

Ghyu kumari / Aloe Vera Export Opportunity for Nepal

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History, Geography, Ethnography of Aloe Vera

Aloes are unique plant species that belongs to the Liliaceae family and takes their origins in countless African countries (Park & Lee, 2006, p. [Page #1]). The word aloe is derived from the Arabic word *alloeh* and the Hebrew word *halal*, both of these terms translate to a “bitter substance” (Reynolds, 2004, p. [Page #211]). *Ferox* is a Latin word for “wild”, and *vera* is from the Latin *verus* meaning “true” (Reynolds, 2004, p. [Page #211]). There are at least 600 aloe species worldwide, and have been used as medicines in several countries for thousands of years (Reynolds, 2004, p. [Page #209]). Aloes date back to ancient times and have even been used by two Egyptian queens for beauty aid (Reynolds, 2004, p. [Page #211]). *Aloe barbadensis* and *Aloe arborescens* are the most commonly known and used aloe species and are prevalent throughout the world (“The Complete Story of Aloe,” n.d.). The Nepali word for Aloe vera is *Ghyu kumari*, and is cultivated throughout many districts in Nepal (Yadav, Sah, & Tharu, n.d., p. [Page #1]). Aloe vera looks like a cactus and can grow as tall as 2 and a half inches to 4 feet, with mature leaves that can weigh up to 3 pounds (“The Complete Story of Aloe,” n.d.). The plant can be harvested removing leaves every 6 to 8 weeks (“The Complete Story of Aloe,” n.d.).

Nepal country overview

Nepal is a small country located in Southern Asia, between China and India (“Nepal,” n.d.). The country’s terrain consists of flat river plain of the Ganges in South,

central hill region and rugged Himalayas in the North ("Nepal," n.d.). The country's climate varies with elevation, however due to global climate change, Nepal is experiencing changes in weather patterns and a shortage in water supply which is having a tremendous affect on the country's agriculture production (Malla, 2008, p. [Page #62]). Nepal is struggling to raise its population out of poverty, but the slow rate of economic growth is acting as a road block to the country's development ("Nepal Overview," n.d.). Despite the slow progress, there is untapped economic potential in Nepal in terms of Aloe vera cultivation ("Kissan Organic Farm," n.d.).

Benefits of Aloe Vera

There are several benefits of Aloe vera since it is composed of 200 active components, those of which include vitamins, minerals, amino acids, enzymes, etc ("Aloe Vera," n.d.). Aloe vera leaves contain clear gel-like substance that is approximately 99% water ("Aloe Vera," n.d.). Some of the nutritional attainments that can be derived from Aloe vera include vitamins A, C, and E, along with all of the 8 essential amino acids, folic acid, chlorine, B1, B2, B3, B6, B12, and several minerals including calcium, magnesium, zinc, chromium, selenium, sodium, iron, potassium, copper, and manganese ("Aloe Vera," n.d.). The World Health Organization recognize Aloe vera as a laxative (Ngo, Nguyen, & Shah, 2010, p. [Page #1]). It is also discovered that the oral intake of Aloe vera can be efficient in lowering blood glucose in diabetic patients, and can reduce blood lipid levels in patients with hyperlipidaemia (Reynolds, 2004, p. [Page #229]). It is also has powerful healing powers in terms of

genital herpes and psoriasis (Reynolds, 2004, p. [Page #229]). Further progress in clinical trials suggest that Aloe vera can also be useful with other diseases, including arthritis, gastric ulcer, cancer, AIDS and colitis, however further research needs to be done in order to know the full potential of Aloe vera (He & Eshun, n.d., p. [Page #94]).

Uses of Aloe Vera

Due to the widespread popularity and benefits of Aloe vera, it has become an ingredient in countless commercialized products including lotions, soaps, shampoos, cleansers, many more (Klein & Penneys, 2008, p. [Page #714]). The initial use of Aloe vera was in the production of a latex substance for many years as a laxative ingredient ("The Complete Story of Aloe," n.d.). However, now the Aloe vera has become a respected commodity and is used as an ingredient in several products ("The Complete Story of Aloe," n.d.). Since the clear gel in Aloe vera is rich in amino acids, minerals, and vitamins, it is also used in several foods and drinks for its nutritional contents ("The Complete Story of Aloe," n.d.). Medical and pharmaceutical companies also take great interest in Aloe vera for ointments and creams due to its tremendous healing powers (He & Eshun, n.d., p. [Page #94]).

Economic Potential of Nepalese Aloe Vera

It is in Nepal's best interest to increase the production of Aloe vera to help stimulate the economic growth in the country. Several Aloe species are well suited for the Nepalese environment and are easy to cultivate ("Kissan Organic Farm," n.d.).

Some of these varieties include *Aloe barbadensis*, *Aloe arborescens*, and *Aloe marlothii* (Park & Lee, 2006, p. [Page #10,12]). All of these species grow well on slopes of coastal mountains, rocky ridges and hillsides (Park & Lee, 2006, p. [Page #10,12])

Nepal's economy is largely dependent on agriculture, which accounts for 38.15% of its GDP (Malla, 2008, p. [Page #65]). The topography of the country is divided into mountains, hills, and terai (Malla, 2008, p. [Page #65]). Out of the 147,181 km² of total land in Nepal, 3,091,000ha area is used for agricultural production (Malla, 2008, p. [Page #65]). However, global climate change has caused a tremendous change in the weather patterns in Nepal and has severely affected the agriculture, forestry, human health, and biodiversity in the country (Malla, 2008, p. [Page #62]). Water availability has also become an issue due to change in weather patterns (Cooke, 2015). For these reasons, Aloe vera is a unique plant that can be cultivated in Nepal. Since Aloe vera is well suited for areas with a low water availability, and does not require too much effort to grow, it makes it a suitable plant for Nepal to further cultivate (Reynolds, 2004, p. [Page #113]). This also makes it a great crop for women to grow and make a sustainable income. The demand for Aloe vera is steadily increasing as more of its potential and uses are being explored (Herzberg & Gruenwald, 2003, p. [Page #1]). As mentioned earlier, Aloe vera can be used in countless products and have a great deal of nutritional and healing benefits, and for this reason many companies would take interest in Nepalese Aloe vera and there is a large world demand for the crop (Herzberg & Gruenwald, 2003, p. [Page #1]).

Constraints of Aloe Vera

Despite the benefits of Aloe vera, the overuse of it can be harmful. For this reason it is vital to get authority such as the International Aloe Science Council (IASC) to approve the the processed products and the amount of their Aloe contents. Also, further research must be done on the plant in terms of cures (Reynolds, 2004, p. [Page #225]). For example, the overdose can result in nephritis, vomiting, bloody diarrhoea with mucus and hemorrhagic gastritis (Reynolds, 2004, p. [Page #225]). For this and other safety regulations, approval from IASC is necessary for the use of Aloe vera products.

Canadian Market for Aloe Vera

Nepalese Aloe vera has huge economic potential in Canada. Countless companies and businesses would take great interest in Aloe vera from Nepal. The type of companies could range from cosmetic companies to the the Canadian food industry, the demand is grand. Below are some of the few examples of companies and business that would import Nepalese Aloe vera.

1) Sephora (countless eco-friendly brands)

131 Bloor Street West

CRU #I-13

Toronto, ONT M5S 1R1

Phone: (416) 513-1100

2) Canada's pharmaceutical sector

3) Goodness Me (Natural Food Market)

668 Erb St. W.

Waterloo, Canada

N2T 2Z7

Phone: (519)888-8214

Conclusion

To conclude, Aloe vera is a crop that makes a perfect export product for Nepal. The uses and potential of Aloe vera are endless, providing not only nutritional benefits, but also countless cures for several diseases. The world demand for Aloe vera is increasing as more benefits are being discovered. Both Nepal and Canada can benefit from Aloe vera trade.

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