

Plant Tissue Culture & Organic Cultivation

World Health Organisation (WHO) has estimated that at least 80% of the world population relies on traditional systems of medicine for their primary health care needs. These systems are by and large plant based. According to WHO over 21000 plant species are useful in the preparation of medicines. Due to the growing awareness about side effects and complications of chemical and synthetic medicines, cosmetics and health supplements, usage of herbal products has gained importance both the Eastern and Western Worlds.

The current global trade in Medicinal Plants is close to USD 66 Billions. The growth rate in Asian countries is estimated at 12.5% as against the global increase of 7%. Recognizing this lucrative opportunity the Government of India has been promoting Medicinal plant cultivation through National Horticulture Board and National Medicinal Plant Board. Although the cultivation of Medicinal plants seems highly attractive, it has its own limitation that should not be overlooked by the new comers.

The uncontrolled collection and sale of large quantities of plant material from the forest has been leading to destruction of medicinal plants. Local communities, traditional medicinal herbalists and herbal medicinal vendors popularly collect roots, bark and whole shrubs. This creates a serious problem.

Cultivation of medicinal plants especially high value medicinal plants is creating new dimension in the field of agriculture. The need for developing countries to acquire technologies and techniques for programmed cultivation of medicinal plants is a current issue. Various aspects of medicinal plant cultivation includes old philosophies, modern impact of traditional medicines, and methods of assessing the spontaneous flora for industrial utilization, climatic variations, biological assessment, formulation, process technologies, Phytochemical research and information sources.

Scientific cropping of industrially important medicinal plant is an integrated approach with agricultural and forestry with optimum land and water resources utilization. In India, various medicinal plants are cultivated and domesticated, therefore, International trade is looking to procure medicinal plant materials from India for the production of pharmaceutical, nutraceutical and cosmeticeutical preparations. India is also making efforts for cultivation, collection, characterization, planned hybridization programs for improvement of the plant species, and conservation medicinal plants restoring their genetic resources, etc for commercial cultivation.