Title of dissertation :-A study on the characteristics of *kharali*

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ABSTRACT

Kharali is a traditionally processed popular food item. It is an unique food item made from rapeseed ,*kolakhar* (a liquid extract of the ash of banana plant) and salt. The processing method of making *kharali* was standardized. Various samples of *kharali* at different pH levels were prepared and analysed for physicochemical properties and nutrient composition. The shelf life of *kharali* at three different temperature (-10°C, 4°C, 25°C) was also studied. The essential steps involved in the processing of *kharali* are drying and grinding of rapeseed and mixing with *kolakhar* followed by packaging. It was found that among all the *kharali* samples, KH5 was best judged by the panel members in sensory attributes. The acceptable colour was retained by KH1, KH2, KH3, KH6 and KH10 among all the samples. Moisture, protein, fat, ash and crude fiber contents reduced gradually on storage. The percent reduction of moisture was in the range between 60.2-90.4% on 0 day and 25.3-33.5% on 9th day of storage. Ash content was found to be in range between 6.0-8.0% on 0day and 3.9-6.0% on 9th day of storage. The fat content was in range between 21-30% on 0 day and 0-32% reduction on 9th day. The protein content was found in the range between 8.23-9.11% on 0 day and 7.75-8.35% on 9th day of storage. The pH of all the samples was substantially reduced, ranging between 5.0-6.0 on the 9th day of storage. The water activity was found in the range between 0.879-0.862 on 0 day and 0.795-0.870 on 9th day of storage. Microbiological studies showed that all the *kharali* samples stored at room temperature were contaminated on the 9th day. K*harali* samples stored at -10°C retained sensory properties and consistency. The study revealed that rapeseed underwent many changes in the alkaline environment provided by *kolakhar*. The effect of alkaline *kolakhar* on the chemical constituents of rapeseed needs to be further studied in detail.