

Coffee Production Status and Potential of Organic Arabica Coffee in Thailand*

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Abstract

Coffee is a major income earner for Thailand. Robusta coffee (Coffea canephora) is grown mainly the south where 80,000 t are produced annually. Only 500 t of arabica coffee (C. arabica) are produced in the north. Present cultivation techniques are focused on producing high yields. Chemical fertilizers and pesticides are commonly applied to the coffee plantations. Thailand exports 60,000 t of robusta coffee, while 20,000 t are used for soluble, roasted, ground, and canned coffee in the domestic market. Arabica coffee is mainly used for roasted and ground coffee in Thailand.

Arabica coffee is mainly grown in the highlands at approx. 800 m asl. It is wet processed to give high quality green bean. The Catimor cultivar is recommended as it is rust resistant. Growing arabica coffee provides cash income for hill-tribe farmers and reduces the problem of traditional slash-and-burn shifting agriculture. Both shaded and full sun coffees are grown. With the policy of natural resource conservation and the limitation of land area, the hill-tribe farmers have to grow coffee to sustain natural resources on the highlands in the long term.

Agro-forestry systems have been introduced for arabica coffee. These systems involve coffee inter-planted with fruit trees and/or forest trees which can provide appropriate additional income to the farmers. Limiting the use of chemical inputs, including fertilizers and pesticides, is aimed at reducing water and soil contamination and improved ecological conditions as well as the health of the farmers. Organic coffee cultivation on the highlands meets with such objectives and is being encouraged.

Organic coffee cultivation involves: (i) no use of chemical fertilizers, pesticides, herbicides, fungicides, hormones, antibiotic, or growth regulators; (ii) use of compost, farm manure, green manure, and crop rotation to maintain and improve soil fertility; (iii) a balanced pest control farm eco-system, with healthy soil management and crop diversification; (iv) control of weeds through mechanical methods; and (v) use of good quality, clean, uncontaminated chemical-free composted materials and nursery seedlings from off-farm as well as on-farm.

With organic coffee production, the farm has to be visited and re-evaluated annually, before certification is given. Depending on market demand for organic coffee, there is a high potential for its production on the highlands, and organic production methods will be of mutual benefit to the farmers, the highland ecology, and the consumers. Organic coffee-growing areas must be special areas which can be strictly controlled and which follow the regulations specified for certification. The Royal Project Development areas mostly met the requirements and regulations needed, and should be able to produce best quality organic coffee.

Keywords: *Organic coffee production, sustainability, slash-and-burn agriculture, arabica, robusta, chemical inputs, chemical fertilizers, pesticides, compost, manure, hill-tribes, highland ecology, crop diversification, mechanical methods.*

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