

Nutritional Value of Palms

Abstract

Atchley, A.A. (1984). Nutritional Value of Palms. *Principes*, 28(3), 138-143

A few comparisons of palm nutritional value with that of other crops from tropical and subtropical regions may be instructive. Seed of *Cocos nucifera* has about twice the protein value of, and over fifty times as much fat, as the root of *Manihot esculenta*, and about twice as much protein as the ripe fruit of *Mangifera indica*. The bud of *Cocos nucifera* has over twice as much protein as the average reported for the ripe fruit

of *Carica papaya*, over seven times as much fat, almost three times as much phosphorus, and over twice as much niacin, although it has only about a tenth as much ascorbic acid and presumably, since no data are reported here has relatively little carotene. (The palms are generally reported to be relatively low in ascorbic acid compared to *Capsicum* spp. and *Carica* spp., as well as many other tropical and subtropical sources of that nutrient.) However, *Elaeis* oil seems to be a source of carotene richer than ripe *Carica papaya* fruit, and at least comparable to the fruit of *Capsicum* spp. as reported by several sources. Interestingly, the bud of *Geonoma edulis* is reported to be over four times as rich in protein as that average ripe fruit of *Carica papaya*.

Such intriguing comparisons, which will it is hoped, become more accurate as the database expands, suggest a potential usefulness of palms in developing countries. Confirming the existence of this potential would appear to require intensive, standardized analysis which adequately explores variation in populations. The full range of ecological factors which influence the variation in time and space of nutritional value must also be investigated.

Extract from table of chemical analysis:

As % of dry matter

	CP	CF	Ash	EE	NFE
<i>Acrocomia mexicana</i> F	9.1	27.8	4.4	28.6	57.9
<i>Areca catechu</i> S	6.8	18.1	1.7	12.3	79.1
<i>Arecastrum romanzoffianum</i> S	12.8	-	-	64.7	-
<i>Arenga pinnata</i> SH	1.9	9.4	1.9	3.8	92.5
<i>Astrocaryum standleyanum</i> F	6.0	20.3	5.0	2.5	86.5
<i>Bactris guineensis</i> F	5.9	10.3	5.9	1.0	87.3
<i>Borassus fabellifer</i> F	6.5	16.1	4.8	0.8	87.9
<i>Butia capitata</i> S	15.7	-	-	-	56.5
<i>Butia eriospatha</i> S	12.9	-	-	1.8	44.1
<i>Calamus ornatus</i> F	2.9	2.4	2.9	5.7	88.6
<i>Chamaedorea</i> sp. -	26.7	8.0	13.3	4.7	55.3
<i>Chamaerops humilis</i> S	5.0	-	-	8.7	-
<i>Chrysalidocarpus lutescens</i> S	6.9	-	-	7.2	-
<i>Chrysalidocarpus madagascariensis</i> var. <i>lucubensis</i> S	2.9	-	-	8.2	-
<i>Cocos nucifera</i> S	6.3	11.5	1.7	67.9	24.0
<i>Corypha utan</i> F	3.7	6.8	2.1	0.5	93.7
<i>Elaeis guineensis</i> F	7.9	3.9	1.7	54.4	-
<i>Erythea</i> sp. S	5.8	-	-	6.6	-
<i>Euterpe oleracea</i> F	5.8	30.5	2.0	20.7	71.5
<i>Geonoma edulis</i> SH	27.1	12.7	11.0	2.5	59.3
<i>Hyphaene thebaica</i> S	4.1	10.0	3.3	6.8	85.7
<i>Hyphaene turbinata</i> S	8.1	-	2.3	13.4	-
<i>Jubaea chilensis</i> S	8.2	6.8	1.0	75.3	15.5
<i>Mauritia vinifera</i> F	11.0	41.9	4.4	38.6	46.0
<i>Orbignya cohune</i> S	6.9	-	-	52.2	-
<i>Orbignya speciosa</i> S	9.4	-	-	62.9	-
<i>Phoenix dactylifera</i> F	2.9	6.5	5.7	1.0	90.4
<i>Prestoea longepetiolata</i> SH	24.4	6.7	15.6	2.2	57.8
<i>Pseudophoenix sargentii</i> S	6.2	-	-	19.2	-
<i>Pseudophoenix vinifera</i> S	6.4	-	1.3	21.4	-
<i>Ptychosperma macarthurii</i> S	5.9	-	1.4	1.6	-
<i>Raphia hookeri</i> S	8.7	9.1	10.3	1.1	79.9
<i>Salacca zalacca</i> F	1.8	-	3.2	0.0	95.0
<i>Vetchia merrillii</i> S	4.1	-	1.5	1.3	-
<i>Zombia anomala</i> S	4.9	-	1.6	1.8	-

F = fruits; S = seeds; SH = shoot or vegetative bud