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Fruit seeds and their nutritional importance: review

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Abstract:

Fruit seeds are usually discarded as waste during processing or after human consumption. Over the years, researchers have dedicated their efforts to assess the food and nutritional values of many different fruit seeds. This review unravels and discusses the value of eight different fruit seeds including avocado, citrus, watermelon, pumpkin, Pomegranate, Grape, Apricot and Mango,. The macronutrient components such as oil, protein, and carbohydrates are varied due to either varietal differences or geographical variations. Among the seed content discussed, the range of oil was from 1.8 to 49 % while the protein was from 6 to 40%. High-oil fruit seeds are potential new sources of oil, those with high protein content can be used for recovery of protein. As some of fruit seeds are edible and found to possess a host of phytonutrients, they can be harnessed for medicinal purposes. We concluded that utilization of fruit seeds could not only bring health and wealth but also help to minimize the waste disposal problem of agricultural-based industries.

Keywords: Fruit, seeds, Antioxidant, Antimicrobial, health food.

Introduction

Fruit is a type of plant generally consumed by humans and animals as a source of food. Apart from energy, humans also need nutrition and various bioactive compounds from fruits, which show many health benefits. In addition, fruits can be useful in reducing the risk of certain diseases and functional declines associated with aging [1].

We usually eat fruits and discard their seeds under the mistaken belief that seeds cause many health problems. The fruit seeds have many nutrients that are important for the body health. The seeds are rich in proteins, healthy fats, fiber, and minerals such as magnesium, potassium, calcium, iron, and zinc. They contain vitamins such as B1, B2, B3, and E as antioxidants. Fruit seeds show their broad potential as a natural source for creating added value in modern foods. Potential includes nutritional and bioactive ingredients for uses in the food, cosmetics and pharmaceutical industries. Currently, many techniques have been developed to use fruit seeds in the form of powder and extracted compounds at low costs for their use in the food industries, as they are rich in fat, protein and carbohydrate content.