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## Review Article

# A Review On Medicinal Importance Of *Tridax Procumbens* Linn

**Monali S. Ghuge\*, Sonali S. Ghuge, Nikita K. Andhale**

*Department of Pharmaceutical Quality Assurance Dr. Ithape Institute of pharmacy, Sangamner Tal-Sanagamner, Dist-Ahmednagar 422605, India*

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### ABSTRACT

A medicinal plant *Tridax Procumbens* commonly known as coat button or kansari (Hindi) or Ghamara belonging to family Asteraceae. It is a plant used majorly in Indian traditional medicine and also use by different communities. It is a very promising species that produces secondary metabolites such as alkaloid, steroids, carotenoid, flavonoid (catechins, centaurein and bergenins), fatty acid, phytosterols, tannins and minerals reported to have a variety of medicinal uses including antioxidant, antibacterial, anti-inflammatory, antimicrobial, vasorelaxant, antileishmanial, antianemic, immunomodulatory, hepatoprotective and mosquitocidal activities which have been scientifically screened. Still there is shortage in the studies on isolation, characterization and evaluation of active principle from the extract.

### INTRODUCTION

*Tridax Procumbens* Linn is medicinal plant commonly known as coat button or kansari (Hindi) or Ghamara (in local language) and belongs to family Asteraceae or Compositae, *T. balbisioides* and *Tridax procumbens*. A medicinal plant *Tridax procumbens* is commonly known as Coat Button or Kansari (Hindi) or *trilobata* are the other species of the genus. It is a plant majorly used in Indian traditional system. It is an annual or perennial weed from Central America and found throughout in India especially in Maharashtra, Madhya Pradesh and Chhattisgarh regions as weed. It is

often rooting at nodes with solitary, long stalked, yellow composite, heterogamous, bisexual flowers with white flowering heads and very hairy, coarsely toothed, petislate, ovate or lanceolate leaves. Whole arial part is useful medicinally, leaves possess wound healing, insecticidal, antisecretory and hypotensive action while seeds are used to control bleeding [1]. Also has various pharmacological properties including but not limited to: immunomodulatory, anti-oxidant, anti-hepatotoxic, analgesic, antidiabetic, anti-inflammatory, antifungal, and antimicrobial activities

**\*Corresponding Author:** Monali S. Ghuge

**Address:** Department of Pharmaceutical Quality Assurance Dr. Ithape Institute of pharmacy, Sangamner Tal-Sanagamner, Dist-Ahmednagar 422605, India

**Email** ✉: [rushiwable9321@gmail.com](mailto:rushiwable9321@gmail.com)

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**Figure 1. Whole plant of Tridax Procumbens Linn**  
**Table 1. Classification of Tridax Procumbens Linn.**

Classification	
Division	Classing
Kingdom	Plantae-Plants
Sub Kingdom	Trachebionta- Vascular Plants
Division	Spermatophyta
Sub-division	Magnoliophyta- Flowering Plant
Class	Magnoliopsida- Dicotyledons
Sub-Class	Asterales
Order	Asterales
Family	Asteraceae- Aster Family
Genus	Tridax L.- Tridax
Species	Tridax Procumbens- Coat Buttons

**Table 2. Synonyms of Tridax Procumbens Linn**

Synonyms
Chrysanthemum Procumbens
Balbisia Canescens
Balbisia Divericata
Balbisia Peduncalata
Tridax Procumbens var. Canescenes
Tridax Procumbens Var. Ovatifolia

**Table 3. Vernacular names of Tridax Procumbens Linn.**

Vernacular Names	
Language	Names
Hindi	Ghamra
English	Coat Buttons and Tridax daisy
Sanskrit	Jayanti Veda
Marathi	Dagadi Pala
Telugu	Gaddi Chemanthi
Tamil	Thata Poodu
Malayalam	Chiravanak
Spanish	Cadilp Chisaca

French	Herbe Caille
Chinese	Kotobukigiku

## LITERATURE REVIEW

### Plant morphology

#### Appearance

Tridax procumbens is a perennial herb that has a creeping stem which can reach from to 8-30 inches (20-75 cm) long.

#### Flowers

Tridax procumbens flowers have white rays and yellow disk flowers. They are about 0.4-0.6 inches (1-1.5 cm) wide, and held on a 4-12 inches (10-30 cm) long stalk. Flowering occurs in spring. The plant flowers are looking like daisy. The flower is tubular, yellow centered white or yellow flowers with three-toothed ray florets.

#### Fruits

Fruits are achenes that are dark brown to black in color, oblong, and 0.08 inches (2 mm) long, each with a head of pappus bristles that vary from 0.12-0.24 inches (3-6 mm) long. Fruit is a hard achene covered with stiff hairs and having a feathery. At one end It has plume like white pappus.

#### Seeds

Tridax procumbens seed germinate at higher temperature (35/25 and 30/20) in the presence of 58 to 78 % light. This is very sensitive to salt concentration and water stress the chromosome number are 36 (diploid) and 18 (haploid) in gametes. The production is through spreading steam and seed production (Figure 2).



**Figure 2. Seed of T. Procumbens**



**Figure 3. Stem, Flowers, leaves of T. Procumbens.**

#### Leaves-

Leaves are irregularly toothed and generally arrow head shaped. They are simple, ovate, opposite, exstipulate, and lanceolate and they are 3-7 cm. Wedge shaped base leaf, shortly petioled, hairy on both surfaces

#### Stem and root-

Stems are cylindrical, hispid, covered with multi-cellular hairs of mm; tuberculation at the base root is a

strong taproot system. The plant stem is ascending 30-50 cm height, branched, sparsely hairy, rooting at nodes



#### Flowers

The plant flowers are looking like daisy. The flower is tubular, yellow centered white or yellow flowers with three-toothed ray florets. Inflorescence is capitulum.



**Figure 5. The Plant flowers of T. Procumbens**

#### Genetics

The chromosome numbers of *Tridax procumbens* has been registered as  $2n=36$

#### CONCLUSION

*Tridax procumbens* Linn. (Compositae) is a weed found throughout India, it is native of tropical America and naturalized in tropical Africa, Asia, and Australia. This plant widely distributed and it's each and every part having noble pharmacological activity. The work done till todate on its pharmacological activities like hepatoprotective effect, immunomodulating property, promising wound healing activity, antidiabetic, hypotensive effect, antimicrobial,

insect repellent activity, anti-inflammatory and antioxidant, bronchial catarrh, dysentery, diarrhoea also prevent falling of hairs and leads to hair growth promotion. This plant also used as bioadsorbent for removal of Cr (VI) from the industrial wastewater. This is dispensed for "Bhringraj" by some of the practitioners of Ayurveda. In future, there is huge room for research in direction of more pharmacological activities of plant and to elucidate the mechanism of action of same. The studies on plant *Tridax procumbens* Linn. also desired development of novel therapeutic agents isolated from it, as isolation of oleanolic acid a single triterpenoid is

reported from this plant. This is a comprehensive review that highlights the various phytochemicals identified in *T. procumbens* together with their diverse pharmacological attributes. Since, most of the small molecules approved by FDA are derived from plant sources, it is essential to evaluate the plant in a systematic manner to identify bioactive which could lead to the discovery and development of new drugs against various ailments. Though, *T. procumbens* has been used in many traditional medicines, scientific data relating their phytochemicals with published pharmacological properties are lacking. Many of the studies have used plant extracts followed by qualitative analysis of its phytochemical constituents. Researchers should try to employ new drug discovery principles like bio-assay guided phytochemical identification, phenotypic screening using relevant cell culture models and if possible, demonstrate Pharmacokinetic-Pharmacodynamic correlation (PK-PD) to show the efficacy of the preparation. Attempts should also be made to identify the active metabolites mediating the in vivo efficacy to ensure standardized extract preparation.

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