

The Palm Heart as a New Commercial Crop from Tropical America

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A stately species of the genus *Euterpe* is found throughout the once vast rain forests of Costa Rica. This palm, when mature, reaches the upper limits of the forest canopy, some 70 feet or more in the air. Its slender trunk, while only six to eight inches thick, supports a splendid crown of fronds, directly under which are produced clusters of small, single-

seeded fruits (Fig. 1). Unfortunately, these palms contain a sweet tender heart, and before they reach a seed-producing size they are often felled to acquire this relatively small amount of edible "heart of palm." In fact, in areas of forest much traveled, as soon as these palms reach one inch in diameter, they become desirable in the eyes of the local inhabi-



1. Two sources of heart of palm, *Euterpe* to the left, *Bactris gasipaes* at the right.



2. *Bactris gasipaes* planted close together for harvesting.



3. Cutting to the heart.



4. The heart removed. More must be peeled to get to the part used for food.

tants as a source of food. The campesinos (rural peasant farmers) decapitate even these small palms to get at the slender heart, which at this stage provides hardly more than a mouthful of food.

With the increasing population stress on Costa Rica's dwindling rain forests, there is doubt as to this palm's ability to survive these depredations, as each new seedling, upon discovery, is usually soon destroyed. Palm hearts are continually collected for commercial canning and for export, thereby continuing to reduce further the already low populations.

Where does the solution lie? Should conservationists press for a prohibition on the importation of this "delicacy," or is there another answer?

Las Cruces Tropical Botanical Garden and Field Station, a unit of the Organization for Tropical Studies, Inc. near

San Vito de Java in the mountains of western Costa Rica, is attempting the experimental cropping of a substitute palm heart, the *pejibaye* or peach palm (*Bactris gasipaes*). Several rows of this species were planted in an attempt to demonstrate that this palm could serve as a domesticated substitute for the *Euterpe*, thereby reducing the traditional damage to the forest ecology. These palms become large enough to cut for their hearts in two and one-half to four years from seed, depending on the climate and location, and they yield up to three pounds of edible heart, substantially more than the *Euterpe* palm (Figs. 2-4). One additional commercial advantage to using the *pejibaye* palm heart is that it will not discolor after being cut, as does the wild product. The quality of the heart is excellent, having a crisp, nutty flavor. The peach palm is well known in Costa Rica as an impor-

tant food, the fruits being appetizing and nutritious. The trunk contains a sweet sugarcanelike material which has a potential for use in the manufacture of alcoholic beverages. Cattle enjoy grazing on the leaves, disregarding the spines in their gusto.

For cropping, the plants can be spaced quite close to each other in order to give maximum yield. At Las Cruces the trees were spaced .75 by 2.0 meters, while in large-scale plantings at the Turrialba Tropical Agricultural Research and Training Center, 2,200 trees were planted per hectare (2.47 acres), and spaced 3 by 1.5 meters (*Activities at Turrialba* 1(3): 4, April-June 1973, Turrialba, Costa Rica). Conclusions drawn from the Las Cruces experiment indicate that a little further spacing than was

given is needed for optimum yield. The peach palm will produce up to 12 offshoots, usually averaging five. These can be used for propagation or left to mature into a second crop or ratoon. One objection sometimes raised to harvesting this palm is its spiny trunk, which can be a challenge to the handler. However, spineless strains of this palm are being propagated, which should remove this difficulty.

As experimental cropping and the first few commercial operations have proved worthwhile, what is now needed is a large-scale growing program promoted by the government and with the cooperation of commercial packaging companies. Heart of palm has the potential for being an important agricultural crop in tropical America.

LETTERS



The freak behavior of the palm depicted in the accompanying photograph would not make the subject a candidate for a beauty prize. It does, however,

carry a hopeful message to those of us who have watched an otherwise fine specimen palm apparently succumb to shock or disease when transplanted. The *Phoenix sylvestris* illustrated was planted three years ago in prime condition at the Polynesian Hotel, Walt Disney World. After a period of some months, signs of trouble were perceived in the older leaves. They had gradually deteriorated into the forlorn terminal at a right angle to the trunk. A new bud, to our surprise, had in the meantime pushed out alongside the original and gives promise of ultimately assuming a normal aspect.

If nothing else, the message may be not to be too hasty in consigning to the graveyard the apparent transplant casualty.

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