

L I D E P

Lushoto Integrated Development Project

Branch: Max Planck Nutrition Research Unit,
Bumbuli, P.O. Soni

R e s u l t s
of
Food Determinations

by
U.S. Cltersdorf

November, 1970

The analyses of the foodstuffs and beverages reported in this paper were done between January, 1969 and October, 1970.

The results are compiled in the tables 1 and 2.

All data are averages of a number of analyses, which were done at least in triplicate.

The applied methods are described in the appendix.

A) Foodstuffs (table 1)

1) Sweet potatoe (ipomoea batatas) leaves, fresh - mchicha

The sample was purchased at the Bumbuli market in February, 1969.

It was homogenized by using an "Ultra-Turrax" and the sample was stabilised by adding of approx. 1g% benzoic acid.

The values agree with the figures in the common food tables, but the iron content is extremely high.

2) Cow pea (vigna spp.) leaves, fresh - mchicha, majani ya khunde

The sample was purchased at the Mayo market, Bumbuli division in May, 1969.

The further comments are the same as in sample 1. An interesting feature is, that the cow pea leaves contain more protein and minerals than the sweet potatoe leaves.

3) Small dried fish - dagaa

The sample was purchased in a shop at Bumbuli in May, 1969.

The fishes were homogenized in a household-mixer. The values agree very well with the figures in the common food tables, but the iron content is extremely high.

4) Soyabeans -(glycine max.)

The sample was obtained from the Sisal Research Station, Mlingano, Tanga Region in June, 1969.

The beans were ground to a powder in a household-mixer. The values agree well with the figures in the common food tables, higher values were obtained for protein (37.9/35.0) and for iron (23.8/7.0).

5) Cowpeas (vigna spp.)

The sample was obtained from the Sisal Research Station, Mlingano, Tanga Region in June, 1969.

The beans were ground to a powder in a household-mixer. The sample contains more water (12.1/10.0) and fibre (6.0/4.0), but despite of that is the protein (25.6/22.0) and iron (8.2/5.0) content higher than figures from the common food tables. The cowpeas contain less carbohydrates (51.4/60.0).

LOQUAT - ERIODOTRYA

6) Pachystela brevipes - Msambia

The sample was purchased at the Bumbuli market in June, 1969. This fruit, which is yellow and shaped like a plum, is rather common in the Lushoto District. The brown skinned seed-pairs are smelling strongly like almonds, and have a white kernel. The seeds are not eaten. Their weight is 20% of the whole fruit. The protein content of the whole seed is only 2.3%.

The edible portion was homogenized in a household-mixer. Its nutrient content is very similar to the common values found in fruits, relatively high is only the calcium and iron content. (No results of a previous analysis was found in the available literature).

7) Makadamia nuts - katu

The sample was obtained from Sakarani, Mamba, Soni Division, Lushoto District in October, 1969.

At this place plenty of these nuts are available, and they are called "katu". The weight of one whole brown nut is approx. 3.6 gm. They have a very hard shell and the edible portion (white kernel) is only 28%.

The nuts were ground to a flour in a household-mixer. Compared with nutrient contents, of nuts the Makadamia nuts contain higher amounts of water and fibre, less on fat, carbohydrate, calories and calcium. (No result of a previous analysis was found in the available literature).

8) Food mixture I

The sample was obtained from the Research and Training Institute, Ministry of Agriculture, Ilonga, Kilosa in May, 1970.

It is a flour which contains 60% maize, 26% kidney beans, 10% sugar and 4% mchicha (sweet potatoe leaves).

Compared with the known value of a maize-bean-sugar-mixture (MASUMA) the results of the analysis show that the protein content is slightly higher (12.4/10.5), and that the maize-bean-flour is quite good enriched with calcium (116/54).

9) Food mixture II

The sample was obtained from the Research and Training Institute, Ministry of Agriculture, Ilonga, Kilosa in May, 1970.

It is a flour which contains 60% maize, 25% kidney beans, 10% sugar and 5% fish protein powder.

Compared with the mixture I the maize-bean-flour enriched with fish protein powder has a higher protein value, but is less on minerals - except iron - and vitamin B₂.

