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Lantana camara –A weed having medicinal values

Ashish Dwivedi[1] and Vineet Kumar[2]
[1]Department of Agronomy, SardarVallabhbhai Patel University of Agriculture and Technology, Meerut (U.P.) India
[2]Department of Soil Science, SardarVallabhbhai Patel University of Agriculture and Technology, Meerut (U.P.) India
(Email:ashishdwivedi842@gmail.com)

Lantana camara is an aggressive alien flora in the country. Invasive alien species are non-native organisms that cause, or have the potential to cause, damage to the environment, economics or human health. Aliens are invariably introduced without their natural enemies that control and balance their spread in their native land and hence grow without any hindrance causing damage to the environment. Alien flora are often referred to as 'biological pollutants' due to their detrimental impacts on the man managed and natural ecosystems.

Medicinal plants represent an important source of medically important compounds. Since ancient time, medicinal plants are used to cure several types of health problems (Kumar *et al.*, 2009). Systemic analysis of these plants provides a variety of bioactive molecules for the development of newer pharmaceutical products. Recently, there is a growing interest in the pharmacological evaluation of various plants used in different traditional system of medicine. In last few decades, many of traditionally known plants have been extensively studied by advanced scientific techniques and reported for various medicinal properties *viz.*, anticancer activity, anti-inflammatory activity, antidiabetic activity, anthelmintic, antibacterial activity, antifungal activity, hepatoprotective activity, antioxidant activity, larvicidal activity etc. *Lantana camara* Linn. is a flowering ornamental plant belonging to family Verbenaceae. L. camara is also known as Lantana, Wild Sage, Surinam Tea Plant, Spanish flag and West Indian Lantana. L. camara is a well known medicinal plant in traditional medicinal system and recent scientific studies have emphasized the possible use of L. camara in modern medicine (Rajkumar, 2009).

The present article aims to document the medicinal properties of L. camara and its future prospects for the further scientific investigation for the development of effective therapeutic compounds.

What is Lantana camara? : Lantana camara is a plant having a broad range of tolerance for adverse soil and climatic conditions. It is a tough competitor of other biota. It competes with the roots of other crops and causes a net decrease in their yield. In hilly states of Uttarakhand and Himachal Pradesh, Lantana camara has been observed as one of the most invasive weeds with serious implications on biodiversity and major threat to habitat destruction leading to mass extinction of species. This alien flora has also been reported to promote the forest fire. Presently, Lantana camara is emerging as a serious menace to the biodiversity of the Tropical dry deciduous forest of the Vindhyan region.

Lantana camara is an violent fast growing tropical perennial shrub belonging to Verbenaceae family. It is also native of Tropical America. It was introduced intentionally to India via Sri Lanka in 1809 as an ornamental plant due to its beautiful aromatic flowers. Leaves are bright green, rough, finely hairy, with serrate margins and emit a pungent odour when crushed. However, hardy Lantana camara escaped the captivity of human cultivation and has taken the form of weed by rapidly spreading itself in the country occupying almost all types of lands *i.e.* forests, grasslands, agricultural lands and even the wastelands (Sabu and Kuttan, 2000). In hilly regions, it has naturalized widely as an aggressive shrub in the mid hills (upto 1500 m above mean sea level).

What are uses of Lantana camara? : Though, Lantana camara is a notorious weed harmful to natural and agro-ecosystems, it has social and medicinal uses. Some of such uses are given below:

In the hilly state of Uttarakhand the stems of Lantana camara are used for making termite proof cheap furniture and baskets by the rural community. Stem of the plant can be used for making briquettes and for power generation in a gasifier instead of tree wood for rural electrification. The leaves of Lantana camara have been reported to possess mosquito repellent properties. Therefore, the leaves can be used for making mosquito repellent products. The twigs of Lantana camara are often

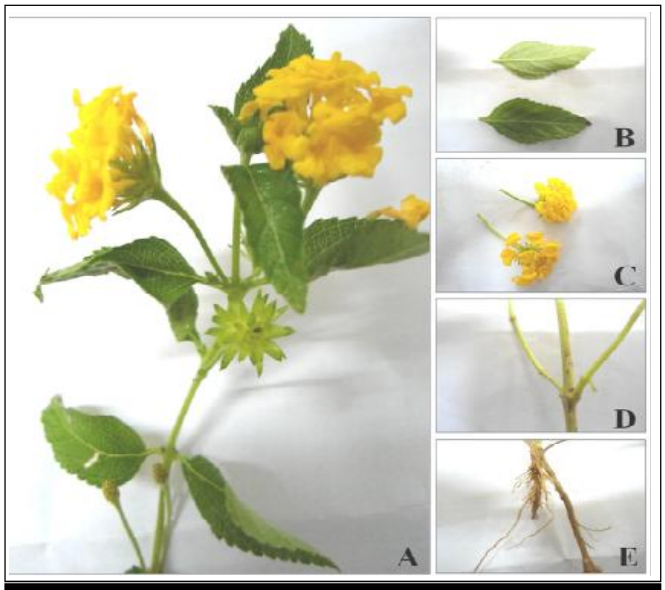

Fig. 1 : Morphology of Lantana camara Linn. (golden variety), A) Plant, B) Dorsal and ventral surface of leaves, C) Flowers, D) Stem, E) Root

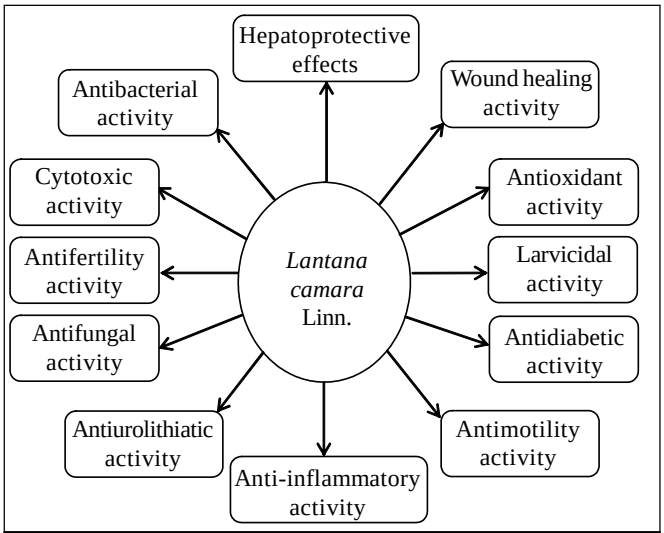

Fig. 2 : Medicinal properties of Lantana camara Linn

used as green manure in forest areas for paddy crops in Mysore district of Karnataka.

The plant also possesses medicinal properties. The decoction of leaves is useful in the treatment of tetanus, rheumatism and malaria and in atoxy of abdominal viscera. The Lodha tribe of West Bengal applies brushed leaves of Lantana camara as dettol on fresh cut to arrest bleeding. The leaf extracts has also been shown to be a powerful febrifuge. The leaves are also used to relieve itching. Lantana oil is sometimes used for the treatment of skin itches, as an antiseptic for wounds and externally for leprosy and scabies (Adama *et al.,* 2009).

The roots are used for gonorrhea. The use of lantana extracts as potential biocides have been suggested. Lantana repels other plants and other groups of organisms such as insects. Plant extracts are used as medicine for the treatment of cancers, chicken pox, measles, asthma, ulcers, swellings, eczema, tumors, high blood pressure, bilious fevers, catarrhal infections, tetanus, rheumatism, malaria and atoxy of abdominal viscera.

As mentioned above, Lantana camara has beneficial uses also which need to be profitably exploited on larger scale.

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