

Camu-Camu: A sustainable option for agroindustry in the Peruvian Amazon.

Contributed by:

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Camu-camu (*Myrciaria dubia*- Myrtaceae) is a small tree native to blackwater floodplain environments of Peru, Colombia, Venezuela and Brazil. Over the last 35 years, the use and production of camu camu has developed into an export industry in the Peruvian Amazon. The main product is the pulp derived from the very nutritious fruit. This expanding industry is linked to the adoption of the species as a component of floodplain agroforestry systems by smallholders practicing traditional agriculture in these seasonally inundated environments. The water-loving trees are also seen by policy makers as a way to improve socioeconomic conditions in rural areas while at the same time increasing international trade for Peru.

Camu-camu contains the highest concentration of Vitamin C in any fruit known (2800mg per 100g of fruit pulp); about 1.5 times that of acerola (*Malpighia puniceifolia*), or 30 times that of an orange (90mg/100g), with far more iron, niacin, riboflavin and phosphorous. These nutritional characteristics have created the demand for camu-camu in international health food markets and as an ingredient in cosmetics and shampoos. In Peru, camu-camu is popular in ice creams, drinks and yogurt.

The Instituto de Investigaciones de la Amazonia Peruana (IIAP) has promoted the cultivation of the trees in floodplain fields to sustain production and alleviate harvest pressure on wild stands of camu-camu. Approximately 1,050 hectares of camu-camu grow naturally in the Amazon basin of northeastern Peru, with another 776 hectares planted during 1997-98. Smallholders who have maintained their plantings of camu-camu have found that intercropping these productive fruit trees with their traditional mix of annual crops (such as manioc, melons, beans) provides them with important additional income when floodwaters cover their fields. With fields of just 1 to 2 hectares, their incomes have risen by as much as \$1000 per year through camu camu sales, with the largest fields (10 hectares) earning almost \$20,000 in the peak year of 2007.

While demand and prices have fluctuated, the price of the fruit paid to harvesters and producers has increased over time, from U.S. 0.14 per kilo in 1997 to a high of U.S. \$1.75 in 2007. The increase in both demand and prices for the fruit has opened opportunities for agroindustrial development in this region and socioeconomic gains for rural inhabitants of the Peruvian Amazon. Most of the fruit that is marketed still comes from natural stands, which is an environmental concern, but there has been an increase in plantings in recent years. Export revenues from camu camu products have risen from less than U.S. \$500,000 per year during 1996-2001 to more than U.S. \$1 million in 2005 and

\$4.8 million in 2007. Demand for the fruit by processors is now far greater than harvests from the wild or production by smallholders. In 2007, 3,785 tons of camu-camu was marketed, yielding 1000 tons of fruit pulp, with the remainder of the fruit sold for local consumption. Japan is currently the main market, but domestic demand for camu- camu continues to increase, providing needed economic and nutritional benefits for Peruvian society.

For more information, contact IIAP at: **pacc@iiap.org.pe**

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