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The Future of Dasapuspam in Ayurveda

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ABSTRACT

Ayurveda, the traditional Indian system of medicine relies heavily on biodiversity, particularly medicinal plants, for its treatments. The system recognizes the importance of natural variation in living beings to understand human health and illness. However, the growing demand for Ayurvedic remedies is putting a strain on biodiversity, necessitating conservation efforts.

Dasapushpam, meaning "ten flowers" refers to a group of ten sacred and medicinal plants traditionally used in Kerala, India, and is deeply connected to biodiversity. Even though they are termed as flowers, in reality it is the whole plant and the leaves that are medicinal. The flowers in most cases are small and inconspicuous. Many of these can also be used as pot herbs and added to batters or Dhals to make healthy and tasty dishes.

This article explores the cultural and religious beliefs ,ethnomedical and pharmacological properties of dasapuspam, that leverages the power of 10 sacred herbs to promote holistic wellness and personalized medicine. Dasapuspam offers a unique perspective on health and wellness by emphasizing the importance of balancing physical, mental and spiritual well being.In this article an attempt is also made to describe that Antioxidative action of 'Dasapuspam' plays a major role in protection of human beings against oxidative damage caused by the highly reactive unpaired electrons referred as free radicals.

KEYWORDS: *Dasapuspam, Cultural beliefs, Religious beliefs Antioxidant action, Pharmacological action.*

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INTRODUCTION

Dasapuspam constitute a group of 10 potential herbs which are culturally and medicinally significant .These ten favourable herbs are used in Ayurvedic System Of Medicine and it posses tremendous therapeutic and potential benefits. The peak of monsoon spread out between the months of June, July and August .During the middle of the season, Sun changes his direction and the transmigration into the Dakshinaayana Phase is known as Karkitaka Sankranthi. This mark the 1st day of the month of Karkitakam on the Indian Lunar Calender. Karkidakam is a period of prayer, fasting, and austere living. People clean their homes, perform special poojas (rituals) for Goddess Lakshmi, and observe Karkidaka Vavu, a day for ancestral worship. It's also known as "Ramayanamasam" because the epic Ramayana is recited daily, offering spiritual strength during a challenging time. The Karkidaka Masam coincides with the monsoon season in Kerala, characterized by heavy rainfall, increased humidity, and a higher risk of diseases. This month is seen as a time when the body's natural defenses are weakened, making it susceptible to illnesses. Dasapushpam[1], a collection of ten sacred herbs traditionally used in Kerala, is believed to offer various health benefits, particularly during the monsoon season when immunity is often compromised. These plants are thought to possess medicinal properties that can help boost immunity, improve digestion, and protect against monsoon-related ailments.

Dasapushpam refers to ten specific plants are:[1]

1. **Durva** - Cynodon dactylon - Poaceae Family
2. **Vishnukrantha** - Evolvulus alsinoides- Convolvulaceae Family

3. **Lakshmana** - Ipomoea sepiaria - Convolvulaceae Family
4. **Sahadevi -** Vernonia cinerea - Asteraceae Family
5. **Bhringaraja** - Eclipta alba - Asteraceae Family
6. **Alambusha** - Biophytum sensitivum - Asteraceae Family
7. **Krishna Musali** - Curculingo orchioides - Hypoxidaceae Family
8. **Indravalli -** Cardiospermum halicacabum - Sapindaceae Family
9. **Gorakshaganja** - Aerva lanata - Amaranthaceae Family
10. **Shashasruthi** - Emilia sonchifolia - Asteraceae Family

In today's world, antioxidants are crucial for maintaining health and preventing disease. They protect our bodies from the damaging effects of free radicals, unstable molecules that can contribute to aging and various illnesses. Antioxidants achieve this by neutralizing free radicals or repairing the damage they cause. Oxidative stress is also linked to mental health conditions also like anxiety and depression. Dasapushpam, the above mentioned 10 sacred herbs is known for its diverse therapeutic properties, including antioxidant activity. These plants are rich in phytochemicals, such as phenolics, flavonoids, and terpenoids, which are known to possess antioxidant effects. Studies have shown that extracts from Dasapushpam plants exhibit significant antioxidant activity through various mechanisms, including scavenging free radicals and reducing power.

- This review attempts to bridge the gap between ancient traditional religious and cultural beliefs and modern pharmacological perspectives, exploring the futuristic potential of Dasapuspam's 10 sacred herbs, revered for their antioxidant, anti - inflammatory, and therapeutic properties, and examining their potential applications in preventing and managing chronic diseases, promoting holistic wellness, and fostering a deeper understanding of the intricate relationships between nature, spirituality, and human health.

Aim & Objective

- To explore spiritual and cultural significance of Dasapuspam (10 sacred herbs), revered in ancient traditions for their perceived divine properties and healing potential.
- To comprehensively explore the ethnomedical significance and pharmacological indications of Dasapuspam
- To evaluate the antioxidant action of Dasapuspam by examining their potential to mitigate oxidative stress and inflammation, and thereby confirming their importance as promising herbs for future therapeutic applications and holistic wellness.

Materials & methods

- A comprehensive review of classical Ayurvedic texts, was conducted to gather traditional knowledge on Desapuspam.
- Relevant peer - reviewed articles and journals were searched and analyzed to understand modern pharmacological perspectives on Desapuspam's constituent herbs. Pharmacological books and online databases were consulted to gather additional information on the anti - oxidant properties.
- The collected data was critically analyzed and synthesized to draw meaningful conclusions about Desapuspam's potential in modern healthcare.

CULTURAL VIEW ON DESAPUSPAM[2]

Dasapuspam, a revered concoction of 10 sacred herbs in Ayurveda, holds profound cultural and spiritual significance in traditional Indian medicine. Beyond its therapeutic properties, Dasapuspam is deeply rooted in the cultural beliefs and practices of ancient India, where it is considered a divine gift for promoting holistic wellness and spiritual growth. This cultural reverence is reflected in its use in various rituals, ceremonies, and traditional healing practices, underscoring the intricate relationship between nature, spirituality, and human health in Ayurvedic philosophy.

As per the tradition of kerala, Women wear Desapuspam garlands on the head. During the Malayalam month of Karkkidakam (the monsoon season in kerala when disease are prominent and the body has little resistance against disease) Desapuspam were displayed in the form of Floral Folk Art (pookkalam)[3].

In traditional Indian culture, consuming specific dishes like **Mukkutti kurukku** and **Karkkidaka Kanji[4]** during the monsoon season is deeply rooted in the belief that these foods possess inherent properties to boost immunity and ward off infections, showcasing the community's reliance on ancestral knowledge and natural remedies to navigate seasonal health challenges. The **Karkitaka Kanji** has the flavour of coconut milk, a complex mix of herbs (Dasapuspam) , and a dash of fenugreek's bitterness with a slight crunch of shallots fried in ghee. **"Mukkutti Kurukku"** renowned for its delightful medicinal properties, is a nutritious bowl of porridge which is considered perfect for monsoon. Prepared with a relishing blend of jaggery, soaked njavara rice, cumin, ghee and mukkutti that is Biophytum

sensitivum. During Karkidakam, Dasapushpam is often displayed along with other auspicious items like rice, gold, and a special mirror, in front of a traditional oil lamp.

Embracing cultural beliefs and traditional practices like consuming Dasapuspam and seasonal dishes can promote holistic wellness. By honoring our heritage, we tap into ancestral wisdom that fosters a deeper connection with nature and health. These time - tested customs can have a profoundly positive impact on our well - being.

RELIGIOUS VIEW ON DESAPUSPAM[3]

In traditional Indian culture, Dasapuspam's 10 sacred herbs are deeply intertwined with spiritual and religious beliefs, where each herb is associated with a specific deity or planetary influence. Wearing these herbs or using them in rituals is believed to invoke divine blessings, balance planetary energies, and bring about spiritual growth, physical well - being, and mental harmony. This sacred connection between herbs, gods, and humans underscores the holistic approach of Ayurveda, where nature, spirituality, and health are intricately linked.

1. Durva: Lord Surya

Wearing this plant believes to cure all diseases, brings longevity. Pregnant Ladies wear this for getting good and healthy offsprings.

2. Vishnukrantha: Lord Vishnu

Wearing this plant believes to get the blessings from Lord Vishnu and all his Avatharas.

3. LAKSHMANA: Goddess Mahalakshmi

Wearing this plant believes to improve wealth prosperity of the house. Heart shaped leaves is believed to bring purity of Heart.

4. SAHADEVI: Lord Brahma

Those who wear this herb will get the blessing of Lord Brahma and remove proverty and sadness. There is a belief that if we workship the plant everyday, even the gateway will become the gold. The bride and groom use this in the form of collyrium on the wedding day for getting successful married life.

5. BHRINGARAJA - Lord Brahma

Wearing this while mediatating Lord Siva is like confession so that he will forgive all our sins and provide good and harmonious married life.

6. ALAMBUSHA - God Sreeparvathy

Ladies always wear this on hair for the health of husband and children. There is a belief that Alambusha with three flowers at the same time in an infloroscence is a symbol of finding fortune underneath it. The leaves of of the Alambusha are crushed and the greenish black juice is used by the women to make a bindi during this month. It is supposed to attract 'Shree', prosperity.

7. KRISHNA MUSALI - Prithvi devi

Dharana of the herb Musali believed to be good for acquiring patience and tolerance also for getting better wisdom righteousness etc.

8. INDRAVALLI - Lord Indra

Dharana of this has believed to fulfill all the wishes and for attaining salvation after death, also stated that tieing the plant around the pot with which first cooking is done for the child to getting the food without ant obstacles throughout the life.

9. GORAKSHAGANJA - Lord Yama

Yama the lord of death; hence the plants is included in all funeral rituals. It is believed to destroy the causative factors of all unhealthy features and bestow good health.

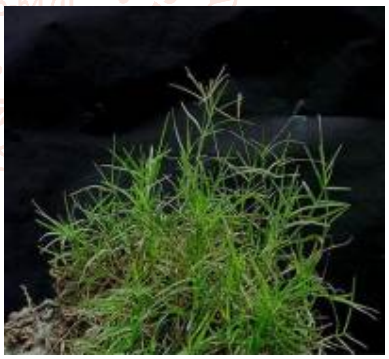
10. SHASHASRUTHI - Lord Chandra

Wearing this will bring peace of mind and become more beauty.

A. ETHNOMEDICAL AND PHARMACOLOGICAL PROPERTIES OF PLANTS

1. Durva - Cynodon dactylon[1, 5]

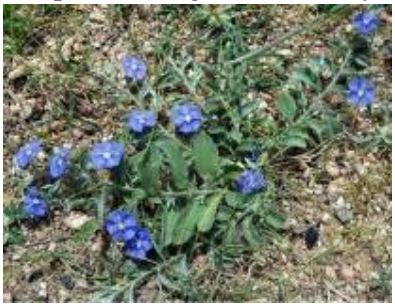
The plant belongs to the family Poaceae and is commonly known in English as Bermuda Grass. In Sanskrit, it is called Durva, while in Malayalam.



Cynodon dactylon is widely used in Ayurveda for various ailments, with its juice applied to stop bleeding, relieve acidity, and treat constipation. It is traditionally valued for managing calculi, cough, inflammation, skin disorders, hysteria, convulsions, and snakebites, exhibiting antioxidant, wound healing, and anti - inflammatory properties.

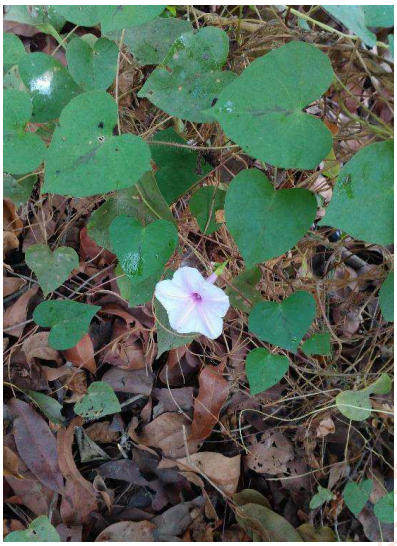
2. Vishnukrantha - Evolvulus alsinoides[1, 6]

The plant belongs to the family Convolvulaceae and is commonly known in English as Dwarf Morning Glory. In Sanskrit, it is referred to as Vishnugandhi and Shankhapushpi,



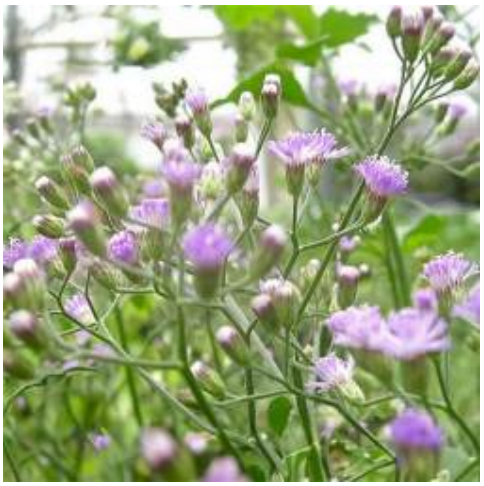
while in Malayalam, it is called Vishnukranthi. Evolvulus alsinoides is a significant ethnomedicinal plant in Ayurveda, valued for treating fevers, nervous debility, and memory loss using a whole plant decoction with cumin and milk. It is recognized as a Medhya Rasayana (nervine tonic) and also serves as an antihypertensive and anthelminthic agent. Pharmacologically, its methanolic extracts exhibit potent antimicrobial and antioxidant activities, attributed to their flavonoid and alkaloid richness.

3. Lakshmana - Ipomoea sepiaria[1, 7]



The plant belongs to the family Convolvulaceae and is commonly known in English as Purple Morning Glory. In Sanskrit, it is referred to as Lakshmana, while in Malayalam, it is called Thiruthaali. Ipomoea sepiaria is traditionally used in Ayurveda for its cooling and rejuvenating effects, treating conditions like vitiated pitta, burning sensations, excessive thirst, and general debility. It is employed in hair growth formulations, sterility remedies, ulcer treatment, and as an antidote to arsenic poisoning. Pharmacologically, it exhibits antimicrobial, antioxidant, anti - inflammatory, antiasthmatic, diuretic, antiarthritic, and antidiabetic properties.

4. Sahadevi - Vernonia cinerea[1, 8]

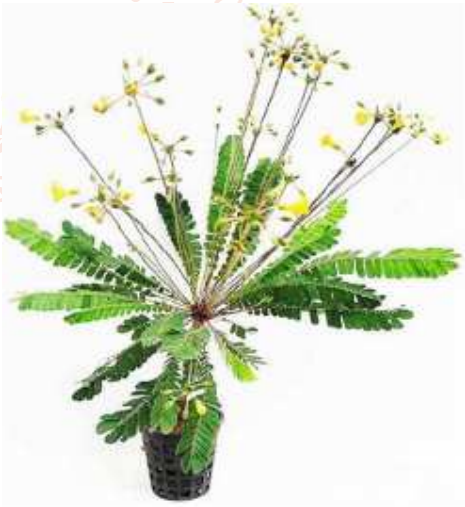


The plant belongs to the family Asteraceae and is commonly known in English as Little Ironweed. Sanskrit, it is called Sahadevi, while in Malayalam, it is referred to as Poovaamkurunnilla. Vernonia cinerea is extensively used in Ayurveda to treat intermittent fever, skin discoloration, boils, and filariasis, while its leaf extracts address rheumatoid arthritis, menstrual issues, and painful urination. Pharmacologically, its benzene fraction demonstrates broad - spectrum antibacterial activity at tested concentrations.

5. Eclipta alba[1, 17]

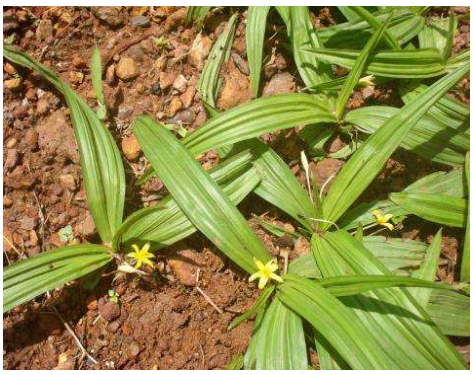
The plant belongs to the family Asteraceae and is commonly known in English as False Daisy. In Sanskrit, it is referred to as Bhringaraj, while in Malayalam, it is called Kanjunni. Eclipta alba is widely used in Ayurveda and traditional medicine for promoting hair and liver health, acting as a diuretic, and treating skin issues, burns, and inflammation. [18] Noted as a hepatoprotective agent in the Ayurvedic Pharmacopoeia of India, it also exhibits diverse pharmacological activities, including antimicrobial, anti - stress, antioxidant, and anthelminthic effects. Its extracts show promise in cancer prevention, diabetes management, UV protection, and as mosquito repellents, with additional activity against bacteria and snake venom

6. Alambusha - Biophytum sensitivum[1, 9]



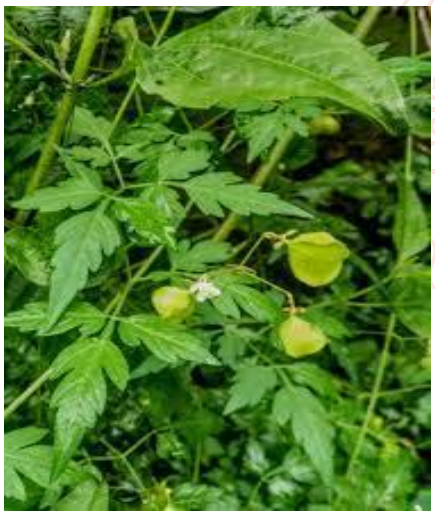
The plant belongs to the family Oxalidaceae and is commonly known as Little Tree Plant. In Sanskrit, it is referred to as Vipareetala jjaalu and Jhulapushpa, while in Malayalam it is called Mukkutty. Biophytum sensitivum is traditionally used for chest complaints, asthma, insomnia, convulsions, inflammation, tumors, chronic skin diseases, and lithiasis. Root decoctions treat gonorrhoea, while leaves, with diuretic properties, relieve strangury. Dried leaves and seeds are applied to wounds and in snake envenomation Pharmacologically, its leaf extracts show antitumor, antibacterial, antioxidant, anti - diabetic, and anti - inflammatory activities.

7. Krishnamusali - Curculigo orchioides[1, 10]



The plant belongs to the family Hypoxidaceae and is commonly known in English as Golden Eye Grass. In Sanskrit, it is called Musali and Talamuli. while in Malayalam, it is referred to as Nilappa. Curculigo orchioides is widely used in Ayurvedic medicine for its immunostimulant, hepatoprotective, anticancer, and antidiabetic properties. As a Rasayana, it balances Kapha and reduces Pitta - related burning, providing strength and acting as a stimulant. Pharmacological studies reveal its safety, with oral administrations in mice showing a nontoxic profile and an LD50 exceeding 3 g/kg. 6.

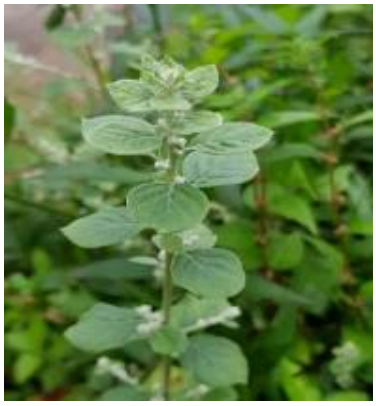
8. Indravaruni - Cardiospermum halicacabum. [1,11]



The plant belongs to the family Sapindaceae and is commonly known in English as Balloon Vine. In Sanskrit, it is called K Karnasphota, while in Malayalam, it is known as Uzhinjavalued in Ayurveda for its young shoots, consumed as greens or livestock feed, and extracts used for wound healing, asthma, ear pain, tumors, and fractures. It also exhibits analgesic, antipyretic, antifilarial, antiinflammatory, and vasodepressant activities. Pharmacologically, its aqueous and alcoholic extracts show antibacterial, antiinflammatory, antioxidant, anticancer, anti - arthritic, anti - ulcer, pain - relieving, tranquilizing, nephroprotective, and anti - diabetic properties.

9. Aerva lanata[1, 12]

The plant belongs to the family Amaranthaceae and is commonly known in English as Knot Grass. In Sanskrit, it is referred to as Pashanabhedha, while in Malayalam, it is called Cherula. Aerva lanata is



traditionally used in Ayurveda for treating gonorrhoea, amenorrhea, dysmenorrhoea, glandular swellings, and as a diuretic and lithiasis remedy. Its root extracts address cough, liver congestion, jaundice, and indigestion, while whole plant decoctions are effective for pneumonia, typhoid, and prolonged fevers. Pharmacologically, its extracts show antibacterial and anthelminthic properties. diuretic effects aiding in kidney stone expulsion, and nephroprotective activity

10. Shashasruthi - Emilia sonchifolia[1, 13]

The plant belongs to the family Asteraceae and is commonly known in English as Lilac Tassel Flower. In Sanskrit, it is referred to as Sasasruti, while in Malayalam, it is called Muyalcheviyan. Emilia sonchifolia is traditionally used to treat ailments such as stomach upsets, tumors, night blindness, liver issues, sore throat, measles, inflammation, seizures, fever, asthma, and muscular soreness. Pharmacologically, it shows broad biological activities, including antimicrobial effects against pathogens like Staphylococcus aureus and Escherichia coli. It also exhibits anticonvulsant, pain relief, anti - inflammatory, anti - diabetic, and antioxidant properties

ANTI - OXIDANT PROPERTIES OF DESAPUSPAM[14, 15, 16]

Antioxidants can be broadly defined as “substances that delay, prevent, or remove oxidative damage to specific target molecules by reacting with oxidants, ” such as reactive oxygen species (ROS). Antioxidants and oxidants in equilibrium maintain redox homeostasis, and an imbalance in favor of oxidants can lead to oxidative stress, which has been linked to the pathogenesis of a myriad of diseases, including neurodegenerative and cardiovascular disorders,

diabetes, and cancer. Cancer tissues are believed to produce higher levels of ROS due to their altered metabolism, inflammation, hypoxic environment, and oncogene - driven upregulation of ROS - generating enzymes, thus suggesting the need for antioxidants to buffer excessive ROS.

The antioxidant activity of Dasapushpam is attributed to various phytochemicals like flavonoids, alkaloids, and polyphenols found in its leaves and extracts. These compounds are known to have antioxidant properties. Sixteen polyacetylene thiophene, nicotine are important phytoconstituents present in **bringaraja**. Thiophene particularly those containing poly - acetylene structure, are known to posses anti - oxidant properties. These compounds can scavenges free radicles, which are unstable molecule that can damage the cells and contribute various disease.

Bioactive phytoconstituents like amentoflavone, isoorientin, cupressuflavone are present in **alambusha**. Among that Amentoflavone a biflavanoid compound demonstrate potent antioxidant activily through various mechanism including free radicle scavenging and activation of NrF2, a key anti - oxidant activity.

Sahadevi contain Luteolin - 7 - mono - beta - D glucopyranoside along with triterene compounds like beta - amyrin acetate, lupeol acetate. Beta - amyrin acetate is natural terpenoids exhibit potent anti - inflammatory, anti - hyper lipidemic activities. It also demonstrate anti - oxidant properties. It can inhibit heat induced haemolysis of human erythrocytes and reduce intra - cellular oxygen.

Terpenoids are present in all drugs among dasapuspam act as a free radicle scavangers, quenching single oxygen or through hydrogen transfer, providing protection against oxidative stress. Saponins, a class of plant compounds, can exhibit anti - oxidant properties by scavenging free radicles. These compounds have been shown to reduce oxidative stress, potentially protecting cells from damage caused by reactive oxygen species.

Gorakshaganja, also known as Aerva lanata, contains a variety of chemical constituents including alkaloids, phenolic compounds, phytosterols, carbohydrates, proteins, amino acids, flavonoids, and quinones. Specifically, the aerial parts have been found to contain O - acylglycosides, narcissin, feruloyltyramine, aervitrine, syringic acid, vanillic acid, and ferulic acid. Flavonoids and phenolic compounds, found in Gorakshaganja, have antioxidant properties that help reduce oxidative stress by neutralizing free radicals.

Dasapuspam's potent antioxidant properties position it as a futuristic solution in Ayurveda, capable of controlling free radicals and mitigating oxidative stress. By neutralizing these harmful agents, Dasapuspam can help prevent chronic diseases such as cancer, neurodegenerative disorders, and cardiovascular conditions. As a natural and holistic approach, Dasapuspam's antioxidant potential can enhance overall health and well - being, paving the way for a healthier future and reaffirming Ayurveda's relevance in modern times.

Discussion

Dasapuspam, comprising 10 sacred herbs, is deeply rooted in traditional Indian culture and spirituality, where each herb is revered for its unique properties and divine associations. The cultural significance of Dasapuspam is evident in its use during specific seasons and rituals, highlighting the community's reliance on ancestral knowledge to promote health and well - being. The spiritual and philosophical underpinnings of Dasapuspam underscore the intricate relationship between nature, human health, and the divine.

The ethnomedical importance of Dasapuspam is underscored by its diverse pharmacological actions, including antioxidant, anti - inflammatory, and adaptogenic properties.

The presence of common phytoconstituents across the herbs contributes to its potent antioxidant activity, which can help mitigate oxidative stress and prevent chronic diseases. This makes Dasapuspam a valuable resource for promoting holistic health and preventing lifestyle - related disorders.

In today's fast - paced world, Dasapuspam offers a natural and holistic approach to managing stress and promoting well - being. By leveraging its adaptogenic and antioxidant properties, individuals can develop resilience against modern - day stressors and cultivate a deeper connection with nature and their own well - being. As research continues to uncover the benefits of Dasapuspam, its potential as a futuristic solution for health and wellness is becoming increasingly evident.

Conclusion

As we conclude from the discussion about the significance of Dasapuspam, a collection of 10 sacred herbs, in promoting holistic health and well - being. Beyond its pharmacological actions, Dasapuspam embodies a rich cultural and spiritual heritage that warrants conservation and preservation. To ensure the long - term benefits of these herbs, it is essential to prioritize the conservation of biodiversity, particularly the habitats and ecosystems that support these plants. By protecting these natural resources, we can safeguard the future of Dasapuspam and unlock its full potential.

As the world grapples with rising rates of cancer, neurodegenerative disorders, and other lifestyle - related diseases, the antioxidant properties of Dasapuspam offer a promising solution.

Ultimately, the conservation of Dasapuspam and its associated cultural and spiritual traditions is crucial for preserving our collective heritage and ensuring the well - being of future generations. By recognizing the value of these sacred herbs and the ecosystems that support them, we can work towards a more sustainable and holistic approach to health and wellness.

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