



MINISTRY OF
AYUSH



NATIONAL CAMPAIGN ON **ASHWAGANDHA**

— TRADITIONAL KNOWLEDGE, MODERN WELLNESS —

गन्धान्ता वाजिनामादिरश्वगन्धा हयाह्वया । वराहकर्णी वरदा बलदा कुष्ठगन्धिनी ॥१८९॥
अश्वगन्धाऽनिलश्लेष्मश्चित्रशोथक्षयापहा । बल्या रसायनी तिका कषायोष्णाऽतिशुक्रला ॥१९०॥

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MANDATES OF RCFC NR 1

- **One-Stop Shop**

RCFC NR-1 operates as a central hub for all matters related to medicinal plants. This includes facilitating every aspect of the process, from the collection and cultivation of these plants to their marketing. By streamlining these operations, we aim to create an efficient pathway for stakeholders to access resources, knowledge, and support.

- **Support for the National Medicinal Plants Board (NMPB)**

As an integral part of the framework supporting the NMPB, RCFC NR-1 assists in fulfilling the Board's mandate. This partnership ensures that initiatives promoting medicinal plants are in alignment with national policies, fostering a coordinated and sustainable approach to development.

- **Research and Development**

Research is critical for the growth of the medicinal plant sector. RCFC NR-1 conducts research relevant to the medicinal plants in Northern region and collaborates with local organizations to establish primary processing, grading, and marketing facilities. This focus on research ensures that our approaches are grounded on scientific findings and best practices, ultimately benefiting the entire sector.

- **Skill Development**

Enhancing the skills of stakeholders is a key focus of RCFC NR-1. We offer various training programs, workshops, and seminars aimed at improving the managerial and technical skills of growers and collectors. By empowering these individuals with knowledge and skills, we foster a more capable workforce that can effectively contribute to the medicinal plant sector.

- **Agro-Technology Development**

The development of agro-technology is essential for the sustainable cultivation of medicinal plants. RCFC NR-1 emphasizes organic cultivation practices and the customization of agricultural techniques, particularly for endangered and high-demand species. By promoting innovative methods, we can enhance productivity while preserving ecological balance.

- **Quality Planting Materials**

Quality planting materials are crucial for the successful cultivation of medicinal plants. RCFC NR-1 is dedicated to developing region-specific quality planting materials and addressing associated challenges through scientific methods. This focus ensures that stakeholders have access to the best resources for successful cultivation.

- **Market Facilitation**

Understanding market dynamics is vital for the success of medicinal plant producers. RCFC NR-1 assists in the sale of medicinal plants and related products by resolving demand-supply issues and maintaining a comprehensive database of market trends. This data-driven approach empowers stakeholders to make informed decisions, maximizing their profitability.

- **Conservation and Training**

Sustainable practices form the foundation of RCFC NR-1's mission. We provide inputs on conservation practices and sustainable cultivation techniques while collaborating with forest departments and other relevant agencies. The training initiatives also emphasize technological advancements, ensuring that stakeholders are adequately equipped to implement sustainable practices.

- **Good Agricultural Practices (GAP)**

Promoting Good Agricultural Practices (GAP) and Good Field Collection Practices (GFCP) for region specific medicinal plant species is essential for ensuring the sustainability and quality of medicinal plants. RCFC NR-1 encourages stakeholders to adopt these practices, thereby enhancing their productivity and marketability.

- **Stakeholder Platform**

Creating a collaborative platform for various stakeholders is essential to promote cooperation and knowledge exchange. RCFC NR-1 facilitates collaboration among State Medicinal Plants Boards (SMPB), implementing agencies, and other institutions, thereby creating a comprehensive network of support that benefits all participants within the sector.

- **Capacity Building**

Capacity building is fundamental to the long-term sustainability and growth of the medicinal plant sector. RCFC NR-1 develops and implements training programs and orientation sessions aimed at enhancing and strengthening the skills and knowledge of key stakeholders, including farmers, entrepreneurs, implementing agencies, and community-based organizations. These programs are designed to address a wide range of critical areas, such as sustainable cultivation practices, post-harvest management, quality control, value addition, and market access.

- **Consultative Meetings**

RCFC NR-1 conducts regular consultative meetings, workshops, and consultations to enhance stakeholder engagement. These gatherings provide a formal platform for stakeholders to share their insights, discuss challenges, and highlight successes, thereby fostering a sense of community and promoting collective progress. Additionally, they facilitate the exchange of best practices and innovative solutions, ensuring that all participants are well-informed and equipped to contribute effectively to the sector's development. Through these collaborative efforts, RCFC NR-1 reinforces its commitment to building a sustainable and resilient medicinal plant sector.

- **Project Review and Evaluation**

To ensure accountability and effectiveness, RCFC NR-1 systematically reviews and monitors projects sanctioned by the National Medicinal Plants Board (NMPB). This oversight is essential for identifying best practices and areas for improvement, ultimately enhancing the overall success of the medicinal plant sector. Through these efforts, RCFC NR-1 reinforces its commitment to responsible management and sustainable development within the sector.

- **Database Management**

Effective management of information is essential for decision-making in the medicinal plant sector. RCFC NR-1 collects and maintains a comprehensive database that integrates information across states, facilitating effective management and strategic planning.

- **Develop IEC Strategy**

We develop a comprehensive strategy for Information, Education, and Communication (IEC) and implement various IEC activities to effectively raise awareness and engage stakeholders about the importance of medicinal plants and sustainable practices

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INTRODUCTION



Among the Ayurvedic “Rasayana” herbs, Ashwagandha holds the most prominent place. Being a powerful adaptogen, it enhances the body’s resilience to stress. In “Rigveda” and “Atharvaveda” Ashwagandha is mentioned as “Asvabati”. Ashwagandha is a crucial herb mentioned in Ayurveda that is *Charaka Samhita*, *Susruta Samhita* and *Ashtanga Hridayam*. In *Charaka Samhita*, Ashwagandha is mentioned as “Bajikarana” and “Rasayana” because it promotes health and longevity, arrest ageing process, and increase capability of individual to resist adverse environmental conditions. It is therapeutically useful in Shotha (inflammation), Kashaya (emaciation), Daurbalya (weakness), Vataroga (neurological disorders) etc. In *Susruta Samhita*, it appears in Sutrasthana among different herb groups like Brihana dravya, Utsadan Dravya, Vamak dravya. It is known as “Sattvic Kapha Rasayana” Herb. It is also found as ingredient of different traditional formulations in *Charaka Samhita* (21 formulations), *Susruta Samhita* (13 formulations), *Ashtanga Hridayam* (13 formulations), *Bhaishjya Ratnavali* (12 formulations), *Sharangdhar Samhita* (12 formulations) of different dosage forms and traditional uses. In *Ashtanga Hridayam*, it is indicated in treatment of Unmantha Chikitsa (aural keloid treatment), vrishyayoga used in Daurbalya (weakness), apasmar (epilepsy), vatavyadhi (neuro-mascular pain). According to *Bhaishajya Ratnavali*, it is indicated in vatavyadhi (neuro-mascular pain), dhawajabhanga (impotency) and shosha (consumption).

INSIGHTS



The name “Ashwagandha” is derived from the word (“Ashwa”) as its root smells like horse and believe to provide power like horse when consumed.



“Ashwagandha” was used by kings and warriors in India to maintain their vigor, strength, and vitality, earning it a reputation as a “Royal Herb”.



The main marketing center of dried roots of Ashwagandha is at Neemuch District of Madhya Pradesh (India).



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A HISTORICAL JOURNEY

FROM ANCIENT INDIA TO GLOBAL RECOGNITION

Ancient India to Persia: Ashwagandha was an integral part of Indian medicine and was introduced to ancient Persia, where it became part of traditional Persian healing practices.

Egyptian Influence: The herb found its way to ancient Egypt, where it was used for its purported healing properties and recognized for its rejuvenating effects.

Greek and Roman Adoption: Greco-Roman physicians, influenced by Indian medicine, began incorporating Ashwagandha into their healing practices, recognizing it as an adaptogen that helped to boost energy and reduce stress.

Islamic World: During the Islamic Golden Age, Ashwagandha became a vital herb in Unani medicine, a system of healing that grew from Indian and Greek traditions, spreading through the Middle East and parts of North Africa.

Medieval Europe: Ashwagandha was introduced to Medieval Europe through trade routes and through interaction with Arab scholars who had access to ancient texts. It became part of European herbal medicine during the Renaissance.

Colonial Era Globalization: During the colonial period, Ashwagandha began spreading to Western countries as European powers engaged in the trade of herbs, plants, and medicinal resources from their colonies in Asia and Africa.

Modern Revival: In the late 20th and early 21st centuries, Ashwagandha gained global attention in Western countries, especially with the rise of alternative medicine and the growing interest in Ayurvedic and natural healing practices.



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AYURVEDIC CLASSIFICATION

- **Rasa (Taste):** Tikta (Bitter), Kashaya (Astringent)
- **Guna (Qualities):** Snigdha (Unctuous), Guru (Heavy)
- **Virya (Potency):** Ushna (Hot)
- **Vipaka (Post digestion effect):** Madhur (Sweet)
- **Prabhava (Unique action):** Balya (Strengthening) , Rasayana (Rejuvenative)

AYURVEDIC NAMES

Ashwagandha; Varahakarni; Vajigandha;
Samagandhika; Hayagandha

AYURVEDIC PHARMACOLOGICAL ACTION

Balya, Rasayana, Vajikarana, Shothahara,
Medhya, Vatahara, Shamak, Jwarahara, Kaphahara,
Anulomana, Agnideepana

MODERN CLASSIFICATION

- Kingdom : Plantae
- Division : Angiosperma
- Class : Dicotyledons
- Order : Solanales
- Family : Solanaceae
- Genus : *Withania*
- Species : *somnifera*



Botanical Name: *Withania somnifera* (L.) Dunal

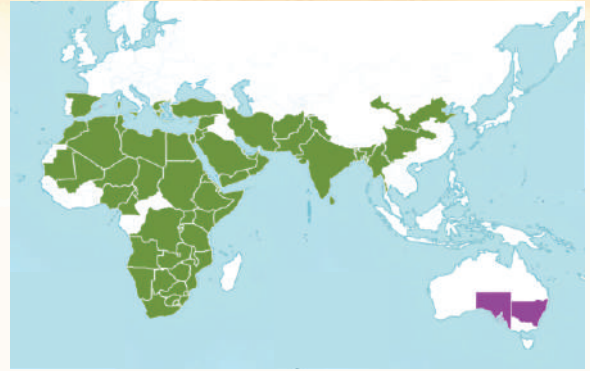


अश्वगन्धा बल्यपुष्टिकरा रसायनमोषधि । शुक्रबलकरा तिक्ता पथ्या चोष्णाश्रया स्मृता ॥

- च. स. (चिकित्सा स्थान, रसायन अध्याय)

DISTRIBUTION

This plant is found in the drier parts of India, Sri Lanka, Pakistan, Afghanistan, Sind, Baluchistan, Egypt, Jordan, Morocco, Spain, and is distributed in the Mediterranean regions, the Canaries and Cape of Good Hope. In India, this shrub is common in drier parts of Western India, though occasionally found in Bengal. It is extensively grown as a medicinal plant in Bikaner and Pilani areas of Rajasthan, Punjab and Madhya Pradesh. India has approximately 10,768 ha area under Ashwagandha cultivation, with Madhya Pradesh playing a pivotal role by contributing over 5,000 ha area of land. Other major Ashwagandha-producing states are Gujarat, Uttar Pradesh, Haryana, Andhra Pradesh, and Maharashtra.



Current distribution of *Withania somnifera* (L.) Dunal according to Plants of the World Online (POWO)

BOTANICAL DESCRIPTION



W. somnifera is an evergreen, straight, branched shrub reaching up to a height of 150 cm. The roots are fleshy and cylindrical in shape. The primary root gradually tapers down as a straight, unbranched with length of 10–17.5 cm and diameter of 6–12 mm; secondary roots are present in main roots. The outer surface of roots is brownish white in color while the interior is creamy. These roots have strong smell with bitter taste. The aerial parts like stem, leaves and calyx are sparsely covered with the fine hairs. The leaves are simple, ovate and glabrous. Flowers are greenish or bright yellow in color, smaller in length of about 1 cm and arranged in axillary, umbellate cymes. Fruit berries are orange red in color and remain attached to the membranous calyx. Seeds are yellow in color, reniform with 2.5 mm diameter.

KEY NOTE

'Naguri Ashwagandha' naturally grows in Nagaur district and the boundary area of Sikar, Jaipur, Ajmer, Pali, Jodhpur, Bikaner and Churu districts of Rajasthan. In terms of high root yield, 'Naguri Ashwagandha' is supreme among all the Ashwagandha varieties in arid region.



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AGRO-TECHNOLOGY

Sr. No.	Parameters	
1.	Climate	Altitude: 600-1200 m; Temperature: 20-35°C
2.	Soil	Sandy loam soil and slightly alkaline soil
3.	pH	7.5-8.0
4.	Farm Yard Manure (FYM)	10-20 ton/ha
5.	Propagation Methods	Via Seed: Broadcasting-10-12 kg/ha Via Transplanting-5 kg/ha (for better quality & export purpose)
6.	Depth	1-3 cm deep
7.	Seed Required	5 kg/ha
8.	Germination	5-7 days
9.	Transplanting	35 days old seedlings
10.	Spacing	60 x 30 cm with a plant population of about 55,000 seedlings/ha
11.	Planting Time	August-September
12.	Plant Protection	Damping off and seedling rot- <i>Trichoderma viride</i> (2 kg/ha) and <i>Pseudomonas fluorescens</i> (2 kg/ha)
13.	Flowering and Bearing of Fruits	December onwards
14.	Harvesting Time	January-March
15.	Days for Maturity	180 days
16.	Yield	Dried roots: 6.5-7.0 q/ha
17.	Grading roots	Seed: 200-500 kg seeds/ha Roots: A grade B grade C grade Length: 7 cm 5 cm 1 cm Diameter: 1-1.5 cm 3-4 cm < 1 cm
18.	Chemical constituents	Root: Somniferine, Somniferinine, Withanine, Nicotine, Withaniol, Withasomnine, Tropine, Withanolide, β -Sitosterol Seed: Withanolide, Withaferin A

कण्टकारि गुणा नित्या स्निग्धा बल्यप्रसाधनी । वातहराऽग्निदीपनी च शुक्रा बल्या च मन्दगामिनी ॥

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LIFE CYCLE



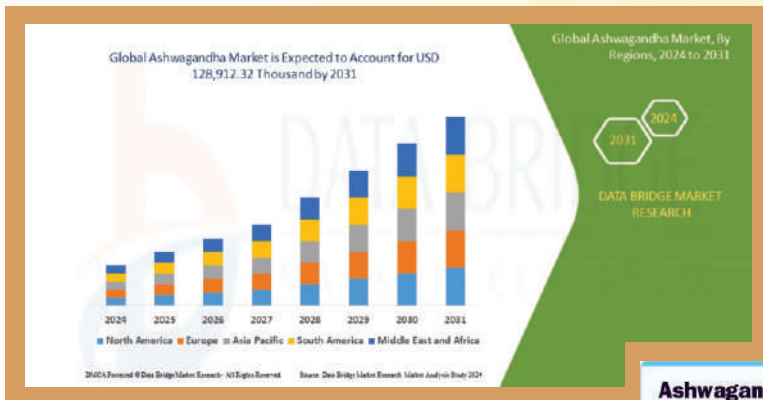
CULTIVARS



कण्टकारि गुणा नित्या स्निग्धा बल्यप्रसाधनी । वातहराऽग्निदीपनी च शुक्रा बल्या च मन्दगामिनी ॥

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GLOBAL MARKET AND TRENDS



GLOBAL ASHWAGANDHA MARKET DYNAMICS



Market Size Projection (2031): Expected to reach USD 128,912.32 thousand.



Growth Rate (2024-2031): Projected CAGR of 11.61% during the forecast period.

(Source: Data Bridge Market Research)

GLOBAL ASHWAGANDHA SUPPLEMENTS MARKET

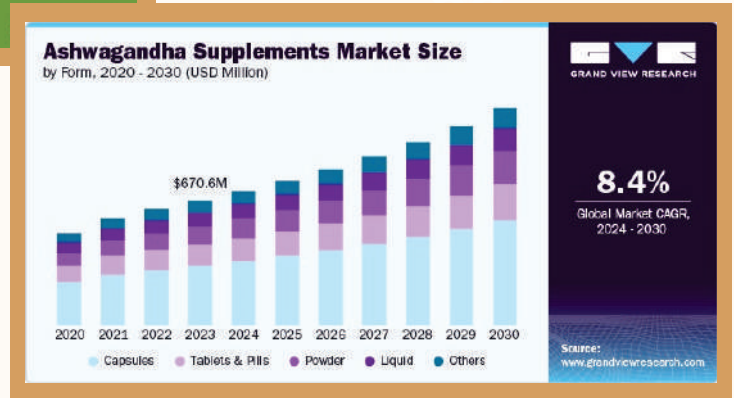
Market Size (2023): Estimated at USD 670.57 million.



Projected Growth (2024-2030): Anticipated CAGR of 8.4%.



(Source: Data derived from GrandView Research)



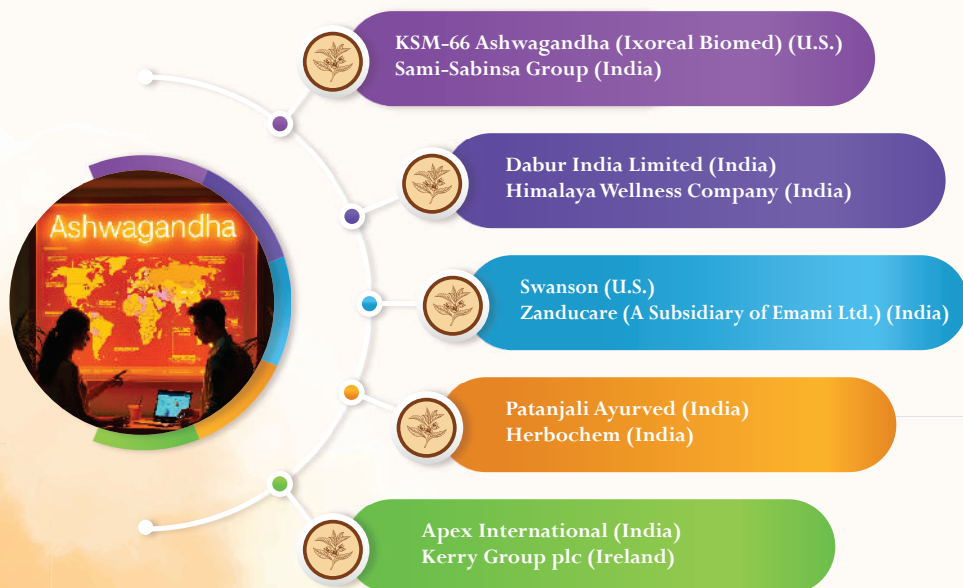
INSIGHTS

"Powder" segment leads the market due to its popularity as it is the most widely used form for health and wellness applications.

97% of global Ashwagandha sales are from root products.

Global ashwagandha market is segmented into B2B and B2C.

GLOBAL PLAYERS OPERATING IN THE ASHWAGANDHA MARKET

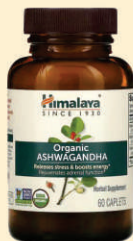


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- सु. स. (उत्तर तंत्र)

ASHWAGANDHA MARKET IS SEGMENTED INTO THREE MAIN APPLICATIONS

DIETARY SUPPLEMENTS



COSMETICS



LIQUID FORMULATIONS/ BEVERAGES



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