



Regular Article

Medicinal Significance of Ornamental Plants in Human Welfare from Akola District (M.S.) India

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ABSTRACT: The present papers deals with the study of 35 ornamental plants planted in the gardens or as avenue tree, along with some cultivated plants, with their medicinal significance. Some valuable information was collected from medicine men, labors and villagers by taking an oral interview.

Key words: Medicinal, Ornamental plants, Akola

Introduction

Akola district of West Vidarbha in Maharashtra state have its own identity as a cotton city where Agriculture University started in 1970. This university layout his own garden and planted a number of plants. Some of them are exotics or aliens. While public gardens are also set up and their management is under Municipal Corporation. Also some of the plants are planted in house garden during exploration of these plants it is observed that most of the people are using them as a primary healthcare, to cure number of diseases. Some of them have ornamental value or they are planted as showy plants. In the ancient features of the garden of the temple and palaces. The Aryans of the Vedic period were great lover of trees and flower in the Ramayana it has been narrated that palace has nice garden with numerous flowers and shady groves. Ashokvana the groves was composed mainly of Ashoka tree. The tree Kadamba was closely associated with Lord Krishna. The great emperor Ashoka adopted arboriculture encourages the planting of Avenue trees. Mughal were lover of garden trees and flower. The Mughal gardens in India were laid out in symmetrical pattern containing the scented trees shrubs, climbers and bulbs. The arrival of British in India changed the whole pattern of gardening by laying out park and garden. The importance of ornamental and horticulture from aesthetic, environmental and economic point of view is not a properly understood in India. These subjects remain more or less neglected. However in past three decades ornamental horticulture has attained importance and made a considerable progress. The ornamental horticulture deals with the beautifying garden either near home, landscaping, highways, railway stations, cities, town, factory and educational institutes.

Botanically this district was explored by S. Y. Kamble and S. G. Pradhan (1979) and they completed a flora of Akola district. Later on, added some new addition and some noteworthy plants from this district time to time (Rothe, 2000; 2004 and 2007). About the ornamental no body explored this district. As the identification of the ornamental plants are so difficult. Their common names are related with the regional names or they have common English names. Some time the names are given by nurseryman. Still there is a use of ornamental in medicines by the labor, villagers, and even by the tribals. An oral interview with the medicine men we have collected some valuable information from them. The present papers containing a list of 35 plants with their medicinal significance.

Materials and Methods

During exploration frequent visits are arranged to Public Park, house, garden, nurseries and adequate material of plants are collected, after drying plant specimen herbarium sheets are prepared these are identified by using floras (Almeida, 1996-2009; Cooke, 1967; Diwakar & Sharma, 2000; Kamble & Pradhan, 1988; Naik, 1998; Sharma et al, 1996; Singh & Karthikeyan, 2000 and Singh et al, 2001) and manual of cultivated plants (Bailey, 1924). The information collected by oral talk and interviews with medicine

man & nursery peoples are noted as a foot notes on every herbarium specimens. All these herbarium specimens are deposited in herbaria of botany department at Shri Shivaji College Akola.

Observations and Results

1. *Spilanthus acmella* Auct. Plur.

Family: Asteraceae

Akkalkara: Planted in kitchen garden.

Uses: Flower used against tooth ache; flower of *Spilanthus* + Roots of *Acorus* against cough; flower of *Spilanthus* + roasted CuSO_4 take in equal quantity and mixed in urine of cow & applied externally against dog bite; flower of *Spilanthus* + *Acorus* + *Centella* + *Glycerrhiza* in equal quantity mixed with honey used as a brain tonic. *Spilanthus* + ginger + oil of Madhuka and Brassica applied against paralytic attack.

2. *Colocasia esulenta* (L.) Schott.

Family: Amaryllidaceae

Alu; planted in kitchen garden.

Uses: Leaves for lactation, ash of leaves mixed in Sesamum oil against the swollen growth. Powder of bark + sugar against acidity. Juice of leaves + juice of *Tinospora* mixed in two spoon ghee take for a period of 3 months used against leprosy.

3. *Nerium indicum* Mill.

Family: Apocynaceae

Kanher, planted as an ornamental.

Uses: Root and bark of stem used to improve sexual weakness, piles and bite of insects and snakes.

4. *Bauhinia variegata* L.

Family: Caesalpiniceae

Kanchan; planted along road side.

Uses: Bark of *Bauhinia variegata* + *Wrightia*, + *Swertia* + *Azadirachta* + *Commiphora* and *Rubina* take in a equal quantity and decoction is prepared, one cup decoction is taken thrice in a day against cancer

5. *Pandanus odoratissimus* L.f.

Family: Pandanaceae

Kevda: planted in a garden.

Uses: Root powder mixed in a cup of milk and one spoon of sugar used against leucorrhoea. Direct flower powdered smoked in hysteria leaves juice mixed in a powder of *Cuminum cyminum* and sugar used to remove heat from body.

6. *Rosa indica* L.

Family: Rosaceae

Gulab; planted in garden.

Uses: Rose water for cleaning eye, flower mixed in sugar after one month used against skin disease, purification of blood, piles, and leucorrhoea disease and urinal disorder.

7. *Hibiscus rosa-sinensis* L.

Family: Malvaceae

Jaswand; planted in a garden

Uses: Root of hibiscus mixed in a cup of milk used to keep a pregnancy. Flower buds mixed in a cup of milk and sugar used as a brain tonic, urinary disorder and sexual impotency, piles and blood dysentery and leucorrhoea. Leaf juice mixed with sodium salt and

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asafetida used against gas trouble .decoction of petal given in fever, roots used in cough and rheumatism.

8. *Tagetes erecta* L.

Family: Asteraceae

Zendu; commonly cultivated and planted in a garden.

Uses: Flower juice mixed with sugar and ghee used against piles, flower mixed with *Curcuma longa*, sodium salt and ghee applied externally on piles. Ash of flower against swelling seed against the dysentery, leaf juice against Pitta

9. *Cassia fistula* L.

Family: Caesalpineaceae

Amaltas, Bahava; planted along the road side.

Uses: Bark of Cassia or pulp of pod used for digestion, a decoction is prepared used against Tonsils, pain in throat, leaf juice used against the pimples. Pulp of pod against the ear ache, rheumatic pain joint pain, jaundice, hernia regulation of menstrual cycle. Root decoct ion against heart problem.

10. *Mimosa pudica* L.

Family: Mimosaceae

Lajadu; planted as avenue plant.

Uses: Leaf juice or decoction of leaves used against the cancer jaundice, hernia, piles, ophthalmic problem. Decoction of roots against urine stone .decoction of leaves with Withania leaves effective for the memory glands.

11. *Ocimum gratissimum* L.

Family: Lamiaceae

Sabja; planted in kitchen garden.

Uses: Leaf juice against the urinary disorder, germ scalp infection ear ache, for killing insect as a primary remedy against hearing empered, scorpion bite, snake bite, ophthalmic problem.

12. *Althaea rosea* (L.) Cav.

Family: Malvaceae

Hajar mogara; planted in a garden due to showy flower

Uses: commonly known as hollyhock flower used for rheumatism. Root in dysentery.

13. *Alpinia galanga* Swartz.

Family: Zingiberaceae

Kinjral; planted in garden

Uses: Rhizome useful for rheumatism, respiratory complaints especially for children, catarrh stomach complaints, deodorant, disinfectant and stimulant.

14. *Andrographis paniculata* (Burm.f.) Wall ex Nees.

Family: Acanthaceae

Kalmegh; planted in garden

Uses: A complete plant except root used as a bitter tonic, febrifuge, vermifuge for dysentery stomach disorder, also uses for itch when powder mixed with sarsoo oil.

15. *Dianthus chinensis* L.

Family: Caryophyllaceae

Sweet Willian, Planted as garden plant

Uses: As a febrifuge, vermifuge anthelmentic, use in dubieties and for venerst diabetes.

16. *Adansonia digitata* L.

Family: Bombacaceae

Baobao tree; planted in a garden

Uses: Used in febrifuge, in a dysentery and diarrhoea and as a substituent for quinine.

17. *Bauhinia tomentosa* Auct.

Family: Caesalpineaceae

Apta; planted as a avenue tree.

Uses: Dried bud and leaves used In a dysentery. Decoction of root used for liver and phlegmatic complaints and as a vermifuge, bark applied for tumor and wound.

18. *Chrysanthemum indicum* (L.) Desr.

Family: Asteraceae

Shevanti; planted in a house garden

Uses: Dried flower powder used for dusting poultry and manufacturing a common insecticide.

19. *Wedelia calendulacea* (L.) Less.

Family: Asteraceae

Bhingara, planted in house garden

Uses: Leaf juice is used to promote growth the hair.

20. *Calendula officinalis* L.

Family: Asteraceae

Pot Marigola, Planted in house garden

Uses: Leaves used against varicose veins.

21. *Vaccaria pyramidata* Medik.

Family: Cruciferae

Baratakla, found as a weed in garden.

Uses: Plant used as a febrifuge and skin disease like itch.

22. *Thespesia populnea* (L.) Soland. ex Corr.

Family: Malvaceae

Bhendijhar; planted along road side,

Uses: Yellow liquid obtained from capsule used locally for scabies and skin disease. Decoction of bark for external wash.

23. *Viola odorata* L.

Family: Violaceae

Sweet Violet, Planted in public garden.

Uses: Root used in medicine

24. *Crinum asiaticum* L.

Family: Amaryllidaceae

Uses: Bulbs used for urinary trouble and also laxative and give for rheumatism, piles. Leaf juice for ear ache.

25. *Ixora coccinea* L.

Family: Rubiaceae

Planted in house garden.

Uses: Root powder mixed with black piper used against dysentery. Dried flower mixed with Cuminum, sugar and ghee against the dysentery, leucorrhoea, and bark against head ache.

26. *Canna indica* L.

Family: Cannaceae

Cardali; planted as a showy plant.

Uses: Fibrous root and rhizomatic part used to reduce poison in animal.

27. *Cassia occidentalis* L.

Family: Caesalpineaceae

Kasoda

Uses: Leaf juice and seed powder against skin disease. Roasted seed used as a substitute of coffee also it reduce poison.

28. *Euphorbia tirucalli* L.

Family: Euphorbiaceae

Sher; planted as a hedge plant in a garden rock garden.

Uses: Milky latex used in rheumatism, jaundice, for killing fishes and against scorpion bite/ insect bite.

29. *Hiptage madalota* Gaertn.

Family: Malpighiaceae

Madhumalati; planted in garden due to sweet scented flower and their showy nature.

Uses: Leaf juice used in skin disease. Leaves used in a asthma and joint pain.

30. *Jasminum officinale* L.

Family: Oleaceae

Jai; planted in house garden.

Uses: Leaf juice used in skin disease, itching, leaves used in throat infection, tooth ache, oil against snakes bite and ophthalmic disorder.

31. *Mirabilis jalapa* L.

Family: Nyctaginaceae

Gulbakshi; planted in house garden.

Uses: Root material roasted in ghee used as tonic. A paste of root used in broken skin. A leaf paste used as supportive. Leaf juice externally applied over a skin during itching.

32. *Mussenda frondosa* L.

Family: Rubiaceae

Bhutkes; planted in garden as a showy plant

Uses: Root powder mixed with in cow milk used against leprosy. Root powder mixed with water used in ophthalmic especially against swelling of eyes, also in injury. White colored leaf juice with milk used in jaundice, asthma and fever. Even in digestion disorder.

33. *Plumeria rubra* L.

Family: Apocynaceae

Pandhra Chafa; planted in house garden.

Uses: Bark decoction used in swelling. Bark mixed coconut piece rice used in excessive bleeding. Latex mixed with *Santalum* oil and camphor used in skin disease. Latex with rice used in snake bite.

34. *Quisqualis indica* L.

Family: Combretaceae

Rangoon Creeper; Lal Chameli, planted in house garden.

Uses: decoction of leaves use in digestive disorder. Seed powder mixed with honey used in germs. Roasted seed powder in dysentery and fever.

35. *Tabernaemontana divaricata* (L.) R. Br.

Family: Apocynaceae

Swastika/ Tagar planted in house

Uses: Ash of stem used in ophthalmic. Root in tooth ache. Milky latex used with coconut oil used in headache. Bark with juice of lemon used in ophthalmic problem.

Conclusion

Although the purpose of the study is to describe the species most commonly planted in garden, there are three classes of rather masked exception.

i) Many plants are neither offered by dealer nor appeared in printed list are in cultivation in old premises and private garden and are likely to be exchanged from hand to Hand. These plants have established themselves in the affection of grower and they should be recorded

ii) Species of rather recent introduction that promise to be acquisition but which are not well know. It is impossible to forecast which one is likely to become fairly common or established.

iii) Certain species of great historic interest in the country that should be known as matter of general knowledge but which may be cultivated or planted on a small scale; this subject is always interesting to student in the educational institution. While some of the species are not common.

The limits of the species of this study are necessarily indefinite and subject to personal judgment. The plant entered in this paper represent all part of world. Cultivated or ornamental have not been the subject, for the most part of critical Systematic study and the knowledge of them frequently in exact. Such works have been considered to be outside the range of regular botanical work. In the study of flora of region, the habitat and range afford clue to the species, but with ornamentals such aids are usually not available. In the present investigation ornamental plant are selected, which are used in medicine by the people labour and nursery men. These are not purposely planted but when these are easily available. A list of 35 plants enumerated in this manuscript.

References

- Almeida M. R. (1996-2009) The Flora of Maharashtra, Vol. I-V, Orient Press, Shreeji Enterprises, Mumbai.
- Bailey L.H; (1924) Manual of cultivated plants, Newyork, the Macmillan Company, London.
- Cooke T. (1967) The Flora of Presidency of Bombay, Vol. II & III, BSI, Calcutta.
- Diwakar P. G. and Sharma B. D. (2000) Flora of Buldhana district, BSI, Calcutta.
- Kamble S.Y. and Pradhan S.G. (1988) Flora of Akola District Maharashtra. BSI, Calcutta.
- Naik V.N. (1998) Flora of Marathwada Vol. I & II, Amrut Prakashan Aurangabad.
- Rothe S.P. (2000) Some noteworthy plant recorded from Akola district; jour. Eco & Taxo, Bot, Jodhpur.
- Rothe S.P. (2004) New addition to the flora of Akola district; jour. Eco & Taxo. Bot., Jodhpur.
- Rothe S.P. (2007) Some noteworthy plant recorded from Akola district; jour. Eco & Taxo, Bot, Jodhpur.
- Sharma B. D., Karthikeyan S. and Singh N. P. (1996) Flora of Maharashtra State, Monocotyledones, BSI, Calcutta.
- Singh N. P. and Karthikeyan S. (2000) Flora of Maharashtra State, Vol. I, BSI, Calcutta.
- Singh N. P., Laxminarasimhan P., Karthikeyan S. and Prasanna P. V. (2001) Flora of Maharashtra State, Vol. II, BSI, Calcutta.