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## Hybrid Coconut Seed Garden in Costa Rica

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A timely venture signals the development of an important new agricultural industry in Latin America. From July 1990 SACRAC Limited will be in the unique position of exporting high grade hybrid coconut seed from its seed garden in Costa Rica.

SACRAC's original hybrid will be Malayan Dwarf (Figs. 1,2) crossed with Rennell Tall; other tall parents may be used later in response to research findings or client demand. Hybrids have been extensively proved in the Far East and Africa over twenty-five years by coconut industry leaders, Unilever and I.R.H.O. (Institut de Recherches pour les Huiles et Oléagineux). The Malayan Dwarf × Rennell Tall hybrid is one of the best all-round performers, with copra yields double traditional varieties. The Rennell Tall originated in the Solomon Islands and is more precocious, disease-tolerant and yields more copra than most other talls. The Malayan Dwarf comes into bearing early, produces prolific numbers of coconuts and has the highest proven resistance to Lethal Yellowing Disease of any coconut. The latter destroyed millions of palms in Jamaica and Florida, and is at work in the Yucatan peninsula of Mexico. Hybrid coconuts tend towards the disease resistance of the more resistant parent, unite the best characteristics of tall and dwarf, and have been standard for years in massive planting and re-planting schemes in the Philippines, Indonesia and Jamaica. Hybrids are also used in Brazil, India, Ivory Coast, Malaysia, Papua New Guinea, Thailand, Solomon Islands, Sri Lanka and U.S.

SACRAC's rationale for pioneering pro-

duction of improved coconut planting materials for Latin America and the Caribbean is geared to the expansion of coconut planting which is under way in the region; superior hybrid seed is not now available. The region has almost twenty per cent of the world's people, but only seven per cent of its coconut population. Practically all the world's coconut oil exports in the last seven years came from six Far East producing countries, eighty per cent from the Philippines alone, chiefly to U.S. and western Europe.

Latin America, from Mexico to Bolivia, has suitable growing conditions for coconuts, and all these countries are net importers of vegetable oils, only with the exception of Brazil, for whom oil exports provide some welcome relief in the balance of payments. They also have high rates of population growth, under-employment, under-utilization of land, premium domestic prices for oils and a shortage of foreign exchange. That governments and industry are aware of these pressures has been shown by coconut seed orders emanating from a number of countries including Brazil, Colombia, Mexico and Venezuela. That the high cost of planting large areas with coconut can be sustained is facilitated by acceptance of its future role by international lenders such as World Bank and its suitability for cultivation by smallholders, as a mono-crop or underplanted with other crops such as cocoa. That the coconut will continue to provide a profitable crop in growing countries is predicated upon its wide range of products, its non-substitutable character in some industrial uses, and, in the event of surplus, the proximity of



1. Dwarf palm and leguminous cover (Kudzu). 2. Productive yellow dwarf palm.

the world's largest import market, the United States. The U.S. imports about 450,000 tons of coconut oil annually, of which two thirds is for industrial consumption. Thus recent substantially unproved and protectionist health scares against tropical oils in the U.S. should not greatly affect world use patterns. Practically all the U.S. supply comes from the Philippines, which is threatened by climatic disasters, political uncertainty, and the advanced age and deteriorating condition of millions of its coconut palms. Latin America enjoys the advantage of freight time and cost over the Philippines.

SACRAC chose Costa Rica for its pivotal location and internationally acclaimed reputation for peace, democracy and stability, and the Atlantic Zone for its ideal conditions for growing coconuts. The seeds for the Malayan Dwarf mother palms were

certified by the Jamaica Coconut Industry Board in 1985, six thousand trees were field planted in 1986 and ninety per cent had flowered in 1988. Selected Rennell Tall pollen is imported from Indonesia and Papua New Guinea. Not only has the highest genetic purity of materials been assured, but impeccable standards have been maintained at every stage of the seed garden operation, with rigorous selection criteria (Figs. 3,4, p. 106).

The seed will be sold initially for (U.S.) \$2.00 each FOB Limón, Costa Rica, a modest price by industry standards for a comparable hybrid. SACRAC is willing to arrange supervision of the establishment of germination and polybag nursery facilities at destination.

For further information, contact the author, FAX 551348





3. General view of seed garden. 4. Yellow dwarf seedlings in nursery.