

Development of an Edible Spread Base Using Coconut (*Cocos nucifera* L.) Kernel Derivatives

I.L.W. Kumarasinghe, G. Chandrasena, A. Alakolanga
Uva Wellassa University, Badulla, Sri Lanka

R. Ratnayake and W. Chandrarathne
Plant Research Centre, Nature's Beauty Creations Ltd, Millewa, Horana, Sri Lanka

Abstract

Coconut (*Cocos nucifera* L.) kernel has been used for culinary purposes in various forms. Coconut oil has many health benefits due to its lower cholesterol content and rapid digestibility due to being made up of mainly medium chain fatty acids. An edible spread developed using a coconut kernel derivative as a base can be a better option for butter and margarine. The present study was focused on identifying a suitable raw material, optimum processing techniques and suitable additives to produce an edible spread base using creamed coconut. Selection of suitable raw material to produce creamed coconut was done using coconuts in different stages of seasoning and creamed coconut produced from blends of commercially available DC. To improve oil separation stability six different additives were used. Moisture content, total plate count and pH were measured to confirm the specified levels met in accordance with SLSI (SLS 1365 Part 2: 2009) standards. Most suitable raw material and additives to produce creamed coconut were selected according to the physicochemical properties and storage stability of creamed coconut. The most preferable raw material to produce creamed coconut is three weeks seasoned coconuts due to its good processability, lower oil content and good storage stability. The shelf life was optimum one month at room temperature in the absence of preservatives. If using commercially available DC to produce creamed coconut, the best quality creamed coconut can be produced by reducing the high-fat desiccated coconut to low-fat desiccated coconut ratio. In the case of additives soy flour, guar gum and glyceryl monostearate can be recommended for the reduction of oil separation in creamed coconut.

Keywords: Edible spread, desiccated coconut, creamed coconut, seasoning, additives.