

Spices and Medicinal Plant Farming as Niche Markets in Northeastern India

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Introduction

Known as the "Land of the Seven Sisters," northeastern India is an area with exceptional biodiversity, cultural variety, and unrealised agricultural potential. The area provides the perfect atmosphere for cultivating unusual spices and medicinal plants since it is surrounded by the powerful Himalayas, the Brahmaputra plains, and tropical woods. The cultivation of medicinal herbs and spices in this area has become a booming niche business in recent years, combining old expertise with contemporary methods to reach customers throughout the world. The potential of cultivating spices and medicinal plants in Northeastern India is explored in this article, which also looks at the crops' cultural, ecological, and economic significance, the rising demand for natural and organic products, and how the area might develop into a global centre for these high-value agricultural products.

The Unique Agro-Climatic Advantage of Northeastern India

Because of its diverse geography, abundant rainfall, and rich soil, northeastern India has a clear agroclimatic advantage. The ideal conditions for growing fragrant spices and therapeutic plants are created by these elements as well as a primarily organic farming culture. Many of the native spice types in states like Assam, Meghalaya, Manipur, Arunachal Pradesh, and Nagaland are unique to their regions.



Due to the region's high elevation and humid environment, special spices like big cardamom (*Amomum subulatum*) and black

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cardamom which are highly prized for their smokey scent and therapeutic qualities can be grown there. Meanwhile, a variety of medicinal plants, some of which have been utilised for ages in traditional medicine, may flourish due to the region's rich forest biodiversity.

Spices: A Hidden Treasure in the Global Market

India's spice business is worth billions of dollars, and Northeastern India has a sizable yet untapped market. The demand for spices is rising gradually worldwide as customers look for premium, distinctive, and organic types. Let's examine some of the major spices produced in Northeastern India in more detail, as well as their potential for specialised markets.

1. Black Cardamom (*Amomum subulatum*)

Black cardamom is one of the most common spices in the area; it is referred to locally as "Bari Elaichi." Black cardamom, which is mostly grown in Sikkim, Arunachal Pradesh, and Meghalaya, is used extensively for its strong, smokey flavour and therapeutic qualities. Black cardamom is said to provide anti-inflammatory, pulmonary, and digestive benefits in traditional medicine.

Despite its promise, Northeastern Indian black cardamom is frequently undermarketed and offered for less than other international types. This spice may enter high-

end international markets where there is a strong demand for items supplied ethically and organically by establishing appropriate branding, certification, and marketing techniques.

2. Ginger (*Zingiber officinale*)

Particularly in the states of Assam, Meghalaya, and Arunachal Pradesh, northeastern India is one of the country's top producers of ginger. Ginger from the area is well known for its potent taste and excellent therapeutic value; it is widely utilised in Ayurvedic medicine for its immune-stimulating, digestive, and anti-inflammatory qualities.

The region has potential as a result of the increased demand for organic ginger from the health-conscious consumer sector. Value-added goods like ginger oil, extracts, and powder, as well as organic certification, can raise the crop's economic worth and make it more competitive on the world market.

3. Bhut Jolokia (Ghost Pepper)

Bhut Jolokia, also referred to as the ghost pepper, is another spice that has drawn interest from all around the world. The Guinness World Records once declared this scorching chilli, which is mostly cultivated in Assam, Nagaland, and Manipur, to be the hottest chilli in the world. In addition to being a gastronomic wonder for spice lovers, Bhut Jolokia offers therapeutic benefits that include

promoting metabolism, enhancing circulation, and reducing pain. Although Bhut Jolokia has already established itself in the international spice industry, value-added items such as powders, sauces, and even dietary supplements might help the company develop even more.

4. Turmeric (*Curcuma longa*)

Turmeric from the northeast, especially those cultivated in Assam and Meghalaya, is more powerful than other types cultivated in India because to its high curcumin level. The primary ingredient in turmeric that gives it its anti-inflammatory, antioxidant, and anticancer effects is called curcumin. Northeastern turmeric has enormous promise in the spice and wellness sectors, especially with the growing demand for natural health supplements worldwide. The region's turmeric may establish itself as a high-end product in the health and wellness industry by emphasising organic farming methods, branding, and curcumin-rich goods like extracts, oils, and capsules.

Medicinal Plants: A Rich Heritage of Traditional Healing

Thousands of medicinal plant species may be found in northeastern India's great biodiversity, and many of them have been utilised for ages by local tribes for their therapeutic qualities. These plants provide local farmers with a steady source of income

and are essential to ancient medical systems like Ayurveda, Unani, and tribal medicine.

Northeastern India's medicinal plants present a profitable niche market as more people resort to herbal medications and natural cures. The most significant medicinal plants cultivated in the area are listed below, along with their potential market.

1. *Rauvolfia serpentina* (Indian Snakeroot)

Rauvolfia serpentina, a natural herb used for generations to cure sleeplessness, anxiety, and hypertension, is commonly referred to as "Sarpagandha" in Ayurveda. Alkaloids found in this plant's root are utilised in contemporary pharmaceuticals to make hypertension medications. The commercial potential of *Rauvolfia serpentina* cultivation has not been fully explored, despite its medical relevance. Promoting its cultivation, appropriate processing, and value addition may create new prospects for the herbal medicine and pharmaceutical sectors.

2. *Taxus baccata* (Himalayan Yew)

Another significant medicinal plant that is indigenous to the Northeastern Himalayas is *Taxus baccata*, sometimes referred to as the Himalayan Yew. Taxol, a substance used to treat cancer, is present in the plant. One of the most significant natural anticancer agents, taxol is much sought after in the pharmaceutical sector.

While giving farmers a lucrative crop, the sustainable production and harvesting of Himalayan Yew can aid in the worldwide battle against cancer. To prevent overexploitation, nevertheless, conservation must be the main priority.

3. *Aconitum species* (Monkshood)

In traditional medicine, the *Aconitum* species known locally as "Bikh" or "Atees" is used to cure colds, fevers, and arthritis. However, it needs to be processed carefully to make it safe for use in medicine because of its poisonous nature. With the right safety rules and quality assurance in place, *aconitum* has the potential for use in both the pharmaceutical and traditional medicine sectors.

4. *Centella asiatica* (Gotu Kola)

The medicinal herb *Centella asiatica*, commonly referred to as gotu kola, has several applications in Chinese, Ayurvedic, and traditional medicine. It has a reputation for enhancing memory, lowering stress levels, and curing wounds. As a herbal supplement, gotu kola has grown in popularity in the worldwide wellness industry. Its potential in skincare and cosmetic goods is also being investigated.

By encouraging the organic production of Gotu Kola and creating value-added goods like teas, creams, and supplements, Northeastern India may take advantage of this rising demand.

Challenges and Opportunities in Spice and Medicinal Plant Farming

Northeastern India has enormous potential for growing spices and medicinal plants, but to fully benefit from this unique market, some issues must be resolved.

Challenges:

Lack of Infrastructure: The area struggles with inadequate infrastructure for agricultural product processing, storage, and transportation. This lowers the overall profitability of growing spices and medicinal plants and causes post-harvest losses.

Market Access: Because of the region's remoteness and lack of robust market connections, farmers in Northeastern India frequently have difficulties reaching both domestic and foreign markets.

Knowledge Gap: A lot of farmers are not equipped with the skills and information needed to grow, process, and sustainably certify their products. This restricts their capacity to manufacture superior goods that satisfy international standards.

Opportunities:

Organic Certification: Northeastern India has the potential to lead the world in the production of organic spices and medicinal plants due to rising consumer demand for items obtained ethically and organically. Giving farmers the instruments and resources

they need to become certified organic can greatly increase the marketability of their goods.

Value Addition and Branding: The commercial worth of spices and medicinal plants may be significantly raised by value-added goods such as essential oils, extracts, and supplements. Northeastern spices and medicinal plants can also be distinguished in the international market by creating a distinctive regional brand, much as Darjeeling tea.

Government Support and Policy Framework: The potential of organic farming and herbal medicine in Northeastern India has been acknowledged by the government. Policies that offer funding, education, and access to markets can help to further develop this industry. This objective is already being pursued by programs such as the Mission Organic Value Chain Development for North Eastern Region (MOVCDNER).

Conclusion

In the global niche market for spices and medicinal plants, northeastern India is a rising star. Northeastern India has the potential to grow into a major force in the world market for spices and medicinal plants. Its distinctive agroclimatic conditions and abundant biodiversity.