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## **PHARMACOGNOSTIC, PHARMACOLOGICAL AND ECONOMICAL PROFILE OF GENUS *OCIMUM* -AN OVERVIEW**

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### **ABSTRACT**

Some herbal substances have proved themselves in every field and got the tag of multispecialty. The genus *Ocimum* too belongs to this category. Their pharmaco-economical aspects have boosted the researchers as well as the manufacturer and producers. The economical prospect of the herbal world has always acted as a magnet for the investors. This review has presented the close relation of the world of therapy with that of the domination in the field of economics.

## INTRODUCTION

The word ocimum have a strong impact in the Asian subcontinent. This category has attained spiritual [1] as well as the respectful position in comparison to other herbal plants. Tulsi, the Queen of herbs, the legendary ‘Incomparable one’ of India, is one of the holiest and most cherished of the many healing and healthy giving herbs of the orient.



**Figure 1: Photographs of plants belonging to Genus Ocimum**

### Pharmacognostic Profile [2-3]

The plants of genus Ocimum belongs to the family Lamiaceae. Figure 2 represent the Pharmacognostic prospect the different spices of Ocimum.

**Figure 2 represent the Pharmacognostic prospect the different spices of Ocimum**

Spices	<i>Ocimum basilicum</i>	<i>Ocimum canum</i>	<i>Ocimum gratissimum</i>	<i>Ocimum kilimandscharicum</i>	<i>Ocimum sanctum</i>	<i>Ocimum viride</i>
<b>Habitat</b>	Lower hills of Punjab; cultivated throughout India	Plains and lower hills of India	Throughout India	Native of Kenya. Cultivated on a small scale in West Bengal	Throughout India	Native to Africa
<b>English Name</b>	Sweet Basil, Basil Herb	Hoary Basil	Shrubby Basil	Camphor Basil	Holy Basil, Sacred Basil	Fever Plant of Sierra Leone
<b>Ayurvedic Name</b>	Barbari, Tuvani, Kharpushpa, Ajgandhikaa, Tulasi	KaaliTulasi, Vana-Tulasi	Vridha Tulasi, Raam-Tulasi, Raan-Tulasi	Karpura Tulasi	Tulasi, Surasaa, Surasa, Manjarikaa, Bahumanjari	-----
<b>Unani Name</b>	Faranjmishk., Raihan	-----		-----	Tulasi	-----
<b>Siddha/Tamil Name</b>	Tiruneetruupachhilai	Ganjamkorai, Nai-Tulasi	Elumicha-Tulasi	-----	Tulasi, Nalla-Tulasi	-----
<b>Folk Name</b>	Bana-Tulasi	-----	-----	-----	-----	Taap-maari Tulasi

Main constituents of basil are tannins, alkaloids and volatile oil. Oil mainly consists of eugenol, ursolic acid, rosmarinic acid, thymol, linalool, methyl chavicol, citral and beta-caryophyllene. Contains vitamin C and A, and minerals like calcium, zinc and iron, as well as chlorophyll and many other phytonutrients. Also enhances the efficient digestion, absorption and use of nutrients from food and herbs. Protein: 30 Kcal, 4.2 g; Fat: 0.5 g; Carbohydrate 2.3 g; Calcium: 25 mg; Phosphorus 287 mg; Iron: 15.1 mg and Edible portion 25 mg vitamin C per 100 g.

### Pharmacological Profile

The pharmacological profile of any category directly deals with the therapeutic action it may produce. As far as genus *Ocimum* is concerned, it has cemented its place in the present world of pharmacology. Its numerous and multidiverse action scenario has provided this category its sole identity. Moreover, this category has dual action in the human life with therapeutically and spiritual values. From the literature point of view, many research and researchers comments are available regarding the active action of spices of the genus *Ocimum*. Several investigators have proved and cited the anticancer activity of *Ocimum sanctum* [4-7]. The fixed oil of *Ocimum sanctum* (3 ml/kg, ip) prolonged blood clotting time and the response was comparable to aspirin (100 mg/kg) an anticoagulant drug. The antiaggregator action of oil on platelets is responsible for such effect [8]. Table 2 enlisted the pharmacological effect of few spices of Genus *Ocimum*

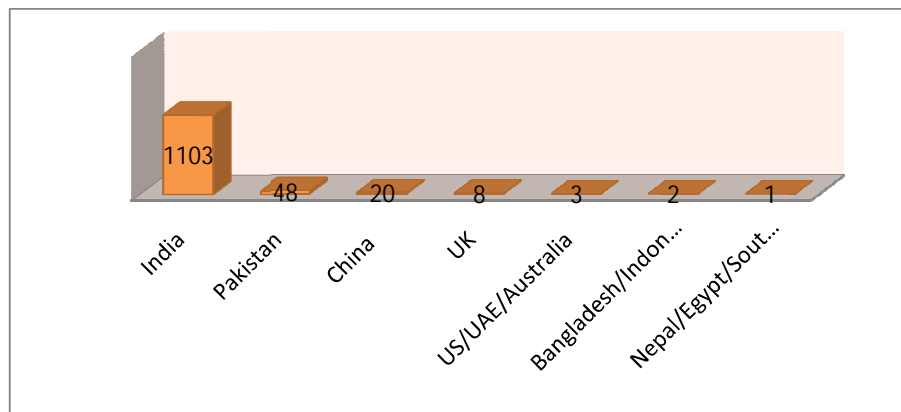
**TABLE 2 LIST OF PHARMACOLOGICAL EFFECT OF FEW SPICES OF GENUS OCIMUM**

<i>Ocimum gratissimum</i>	<i>Ocimum tenuixorum</i>	<i>Ocimum sanctum</i>
Antihypertensive Effect [9], Cardiovascular Effect [10], Immunostimulatory Effect [11], Antidiabetic Effect, Hepatoprotective Effect [12-13], Hair Loss Therapy [14], Antioxidant Capacity [15-16], Suspending Activiy [17], Anticonvulsant Activity [18-20], Antifertility [21]	Headache, Rheumatic Pains And Arthritis, But Also Malaria, Fever, Allergies, Antioxidant And Detoxifying Agent [22] Antibacterial, Antiviral And Antifungal Activity Of Oils Extracted From <i>Ocimum Tenuixorum</i> [23], Diabetes Mellitus [24]	Antimicrobial Activity [25], Antiulcer [26-28], Antifungal [29-31], Antioxidant [32], Anthelmintic [33], Immunomodulator [34-35], Anticancer [36-39], Anti-Cataleptic [40], Wound Healing [41-42], Anticataract [43]

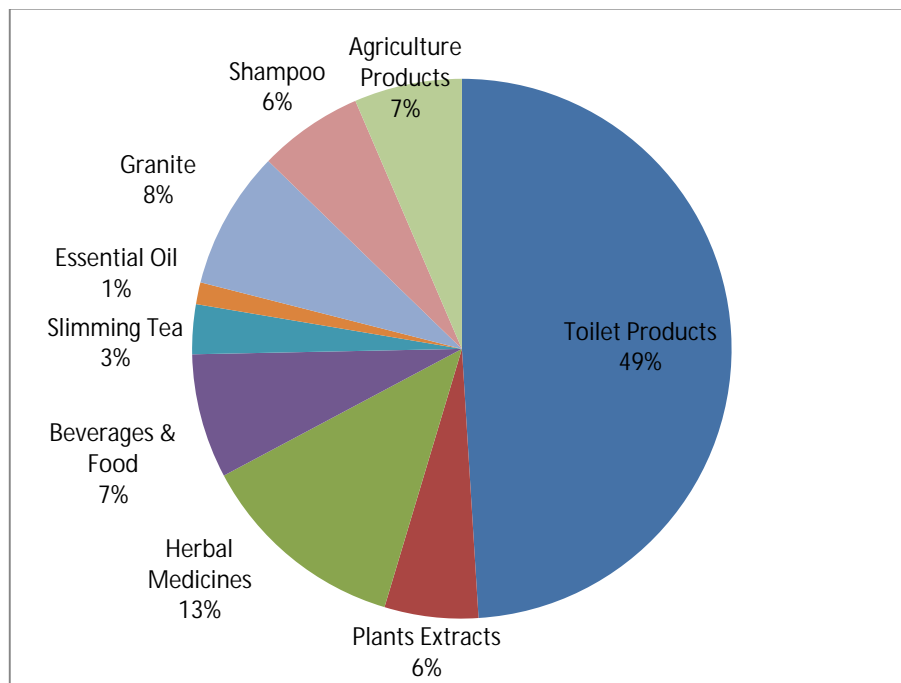
### Economical Profile

The species of the genus *Ocimum* is distributed all over the place. This genus has shown some miracle as far as the therapeutic action is concerned. No doubt that the drug with numerous

powers has shown the way for the producers, manufacturer and consumers. The traders of the products of this category have economically grown. The country like China has dominated the herbal world but here India has show a foot ahead. Figure 2 shows the dominance of India in manufacturing and trading of the products of the genus Ocimum [44].



**Figure 2 Shows the dominance of India in manufacturing and trading of the products of the genus Ocimum**



**Figure 3 Products distribution of Genus Ocimum**

Instead of the dominance of India in this field, the products derived and manufactured from Tulsi have dominated various categories. From Toilet products to that of the Herbal medicine and from Shampoo to Agriculture products this genus has contributed. Their contribution is well disguised in the Figure 3.

## CONCLUSION

The holiness of the species of this category has not only fulfilled the spiritual needs of the consumers. But this has also strengthened the economical and social prospects. Moreover, India has overtaken China in manufacturing, supplying and trading of the products derived from the Genus *Ocimum*. It could also be concluded that the Genus *Ocimum* is multi-talented and has its prime influence over the marketed preparations. Therapeutically too, this Genus has over headed others and defended the title “Queen of Herbs”.

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