

Tamala Honey

Export Potential Benefiting Nepalese Farmers

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Tamala honey is a unique processed product possessing health benefits from oil extracted from an indigenous tree species, *Cinnamomum tamala*, and incorporated into honey for digestion. With the rise of the tea industry in North America, *C.tamala* honey has its appeal and potential as a natural sweetener.

Industry Status and Potential

Ciannamomum tamala

C.tamala is an indigenous tree species to Nepal, grown between 450-2100 m elevation (Lamichhane & Karna, 2011). Naturally grown in the tropical and subtropical Himalayas, mid-hills district of Nepal (Sharma & Nautiyal, 2011). Trees are idea for cash crop farming because of the essential oils that can be extracted from the leaves (Sharma & Nautiyal, 2011). Yields are sufficient due to the longevity of each tree, being able to live and bear leaves up to 100 years, while the leaves can be collected after the first ten. The average annual yield per tree is 40-100kg/tree with collections being made from October-March, providing a long season for the collection of the leaves (Orwa et al., 2009). Labour is required to manually collect leaves from the trees. Many farmers prefer hand picking as the use of tools can potentially damage the trees (Lamichhane & Karna, 2011). Tejpat trees on subsistent farms in the villages of Udayapur district range from 10-155 trees per household (Lamichhane & Karna, 2011).

Exports of essential oils from Nepal have had high trade value, \$121,694 for 16,164kg. India, through partnering with Nepal is the top exporter of essential oils (COMTRADE, 2014).

Industry Opportunities

Narrowing in on the Palpa district in the Middle Hills of Nepal, local sale and trade of Tejpat to markets sustains the livelihood of many families through contributing to household economy (Pandit & Thapa & Zoebisch, n.d.). Exports of Tejpat from the Palpa district to India and neighbouring countries show an increase, proving the potential for income generation for poor and disadvantaged Nepalese farmers (Pandit et al., n.d.).

Oil Extraction

Extraction of oil from the Tejpat leaves has been explored through superheated water extraction (SHWE), providing a potentially environmentally friendly process (Jayawardena, & Smith, 2010). Further research is needed for environmentally friendly extraction methods, and the availability of this technology in Nepal.

Local Concerns

Lack of education of market opportunities, limited access to transportation, and unfair bartering are some of the many concerns people have with the sale of Tejpat (Pandit et al., n.d.). There is economic potential, prompting concern regarding the conservation of this species. In-situ and ex-situ methods of conservation, including gene and seed banks, are beneficial for future export potentials to North America (Sharma & Nautiyal, 2011).

Export Potential

Sale of Tejpat oil produced by steam distillation in Dovan and Palpa districts have been profitable, yet volume of sales is limiting. Improvements are needed in advertisement and packaging, providing an opportunity for exportation after such

improvements are met (Pandit et al., n.d.). Because of its high medicinal value, the demand for *C.tamala* is increasing (Sharma, Nautiyal).

Impact on Nepalese women and children

There is confidence and personality building potential through education of community forest preservation methods. Rural women and forest has close relation. Spend a lot of time in forest (leaf collection and maintenance) to daily necessity associated with livelihood (Adhikari, U, 2011). A general assumption is that Nepalese women do not know about marketing and have no ability of bargaining; therefore they are limited to access of gaining this knowledge (FAO, 2010). Men dominate in gaining access to agricultural services, community training activities and finances than women (FAO, 2010). Women need efficient training and education to come from the export potential of *C.tamala* to North America.

Nepalese Honey

Honey is emerging as one of the leading export products of Nepal and has a growing market. Nepal produces 864 metric tons of honey (Karki, n.d.). Honey from the hill mountain region offers an exotic taste. (Adhikari & Adhikari, 2005). Canada is a major international market for Nepalese honey. Beekeeping in Nepal is regarded as a very rewarding occupation for many people (Joshi, 2008). Nepal is host to five species of honeybee, but only the Asian hive bee (*Ampis cerana*) and the European honeybee (*Apis mellifera*) are kept in hives to manage for honey production. Communities who do not practice traditional beekeeping techniques called 'honey hunters' collect honey from the nests of wild species. Wild (organic) honey produced by *Apis dorsata* contains large

amounts of enzymes and amino acids, attributing a good price in international markets (Joshi, 2008).

Nutritional Value

Honey from *Apis dorsata* contains approximately 73.46 grams of sugar per 100 grams of honey (Joshi, 2008). This is the lowest sugar content in comparison to *Apis cerana* and *Apis mellifera* (Joshi, 2008).

Industry Potential for Honey

Honey is considered one of the most effective and inexpensive home remedies (Joshi, 2008). Richness of bees and floral resources offer good potential for niche market. Due to lack of education, Nepali farmers are often unable to meet the quality specified by buyers of their honey. Farming bees in Nepal requires minimal start up investment and generally yields profits within the first year of operation. Assurance of quality is key to improving access to international markets. Honey processing in the case of poor farmers requires the simple access to and use of bowls, a sieve or straining cloth and containers (Joshi, 2008). The sale of organic, specialized honey in North America ranges from \$12.99-\$25.99 (Teavana, n.d.). Tamala honey needs to be sold at a price that will still benefit subsistent farmers in Nepal, while staying reasonable to the niche market it is entering.

Export potential

Nepal is a top producer of honey, yielding a trade value of \$306,692 for 122,302 kilograms in 2014 (COMTRADE, 2014).

Quality Standards

Department of Food Technology and Quality Control, as well as the Nepal Bureau of Standards and Metrology have set out quality standards for the production of honey (Joshi, 2008). There are many barriers regarding food regulations and requirements to prove authenticity when exporting a wild honey product. However, Nepal is lacking in laboratory facilities to carry out many tests to ensure geographic origin of each honey product (Joshi, 2008). Further tests need to be undergone regarding the fusion of two indigenous species; *C.tamala* and honey, into one product to ensure all standards are met.

Local beekeepers

Beekeeping is one of the major income sources mainly for those beekeepers that have limited options for cash income (Gurung MB, Ahmad, F. and Joshi SR, 2002). Honeybees provide ecological functions, including benefits for better farm yields through pollination services (Gurung, et al.). Local Nepali communities promote the involvement and participation of women in beekeeping. There are 17 women groups formed in Jumla district of Nepal regarding the practice of beekeeping. Beekeeping provides entrepreneurial opportunities (UNDP, 2008).

C. tamala Honey

Through production of this honey product, poor farmers in Nepal can benefit due to the collection of and the farming involved with Tejpat, along with the local beekeeping efforts throughout many communities in Nepal. The exotic flavour of organic Nepali honey infused with the Tejpat oil, attributing a natural cinnamon like aroma, creates a marketable product with export potential to North America and the growing tea industry.

Potential importers

1. Wholefoods Market- Ontario office run out of Chicago. Promotes natural and organic foods contributing to a healthy lifestyle.

640 North La Salle Street, Suite 300
Chicago, IL 60654
312-799-5600

2. DAVIDsTEA-

5430 Ferrier, Mount-Royal, Quebec, Canada, H4P 1M2
1-888-873-0006

3. Teavana- Partnership with Girls Inc. as supporters of education for youth and women.

3630 Peachtree Rd NE Ste 1480
Atlanta, GA 30326-1552
406-995-8200
404-841-7009

4. Loblaw's

1 President's Choice Circle
Brampton, Ontario, L6Y5S5

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