

**“TREATMENT MODALITIES FOR THE TREES (TARUCHIKITSA) MENTIONED IN SHARANGDHARA'S AND SURPALA'S VRIKSHAYURVEDA: A REVIEW”****Dr. Mona Mohan More**

PG Scholar, Department of Dravyaguna Vigyan.

Ila Bhor

GUIDE, (B.A.M.S. M.D), Department of Dravyaguna Vigyan, PDEA's College of Ayurveda and Research Centre, Nigdi, Pune, Maharashtra, India

Meenal Lad

HOD & professor, Department of Dravyaguna Vigyan, PDEA's College of Ayurveda and Research Centre, Nigdi, Pune, Maharashtra, India.

ABSTRACT

Taru-chikitsa (tree treatment) in the classical Ayurvedic agronomic tradition offers a systematic set of preventive and curative measures for maintaining plant health. Vrikshayurveda, or “the science of plant life” focusses not only on curing plant diseases and protecting plants from insects and fungi, but also to keep them healthy in a sustainable way. Ayurveda's fundamental goal is to preserve or restore the right balance of the three doshas(defects): Vata, where the air and space components predominate; Pitta, where the fire element predominates; and Kapha (where the earth and water elements dominate. disease of all type of plants has been classified into two types- Sharira vyadhis (internal causes) and Agantuj vyadhi (external causes). Internal diseases- are Vaataja (wind), Pittaja (bile), and Kaphaja. External causes -include insects and cold weather, lightning etc. This review summarizes the principal treatment modalities described by Surapala (the author of Vrikshayurveda) and the Vrikshayurveda material attributed to Sharangadhara, groups them into practical categories (physical, topical, fumigation, nutritive/manurial, and regenerative), and discusses their rationale and modern relevance. Thus the users can get comprehensive information on Vriksha-Ayurvedic expertise on all elements of disease and plant protection. Vrikshayurveda the ancient text has already mentioned various herbal and animal material like honey, milk, cow's urine to be used in a number of methods including fumigation to cure plant diseases. Therefore, this article aimed to study the methods to control plant diseases and pests in Vrikshayurveda classics and to transfer this knowledge to the farming communities to adopt these ideas in the cultivation practices to ensure sustainable productivity of agricultural and medicinal plants.

KEYWORDS : Taruchikitsa, Plant disease, Vrikshayurveda, Tridosha, Sharangdhara, Surpala**INTRODUCTION-**

The name basically means *Ayurveda* for plant life. By 550 BC, *Vrikshayurveda* had established itself as a unique field. It mainly deals with the cultivation, propagation, healthy growth, productivity, pest control, disease prevention and the preservation of the flora. *Vata*, *Pitta* and *Kapha*. *Vata* is responsible for mobility and sensations, *pitta* responsible for cellular transformations, chemical reactions and *kapha* responsible for union and stability. The homeostasis of these three energy principles are the conducive factors for good health, while vitiation of these energies as diminution or aggravation in either their quantity or quality or both results in the onset of diseases. Therefore, to cure the diseases caused by these vitiations *Vrikshayurveda* has mentioned various herbal and animal materials that facilitate the pacification of the dosha leading to the cure of diseases. However, apart from these internal factors, external factors such as pests and insects are also major influences for such plant diseases, and *Vrikshayurveda* has mentioned many materials and methods for the prevention of infestations, pest colonization and the healing of the resultant ailments.

BACKGROUND:

The concept of treating trees (Taruchikitsa) in Ayurveda has been an important part of traditional Indian medicine for centuries. Notably, the texts of Sharangdhara Samhita and Surpala's Vrikshayurveda discuss various therapeutic modalities for managing diseases in trees. These therapeutic approaches recognize trees as living beings susceptible to dosha imbalances, similar to humans, and prescribe remedies based on their dosha constitution. The best-known medieval compendium is Surapala's Vrikshayurveda (often dated to around the 10th century) which collects aphoristic prescriptions for planting, pest control, tonics, and rejuvenation of trees. Sharangadhara's *Paddhati* includes an often-quoted Vrikshayurveda section (commonly called Sharangadhara's Vrikshayurveda) that complements these practices and classifies trees and planting methods.

Objective:

The objective of this review is to explore and analyse the treatment modalities for trees (Taruchikitsa) as described in Sharangdhara's and Surpala's Vrikshayurveda, with a focus on the identification of dosha imbalances and corresponding treatment protocols.

Methods:

A comprehensive review of classical Ayurvedic texts, including

Sharangdhara Vrikshayurveda and Surpala's Vrikshayurveda, was conducted. Relevant verses from the Vrikshayurveda books, articles and other classical Ayurvedic literature were examined to understand the diagnosis and treatment of diseases in trees. The data were analysed in terms of the application of herbal treatments, external therapies, and irrigation protocols.

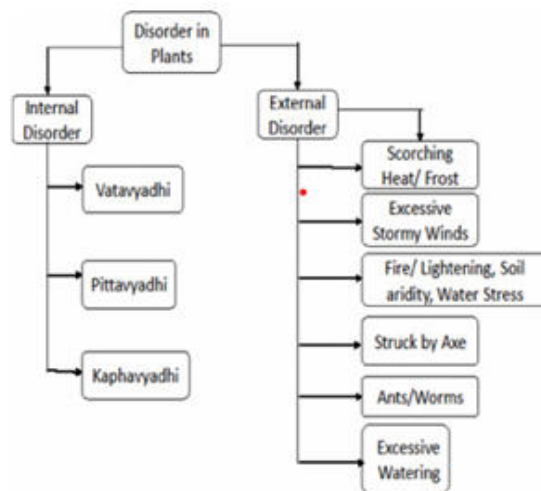
The two types of disorder in plants are shown-

Fig.1. Classification of disorder in plant.^[12]

Plant disease: the diseases of all types of trees are stated to be of two varieties – 1) internal 2) external.

Internal ones are caused by Vata, Pitta, Kapha and external ones are those which are caused by insects, cold weather, lightning, wind, etc.

Identification of symptoms-

Vata- may be associated with symptoms such as dryness, roughness, stunted growth, wilting, thin, crooked trunks, knots on trunks and leaves. Fruits are hard, less juicy, and less sweet.

Pitta- Yellowing leaves, premature fruit drop, inflammation, heat,

irritability, and the drying and rotting of leaves, flowers, and fruits.

Kapha-Delayed fruit production, pale and stunted leaves, lack of flavor, and premature fruiting.

Agantuja disease -include insects, cold weather, fire/lightning, stormy winds, Frost

**Treatment Modalities According To Vrikshayurveda-
Table No.1 Internal Plant Disease Treatment**

Nija Vyadhi	Surpala treatment	Sharangdhara
Vata ^[1]	-Kunapa jala, Mamsa (flesh), Meda (fat), Ghee -Fumigation (Arishta, cow's horn, horse's tale hairs, ghee, oil/fat of a specific animals, hog fat)	-Prasarani taila, snigdha + clarified butter. -Cow dung, lodhra
Pitta ^[1]	-Irrigate with meat soup + Butter milk	-Paste and Spray (white variety of Mustered externally over roots)
Kapha ^[1]	-Kshira(milk), madhu, yashtimadhu, madhuka decoction -Decoction of panchmula, paste (kalk of sita sarsapa)	-Ash of sesame seeds mixed in water clarified

Table. No 2 - External Plant Disease Treatment

Agantuja	Plant Treatment
Insect	Irrigate the tree with cold water - 7 days Fumigation (Hingu, Vacha, water, mixed with cow's flesh, horn of Buffalo, Pigeon's flesh, Bibhitaka) Paste (Vidanga, Tila, Gomutra, Ghee, Mustered)
Lightning	Paste (Vidari, Sharkara, Nagajivha & tila,externally Irrigate with Ushheera, Madhooka, Mudga, Maasha, Yava, Tila
Wind, fire	Fumigation (Hingu, Vacha, water, mixed with cow's flesh, horn of Buffalo, Pigeon's flesh, Bibhitaka) Paste – (Padmini & mud) over all ends/sites of fire-victim then Irrigate the tree with kunapajala.

Physical Methods: Pruning, Scraping, Excision And Bandaging

Classical texts instruct first to remove dead or necrotic tissue (scraping, cutting away cankered bark), then apply topical medicaments and protect the wound (bandaging or smearing with pastes or oils). Such mechanical sanitation reduces pathogen load and prepares the site for medicinal application. Brihat-Samhita and the Vrikshayurveda tradition explicitly recommend scraping away diseased portions before applying medicinal pastes.

Topical pastes and smearing (lepa /avaleha)

A wide range of pastes is prescribed e.g., mixtures containing *vidanga* (Embelia ribes), ghee, cow-dung, plant resins, ashes and herbal powders which are smeared on wounds, trunk lesions and exposed roots. These mixtures act as antiseptic, deterring insects and promoting healing. Classical recipes sometimes combine powdered herbs with milk, oil or fermentates before smearing.

Fumigation / smoking (Dhupa) and topical insect control

Surpala and later compilers recommend fumigating trees with smoke prepared from specific ingredients to eliminate or dislodge insect pests and larvae. For example, smoking with a mixture of white mustard and several medicinal plants (e.g., *vidanga*, *vacha*) is described as a fast measure to remove worms and aggregated pests on branches/leaves. Folkloric experiments and modern reviews reproduce such smoke-treatments as low-toxicity pest control.

Root-applied decoctions and watering (Mula-chikitsa)

Several recipes call for preparing decoctions (kashaya) from roots, barks or whole plants (licorice, specific tree barks), cooling them, sometimes mixing with milk/honey or fermented manures, and pouring at tree bases. These preparations serve to treat systemic disorders, improve vigor, and repel soil pests. Surapala recommends medicated watering (e.g., cooled decoctions) for certain "agantuja" (external/traumatic) conditions.

Powders, ashes and dry dusting (for crawling pests)

Applying ash, brick dust, or plant powder around roots or on vines is

recommended to deter crawling insects and fungal colonization. Modern practitioners treating minor infestations sometimes replicate these dry-dust methods as low-cost repellents.

Organic manures, fermented preparations (kunapajal, etc.)

Vrikshayurveda details nutritive, fermented manures e.g., *kunapa* (animal-product based fermentates), cow-dung and urine formulations, and 'prepared manures' allowed to ferment before application. These are applied as root drenches or soil amendments to boost fertility, flowering and fruiting. Secondary analyses note beneficial effects of such formulations as biofertilizers and growth stimulants when applied correctly.

RESULTS-

The findings reveal that the health of trees is diagnosed by the vitiation of the three doshas—Vata, Pitta, and Kapha. Specific symptoms and imbalances are linked to the characteristics of trees such as dryness, pale appearance, or the inability to bear fruit. Treatment modalities include the use of medicinal herbs, pastes, and fumigation methods. Treatments such as Prasaaranee taila, irrigation with milk and Kunapajala, and the use of specific plant-based medicines like Lodhra, Vidanga, and various fats (e.g., ghee, animal fats) are prescribed for different tree ailments. Diseases caused by external factors such as worms, insects-pests, lightning, fire, or drought are addressed through specific protocols for restoration, including soil rejuvenation and external applications of herbal pastes.

DISCUSSION-

The treatment modalities for trees in Ayurveda demonstrate a deep understanding of plant physiology and the therapeutic use of natural resources. The dosha-based approach, similar to human medicine, reflects the holistic nature of Ayurvedic practices. The use of milk, water, fats, and herbal compounds for the restoration of tree health highlights the interconnection between plant and environmental health. The review underscores the relevance of these ancient practices in modern agroforestry and sustainable agriculture.

CONCLUSION-

Taru-chikitsa in Surapala and Sharangadhara offers a rich toolkit: immediate curative measures (scraping and lepa), fumigation for pests, medicinal root-drenches, fermented manures (kunapa), dusting/ashes, and regenerative techniques (grafting/propagation). These methods are practical, historically tested, and promising for modern organic practice provided classical recipes are standardized and evaluated for safety and efficacy.

REFERENCES-

- Sadhale N. Surapala's Vrikshayurveda (The science of plant life). No. BOOK. Asian Agri-History Foundation; 1996. p. 43–67.
- Nene Y. L. Fumigation of plants in Vrikshayurveda. Asian Agri-History Foundation 2014;18(1):23–41.
- Vrikshayurveda by Subhashini Sridhar et al, published by Centre for Indian Knowledge Systems, Chennai. 5. Agriculture and Biology Journal of North America. ISSN.Print.2151-7517.
- Kaur P. Role of Vrikshayurveda in Integrated Pest Management, Vol.2 Issue 11, Aug 2022
- Global Journal of Research on Medicinal plants and Indigenous medicine, Volume 1 issue 7 July 2012.
- Varier P.M. Sharangdhara Virchit Vrikshayurveda. Arya Vaidya Shala, Kottakal [Cited-2022]. p.86
- Biopesticides: An Eco-friendly approach for pest control-Journal of biopesticides.p.186-188
- Internal journal of Ayurved & Herbal Medicine.p.2912 <https://www.interscience.org.uk>
- Data base of Indian medicine vol.1, 2,3 &4.
- Shaik N.V.H, Joshi, S. Subramanyam and Rao S. Vrikshayurveda- A Review International Journal of Ayurvedic & Herbal Medicine7(5)(2017)2912- 2914
- Kaur P. Role of Vrikshayurveda in Integrated Pest Management, Vol.2 Issue 11, Aug 2022
- Rananavare L. Technology from Traditional knowledge-Vrikshayurveda Journal of Ayurveda and Integrative Medicine-15 (2024)100853
- Yin YL.Nene. Relevance of Vrikshayurveda in agriculture today: a tele-interview 2012
- Vrikshayurveda of Parashar: A Treatise on plant science, sri satguru publication, 1996
- Meshram S. A., Meshram A.A., Vrikshayurveda - A Boon, J Ayurveda integr Med.sci 2019;6: 186-189
- Vrikshayurveda by Subhashini Sridhar et al, published by Centre for Indian Knowledge Systems, Chennai. 5. Agriculture and Biology Journal of North America. ISSN.Print.2151-7517.