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## The Vitamin C (Ascorbic Acid) Contents of Some Tropical Fruits

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### Abstract

#### Introduction:

Fruits are very useful to man due to their nutritive value, which essentially circles around their vitamin content. One of such vitamins is vitamin C (ascorbic acid). Vitamin C is very unstable in air and is acquired mostly from unprocessed fruits. In West Africa there are so many fruits, with very little or no information about their vitamin C content. Most of the values used are estimates from values determined in other locations, most especially in Europe. Here, the ascorbic acid content of some fruits, common in West Africa, were determined.

#### Materials and Methods:

27 West African tropical fresh fruits acquired around Ibadan in Nigeria were used. A titrimetric method based on the redox reaction of ascorbic acid and 2, 6 dichlorophenol-indophenol (DCPIP). DCPIP is a blue dye that changes to permanent pale pink colour when reduced by ascorbic acid. The determination is thus based on colorimetric change caused by oxidation of ascorbic acid. From each fruit species, 5 fruits were taken with 2 replications of each.

#### Results:

The results obtained from this analysis show large variations of the ascorbic acid content. The results are summarised here in mg/100g of edible portions: almond nuts — 0.38; garden eggplant — 0.50; coconut pulp — 0.66; walnut — 0.82; almond fruit — 1.20; banana-Omini (round) — 1.99; coconut water — 2.48; tomato — 4.21; avocado — 4.47; banana (long) — 4.63; apple (jambo) — 7.29; water melon — 10.43; spondias (Iyeye) — 15.70; pineapple — 19.25; cocoa pulp — 22.53; lime — 23.52; bread fruit — 26.15; juju plump — 27.83; mango-onishu — 28.98; mango-olomi — 30.48; tangerine — 0.32; mango-sheri — 33.29; grape — 38.69; orange — 40.73; lemon — 40.88; pawpaw — 68.90; guava — 300.27.

#### Conclusion:

The ascorbic acid content of the fruits varied very remarkably from traces in the nuts to 300 mg/100 g of the edible portion of Guava. Most commonly consumed fruits in West Africa are seen to be rich in vitamin C.

**Keywords:** Ascorbic acid, titrimetric, tropical fruits, vitamin C