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# Nutrient Composition of Sweet Avocado Fruit Spread

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***Abstract: Avocado or Butter fruit is a tropical ever green climatic fruit scientifically known as Persea Americana Mill. which belongs to the family Lauraceae. Avocado trees are found grown in homesteads of Wayanad and Idukki Districts, where it found under exploited. To reduce post harvest wastage and to improve the income of households, new processing technologies need to be developed. The keeping qualities of avocado fruits are limited due to its high rate of postharvest respiration. The enzyme polyphenol oxidase, present in the fruit easily oxidize, and making it susceptible to browning. Due to the perishable nature and high nutrients present, there arises a need to develop alternative processing technologies to reduce its wastage. The sweet avocado fruit spread reported to have the Carbohydrate content of (11g/100g), Protein(3.1g/100g), Fat(42g/100g), TotalMinerals (1.45g/100g), Sodium(6.3mg/100g), Iron(0.72mg/100g),Calcium(9mg/100g).***

***Key words: Carbohydrate, protein, fat***

## I. INTRODUCTION

Avocado also known as the 'Alligator pear' is a tropical Native American fruit belongs to the Lauraceae family. Avocado fruit has a multipurpose value as food, medicine, source of high quality oil and numerous industrial uses (Human, 1987 & Bergh, 1992) [(5)] .The edible fleshy part of avocado is the most nutritious of all salad fruits. When seasoned, the flesh is also used as a sandwich filling (Morton, 1987) [(7)].

## II. MATERIALS AND METHODS

Purple Hybrid, common cultivar found in the households of Wayanad District was selected for the study. The mature fruits were collected from Regional Agricultural Research Station, Ambalavayal, and Wayanad District. For the development of sweet avocado fruit spread, Pulp, Cocoa powder, Sugar, Citric acid, KMS were added. Carbohydrate, Protein, Fat, Total minerals, Sodium, Iron, and Calcium were selected for determining nutritional composition of sweet avocado fruit spread.

### *A. Estimation of Carbohydrate*

The carbohydrate content of sweet avocado fruit spread sample were estimated by the method described by Sadasivam and Manickam (2008) [(10)].

### *B. Estimation of Protein*

The nitrogen content of avocado samples was estimated by micro Kjeldahl's wet digestion method. The values of nitrogen contents were multiplied by the factors 6.25 to get crude protein content (AOAC, 2000) [(1)].

### *C. Estimation of Calcium and Iron*

The calcium and iron content of sweet avocado fruit spread samples were estimated by the method described by (AOAC, 2000) [(1)].

### *D. Estimation of Sodium*

Sodium was estimated by the method suggested by Jackson (1973) [(6)] using flame photometer.

### *E. Estimation of total Minerals*

Total mineral content was estimated as per the method described by Raghuramalu *et al.* (1983) [(9)].

### *F. Statistical Analysis*

In order to obtain suitable interpretation the generated data was subjected to statistical analysis such as One-way Analysis of Variance (ANOVA).

## III. RESULTS AND DISCUSSION

### A. *Carbohydrate*

Carbohydrates are the major source of energy and are used as building blocks in plant biosynthetic reactions, participating in the formation of proteins and lipids (Duffus and Duffus, 1984) [(4)] .

### B. *Protein*

Proteins are fundamental structural and functional elements within every cell of the body and are involved in a wide range of metabolic interactions. The Protein content was 3.1g in the sweet avocado fruit spread and 2g in the raw avocado fruit.

### C. *Fat*

The use of avocado dips and spreads as an alternative to more traditional hard, SFA rich spreads or dips can assist in lowering dietary SFA intake (Avocado Central, 2012) [(2)]. About 75% of an avocado's calories come from fat, most of which is monounsaturated fat (Naveh *et al.*, 2002) [(8)].

The total fat content of sweet avocado fruit spread was estimated at 42 g. The fat content of raw avocado fruit was found to be 19.40g.

### D. *Iron*

Iron has several vital functions in the body. It serves as a carrier of oxygen to the tissues from the lungs by red blood cell haemoglobin, as a transport medium for electrons within cells, and as an integrated part of important enzyme systems in various tissues. The Iron content of sweet avocado fruit spread was found to be 0.72 mg and 0.55 mg in the raw avocado fruit.

### E. *Sodium*

Sodium is an essential electrolyte that helps maintain the balance of water in and around the cells. It is needed for proper muscle and nerve function. It also helps maintain stable blood pressure levels. The sodium content in sweet avocado fruit spread was 6.3 mg and 5.5 mg in the raw avocado fruit.

### F. *Calcium*

Calcium is very essential mineral needed for muscle contraction, building strong bones and teeth, blood clotting, nerve impulse, transmission, regulating heart beat and fluid balance within cell. The calcium content of sweet avocado fruit spread was estimated at 9 mg and 12 mg in the raw avocado fruit.

### G. *Total Minerals*

The Total mineral content in sweet avocado fruit spread was 1.45g and 1.22g in the raw avocado fruit.

## IV. CONCLUSION

The present study reveals that avocados are a delicious and unique fruit that offer a range of benefits when consumed. The avocado is a unique fruit, while most fruits primarily consist of carbohydrates, avocado is high in healthy fats. Avocado has a creamy, rich, fatty texture and blend with other ingredients.

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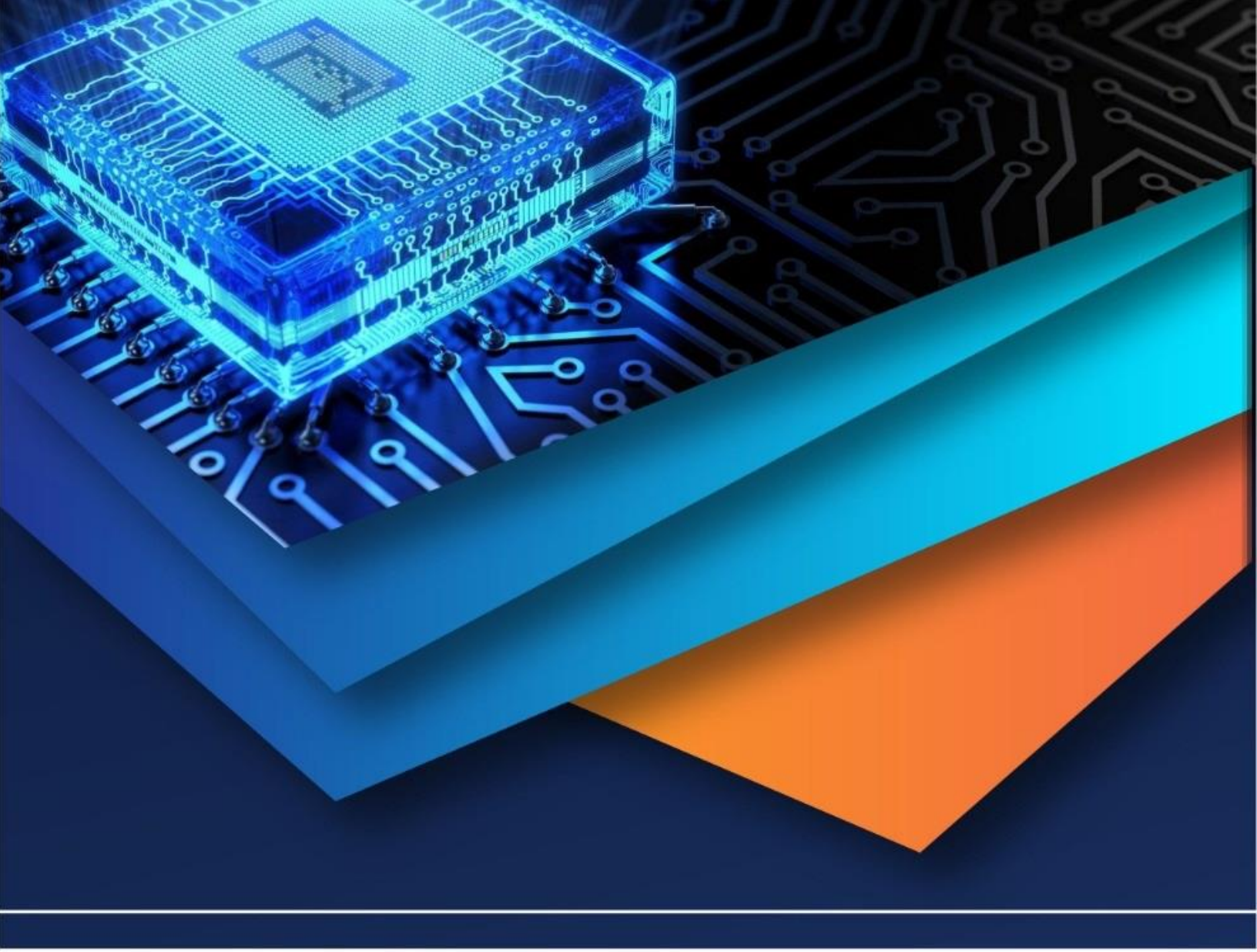

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