

Lantana Camara – A Treasure Trove

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Introduction

Lantana camara is a perennial flowering plant of verbena family (Verbenaceae). It is indigenous to America and now it can be found as an exotic species in many countries. In India, it was introduced by Portuguese especially in Goa for ornamental purpose, later it has established itself as a notorious weed. It is a very adaptable species, which can inhabit a wide variety of ecosystems. The lantana plant is a beautiful ornamental shrub and flowers with different colours are very attractive, hence it has been used as a hedge plant and border plant in lawn and other places. The flower has a tutti-frutti smell with a peppery undertone. After pollination, the flower colour changes from yellow to orange or pink or red, it indicates as a signal to the pollinators that the pre-change colour contains a reward and being sexually viable, which increasing the pollination efficiency. This plant can bloom throughout the year under frost free climate and soil under moist condition.

Lantana can propagate through both sexual and asexual method. It will produce 12,000 fruits per plant and seed dissemination is occurred by ornithophily. It has the ability to colonise rapidly in land areas and act as problematic one. In contrast, *L. camara* has been limited in natural and semi-natural areas of forest due to lack of its shade tolerance ability and incompetence with taller tress. But it will grow in the forest edge and it can survive in a wide range of environmental conditions like drought, temperature, humidity, salinity and different soil types. It also fire tolerant and can quickly establish itself in recently burnt areas of forest. For any objects in the globe have two sides, such as positive and negative roles.

Positive roles

1) Ornamental plants in landscaping

Due to its attractive flower colours easy to maintain and cultivate drought resistant, salt tolerant and can more suitable and makes a good choice for landscaping.

Also used as a border crop or ground cover, sometimes act as live fence to demark the lands.

2) Helps in cross pollination

The multicolour flowers attract the pollinating agents of butterflies, bees and some birds. They help in cross pollination of other plants which present in the Lantana grown garden.

3) Medicinal uses

L. camara leaves have exciting medicinal values, which was recorded in lot of medical review papers. The reports described that leaves are used for treating malaria, chickenpox, asthma, ulcer, swelling, tumour, blood pressure, sores, fevers and colds.

4) Source of essential oil

From lantana leaves, essential oil is extracted by steam distillation method. The oil aroma is like scent of basil, it externally used for treating skin diseases leprosy and scabies also used for antiseptic of wounds.

5) Others

It can be used for making baskets, foot mats and pen cases.

Negative roles

Even though *Lantana camara* offers tremendous benefits, it also considered being a notorious weed in agricultural and secondary forests due to its ability to form dense thickets and it can become the dominant shrub, crowding out other native species and reducing biodiversity. The dense thickets formation can significantly reduce the regeneration of forests by preventing the growth of new trees, reduces the productivity of pastures, reduce growth of crops and hinders the harvest operations.

The reasons behind for the invasiveness of Lantana

- ✓ Wide dispersal of seeds (birds and animals eat it drupes and spread it)
- ✓ Due to its toxicity, animal's consumption was prone.
- ✓ Tolerance to wide range of environmental conditions.
- ✓ Production of allelochemicals which inhibit the nearby plants population
- ✓ Higher seed production (12,000 seeds from each plant year⁻¹)

A lot of management went into prevent the Lantana plant from becoming an agricultural weed. The best form of weed control is prevention. If prevention is no longer

possible, it is best to treat the weed infestations when they are small to prevent them from establishing (early detection and rapid response). Mechanical control can be effective but there must be continuous follow-up as stem and roots freely coppice.



Figure 1. Different colours of lantana flowers

Burning can encourage lantana regeneration. Chemical control was cheaper and caused less disturbance resulting in higher biodiversity than mechanical control. When using any herbicide always read the label first and follow all instructions and safety requirements. If in doubt consult an expert. Biological control has been attempted in many parts of the tropics with varying degrees of success as different cultivars display differences in susceptibility to insect herbivores. However it is generally accepted that biocontrol is the only



long-term and sustainable method of *L. camara* control and a suite of agents is available (once approved for introduction and release).

Conclusion

Effective management of invasive *L. camara* in the long term will require a reduction in activities that create degraded habitats. Maintaining functioning ecosystems is key to preventing invasive species from establishing themselves and out-competing native fauna and flora.

References

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