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Medicinal weed plants in paddy (*Oryza sativa* L.) fields

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ABSTRACT

The present paper prescribes twenty one weed species used as medicinal plants belonging to fifteen families, such species along with other scientific name, family and common name and plant parts used and medicinal properties/used are brought in to light. The data are based on personal survey, observation and discussion with kadamangudi village people of Palaiyur Panchayat, Mayiladuthurai and District, of Tamil Nadu.

Keywords: Medicinal plants, *Oryza sativa* L.

1. INTRODUCTION

Rice is the most important cereal crop in the developing world and is the staple food of over half of the world's population, rice cultivation is thought to be the oldest form of intensive agriculture by man. Rice-growing environment is varying drastically within countries. India is the largest rice growing country, over 43 percent population has been dependent on rice as food grain. Rice is grown under four different ecological zones, with the irrigated ecology accounting for the largest area and highest production and productivity closely followed by rain fed shallow lowlands.

Weeds are always considered as unwanted plants and reduce the yield of rice crops but these weeds also some medicinal values. Weeds are short lived herbaceous, fast growing plant that thrive in areas of human disturbance and this is an affirmative character to utilize the weeds as potential medicinal plants. Weeds can be used herbally and medicinally used as food for mankind (eg. *Chenopodium album*, *Cyanodon dactylon*), controlling soil erosion, green manure and some weeds are used as ornamental plants (*Lathyrus aphaca*). The medicinal information of ten weeds plants species from rural folklore of district was carried out. In all 25 villages were survived but useful information could be recorded only from 10 villages.

2. MATERIALS AND METHODS

Important medicinal weeds were collected from Mayiladuthurai District, Palaiyur Panchayat, and Kadamangudi Village. During the survey some interesting folk use of weed plants have come to light. The medicinal or useful information was primarily gathered from the elderly people of village community, grazers, shepherds, housewives, and medicinal practioners/Ayurveda vaith. The people know about the surrounding weed plants their local names, parts used and their uses in different ailments and diseases and also about the preparation of herbal medicines, mode of administration and the doses. The useful and important information about medicinal weed plants was collected from collected from Department of Botany, A.V.C.College, Mannampandal, Mayiladuthurai and District. The medicinal uses of weeds have been worked out on the basis of emperical (Own survey, studies and my experience) and authoritative experiences.

3. OBSERVATION

The weed plants were arranged alphabetically in the order of their botanical names, family names, local names, part used, and medicinal properties and uses concerned. The weed plants were arranged alphabetically in the order of their botanical names, family, Present ecological study of weeds from rice field has been carried out in ten sites such as Edaikiyam, Nachinargudi, Komal, Palaiyur, Paramasivapuram, Karanur, Nallavur, Kanchivai, Othari, and Karupur, were selected as representative villages.

Table 1: Survey on medicinal weed plants in paddy field.

| S no | Common Name | Family Name | Botanical Name | Useful parts | Uses |
|------|-------------|-------------|-----------------------------|---------------|----------------------------|
| 1. | Arugampillu | Poaceae | <i>Cyanodon dactylon</i> L. | Leaf and Stem | Skin diseases |
| 2. | Korai | Cyperaceae | <i>Cyperous rotundus</i> L. | Whole plant | Vomiting and wound healing |

| | | | | | |
|-----|---------------------|----------------|---|-----------------------|--|
| 3. | Neermulli | Acanthaceae | <i>Asteracantha longifolia</i> L. | Whole plant | Rhumatism, eye diseases, and ulcer |
| 4. | Naikadugu | Capparidaceae | <i>Cleome gynandra</i> L. | Whole plant | Nervous disorder, and vomiting |
| 5. | Kanangozhai | Commalinaceae | <i>Camelina bengalensis</i> L. | Leaf, stem and flower | Cancer , ulcer, and skin diseases |
| 6. | Kilukiluppai | Fabaceae | <i>Crotolaria quinquefolia</i> L. | Leaf and flower | Skin diseases. |
| 7. | Korai kizhangu | Cyperaceae | <i>Cyperous iridie</i> L. | Leaf, stem and Tuber | Fever, and vomiting |
| 8. | Kuppaimaeni | Euphorbiaceae | <i>Acalypha indica</i> L. | Leaves and root | Anthelmentic and ulcer |
| 9. | Naayuruvi | Amaranthaceae | <i>Achyranthes aspera</i> L. | Seed and leaves | Urinary problems and skin diseases |
| 10. | Adhatodai | Amaranthaceae | <i>Alternanthera sessilis</i> R.br.ex D C | Leaves and roots | Tuberculosis, ulser and piles |
| 11. | Mullukeerai | Amaranthaceae | <i>Amaranthus spinosus</i> L. | Whole plant | Mouthwash and ulcer |
| 12. | Mookkaratai | Nyctaginaceae | <i>Boerhavia diffusa</i> L. | Whole plant | Eye infection and anemia |
| 13. | Modakkanthaan | Sapindaceae | <i>Cardiospermum helicacabum</i> L. | Whole plant | Fever , eye disorder, and rheumatic pain |
| 14. | Coraipillu | Poaceae | <i>Chloris barbata</i> Sw. | Whole plant | Vomiting and wound healing |
| 15. | Keezhanelli | Euphorbiaceae | <i>Phyllanthus amarus</i> L. | Whole plant | Stomach ache vomiting, and ulcer |
| 16. | Arivaalmunai poondu | Malvaceae | <i>Sida acuta</i> Burm. | Leaves and flower | Swelling and blood clotting |
| 17. | Nerinja | Zygophyllaceae | <i>Tribulus terrestris</i> L | Whole plant | Crystalluria and Urolithiasis |
| 18. | Vettukaya poondu | Asteraceae | <i>Tridax procumbens</i> L. | Whole plant | Ulcer, Antiseptic |
| 19. | Thoodhuvalai | Solanaceae | <i>Solanum trilobatum</i> L. | Leaves | Pain, Cough and Cold, |
| 20. | Aamanakku | Euphorbiaceae | <i>Ricinus communis</i> L. | Leaves, roots | Pilles, cough |
| 21. | Naaithulasi | Lamiaceae | <i>Ocimum canum</i> Sims. | Whole plant | Cough, Dysentery |
| 22. | Thumbai | Lamiaceae | <i>Leucas aspera</i> Spr. | Leaves, and flowers | Dyspepsia, Verminosis |
| 23. | Aarakkeerai | Marsileaceae | <i>Marsilea minuta</i> L. | Tubers, and leaves | Anti-inflammatory, diuretic |

4. RESULTS AND DISCUSSION

The paper presents detailed information on seventeen weed plants species of paddy field belonging to different families used as remedies in primary health care by the village folk of mayiladuthurai District, Tamil Nadu, and India. The data indicate that there is still valid and active knowledge of the therapeutic uses of weeds growing in the paddy fields. There is a great scope for utilizing weeds to the benefit of the local communities besides easily availability of the raw materials for drug preparation. Without knowledge the importance of weeds we are wasting the valuable resources by spending lot of wealth to check the weeds. If the weeds are used for medicinal purposes two problems such as weed control, which will increase the yields and the weeds can be sold as medicinal plants by former.

5. CONCLUSION

Weeds are tremendously grown in open areas and people are not aware for medicinal value of weeds. Indian council of agriculture has recommended that proper utilization of weeds itself can contribute significantly to enhance the income of poor farmers. On the other hand India is a leading exporter of the medicinal plants in the world trade. Awareness should be carried out to the local peoples to use these weeds as medicine and to practice them in their day today life. Hence it is concluded that weeds present in the paddy fields can be used as medicine directly or in ayurvedic medicine in large scale.

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