additional revenue due quality enhancement enable the increase in net margins (profit) of at least 20% which will enhance the livelihood of small scale producers.