







PSR Puglia 2014-2020

Misura 16 Cooperazione – Sottomisura 16.2 "Sostegno a progetti pilota e allo sviluppo di nuovi prodotti, pratiche, processi e tecnologie"



PEANUT PROCESSING

Peanut processing is a multi-stage production process, each step aimed at enhancing the raw product and obtaining a wide range of derivatives for both food and industrial use. The peanut processing chain includes preparation, processing, oil extraction, peanut butter production, peanut flour, and other products intended for the food and cosmetic industries.

Preparation and Cleaning

The first step in peanut processing involves **cleaning** and **sorting** the pods. This process removes impurities like dust, stones, and other foreign materials. After cleaning, peanuts are often dried to reduce moisture and prevent mold growth, particularly from *Aspergillus flavus*, which can produce aflatoxins harmful to health.

Shelling and Roasting

Once cleaned, peanuts are **shelled** to separate the kernels from the hulls, either manually or mechanically depending on the production scale. The peanuts may then be **roasted**, a process that enhances flavor and further reduces residual moisture, aiding in preservation. The roasting level varies based on the final product type and market preferences.

Peanut Oil Extraction

Peanut oil is one of the primary derivatives obtained from processing. The peanuts are ground into a paste, which undergoes one of two main extraction methods:

• **Pressing**: The paste is mechanically pressed to separate the oil, which can then be further refined to remove impurities and improve flavor.









• **Solvent Extraction**: Used in large-scale industrial production, this method utilizes solvents like hexane to achieve higher oil yields. After extraction, the oil is purified to ensure no chemical residues remain.

Peanut oil has a high smoke point, making it ideal for frying, and is rich in monounsaturated fatty acids, considered beneficial for cardiovascular health.

Peanut Butter Production

Peanut butter is a popular product made by grinding roasted peanuts into a smooth paste. Roasted peanuts are finely ground, and in some cases, vegetable oils are added to improve consistency and flavor. Peanut butter comes in various types, from creamy to chunky, and may include added sugars, salt, or other flavorings to suit consumer preferences.

Peanut Flour and Other Products

Peanut processing residues yield **peanut flour**, which is high in protein and used as an ingredient in baking and food preparations. This gluten-free flour is suitable for celiac-friendly products and enhances the protein content in various foods.

Other peanut derivatives include:

- Isolated Peanut Proteins: Used as protein supplements or ingredients in the food industry.
- **Peanut Sauce**: Used in many cuisines, such as African and Asian, and made with ground peanuts and various seasonings.
- **Peanut Snacks**: Including roasted and salted peanuts, sugar- or chocolate-coated peanuts, and other snack products.