

Different extraction methods of raw coconut oil



The physical and chemical properties of coconut oil were studied by [microwave drying mechanical](#) pressing, processing, heat treatment and enzymatic hydrolysis from coconut oil by gas chromatography, grease oxidation stability tester and differential scanning calorimeter. Contrast with commercial coconut oil. At the same time, the coconut oil extracted by enzymatic hydrolysis was compared with the antioxidant properties of commercial palm oil.

Raw coconut oil is coconut oil extracted from fresh coconut meat by natural microwave processing or mechanical methods, with or without heating, without the use of chemical methods such as refining, bleaching or deodorization.

These mild extraction methods greatly reduce the loss of nutrients such as vitamin E, phytosterols and polyphenols in coconut oil, providing a pleasant coconut milk flavor, which contains more active ingredients, making the price even more expensive. Coconut oil can be extracted by a variety of methods, mainly divided into wet processing, dry processing and enzymatic hydrolysis.

The [coconut oil crusher](#) was used to break up the mature fresh coconut meat into a pulp, which was pressed and wrapped with gauze. After being chilled for 48 hours, it was heated in a constant temperature oven, and the obtained coconut oil was filtered with cheesecloth to obtain coconut oil. Researchers at the Philippine Coconuts Agency have invented a new wet extraction coconut oil technology that extracts coconut oil from

the prepared coconut residue.

Since the copra residue still contains 36% to 48% oil, it can be processed into coconut powder and extracted coconut oil to recover about 40% of coconut powder and 38% of coconut oil. Traditional dry processing uses coconut powder as raw material, and presses, grinds and extracts to produce coconut oil. In recent years, dry processing has developed into a combination of cold pressing and solvent extraction. The quality of the obtained coconut oil is not high, but The oil yield is high.

The Australian Ph.D. uses a new technique for dry processing, which differs from conventional dry processing in drying the ground copra to a suitable moisture content. The enzymatic hydrolysis method is to decompose the oil compound in the coconut milk by enzymatic hydrolysis, thereby separating the coconut oil from the protein and the like, and simultaneously separating the coconut oil in the emulsified state to obtain the coconut oil. The VCO was prepared by enzymatic hydrolysis of coconut milk with cellulase, and the extraction rate reached 92.9% .

At present, the extraction method used in the literature and the obtained coconut oil performance index are relatively simple. In this experiment, coconut oil is extracted by different methods, and the difference is determined by gas chromatography, Rancimat 743 oil oxidation stability tester and differential scanning calorimeter. The fatty acid composition, antioxidant properties and thermodynamic properties of coconut oil under extraction method were used to determine the effects of different extraction methods on coconut oil index and performance differences.

Since coconut and palm belong to the palm family and the fatty acid type is mainly saturated fatty acid, this study analyzes the antioxidant activity of coconut oil and commercial palm oil prepared by enzymatic hydrolysis, which provides a theoretical basis for the subsequent application of coconut oil in food. And basis.