

PRODUCT INFORMATION SHEET

CHESTNUT BASED GLUTEN FREE COOKIES

Introduction

Chestnut based gluten free cookies shall be made using the ingredients specified in the Bureau of Indian Standards and Prevention of Food Adulteration Act. However, no standard specification is available for chestnut flour and cookies. Indian water chestnut (*Trapa nantans*) which belongs to the family *Trapacea* is one the non-conventional food source that can be used as a gluten-free alternative. The fruit is used as a substitute for cereal in the Indian subcontinent. The fruit is dried, and the flour prepared from it is easily digestible with negligible fat content. Therefore, water chestnut can be a good replacement for wheat flour with respect to gluten-free diet. Celiac disease is an autoimmune disorder of the small intestine that occurs in genetically predisposed people of all ages. Symptoms include chronic diarrhoea, and fatigue. The only treatment is long life diet with absence of gluten. There is a demand for gluten free products to cater to the needs of the people suffering from celiac diseases. Hence good market exists for gluten-free products. The process consists of the preparation of chestnut based gluten free cookies using chestnut flour, cookie ingredients and permitted additives. The gluten free cookies have slightly dark golden brown crust colour, uniform sized islands, dull white crumb colour, crisp texture and typical taste of cookies. Immunological validation of chestnut based gluten free cookies showed the absence of gluten protein in cookies. Hence these cookies can be considered as immunologically safe for celiac disease patients.

Use: Ready formulation and processing conditions for chestnut based gluten free cookies

Raw materials: Water chestnut flour and other cookie making ingredients

Process: Scaling of ingredients, preparation of dough by mixing, sheeting and baking

Equipment required: Dough mixer, dough sheeter, baking oven, cooling racks, weighing scale etc.

Suggested capacity: 100 kg flour per batch

Working: 300 working days/ year

Project cost – fixed cost – working capital (Estimate for a model project)

Building – Existing building

Plant and equipment – 5.6 lakhs

Preliminary and preoperative expenses - 0.27 lakh

Working capital - 1.00 lakh

Total project cost – 7.9 lakhs



Chestnut based gluten free cookies