



Gulmavrikshayurveda: A Treasure for Life and Living

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ABSTRACT

India has always been an agricultural country. Even when the world was living in the forest, we had already developed a Vedic society and we were making progress in technology, industry and trade. Even at that time, we were very progressive in agriculture, the description of which is found in many of our ancient books. In ancient times, many books related to agriculture were written, one of which is “Gulmavrikshayurveda” written by Maharshi Parashar. The book published in Banaras Ayurveda series 114 is edited by Dr. Sri Krishna ‘Jugnu’ and Munna Lal Dakot. In this book, botany and Dietary science have been described, in which proper commentary has also been given along with its original verse and its Hindi translation. The word “Gulmavrikshayurved” has been mentioned in Chanakya’s Arthashastra for the botanical form of the earth. It mainly describes the growth of herbs, creepers and trees growing on earth, their production, the diseases caused in them and their treatment. This book has been written with the aim of promoting forest culture (Forestry). This book is important and useful not only for Botanical scholars but also for Sanskrit scholars and Ayurveda scholars. An attempt has been made to promote vegetarianism among the people through the verses of dietetics propounded in this book. The main two parts of the book “Gulmavrikshayurveda” have been explained. In which, in the last eight chapters of the first part, sutras related to the production of seeds have been given, which describe the process of making seeds, the parts of trees, flowers, fruits and the land suitable seeds. In the second part there are three section present. In which the first Vanaspatikhanda, described the characteristics of various floras and their classification in various ways. In the second Gulmakshupakanda, describes the identification of medicinal plant parts and collection are described and in the third, Ayurvedic section, the treatment of forestry has been discussed. It has also mentioned the suitable land, right time and proper collection methods for the medicinal plants.

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INTRODUCTION

India has long been recognized as a nation rooted in agriculture, tracing its agrarian culture back to ancient times. Even when other parts of the world were still in the early stages of origin, with societies dwelling in forests, India had already progressed significantly in various fields, including agriculture, technology, industry, and trade. This advancement is evident in the Vedic society that flourished in ancient India, laying a foundation for structured societal growth and origin. From time immemorial, agriculture in India was not just a means of sustenance but a sophisticated science. This is reflected in the vast number of ancient texts dedicated to the study and advancement of agricultural practices. One such significant text is the “Gulmavrikshayurveda,” authored by Maharshi Parashar. The book, published as part of the Banaras Ayurveda series (114), has been edited by scholars like Dr. Sri Krishna ‘Jugnu’ and Munna Lal Dakot. This ancient work provides a detailed exploration of botany and dietary science, crucial aspects of early Indian knowledge systems. “Gulmavrikshayurveda” is a text of remarkable importance because it doesn’t just deal with the agricultural practices of the time but provides a holistic understanding of plant science. The book is composed of original Sanskrit verses, accompanied by insightful commentary and Hindi translations, making the knowledge accessible to a broader audience. It is noteworthy that this text was not just a standalone work; the concepts found in “Gulmavrikshayurveda” are also referenced in other classical texts like Chanakya’s ‘Arthashastra’. In ‘Arthashastra’, the term “Gulmavrikshayurveda” is mentioned in the context of the botanical richness of the earth, further underscoring the significance of agriculture and botany in ancient Indian society.

MAHARSHI PARASAR AND HIS CLASSICAL CONTRIBUTION

Maharishi Parashara was a maharishi who wrote numerous old Indian manuscripts. Before his son Vyasa composed the Vishnu Purana in its current form, he is considered as being the creator of the first Purana, the Vishnu Purana. He was the son of the sage Shakti and the grandson of the virtuous Vasishtha. Parashara is mentioned in a number of writings as a writer and speaker. Botany considers Maharishi Parashar to be one of its pioneers. Together with sages like Marichi, Bhṛigu, Daksha, Narada, Vyasa, Vasishtha, Bhargava, Valmiki, Agastya, Garga, and Gautama, Parashar is included as one of the fortunate fulfillers of desires in Sanskrit writings (Krishiparasara 79). The first known study of botany can be found in Maharishi Parashar’s account of the plant

classes in the Vishnupuran beneath the creation of the universe. This Purana text is regarded as the most genuine. This refers to tree science as ‘Udbhid Vidya’ and describes trees as ‘Samvritatma’ or ‘Mudhsvabhi’. They have also been acknowledged as the primary creation in addition to this. This indicates that they contain life and are the primary form of creation. Prathamsha (Vishnupuran: 5, 6-7). An unexpected kind of plant research can be discovered in the early Puranic period. In the Upodghatapada of Vayupuran, trees, shrubs, and creepers are likewise recognized as human beings in the Kashyap Prajasarga. Besides these, Maharshi Parasar contributed to agriculture and the betony knowledge system by means of his various scriptures. They are-

- Parashar Smṛity, Krishi Parashar, Prihatparashari, Parashariya Golakshan, Parashar Prasha, Parashar Tantra and Parashari Gulmavrikshayurveda.

OBJECTIVES

1. To find out the theme wise contents of the given book.
2. To extract the important knowledge from the given book and its possible comparison to existing knowledge.

METHODS

Content analysis is a research method used to identify patterns in recorded communication. In this research qualitative content analysis has been used. First it was decided that the given text will be analyzed on the basis of themes. The differentiation between the theme was decided on the basis of content coverage. The five theme were decided. These theme were the Seed, Vanaspati, Vanaspatya and Treatment. The content was read, coded and was analyzed for right interpretation.

RESULTS

Objective 1: understanding the five themes covered in the book.

Theme of Gulmavrikshayurveda

The main focus of this book is on the study of botany and its importance in ancient India, with a specific emphasis on how it related to daily life, medicine, philosophy, and ecology. The passage emphasizes:

1. Medicinal and Practical Use of Plants: Ancient Indian intellectuals such as Charak, Sushrut, and Dhanvantari undertook thorough investigations of medicinal plants for healthcare purposes. The passage also makes reference to

Parashar, whose writings in Vrikshayurveda address plant and forest protection as well as the useful knowledge of botany.

2. Philosophical Integration: Botanical studies are closely linked to the Indian philosophical notion of Panchmahabhoot (five elements), which emphasizes how the interactions between components shape the tastes and characteristics of plants and fruits.

3. Ecological Awareness and Land Classification: The book describes how natural vegetation, water availability, and geography were used to categorize regions (or countries), and how these elements affected the kinds of flora and the health of the populace.

4. Historical Importance: Despite being unfinished and revised over many years, Parashar's botany work provides an early understanding of botanical science and illustrates the organized knowledge system of plant life, ecology, and medicine in ancient India.

The book consists of four major themes content are-

1. Seed Origin: This major section is described in eight chapters which covers the various aspects of seed Origin, like – type of seed, soil and seed relationship, plant part as seed, flower and seed Origin, fruit and seed Origin, eight parts of tree and part of seed.

2. Vanaspati: This section majorly consists of the flora whose flowers are not clearly differentiated or seen, and they produce milk. They are generally apophytes. They have a special type of leaf which is called Shunga. This section is named as Vanaspatee and consists of three chapters, like – origin, collection, ternary chapters.

3. Vanaspatya: this section describes the flora which have produced the clear and visible flowers with all floral parts. These sections also describe a variety of trees and vegetation and are classified accordingly. This consists of 3 chapters, such as – General characters, seven leaf class of vegetation and Sami class of vegetation. This section is named Vanaspatya. E.g. Banyan tree.

4. Glomus: this is a small section that majorly deals with the vegetation which grows in the wet and marshy soil. They are generally monocotyledons, and they are propagated by rhizomes. Their leaves are tricuspid. This section is named Gulpkshup.

5. Treatment: This section consisted consists of the dietary importance of all four above types of flora as well as the treatment of the various classes of flora. This section consisted of three main chapters. They are – dietary importance, medicinal important soil and plant treatment.

Objective 2: Analyzing the important knowledge from the given book and its comparison to existing knowledge.

Section wise content:

1. Seed Origin

1.1 Seed Origin Sutrash: Here Maharshi Parashar describes that the time of evolution the first creation of Braham ji was trees and Varuth (Shrubs). Here trees are classified on

the basis of their nature, their shape and soil required. All botanical plants are classified into Vriksha (trees), Valli (climbers) and Gulm that resembles to the tree, shrubs and herbs in modern classification (NCERT). Here all processes of germination of a seed are described. Most importantly is here clearly described that all trees have feeling of happiness and sorrow. In modern era sir J.C. Basu prove this by his research. Four types of medicinal vegetation are described, like- Vanaspati, Vaanaspatya, Valli and Gulm.

1.2 Soil classes sutras: According to this book, soil is majorly classified into three classes. They are – Jangal (Desert) Soil, Anup (Alluvial), Mishra (mixed) Soil, The characters of various soils and the various crops suitable for different soils are also described in this chapter which resemble the present soil classification as sand, silt and clay. Besides the above, other types of soil are also described in this chapter, like – Dalva (Marsy) Soil.

1.3 Forest classes sutras: In this chapter, definition of a forest and the famous forest are discussed. The popular forests are – Chaitrarath, Kalak, Kirat, Panchanad, Prachya, Chedikarushak, Angireya, Kalingeya, Adshavarna etc. besides the names and characters, the location and span of these forests are also discussed.

1.4 Parts of Trees Sutrash: Here Maharshi Parashar discussed the classification of vegetation according to their proportion of plant. The describes the plant part as Leaf, Flower, Fruit, Root, Bark, Stem, Essence, Juice, Extract, Oil Substances, Thorns, Seeds and Shoots etc while NCERT describes major plant parts as roots, stems, leaves, flowers and fruits only. They classify the vegetation on the basis of similarity of the above-mentioned parts. Maharshi Parashar also discussed the effect of Panchamahabhut on Earth, water, air, air and Space, on the plant and plant space while modern science elaborate the effect of nutrients on plants.

1.5 Flower parts Sutrash: In this chapter, flower as discussed as a pioneer is fruit. Here it is discussed that the leaves are the precursor of a flower and are called Prakpuspa, which means the leaves come before the flower. They are generally small. They describe the various parts of a flower, like- vallarika, vrint, jalak, dal, kesar prag, kinjalka, parimal, makarand, beejadhar, vratak and thalak but in modern science discuss flower parts are just sepals, petals, stamens, and carpels. Here different characters, arrangements and classification of flowers are also discussed.

1.6 Fruit parts Sutrash: in the given chapter, parts of fruits are described. On that basis, fruit are also classified. Different parts of fruits are discussed as vrint (Pedicel), Jalak (Seapl), Valk (epicarp), Shlatu, vartak,

BeejPulpika (endocarp), Beejpus (Seed Membren), and Beej (Seed) whereas current science describes the fruit parts are Epicarp, Mesocarp and Seed only. Besides these, all fruit parts are also classified in various ways and, on that basis, fruits are also categorized. Here it is explained the five types of arrangement of seed in fruit, like- Vritantik (directed towards pedicel), Puplikantik (seed covered by seed membren), Puspantic (seed attached with mesocarp), Sthalkantik (seed arrange on placenta) and Panktik (linear arranged seed) resemble to Axile, Free-central, Basal and Parietal placentation in current science. Again, fruit are classified on the basis of their juice taste as sweet, sour, pungent, bitter and astringent.

1.7 Eight part sutras: In this chapter maharshi parashar classified trees on eight main parts of a tree, i.e. Root, bark, stems, nectar, juice, gum, oil, spices. Here, roots are described as the heartland of trees and the process of uptake of water and nutrients. There are four types of roots discussed, as Kasthik, Kandik, Granthik and Pratanik resembling to tap roots, fibrous roots, and adventitious roots in modern science. In this chapter it is discussed that there is a structure, namely, Sira, which conveys the air in trees while syandani conveys juice and liquid which commonly known as xylum and phloem in modern botany. There is also a classification of other parts like bark, stem etc.

1.8 Two class sutras: here, two classes detail, like seed and seedling, are discussed in detail. According to this, all seeds have four main parts, like- Kikhos (seed coat), Beejmatrika (Embryo), Beejpatra (Seed Cotyledons) and Matrikachhad (Seed Membrane) same as in modern science parts of seed are describes as . Colors and shapes of seed are discussed here and, by nature, two types of seed is Monocotyledon and dicotyledonous are also discussed. This vegetation which do not produce seed are propagated by various other parts like- stem, rhizomes, runner etc this knowledge is also found in modern science as vegetative propagation.

2 Vanaspati

2.1 Vanaspati description: In the category of Vanaspati, Maharshi Parashar discusses those plants whose flowers do generally not appear, meaning flowers are not differentiated easily. Which means that the seed of these plants do not get sunlight or moonlight because they are enclosed in the phalgu sthalaka, which is round and hollow. All plant class plants produce milk, and they have a special type of leaf which is called shunga. They are the plants which are generally used in Yanga. They are malty seeded and dicotyledonous plants. These plants produce roots. Some examples are: Banyan tree, Ficus religiosa, pakad trees, sycamore etc.

2.2 Class-collection of Trees: All plants can be divided into many categories on different class bases. Such as on the basis of leaf – Jalikparn and maunjaparna varg. On the basis of milk production- kshiren and Akshiren. On the basis of flower- Vyakt, avyakt, sampuspa and vishampuspa. On the basis of stemen – vyaktkeshar and Avyaktakeshar. Many other bases of classification are there

2.3 Grass class: The characters of the grassy class are described by the maharishi parashar, these plants have arrangements of leaves and they are monocotyledonous plants. Some of them have very hard bark. Three types of flower clusters are found in this class are- Kukshimanjari, Shirshmanjari and Prakandmanjari. Some examples: palm, coconut, date palm, betel palm and sugarcane etc. In the current science this class is describes as the poaceae or gramineae family.

3.0 Vanaspatya

3.1 Vanaspatya thought: Those forest trees whose flowers are clearly visible and differentiated are called Vanaspatya. These vanaspatys are also classified in various ways, like – Aamrapuspa varg (Mango Flower Class). The main characteristics of this class are that the flowers have five petals and five stems, they have smaller floral clusters, the seeds are Uni-embreonic and single seeded, which is a stone-seed. Seeds are placed towards pedicles. This class includes: Aam, Ambada, Jingan, Bhallatak etc. Other classes in Vanaspatya are- Matulungadi Class, Lenon class, Devpuspa Class, Akshapuspa class, Kuhpuspclass, and Kaladi class etc. in modern science both Vanaspati and vanaspatya are classified in angeospermic plants.

3.2 Saptaparna division of trees: In this chapter two types of trees are discussed, namely- Saptaparna and Kutaj. Kutaj is also known as mallikapuspa. The characteristics of the mallikapusp class are – flowers are cuvic in shape and leaves are arranged one by one in a pair and leaves and pedicels have a cuticle-like structure. Petals are attached and five as well as five stamens are found. Saptaparna trees are tall trees and their milk is bitter. They bloom in winter and the flowers produce a good fragrance. While Kutaj trees bloom in the rainy season. These given characteristics match with the Apocynaceae family.

3.3 Sami Family: The plants of this class are mainly found in Jangal desh (Desert soil). These are classified in three classes on the basis of flowers. They are- Vakrapuspa, Vikarnikapuspa and Shukpuspa. All these three classes have their own special characteristics. The subfamily of Sami family are- Palash, Agastya, Jayanti, Shinshipa, Paribhadra, Kovidar etc. some characteristics are mathched with the Fabaceae family and subfamilies.

4.0 Gulmakshup section

Basically, this section discusses the vegetation which grows on wet and marshy land. They are called the Dalvaj group of vegetation. This vegetation is monocotyledonous and propagated by rhizomes and runners. The leaves are in the shape of turtles and have three outings. Their stems are long and hollow and cylindrical. Leaf pedicels are hollow, consisting of many small pores, and they join with the leaf on the lateral side. The flowers are like a cat's tail and they are both male and hermaphroditic. It produces toxins in their sap, so it causes itching by touch. These Dalvaj Plants are classified as – Manak, Granthila, Khandakarna, Vllikandul, and Ekparnik. All these classes are further sub-classified and have different characteristics. This plants has basically classified as **Typhaceae**, **Cyperaceae**, and **Poaceae families in modern science**.

5. Ayurveda

5.1 Treatment Chapter: This chapter deals with many aspects but majorly focuses on dietary science. A good diet is the best treatment for all health issues. To use a better diet, it is necessary that one has character, amount and property of food items. There are many alternatives to food items. There are two types of food on the basis of origin – Sthavar foods and jangam foods. On the basis of use, the food is classified as Pan (drinkable), Ashan (Eatable), Bhakshay (chewable) and Lehan (likable). Food has six types of sap and types of taste are found. Twenty quality types of food are found. Besides, these chapters consist of which food is suitable in a particular case. The given information also somehow discussed in current science in different format.

5.2 Soil used for medicinal plants: There are a variety of soil are Shrabhra (Borrow), Kankad (Stone), Undulating, Shamshan, Vathasthal, Devtayakan, Siktasunya (sandless), Anushar, Abhangur etc. the medicinal plant grown from any soil should not be infested by pest, no toxic, no cut with any weapon, not affected by sun, smock, fire and water. The root of the plant should penetrate into deep soil. So, the soil and medicine should be properly tested.

5.3 Plant treatment Chapter: It is discussed here that grapes, blackberries, Asoka, bananas etc. should be propagated by Kand (Vegetative Propagation). The method of implanting one plant on another plant is also discussed here. Those plants which have not produced their branches should be transplanted in the Shishir season (spring season). If branches are developed, then they should be transplanted in the Hemant season, while those whose branches have matured should be transplanted in the rainy season. If any plant is transplanted from one place to another, then after uprooting, the mixture of ghee, milk, honey, kha, and sesame oil should be pasted on the root. Many preventive and curative measures are also discussed in this chapter. Also, the proper distance for planting of trees is also provided here. In

the modern horticulture science some vegetative methods of propagation and rooting hormone auxins are discussed.

CONTRIBUTION TO IKS

This paper opens up various new area of research mainly for plant scientist and reinforces the idea that ancient civilizations had deep scientific insights, fostering respect for cultural heritage. It gives the information regarding too many unexplored plants. This data can utilized to design sustainable agricultural practices, Ayurveda, and biodiversity conservation efforts. Many indigenous Ayurveda treatment suggested in the book can be tested and used in plant population. Incorporating this knowledge can enrich the understanding of botany, ecology, and history.

CONCLUSION:

India's long history of agriculture, showcasing its achievements in trade, technology, and agriculture, particularly in Vedic society. Maharshi Parashar's seminal work "Gulmavrikshayurveda" delves into botany, plant science, and food knowledge, mirroring the holistic farming methods of ancient India. The systematic body of knowledge about botany and ecology was established by Parashar's contributions to the field of botany, as evidenced by his numerous texts. The "Gulmavrikshayurveda" showcases early Indian knowledge in subjects like seed origin, plant classification, medicinal and utilitarian uses of flora, and ecological awareness.

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