

Nepali Orthodox Tea- Robert MacKenzie

Product Information:

Orthodox tea is one of two genres of processed tea developed from the *Camellia sinensis* plant [5]. Orthodox varieties of tea include oolong, white, green, and most other specialty teas [11]. The orthodox product varies from its counterpart CTC tea (crush, tear and curl) by its process of production and fermentation [11]. Both varieties are grown in fields, harvested, and refined in factories to produce the consumer product. Orthodox tea is produced by hand rolling techniques or with machines that imitate the same hand-rolling effects [11]. In the CTC process the leaves are crushed and chopped by machines into uniform pieces [11].

Once the tea plant reaches maturity, its leaves can be harvested around four to five times a year, for many years [11]. The different harvests of tea are called *flushes*. In Nepal there are four separate flushes in a growing season; first flush, second flush, monsoon flush, -and autumn flush [11].

Where Orthodox Tea is Grown:

Orthodox tea is cultivated in hilly areas and in high altitudes. This is conducive for the highest quality tea [5,7,11]. In Nepal, the Eastern mountainous regions host most of the orthodox tea crops at altitudes around 3000-7000 feet above sea level [5]. Nepal has six districts in which Orthodox tea is produced; Ilam, Dhankuta, Kaski, Terhathum, Sindhupalchok, and Panchthar [5]. Among these districts there are a small number of medium-to-large scale *tea estates* as well as a large number of small holder farmers [5].

History of Tea in Nepal:

The Nepalese tea industry was established in large part by the East India Company's colonization of India [5]. The most reputable region of India for tea, Darjeeling, introduced

hybrid tea plants to Nepal in the mid 1800's. Tea estates became established in the Nepalese regions. Later into the 1900's the Nepalese tea producers acted as suppliers to Darjeeling factories when tea bushes became old and yields decreased [5]. Orthodox tea now provides a source of sustainability for almost 20 000 farmers in Nepal [5]. Farmers are supported by the National Tea and Coffee Development Board created by the Nepalese Ministry of Agriculture [7]. A national tea policy was introduced by the NTCDB in 2000 which aimed to create more access to credit and land for farmers producing tea [7].

Pests and Diseases:

Camellia sinensis is the target of over one thousand arthropod species and approximately 400 pathogens [12,8]. In India, which is South of Nepal, there are only 300 insect/ mite species and around 50 pathogen fungi that are recorded as a threat to tea [12]. The average yield is reduced by 15-20 % as a result of pests and diseases [12,8]. In terms of pesticide use, there is no Maximum Residue Limit (MRL) in place [3,9,10]. However, in the last decade numerous poisonous chemicals such as monocrotophos, quinalphos, ethion, and phorate have been prohibited as of May 2005 [3].

An Integrated Pest Management (IPM) approach is becoming more popular as an alternative to pesticide application [3]. The IPM approach includes the use of bio fertilizers, vermin-compost, and organic farming [3]. The lack of internal regulation of pesticide use adversely affects the commodity in terms of trade potential [3,10].

Economic benefits to Nepal, especially hillside farmers

The transition from subsistence farming to cash crop farming of orthodox tea provides a benefit to hillside farmers- in terms of financial support and involvement in the domestic market [5, 10].

Many traditional farmers have given up subsistence farming and now specialize in solely

growing tea [5]. The profits that come from selling tea can then be used to purchase staple foods in a domestic market. The switch from traditional farming to cash cropping has reduced poverty rates among small holder farmers in tea growing regions [5]. 70% of orthodox tea produced in Nepal in 2006 was by small farmers [5]. Orthodox tea is a profitable crop that is unique to hillside farmers. Forecasts by the NTCDB predict that by 2022 orthodox tea exports will reach 27 million kg, compared to the 2012 figure of 3 million kg [7]. The paired growth in the tea sector will employ approximately 100 000 people [7]. Engagement in over-seas markets will allow Nepali tea producers to capitalize on their product's high quality and value as a niche product. Nepali orthodox tea is being sold well below premium to bordering countries such as India [5]. A metric ton of Nepali green tea is valued at \$1180 in India, but \$12000 in the USA [5]. Thus, in order for Nepali farmers and producers of orthodox tea to make the most money from this crop there is a need to export to countries like the USA who pay premium prices for the product.

Practical information to help a business get off the ground in this area

The main obstacles that a farmer hoping to start producing tea in Nepal face include: initial planting/ raising of plants, labour, knowledge of production process, distance from processing factories, pests, and other factors associated with moving product from the field to the market [2,5,8,9,10]. The following recommendations come from United States Department of International Development's *Nepali Tea Assessment* in 2011. Productivity can be improved by updating the out of date machinery that most processing factories currently use [13]. Other interventions are motorized pruning devices to reduce labour and increase productivity with respect to time [13]. A more recent obstacle that is limiting small farmers is the issue of pesticide use and achieving organic certification [13,10,9,3]. The belief in Nepal is that becoming a

certified organic farmer, a costly and time consuming process, will yield significant increases in profit [10,3]. The issue with organic tea production is that yields decrease and labour increases [10,3]. In the end, the major problem for most tea farmers in Nepal is that they occupy the primary or secondary industry. Small tea farmers do not have the means to add value to their tea through processing and packaging, they rely on outside agents to purchase their bulk leaves [6].

Export Potential:

Nepali orthodox tea is a commodity that has potential as a niche product in the Canadian market [10]. Trading is happening between Nepali tea producers and the United States, so it is clear that it is logistically possible to export the product [10,13]. The Tea Association of Canada (TAC) is a not-for-profit organization that represents the entire Canadian tea industry with the role of promoting tea consumption to Canadians [9,10]. President of the TAC, Louise Roberge, recognizes that Nepal has potential as a future exporter to Canada on a greater scale [10]. An important step for Nepali tea farmers will be to establish regulations and practices to comply with Canadian Codex MRLs [10,13,3]. Canada imports 182 million dollars of tea each year from wholesalers [9]. Once in the market, specialty teas (orthodox tea) have sales recorded at 130 million dollars [9]. Nepali orthodox tea is very high quality and certainly would be competitive with the market [5,10]. Increases in production will allow Nepali farmers to meet larger demands and ship product in large containers, which has been a constraint in the past [5]. With export to North America Nepali tea farmers need to gain access to the specialty market which is rapidly expanding with chains such as Starbucks and David's Tea. Both companies would be able to foster Nepali tea and potentially provide an outlet for Nepali tea to become known globally. Along with the café-style market is the Canadian importer Shanti Tea, which aims to provide Canada with the best tea from around the world.

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David's Tea: 5430 Ferrier, Mount-Royal, Quebec, Canada, H4P 1M2

1-888-873-0006

Fax: 1-514-739-0200

Starbucks: Investor Relations Contact

Starbucks Coffee Company

Investor Relations Department

2401 Utah Avenue South, Mailstop EX-4

Seattle, WA 98134

Phone: 206-318-7118

Shanti Tea: Safiya Motala, Marketing Manager: 1-800-974-2684

Shanti Tea Importers Inc.

1501 Sieveright Avenue, Unit 7

Ottawa, Ontario, K1T1M5

National Tea and Coffee Development Board: 977-1449-9786