

High pressure meat processing

Sanjay Kumar, Irashad A, Arvind, Ashish Kumar and S. Talukder

Division of LPT, Indian Veterinary Research Institute, India

In recent years, consumer demands for high quality and convenient meat products, with natural flavour and taste, and very much appreciates the fresh appearance of minimally processed meat. High pressure processing (HPP), is a novel non-thermal physical decontamination process used in the meat industry to increase the shelf-life and to improve the food safety of fresh meat and products. Application of HPP results in a modification of quality parameters such as color, texture, shelf life and water holding capacity of meat products without any quality deterioration. In this process pressure can be applied by high hydrostatic pressure in the form of shockwaves and the Pressure levels applied for the pasteurization of meats and meat products ranges from 400–600MPa with short processing times of 3–7 minutes and at room temperature. It is a powerful tool to control risks associated with *Salmonella spp.* and *Listeria monocytogenes* in raw or marinated meats. The bacterial spores could be killed effectively. HPP provokes drastic changes in fresh meat color and in cured meat products which are acceptable to most of the consumers. Application of pressure on meat leads to different degrees of desirable protein microstructure modifications that improve meat tenderness and meat quality. Even though it increases the meat quality and texture, it still costly, mainly because of the initial capital investment and this may limit its application. Due to the continuing design and building of new process equipment for the generation of shockwaves, it is expected that the use of HPP will become an industrial reality in the near future.

sanjay22b@rediffmail.com

Development and quality evaluation of finger sticks of potato, carrot and rice flour prepared by traditional extrusion method

Sable Sunil, Watharkar Ritesh.B, Burbade Rajesh, Shinde Gokul and Ugale Shardul

Department of Food Science and Technology, K.K.Wagh College of Food Technology, India

Finger sticks are one of the most liked snack food product which is consumed highly by every age group. Generally it is prepared from potato which is a rich source of starch, proteins but limiting in vitamins, other essential carbohydrates and dietary fibre. Carrot is rich source of vitamins and dietary fibre along with Rice flour which is rich in Carbohydrates respectively. In the present study the vitamin, carbohydrates and dietary fibre contents in Finger sticks samples were improved by the use of various blends of Potato, Carrot and Rice flour (100:00:00; 50:20:20; 50:30:20 and 50:40:20) with other ingredients. The results showed that Finger sticks samples enriched with Carrot and Rice flour were rich in vitamin, carbohydrate and dietary fibre content as compared to the control sample. Sensory scores of Finger sticks sample prepared with 56% Potato, 22% Rice flour and 22% Carrot was same as the control. The Finger sticks prepared with 46% Potato, 18% Rice flour and 36% Carrot had highest vitamin, carbohydrate and fibre content, but the sensory score was less due to its poor texture and appearance. These Finger sticks may be a good and nutritious Snack food for growing children, teenagers due to its high nutritive value but Finger sticks prepared from the 30% Carrot and 20% Rice flour had less vitamins, carbohydrates and fibre content rather than Finger sticks prepared with 46% Potato, 18% Rice flour and 36% Carrot but had the highest sensorial score among all the samples.

Biography

Sable Sunil U. is pursuing for B.Tech. (Food Technology) degree from K.K. Wagh College of Food Technology Nashik, M.P.K.V Rahuri. I am selected as a G.S of my college in the academic year 2012-13. I am the second winner of Avishkar event which was held by M.P.K.V. Rahuri on December 2011. I am working on this project under Prof. R.B.Watharkar, Department of Food Science and Technology, K.K.Wagh College of Food Technology.

sunildevt@gmail.com