Herbal Gardens for Health and Wealth

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Introduction

The known fact that India is treasure house of medicinal plants having the ability to cure many dreadful diseases and ailments without any side effects. India is blessed with varied agro-climatic conditions which permits the large biodiversity of medicinal plants. There are about 7000 plant species known to have medicinal values out of 18000 species of higher plants reported in India. Any other country in the world is not having this much proportion of medicinal plants against the existing flora. Since, the times immemorial Indians are using variety of medicinal plants for curing different diseases/ailments of humans and animals. The Indian Systems of Medicine (ISM) is one of the famous medical systems in the world which include Ayurveda, Siddha, Unani, Homeopathy and other indigenous practices. Ayurveda is the oldest known medical system in India has alone documented 2000 medicinal plants followed by Siddha and Unani. The estimates of World Health Organisation (WHO) shows that 80% of the population in developed and developing countries depends on traditional plant based medicines for their health requirements.

Need for Herbal Gardens

The ISM is based mainly on medicinal herbs found in the wild and forest sources which contribute 90% of raw materials for the production of herbal medicines. India has exported USD 330.18 million worth of herbs and 456.12 million worth of value added herbal products during 2017-18. Also, there are several stakeholders in the medicinal plants sector, right from herb collectors, manufacturers and consumers. Continuous harvesting of medicinal plants from the forest resources for the past decades has resulted in the population decline of many high value species. The key threats for medicinal plants are due to destructive collection of species, industrialization, forest fires, animal grazing, habitat specificity, climate change, exploding human population and genetic erosion. In contrast, the demand of herbal medicines has been increasing manifold in developed...
and developing countries over the years since they do not have any side effects and available at affordable prices. Hence, there is a need for conservation, cultivation, maintenance and sustainable use of medicinal plants. As the demand for medicinal plants is ever increasing as people are more and more fascinated towards herbs, extraction from wild has its own problems and risks, the important medicinal plants can be assembled and grown in herbal garden and the same can be propagated for large scale distribution.

**Definition**

Herbal Garden refers to growing of Medicinal and Aromatic plants (MAPs) which are having preventive and curative properties against diseases or ailments. Herbal Gardens are established in different places to serve as a germplasm collection of important herbs for their conservation and to use them for educational and research purpose besides promoting health or medical tourism. The establishment of herbal garden will bring awareness on local medicinal plants for common ailments and encourage the small and marginal farmers to cultivate them for raising their income resources. Cultivation and propagation will help to conservation of medicinal plants.

**Establishment of Herbal Garden**

It should be remembered that unlike other types of gardens, a herbal garden should be set up with number of specific aspects. The garden may be of any size but in general a minimum of about 0.06 ha area becomes necessary to set up such a garden in most cases. The selected area should be located within easy reach of the users and free from any legal disputation. Those plant species which are usually of greater necessity for curing different ailments of children and elderly people should be given preference in the garden. In general, the number of species that are to be grown should be more while the number of plants belonged to a species may be less. After selecting the land and plants, the next immediate step should be earmarking of land and fencing with hedges or any other means.

The field should be thoroughly ploughed for three times and kept for a week to kill the soil borne pathogens. Well decomposed organic manures can be used for supplementing essential nutrients at the time of last ploughing. Cropping plots should be located in sunny places and size of the plots would depend on the purpose. In principle, it should be remembered that a minimum of 8 square meter to be maintained for each species of plant. The planting materials should be procured from a reliable or accredited nursery. Any chemical fertiliser, pesticides, plant growth regulators or other form of chemicals should be avoided in herbal garden. Proper irrigation facilities to be provided for plants by surface, sprinkler or drip irrigation. Nursery, foot paths and roads, bee keeping units, manure pits, labels, sit ups and office room can be created to have better visibility.

**Types of Herbal Garden**

However, instead of maintaining the herbal gardens individually by the people, these can be set up and maintained by the municipality, development authority, community, institution, organisation etc. Thus, in an urban or municipal area one such garden may be maintained in each ward by the authorities which would cater to the requirements of the residents in that ward. Similarly, schools, colleges, offices, courts, clubs, societies etc. can also maintain such gardens for use by the students or concerned persons provided that open land available. The surplus raw materials and products from these gardens can be sold to the public or pharmaceutical concerns. In the rural parts of India, establishment of herbal gardens by the panchayats, co-operative societies, schools and cottage industries can be done as other sorts of medical facility is not adequately available. Moreover, in such places land to set up the gardens is not an acute problem. At village level, medicinal plants can provide some of the strongest links between people and nature. Maintaining such links through the sustainable harvesting and utilization of medicinal plants can be crucial factor to ensure the continuation of those traditional socio-cultural behaviours. Also, village based or cottage industries can be set up by the Self Help Groups (SHGs) and this will surely improve the economy and life style of rural people by obtaining sustainable health and income.
Government Initiatives
The National Medicinal Plants Board (NMPB) is providing financial assistance to set up different types of herbal gardens such as home herbal gardens, school herbal gardens and Institutional herbal gardens through State Medicinal Plant Boards (SMPB) under central sector scheme. Very recently, NMPB is announced a new scheme ‘20 medicinal plants for 2020’ for household uses to promote, cultivate and creating awareness among local people about rich diverse traditional knowledge on medicinal plants and their benefits.

Herbal Gardens in India
There are number of herbal gardens have been established in India by government, non-government and private agencies in which large number of common, rare and endangered medicinal plant species are maintained. A web based networking of herbal gardens in India was created by Directorate of Medicinal and Aromatic Plants Research (DMAPR), Anand, Gujarat for sharing the information of public and private funded herbal gardens spread nationwide. This networking platform can be used to collect and disseminate information on availability of planting material from various gardens to facilitate exchange of planting material among the member herbal gardens as well as others who desire to have these. The site is available at www.herbalgardenindia.org. A total of 117 herbal gardens across the country registered as members as on date.

Conclusion
The interest and consumption of herbal medicines are increasing as compared to allopathic medicines in all parts of the world. Simultaneously, there has been an increase in the demand for medicinal plants. Hence, there is a need for in-situ and ex-situ conservation of valuable medicinal plants to obtain the greatest benefit for the present generation and maintaining the potential for future. There is also a need to cultivate for larger production and authenticity. Herbal gardens serve as repository of medicinal plants, where the people can come and learn about the cultivation, harvesting and propagation of such crops. Who knows may be in the nearest future medicinal plant species in the Herbal Gardens may help to develop drugs to combat some dreadful diseases. The networking of herbal garden through online database will gives centralized information on all the available herbal gardens in India to the common people.

References
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