

Herbal the Harvest: The Business Profitability and Ecological Sustenance in India

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Abstract

A journey of the agricultural scenario of India from its self sufficiency to it exploring different arenas in order to keep the farming community thriving with promoting the herbal harvest basically the aromatic and medicinal plants. In the light of the schemes like doubling farmer's income by 2020, Aroma mission and Ayush mission a plethora of farming opportunities have arrived which could benefit the farmer and provide him with a consistent amount of returns for his hard work. It is a means of combining the traditional crops with the herbal crop for the sustainability of the farm and the farmer in today's flickering environment of climate change.

Keywords: Self-sufficiency; Herbal harvest; Doubling farmers income; Farming opportunities; Sustainability; Returns.

Introduction

India being an agricultural country, a massive focus was given to the agriculture sector especially after independence where there was a lot of food shortage hence to meet these various developmental strategies were made on raising the agricultural output and improving the food security of a newly independent India. Hence, leading to the massive success of the green revolution and other developmental programs, the food shortage was surmounted with an impeccable success rate. After that, it increasingly multiplied the food production 3.7 times whereas the population multiplied by only 2.55 times. According to these statistics, India has now become not only food self-sufficient at a comprehensive level but is also capable of exporting its agricultural products abroad. This success somehow overshadowed the farmer's plight in India, the earlier development program

neither did focus on promoting the farmer's welfare nor focused on the farmer's income instead all of its attention was deviated just to increase the farm income. With a lot of loopholes and forged assumption the agrarian crisis just got worse as their myopic sight could only see self-sufficiency as the only goal achieved at the cost of the farming communities' agony. But India has come a long way with its policies thereby making it self sufficient and also capable of being the highest exporter of many agricultural produce.

A beacon of hope-

As of now, "Doubling the farmer's income by 2022", a new strategic development program specifically focusing on doubling the farmer's income. To achieve this goal by 2022 as of started from 2015-16 requires annual growth of 10.41 per cent in the farmer's income as per the NITI Aayog.



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Therefore, there should be a sharp increase in the farm income, thus, strong measures need to be applied to obtain all sources of growth in farmer's income within as well as outside the agricultural sector. There have been missions like the Aroma mission by the CSIR (Council of Scientific and Industrial Research) that aims to increase the income of the farmers through the cultivation of high value and high demand aromatic crops by about Rs. 30,000 to 60,000/ha/year. About 45,000 skilled human resources capable of multiplying quality planting material, distillation, fractionation and value addition will also be developed under "Skill India" initiatives. More than 25,000 farming families are likely to be directly benefitted and employment of more than 10-15 lakh man days will be generated in rural areas. Scientific interventions would provide assured benefits to the growers of Vidarbha, Marathwada, Gujarat, Rajasthan, Andhra Pradesh and other states where farmers are suffering due to the unsuitable weather conditions and account for maximum suicides and also the National Ayush Mission (NAM), Ministry of Ayush, promoting the ayurvedic medicines thereby affecting the direct production of medicinal plants in our country.

In a generation that keeps exploring different arena's these policies are opportunities that are far and rare ones, leading to an unprecedented path. Hence, it is probably an apt time to lay one's footprint into this arena of herbal harvest precisely the business aspect of medicinal and aromatic plants. Especially for its ease of growing and high profitability. It also provides first-hand therapy against many diseases like arthritis, asthma, diabetes etc, along with the discovery of several new molecules detected in the herbs which are proven to be capable of treating other dreaded diseases like cancer etc, and the relative safety of these products has led to an increase in the demand of medicinal plant products in recent years, Similarly consumers are preferring cosmetics with aromatic products from plants resulting in higher demand for the raw material. India is one of the earliest civilization acknowledging the importance of herbal products, which is by no surprise that it is a niche to almost 8000 medicinal and 2500 aromatic plants.

Materials and Methods

Descriptive techniques including source resources, editing and sequencing of ideas, citations were followed to develop the text.

An insight into a blooming Business opportunity-

Medicinal and aromatic plants are generally considered as an industrial crop and their products are used in the pharmaceuticals or flavour or fragrance industries. According to the World Health Organization (WHO), nearly 80 percent population in developing countries is dependent on traditional systems of medicine, which are mostly plant-based.

India has nearly 9500 registered herbal industries and a multitude of unregistered cottage level herbal units. Apparently, a plethora of business opportunities have opened up that can solve unemployment problems in rural areas, increasing farmer's income by giving them a better alternative to the traditional crops or even mixed cropping along with the traditional crops, thereby improving rural living standards with a constant income generation all throughout the year and thus enabling India to become a leading exporter of these plants and their products. In context to recent times it is already ranking number two position with regard to export of raw materials but it is in the sixth position when it comes to export of value-added products; and as likely observed by economists export of value-added products would fetch higher profits than the export of raw materials, this most likely enlightens us to the path that we should be trailing on.

The herbal harvest has been led by strong and rapidly growing industrial demand, with some Indian companies like Dabur, Himalaya, Patanjali, etc. leading the forefront, Dabur also conducts special training programs as part of its Environment Sustainability strategy. According to the Govt data, industry estimates put the market of herbal products at 50,000 crores, growing at a fast annual clip of 15%. Acreage devoted for herbal harvest is still very small- 6.34 lakh hectares out of the total currently cropped area of 1,058.1 lakh hectares though it is growing at 10% annually. Also, it's highly advantageous for the farmers because by sowing the herb only once, one can harvest it two or three times a year. This means that the profit margin for the next two times will be higher as the input cost involved will be much lower. The farmers are intended on earning about 3 lakh rupees per acre in comparison to the returns in rice and wheat farming which is not above a 30,000 per acre.

The most commonly found herbs whose value and business perspective was unheard of-

Results and Discussion

Menthol mint (*Mentha arvensis*) is the source of natural menthol and is widely used in fragrance, flavour and aroma industry. It is quite popular

in the Indo-Gangetic plains among the small and marginal farmers covering an area around 3 lakh hectares. The essential oil yield of 100-150 kg from one hectare is possible after 3-4 months of its sowing.

Improved variety (ies)	Kosi, CIM-Kranti (CSIR-CIMAP)
Cost of cultivation	Rs.40,000/ha
Gross return	Rs.1,40,000/ha
Net profit	Rs.1,00,000/ha

Aloe vera (Aloe barbadensis)- It is a high valued medicinal herb which is used in the cosmetic as well as medicinal industry. Indian start-up companies like Naturelo Agro, have business turnovers in crores with the cultivation of "babie densis" variety of aloe vera, on its 120-acre field, which are mainly exported to Brazil, Hong Kong and America.

Amla (Phyllanthus emblica)- Also known as Indian gooseberry, it is the only crop used in around 219 medicines in the world, therefore, its medicinal properties are impossible to fathom. It can also be used for the preparation of innumerable value-added products like amla beverages such as squash, syrups and dehydrated amla products like candy.

Ashwagandha (Withania somnifera)- It is also known as Indian ginseng. This medicinal herb is known to improve immunity as an adaptogen and also for its anti-cancer properties. Ashwagandha generates about Rs.1,00,000 return per acre, most of which are bought by companies like Dabur, Patanjali, Organic India and export houses. In India, Rajasthan is the highest grower of this herb.

Basil (Ocimum basilicum)- Also known as the "Queen of herbs". It has great demand in the pharmaceutical, cosmetic and processed food industries. Furthermore, it can be grown in all types of climate and by investing 25-30,000 rupees in the initial stage of cultivation; an outcome of 3 lakh rupees can be expected in about 3-4 months.

Improved variety (ies)	CIM-Saumya, CIM-Jyoti (CSIR-CIMAP), RRL-OG-14 (CSIR-IIM)
Cost of cultivation	Rs.20,000/ha
Gross return	Rs.60,000/ha
Net profit	Rs.40,000/ha

Brahmi (Centella asiatica) - It is one of the traditional and early age herbs of India. It is famously used for improving mental clarity and memory recall concentration. Its cultivation is as profitable as Ashwagandha.

Damask Rose (Rosa damascene) - it is a perennial shrub and one of the most important rose species, it is generally grown in high altitude region ranging

from 250 - 2500m About 25-30 q/ha fresh flowers are harvested from the one-hectare area which produces 0.60 kg rose oil. The market price of oil ranges between Rs. 5.0 to 6.0 lakh/kg. After deducting all costs, this crop gives an average net return of Rs. 2.00 lakh/ha, it is used in making rose water, rose concrete and rose absolute.

Improved variety(ies)	Himrose, Jwala (CSIR-IHBT), Noorjahan, Ranisahiba (CSIR-CIMAP)
Cost of cultivation	Rs.1,00,000/ha
Gross return	Rs.3,00,000/ha
Net profit	Rs.2,00,000/ha

Rosemary (Rosmarinus officinalis) -it is a woody, perennial herb with fragrant, evergreen, needle-like leaves and white, pink, purple, or blue flower. It can withstand droughts, surviving a severe lack of water for lengthy periods. It can be cultivated in Himachal Pradesh, Jammu and Kashmir, Nilgiris and Uttarakhand hilly regions. Rosemary leaves are used as a flavouring in foods and herbal tea.

Improved variety(ies)	CIM-Hariyali (CSIR-CIMAP)
Cost of cultivation	Rs.60,000/ha
Gross return	Rs.2,40,000/ha
Net profit	Rs.1,80,000/ha

Jatropha (Jatropha curcas) - Jatropha is one of the best oilseed plants with medicinal as well as industrial usage. The plant prevents soil erosion and can be grown in wastelands with low rainfall or drought-prone areas. And it is widely known as the main source of bio-diesel for an environment-friendly world. Hence, could be cultivated in many drought-prone areas of India.

Lavender (Lavandula angustifolia) - Generally, lavender farming is profitable in India but it can be grown in the Himalayan region only. It requires no input except water that too only at the time of planting hence it is highly cost effective. Lavender flowers are processed to obtain oil, dry flowers and other value-added products. The Indian Institute of Medicine has been promoting the cultivation of lavender, rosemary, geranium because the demand for its essential oil has increased tremendously in the domestic market.

Improved variety(ies)	RRL-12 (CSIR-IIIM)
Cost of cultivation	Rs.1,20,000/ha
Gross return	Rs.4,20,000/ha
Net profit	Rs.3,00,000/ha

Lemon grass (Cymbopogon citratus) - Lemongrass is one of the commercially cultivated crops in India that is grown at a very wide range. Apart from the medicinal value, it is majorly used in the perfumery,

cosmetics, soaps, detergents and beverages. Total oil produced from 1 hectare of lemongrass farming in one year is generally 480kg, which has a probability of being sold at 12,000 rupees per kg.

Improved variety(ies)	Krishna, CIM-Shikhar (CSIR-CIMAP), Jor Lab-L-8 (CSIR-NEIST)
Cost of cultivation	Rs.40,000/ha/year (irrigated), Rs.30,000/ha/year (un-irrigated)
Gross return	Rs.1,60,000/ha/year (irrigated), Rs. 1,00,000/ha/year (Un-irrigated)
Net profit	Rs.1,20,000/ha/year (Irrigated), Rs.70,000/ha/year (Un-irrigated)

Vetiver (Chrysopogon zizanioides) - Vetiver plants are very strong and can withstand extreme heat and cold conditions. These plants are disease free and easy to manage. A farmer is expected to have a profit of Rs.1,00,000 per acre under the cultivation of vetiver, thus increasing the income of the farmer by three to four times, especially, in the Southern states of India. Vetiver oil is useful in the perfumery, soap making and cosmetic industries.

Safed musli (Chlorophytum borivilianum) - This plant has excellent ayurvedic properties and can be grown anywhere in the country. Commercial cultivation with good crop management practices will give a good result, hence, many farmers are taking up the cultivation of this high investment crop. It is used in the preparation of general health tonics and is also one of the important ingredients of Chyawanprash. It can give a profit of about Rs.1,00,000 per acre from the second year of planting.

Conclusion

A boon to explore further...

There are indeed vast multifarious herbs to be mentioned which have extraordinary properties and which can be used as a successful business venture for an Indian farmer in particular and the whole farming community in general. Therefore, such a lucrative business idea with healthcare benefits, sustainable economy, environmental protection and ecological restoration is worth exploring. Millions of livelihood can also be created to ensure minimum income support for those surviving hard in eking out livelihoods across the geography and economic terrains.

“Farming is a profession of hope”

-Brian Brett

Let's hope for a wealthier farmer, a prosperous nation and a better world.

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