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REVIEW ARTICLE ON PRODUCTION AND MARKET VALUE OF SOME AROMATIC AND MEDICINAL PLANTS IN LUCKNOW REGION WITH REFERENCE TO B.K.T TAHSIL

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ABSTRACT

Ancient medical history reveals that there has been long inter relationship between human life and Aromatic / Medicinal plants for treatment of many diseases. Our vedas, religious books like Ramcharitamanas reveals the use of many phytoalkaloids / Aromatic compounds extracted from various parts of medicinal plants like Sanjeevni Booti, Chyavanprash, Amrit Shudha etc. Charak Samhita, Vaidya Chintamani, 80/20 rule in Ayurveda explains about utility of medicinal plants in our past and present life. Modern lifestyle, Urbanisation, Industrialization and chemical pesticides have become threat for existence of Endangered medicinal plants species. It is a challenge for medical researchers, Social workers and other stakeholders to conserve all Aromatic and medicinal plants for their medicinal values to maintain eco climatic zones and sustainability of future health issues.

KEYWORDS: Pesticides, Stake holders, Ayurvedic Principles, Phytochemicals

STUDY AREA

Natural products have played a key role in human medicine as many of them are either used as direct or derivatives thereof. Indeed it is estimated that about 40% of all medicines is either natural products or their semi synthetic derivatives (Jacob, 2009). Clinical, pharmacological and chemical studies of these traditional medicines, which were derived predominantly from plants, were the basis of most early medicines such as aspirin, digitoxin, morphine, quinine and pilocarpine (Butler, 2004). Natural products research continues to explore a variety of lead structures, which may be used as templates for the development of new drugs by the pharmaceutical industry (Patwardhan *et al.*, 2004). These approved substances, representative of very wide chemical diversity, continue to demonstrate the importance of compounds from natural sources in modern drug discovery efforts (Chin *et al.*, 2006).

The family *Zingiberaceae* is an important natural resources that continues a vital group of rhizomatous medicinal and aromatic plants, characterized by the presence of volatile oils and oleoresins of rich export value. India is one of the richest and diverse regions for *Zingiberaceae*, having 22 genera and about 170 species. The overproduction of free radicals and their oxidative stress can cause chronic illness in the human body. The role of phytochemicals from medicinal plants are significant in this context due to its potentials associated with their antioxidant antioxidant activity (Soobrattee *et al.*, 2005; Zhang *et al.*, 2015).

The medicinal plant *Withania somnifera* (L.) Dunal, Known as the 'winter cherry', Indian ginseng as well as ashwagandha, is classified under the family Solanaceae. This industrially important medicinal plant is cultivated worldwide in semi – arid and arid zone such as India. The biologically active chemical constituents present in its roots are withanolides and withanone. Being an important medicinal plant and having vast applications, its demand in India is about 7000 tons per annum.

The roots of Withania somnifera Dunal is utilized to treat various ailments, including bronchitis, dropsy, stomach issues, lung inflammation, tuberculosis, asthma, skin conditions as well as male impotency. The demand for quality raw materials of W. somnifera is increasing in the global market, which can be met through enhancing productivity with better quality by adopting appropriate agricultural practices. The study area lies in various villages of B.K.T Tahsil of Lucknow district of U.P. Lucknow as earlier was called as 'City of Nawabs. The total area of the district is 2528 sqkm, it is bordered by Raebarelli, Sitapur, Barabanki, Hardoi and Unnao district of U.P. The climate is humid sub-tropical and average annual rainfall is 950 – 1010mm. The maximum monthly temp. varies from 40-44 degree Celcius. B.K.T tehsil has total area of 41 sqkm. The soil is fertile alluvial sub-tropical monsoon with hot summers upto 45 ºC.

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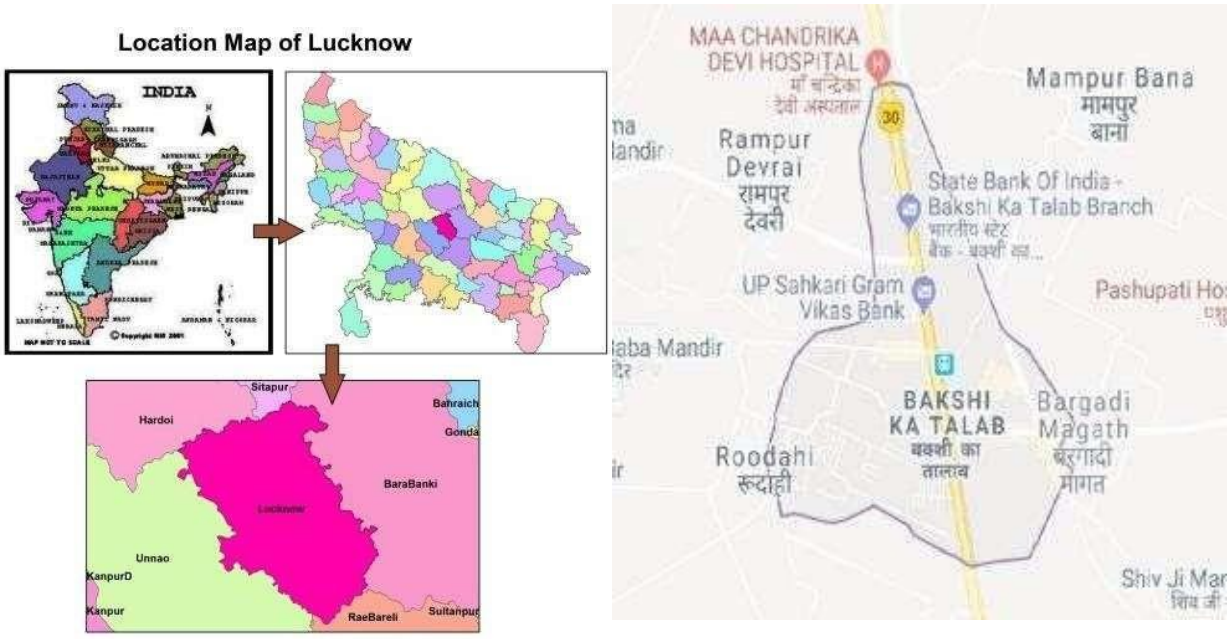

Medicinal Plants cultivated by villagers of B.K.T Tahsil

Aromatic /Medicinal plants	Cultivated area	Market Value	Medicinal Properties
Aloe Vera – Ghrit kumari	Mr Avadh Ram of village Rampur has cultivated 0.5 hc	It varies from Rs. 140 – 260 per kg	Used as anti bacterial, anti oxidant, for skin issues, to lower blood sugar level etc.
Tulsi – Ocimum sanctum.	Mr . Ram Prakash of vill. Jagdishpur has cultivated in 0.6 hc	Rs. 240- 300 / kg	Used as antioxidants stress relief, immunity booster, respiratory health
Shankh Pushpi	Mr Ram Ratan pal of vill. Raitha has cultivated 0.04 hc	Rs 80 – 140 / kg	Used as brain tonic, memory enhancement, stress and anxiety relief
Ashvagandha	Mr . Ramkumar of vill. Lalpur has cultivated 0.05 hc	Rs. 260 – 480/kg	Used to stress and anxiety relief, to raise testosterone level and immunity booster.
Turmeric	Mr. Dayaram verma of vill. Bhawanipur has cultivated 0.25 hc	Rs. 80 to 240 / kg	Anti oxidant, anti mibicrobial, anti cancer agent, home remedies.
Shatawari	Mr Ram milan of vill. Asti has cultivated 0.04 hc	Rs. 200 to 600 / kg	Female reproductive health, immunity booster, vitality and stress relief
Bael	Mr. Surajdin of vill. Raitha has cultivated 0.5 hc	Rs. 30 to 90 / kg	Anti oxidants, anti diarrheal effects, heart health, cooling tonic.
Neem	Mr. Ram vishal yadav of vill. Mampur bana has cultivated 0.5 hc	Rs. 75 to 120 / kg	Anti fungul, anti bacterial, treating skin issues, detoxification, blood sugar controller.
Peppermint	Mr . Ram sevak of vill. Sekhupur has cultivated 0.7 hc	Rs. 650 to 900 / kg	Anti inflammatory, boosting alertness and memory, aroma therapy.
Ginger	Mr. Dinesh of vill. Roodahi has cultivated 0.5 hc	Rs. 65 to 90 / kg	Anti oxidant, immunity booster, anti nausea.

Ethnomedical Uses

Traditional healing varying by region and culture. Ailments treated for skin diseases, fever, jaundice, respiratory problems, Gynecological disorders, Gastro- Intestinal Issues, herbal therapy etc.

Table: Madicinal plants used by local villagers of B.K.T Tahsil of Lucknow District of UP

Indigenous name	Botanical name	Family name	Plant parts used for
Ghrit Kumari	*Aloevera barbadensis*	Asphodelaceae	Leaves for juice boosting skin health.
Tulsi	*Ocimum sanctum*	Lamiaceae	Leaves, seeds, roots for stress release, B.P., cough and cold.
Shankh Pushpi	*Convolvulus pluricaulis*	Gentinaceae	Anxiety, Depression and decrease cholesterol.
Ashwagandha	*Withania somnifera*	Solanaceae	Roots, leaves, lower cortisols, improves sleeping quality, strength booster.
Turmeric	*Curcuma longa*	Zingiberaceae	Rhizome for spice dye and medicine.
Shatavari	*Asparagus racemosus*	Asparagus	Heart health, diuretic, lowering cholesterol.
Bael	*Aegle marmelos correa.*	Rutaceae	Used fruit in dysentery, leaves cure fever, roots check, vomiting.
Neem	*Azadirachta indica*	Meliaceae	Bark for skin acne, Lice, leaves as blood purifier
Pepper mint	*Mentha piperita*	Lamiaceae	Leaf for nausea, toothpaste and mouth fresh.
Ginger	*Zingiber Officinale*	Zingiberaceae	Rhizome for bloating, Cramps, Relieving nausea.

RESULTS AND DISCUSSION

During investigation of Aromatic and medicinal plants used by many villagers and other stake holders revealed in all 10 Genres , it is evidence from the data given in above table B.K.T Tehsil of Lucknow district of U.P. Important taxa which are used by the local villagers are Aloe vera, Tulsi, Ashvagandha and others.

The flora should be conserved for the future generations and local villagers must be encouraged for growing these medicinal plants on a large scale to enhance economic conditions and to maintain traditional knowledge of medicinal uses.

CONCLUSION

Medicinal plants are indispensable natural assets. These medicinal flora has vital role in healthcare, culture and economy. The importance of Biodiversity Conservation need for Sustainable practices, Scientific validation to preserve traditional knowledge and ecological integrity use for future health.

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