



Elephant Ear Fig (*Ficus auriculata*) Cultivation in North-East India

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Elephant Ear Fig (*Ficus auriculata*) cultivation plays a vital role in the agricultural and socio-cultural landscape of Northeast India. Widely known for its large ear-shaped leaves and highly nutritious figs, the crop is deeply linked to traditional diets, indigenous medicine, and rural livelihoods. The humid subtropical climate, fertile soils, and abundant rainfall of the Northeast make it an ideal region for cultivating this fruit tree. Recognized for its multipurpose benefits—food, fodder, medicine, and ecological value—the Elephant Ear Fig has immense potential as a sustainable horticultural crop. This article provides a detailed study on the significance of Elephant Ear Fig cultivation in Northeast India, the different locally grown varieties, major diseases and their control measures, its role in regional economic activities, suitable soil and climate conditions, and the diverse uses of the tree. Through a comprehensive exploration of these aspects, the article highlights how Elephant Ear Fig cultivation supports ecological balance, tribal livelihoods, and nutritional security in the region.

Keywords: Elephant Ear Fig, Northeast India agriculture, *Ficus auriculata*, traditional crops, sustainable farming, indigenous fruits, food security, soil suitability.

Introduction

The Elephant Ear Fig (*Ficus auriculata*), commonly known as the “Roxburgh fig” or “Bhadrase,” is a valuable fruit-bearing species widely grown in the hilly regions of Northeast India. Rich in vitamins, antioxidants, and medicinal compounds, the fruit is used in local cuisines, pickles, beverages, and herbal remedies. In states such as Assam, Meghalaya, Nagaland, Mizoram, Manipur, and Arunachal Pradesh, this tree thrives naturally due to high rainfall, warm temperatures, and fertile forest soils. The crop is traditionally managed by tribal communities and contributes to their diet, health, and cultural practices. Today, Elephant Ear Fig cultivation is gaining commercial attention due to increasing demand for indigenous fruits, value-added products, and nutraceutical applications. Although farmers face challenges like pests, diseases, and lack of standardized cultivation practices, its potential for income generation and ecological benefits makes it a promising crop for sustainable development in the region.

Why Elephant Ear Fig Cultivation is Important in Northeast India

Economic Role: The fruit is sold fresh or processed into pickles, jams, dried fig slices, and herbal products, supporting local markets and small-scale industries.

Employment: Rural households earn income through collection, cultivation, processing, and sale of fruits, providing livelihood to tribal communities.

Cultural Importance: The figs and leaves are used in traditional dishes, rituals, and indigenous medicine, making them part of the region's cultural identity.

Food & Nutrition: The fruit is rich in fiber, antioxidants, vitamin C, and minerals—supporting nutritional security in remote regions.

Ecological Benefits: The tree prevents soil erosion on slopes, supports biodiversity, and improves soil fertility in agroforestry systems.

Varieties of Elephant Ear Fig

Wild/Local Varieties: Commonly found in forests and village boundaries, these plants are hardy, tolerant to local conditions, and produce medium-sized fruits.

Improved/Farmer-Selected Varieties: Some communities cultivate selected strains known for larger fruits, sweeter pulp, and higher yield.

Regional Eco-types: Different states show unique characteristics:

- **Assam:** Sweet-tasting varieties with high moisture content.
- **Meghalaya:** Large-fruited varieties, commonly used for pickles.
- **Nagaland & Mizoram:** Eco-types with strong medicinal properties.

Diseases of Elephant Ear Fig and Their Remedial Measures

Leaf Spot Disease: Symptoms include brown/black patches. Controlled with copper fungicides and pruning.

Fruit Rot: Causing soft, decayed fruits. Controlled by improved drainage and organic fungicides.

Root Rot: Leads to stunted growth. Managed through well-drained soil and bio-fungicides.

Scale Insects & Mealybugs: Controlled using neem oil and biological agents.

How Elephant Ear Fig Cultivation Helps in Northeast India's Economic Growth

Supports cottage industries, boosts tribal livelihoods, promotes eco-tourism, encourages value addition, and meets domestic demand for indigenous fruits.

Soil Composition for Elephant Ear Fig Cultivation

Ideal soils include sandy loam, red loam, humus-rich mountain soils, and well-drained alluvium. pH range: 5.5–7.0. Organic manure, mulching, and intercropping are recommended.

How Elephant Ear Fig is Useful

Fruit: Used fresh, cooked, or processed.

Leaves: Used as plates and fodder.

Bark & Roots: Used in herbal remedies.

Wood: Used for tools and crafts.

Ecological Value: Prevents erosion and supports wildlife.

Conclusion

Elephant Ear Fig cultivation supports livelihoods, nutrition, and ecological health in Northeast India. With proper disease management, market development, and scientific intervention, it has strong potential for sustainable agricultural growth.

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