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"Spices Farming & Marketing strategies" Exploring the great possibilities for Rajasthan

Dr. Shobha Khinvasara[1], Mr. Padam Bhushan[2]

[1]Professor, Subodh institute of Management & Career Studies, Jaipur, Rajasthan, India
[2]Research Scholor, Suresh Gyan Vihar University, Jaipur, Rajasthan, India

Abstract: In this manuscript, the authors have discussed the various seed spices in India, their production level and states and the adopted marketing strategies to enhance the quality and quantity of these spices in Rajasthan as well as in India. In Indian economic development process, our farmers have significant roles in spice production. In Rajasthan the farming of spices has helped in developing the perception of farmers and even helped them in formulating the strategies towards increasing the spice productivity in the state. The seed spices cumin and fenugreek with their use, production, quality, exporting capacity and their future possibilities in Rajasthan have been more emphasized in this manuscript.

Keywords: spices, farming, cumin, fenugreek, seeds, marketing, strategies.

INTRODUCTION

Spices are defined as "a strongly flavored or aromatic substance of vegetable origin, obtained from stifling plants, commonly used as a condiment". In ancient times, spices were as precious as gold; and as significant as medicines, preservatives and perfumes. India - the land of spices plays a significant role in the global spices market.

India is prominent world over for its rich warehouse of spices and is usually called as the "land of spices". The most of seed spices crops were introduced to India from Mediterranean and central Asian region long time ago. India has old history of cultivation of seed spices crops and enjoys the position of largest producer, consumer and exporter in the world, today. The country is bestowed with immensely rich land races diversity in seed spices crops. Seed spices crops occupy a prominent place in the total basket of spices of the country and play a significant role in our national economy. Altogether 9.7 lac ha of area is under cultivation of seed spices with the production ranging between 5-6 lac tones annually. Seed Spices are important export oriented commodities and about 10 per cent of the produce is exported in the form of raw as well as value added products realizing in foreign exchange worth Rs 275 crores. The production potential of seed spices is much larger than that has been achieved so far. We have to look forward for the new technologies that can be explored and applied to enhance the production of seed spices at the country level.

The global demand estimated for seed spices crops is 1, 50, 000 tones, of which India contributes 83,550 tones annually accounting for 55.7 percent of the total l world trade. There has been ever increasing demand of seed spices and importing countries look at India as consistent source. No other country in the world has such a broad supply base of seed spices. The climatic conditions existing in Rajasthan, Gujarat and some other ad jointing states in the arid and semi-arid region are very much conducive for growth and development of wide range of seed spices.

Seed spices are primarily used for flavoring, seasoning and imparting aroma in variety of food items and beverages. Besides importance in food industry, the seed spices have medicinal properties and thus are used in various pharmaceutical preparations and also in cosmetic industry. Seed spices are important export oriented commodities and about ten per cent of the production is exported in raw as well as value added products realizing foreign exchange worth of rupees 275 crores. The usage of spices by consumers is increasing worldwide because they are completely natural, rather than artificial additives for seasoning and flavoring of foods. Thu an increasing trend in export of seed spices has been observed in the last decade particularly to Asian, Latin American and middle Eastern developing countries.

One or the other seed spice is cultivated throughout India. But the prominent states where seed spices produced largely are Rajasthan and Gujarat while other states where commonly grown are Madhya Pradesh, Bihar, Uttar Pradesh, West Bengal, Orrisa, Tamil Nadu, Punjab and Karnataka. The major growing states are Rajasthan, Madhya Pradesh, and Andhra Pradesh for coriander; Rajasthan, Gujarat, Madhya Pradesh for cumin; Rajasthan and Gujarat for fennel; Rajasthan Madhya Pradesh for fenugreek; Rajasthan, Gujarat for ajowain and dill; Madhya Pradesh, Uttar Pradesh for anise, Uttar Pradesh, Madhya Pradesh, West Bengal for nigella.

Still there is tremendous scope for increased production fof seed spices by introducing them in new areas. The higher production can be achieved easily through higher yields by better application of cultural practices, biotic stress management and putting more area under these crops. Many production technologies have been generated under All

India Co-ordinated Research Project on Spices and National publication efforts have been made to present specific recommendations in the form of technologies fo increasing the profitability of coriander, cumin fennel, fenugreek ajwain, dill, nigella, anise, celery and caraway.

Organic agriculture is gaining importance in the agriculture sectors of many countries, irrespective of their stage of development. In Austria and Switzerland, organic agriculture has come to represent as much as 10% of the food system, while USA, France, Japan and Singapore are experiencing growth rates that exceed 20% annually. Typically, farmers experience some loss in yields after discarding synthetic inputs and converting their operations to organic production. Before restoration of full biological activity (e.g. growth in beneficial insect populations, nitrogen fixation from legumes), pest suppression and fertility problems are common. Sometimes it may take years to restore the ecosystem to the point where organic production is possible. In these cases other sustainable approaches that allow judicious use of synthetic chemicals may be more suitable start-up options. One strategy involves converting farms to organic production "in installments", so that the entire operation is not put at risk.

Many techniques used in organic farming - such as inter-cropping, mulching, and integration of crops and livestock - are practiced under various agricultural systems. What makes organic agriculture unique is that, under various laws and certification programs, almost all synthetic inputs are prohibited, and "soil building" crop rotations are mandatory. Properly managed, organic farming reduces or eliminates soil and water pollution and helps conserve water and soil on agricultural lands. Organic farming is one of several approaches to sustainable agriculture.

Most studies have found that organic agriculture requires significantly greater labour input than conventional farms. Therefore, the diversification of crops typically found on organic farms, with their different planting and harvesting schedules, may distribute labour demand more evenly, which could help stabilize employment.

TYPES OF SEED SPICES IN INDIA

The major seed spices in India are: Cardmom, ginger, cassia, cumin, greater galangal, Chilly, kokam, cinnamom, dill, nut meg, clove pepper, coffee, tamarind, fenugreek, curry leaf, tea, cashew, turmeric, vanilla, ajwain, caraway, celery, coriander, fennel, nigella etc. Some of these are spices has been discussed below:

CARDAMOM or Elettaria Cardamomum Maton, rightly called as Queen of Spices is one of the most exotic and highly prized spices. Indian cardamom has a history as old as human civilization. The dried fruit of a herbaceous perennial, cardamom is grown mainly in Kerala, Tamilnadu and Karnataka, on the shady slopes of the western Ghats. Warm humid climate, loamy soil rich in organic matter, distributed rainfall and special cultivation and processing methods all combine to make Indian cardamom truly unique in aroma, flavor, size and color tempting parrot-green. Indian cardamom is offered to the international markets in different grades: 'Alleppey Green Extra Bold' (AGEB), 'Alleppey Green Bold' (AGB) and 'Alleppey Green Superior' (AGS) are names that register instant appeal worldwide. Cardamom oil is a precious ingredient in food preparations, perfumery, health foods medicines and beverages. India, a traditional exporter of cardamom to the Middle East countries where it goes mostly into the preparation of 'Gahwa' - a strong cardamom - coffee concoction without which no day is complete or no hospitality hearty for an Arab.

AJWAIN is widely recommended for medicinal purposes like as a calming herb to ease intestinal colic, bronchitis, bronchial asthma stimulating the appetite, treatment of diarrhea, and in laryngitis as a gargle. It is very useful to increase milk flow in nursing mothers. Ajwain is a popular seasoning in the Middle East, North Africa, and India. Closely related to caraway — although decidedly different in flavor — ajwain has been described as reminiscent of thyme, anise, and cumin. The ajwain seeds are most commonly used for flavoring, but ajwain leaves are sometimes used in marinade. Ajwain's major essential oil is thymol. Bishop's weed (Ammi majus L.) is a closely related ornamental plant.

ANISE is used as an agent for relief of coughs and colds.It improves memory and provides digestive aid.It increases milk production for nursing mothers,relieve in gas pains,helpful in Bronchitis and asthma and also used as mouth freshener. Anise is native to the Eastern Mediterranean, the Levant, and Egypt. Like the unrelated but similarly named Chinese Star Anise, this spice has a distinctive licorice-like flavor. Anise is commonly found as an ingredient in curry, hoisin sauce, sausage, and pepperoni seasonings, and it goes well with pork, fish, or duck. Anise seed can also be used in baked goods and liqueurs, as well as root beer. All the above-ground parts of the plant are edible, although the seed is the portion most commonly available commercially. Like lavender, anise can be used in the linen closet as an insect repellant.

CARAWAY is safe and effective for relief of colic in young children.The caraway seeds, leaves and roots are considered useful in activating the glands, besides increasing the action of the kidneys.Caraway seeds are useful in strengthening the functions of stomach.They relieve flatulence and are useful in flatulent colic, countering any possible adverse effects of medicines.

CORIANDER seeds do have a health-supporting reputation. It is said to be appetizer and is indeed an excellent tonic for the eyes. It supplies vitamins and also provides roughage needing for colon to flush out the waste material. Coriander is a native of the Middle East but is now widely cultivated in most Asian countries. Cultivation is done by sowing the seeds in rows 30 cm apart on raised beds. The plants will grow to about 30-90 cm in height. Flowering and seed set will take place within a few weeks after seeding. Harvesting of seeds can be done by cutting the clusters as soon as the seeds start to ripen. Hang them upside-down in the room to dry, then shake them on a sheet of paper. Collect the seeds and store them in airtight container away from sunlight and heat.

CUMIN is used for proper digestion and nutrient assimilation, healing of stitches and pain. These cure indigestion. It also helps removing Vata dosha from the body. In kerala ayurvedic treatment it is used in many preparation of formulae related to panchkarma. Cumin is an Old World spice known since antiquity that has gained popularity as a key ingredient in Mexican cooking, usually in ground form. In the Middle East and India, this same spice is known as jeera, and it is used in whole or powdered form to flavor a variety of dishes and beverages. Cultivation of cumin requires a long, hot summer of three to four months, with daytime temperatures around 30°C (86°F). This drought-tolerant plant is mostly grown in Mediterranean climates from seed sown in spring in fertile, well-drained soil. In cultivation, seedlings are transplanted on to raised beds. The plants grow 30-60 cm high on very slender stems and are delicate. When the plants begin to wither, the stems are cut below the clusters of fruits and hanged in a room to dry. The seeds should be warmed slightly before use to increase the aroma. Two forms of cumin are prepared, whole or ground. They are used to flavor curries, bread, pickles, chutney, sausages and other meat products. Only two countries in Asia produce cumin on a commercial scale. India, which produces an annual average of 64,889 t during the five-year period of 1989-94 (Nazeem 1995), is the probably largest producer of cumin in the world. The other is China, but no production statistics is available.

DILL seeds also make useful addition to cold, flu and cough remedies. These are useful in indigestion and sometimes even in constipation.It is also said to increase mother's milk and help treat breast congestion from nursing. It is mild, and makes a good remedy for colic in babies. Feathery green leaves of dill are used either fresh or dried to flavor and garnish sauces, salads, soups, and fish. Both the ripe seed and immature seedheads of this versatile plant are also used in cooking. Dill seed is somewhat like caraway in flavor and can spice a wide range of foods, from meats and breads to pickles. Dill has long been one of a very few seed spices raised commercially in the U.S. for its culinary-grade essential oils. Dukat dill is a variety developed especially for its lush, green foliage.

FENNEL is used to improve eyesight, aid digestion and cure obesity besides other uses. In ayurveda it is said to be vatanulomak (one which brings down the gas from intestine). In India it is used as the vehicle after the meals. Like after heavy meals it is custom to serve flavored saunf to the human kinds. The bulb, foliage, and seeds of fennel are widely used in many of the world's culinary traditions — especially in egg or fish dishes and in salads. One type, Florence fennel, or finocchio (F. dulce, or F. vulgare var. azoricum), with its swollen, bulb-like stem base, is used as a vegetable. In Old English lore, fennel was one of the nine Glory Twigs. Fennel reputedly was an ingredient in some recipes for the infamous absinthe, but today the beverage it is more likely to be found in is fennel tea.

FENUGREEK is used in reducing the blood sugar level and blood pressure; it is rich in vitamins, minerals and proteins. It is one of the unique drug to control diabetes mellitus and also to control obesity. Research found that these seeds control the lipid profile and also good to maintain cholesterol levels in the body. A total germplasm collection of 202 fenugreek accessions was enriched by adding 19 new entries and are being evaluated and multiplied for conservation. The superior accessions from yield point of view were AM 35, AM 38 and AM10.

A dual purpose type of selection AM-01-35 with vigorous growth habit, high yielding with average yield of 17.2 q ha-1 have been developed. This selection bears large size pods with bold seed grains with attractive yellow colour and less bitterness. The another selection AM-01-10, with medium growth behaviour and medium seed size have been developed. The leaves and seeds are comparatively better than other varieties available so far and have more bitterness. Both of above selections have been released recently as NRCSS-AM-1 and NRCSS-AM-2.

The seed spices are used in whole and processed form for imparting aroma and pungency to food. They are commonly used to season the food dishes and products. The major seed spices of India are coriander, cumin, fenugreek and fennel as they are cultivated in sizable area. The minor seed spices include ajwain, celery, dill, nigella etc. India commands a formidable position in the World spice Trade with 45% share in Volume and 30% in Value. Although the seed spices export in increasing year by year but it is unstable. The India despite being the largest producer of seed spices could not exploit their value addition potential as majority of export is in the form of raw produces. There is a great potential for increasing export of Indian spices in the form of value added products. To realize this potential there is need to enhance the quality as per international standard through post harvest technology and value addition at different level of post production system.

EXPORT OF SEED SPICES FROM RAJASTHAN AND INDIA

The global demand of seed spices is around 98 thousand tonnes, of which at present our country is able to export about 57 thousand tonnes annually, which is 57% of the total demand. There has been an ever-increasing demand of seed spices and importing countries look at India, as consistent source. Keeping this in view, seeds spices are considered not only cash crops but also they can be termed of "dynamic crop commmodities", particularly in the view of there great export potentially. There is good potential for increase in export of seed spices, if quality is improved.

The export of seed spices has shown substantial increase in both quantitiy and value during 2008-09 as compare to last year. Export of cumin, coriander, fennel and fenugreek has recorded all time high both in volume and value during 2008-09.The export of seed spices together accounts for 28% of volume and 18% in value of total export of spices from India. During 2008-09,we have exported 52,550 tonnes of cumin seed valued at Rs 554.00 crore against 28,000 tonnes valued at Rs 291.50 crore in 2007-08.The export has increased 88% in volume and 87% in value as compared to last year. The major buyer are UAE, USA, Egypt and Bangladesh. Similarly, export of coriander seeds during 2008-09 also increased tremendously, registering an increase of 16% in volume and 85% in value. The major market during 2008-09 is Malaysia, UAE, Pakistan and Saudi Arabia.

No country in the world produces as many kinds of spices as India with quality spices come from Kerala, an Indian state. At present, India produces around 2.5 million tones of different spices valued at approximately 3 billion US $, and holds the premier position in the world. Because of the varying climates - from tropical to sub-tropical to temperate- almost all spices are grown in this country. In almost all of the 25 states and seven union territories of India, at least one spice is grown in abundance.

Spices and herbs are good not only for our taste buds but also for our health. They supply calcium, iron, vitamin B, vitamin C , carotene and other antioxidants. For instance fresh parsley has been linked with cancer prevention due to its antioxidant content and spicy food is much more appealing than a vitamin pill. Besides herbs and spices don't have any kilojoules or fact, so you can eat them to your heart's content.

India has claimed to have the 76 lakh MT production, export of 3.8 lakh MT and consumption of around 73 lakh MT in worldwide. India even has the 57 lakh hectares of land for the cultivation of spices (Swain, M., Kalamkar, S. S. & Ojha, 2012).

Rajasthan having the geographical area of 342 lakh hectares has successfully achieved the status of becoming largest state of India. It occupies 10.4% of the total land area along with 5.5% of the total population of India (Choudhary, R. & Punjabi, 2012). When horticulture of the state is concerned, it holds the potential for having a diversified agricultural climate, and is favorable in cultivating the crops like flowers, fruits, medicinal plants, vegetables, and mainly spices. Rajasthan has made its unique place in the spice map of India and produces around 668634 MT of seed spices in the area of 808705 hectares.

Rajasthan was the highest producer of Cumin in the year 2004-05, but then it was pushed to second place in context of production. Rajasthan produces on an average of 20-33 thousand tons of Cumin each year. Cumin seeds are cultivated in different districts of Rajasthan, but its highest production is in Nagaur, Jalore, Jodhpur and Barmer (Jagtap, P. P., Shingane, U. S. & Kulkarni 2014). Earlier cumin was traded in the Niwai and Kekri vegetable markets in Rajasthan. The Nagaur mandi is the largest cumin seed center. In the local mandies each year 4—50% of the cumin crop is brought each year.

In various areas of Rajasthan, the cultivation of herb, fruits and seed used for the spices has made its special place. These are some of the handful crops, which thrive under the conditions of agro-climate and also needs less cash and high value in the market (Chadha, K. L., Singh, R. B. & Peter, 2012). In this manner, Rajasthan has successfully earned the position in the seed spice bowl of India, though all these crops are also grown in various states of India. In the production of cumin, coriander and fenugreek seeds, Rajasthan have come up as the highest producer of spices, which is 63% of coriander, 87% of fenugreek and 56% of cumin (Sastry, D. & Anandaraj, 2014). The Spice crop fenugreek and Cumin are largely exported in foreign markets.

MARKETING STRATEGIES IN SPICE FARMING

Marketing of the form produce begins with the planning of producing the commodity. Agricultural commodities besides being seasonal and regional in nature are bulky and the consumption of the same is spread throughout the year. Marketing is sum of all activities, which link the producer and consumer.

Strategic Approach for Marketing: Marketing of farm produce needs a strategy, in order to establish a bridge between producer and consumer efficiently and economically. Marketing strategy comprises defined specific objective and action plan to have competitive edge over other players in this area. Prudent producer will analyse the strategy thoroughly, to take up farming to maximise his output in respect of quantity and quality with cost effective approach for a competitive marketing to drive a reasonable return over cost invested.

Since the last two decades, India has not only attained self- sufficiency in food grain requirement, but has become an important player in the export market. Keeping in view the domestic requirement, our farmers have been guided very often for producing meticulously market-oriented production. Market oriented production will have to be taken up to match the demand and supply equitably.

Marketing Environment: Soon after harvesting, farmer intends to shift the produce to market, as early as possible. Farmer expects an environment to market the produce, where his decision should not be effected by any other variable factor or forces and is assured of a competitive price. This objective is enshrined in the creation of regulated market. In the management of these markets, a farmer representative serves as a member and this gives him a sense of belonging in the market, which makes the market environment more conducive for completing the transactions. Marketing environment also includes, required infrastructure for efficient handling of the commodity, such as covered auction platform, tested and trusted weighing machines, cleaning, grading and storage / cold storage facility, loading and unloading facilities, internal roads to decongest the vehicular movement, pledge finance availability, banking, postal services, cattle-shade, farmer's rest house and link road from farm to the market. Trained manpower in these markets increases the conduciveness of the marketing environment. Besides these requirements, big institutional support such as NAFED, CWC/SWC, DMI.

NHB, Directorate of Economics and Statistics, NABARD, APEDA, Commodity Boards, CACP, Forward Market Commission and State Agricultural Marketing Boards – provide much needed fillip to the marketing environment.

Alternative Marketing: The traditional marketing system of farm produce has paved way for other alternative marketing system, which is more need based and sometimes suits the individual partners in the trade. The need of the alternative marketing of farm produce is to reduce the distributive system. Another reason is to explore the possibility of bringing the buyer to the production place, that is, bringing the market at farm. Some of such marketing systems names are given below:

- Group Marketing
- Cooperative Marketing
- Direct Marketing
- Contract Farming
- Ware Housing
- Business centre
- Farmers Interaction Centre

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POSSIBILITIES OF SPICES FARMING FOR RAJASTHAN

Geographical Profile

Rajasthan, situated at the northwestern part of India, is the biggest state in the country of India and lies between 23º30´ and 30º 11' North latitude and 69º 29' and 78 º 17' East longitudes. The state shares its north-western and western boundary with the Indo-Pakistan international border that extends about 1,070 km and touches the major districts Barmer, Bikaner, Ganganagar and Jaisalmer. Rajasthan is bordered by Pakistan in the west and northwest, the states of Punjab, Uttar Pradesh and Haryana in the north and northeast. The state of Madhya Pradesh lies in the southeast and Gujrat in the southwest. The huge portion of the state of Rajasthan is desiccated and houses the biggest Indian desert- the Thar Desert known as the 'Maru-kantar'. The oldest chain of fold mountains- the Aravali Range splits the state into two geographical zones- desert at one side and forest belt on the other. Only 9.36% of the total geographical region lies under forest vegetation. The Mount Abu is the only hill station of the state and houses the Guru Shikhar Peak that is the highest peak of the Aravali range with an elevation of 1,722 m. The capital city of Rajasthan is Jaipur.

Soils & Irrigated water

Five distinct specifications of soils viz., Aridiosols, alfisols, entisols, inceptisols and vertisols are found in the state. There is a substantial gap between the availability & requirement of water, and it is progressively widening. However, paucity of water resources is not the only problem. The state faces serious uncertainty in the availability of water and a large part of the state is drought prone. The state has to rely to a large extent on fast depleting ground water resources for drinking water as well as for irrigation. A large proportion of the available water is "imported" from the neighboring states.

Agriculture / Horticulture/Organic Farming Profile

Agriculture in Rajasthan is primarily rain fed

Arid and semi-arid areas cover two-third area of the State.

The period of monsoon is short, with late onset and early withdrawal coupled with long drought spell 90% of the rainfall is received during monsoon season.

The rainfall is highly inadequate (average annual rainfall is 576 mm) and variable both in time (3 out of 5 years are drought year) and quantum (15 cm is to 90 cm) 65% of cultivation is under kharif season and is mostly depend on rainfall which is sporadic and uncertain

Limited availability of ground water (country's 1.7%) and ground water is rapidly going down due to scarcity of rainfall in arid areas 12

Only 33% of average gross cropped area receives irrigation and two third of gross cropped area is mainly rain fed. 70% area irrigated through wells & tube-wells 27% irrigated through canals.

Soils are sandy having low water holding capacity, high infiltration rate and shallow in depth in some areas

Agro climatic Zones

Rajasthan is endowed with diverse soil and weather conditions comprising several typical agro-ecological situations- warm humid in south eastern parts to dry cool in western parts of the state, which in turn permit growing of large numbers of horticultural crops.

Production Strength

The climatic condition of Rajasthan favors growing of various horticulture crops and specially the seed spices. State is having prominent position in production of seed spices in the country. State horticulture sector contributes a lot in the national production as mentioned below:

- 68 % of Country's Coriander
- 39% of Country's Cumin
- 89 % of its Fenugreek
- 24 % of its Garlic

- 7 % of its Fennel
- Almost all its Psyllium Husk (Isabgol)
- Almost all its Myrtle (Henna)
- Almost all its Ajowain
- 7 % of its Mandarian
- Producing export quality Kinnow & Aonla

Spices Clusters

New Area Covered under Spices: 53117 ha.

Major Spice crops: Cumin, Coriander, Fenugreek, Fennel, Chilii

Table 1: Area Covered under new spices in Rajasthan

Cluster	District	Infrastructure created
Cumin (22590 ha)	Barmer, Jodhpur, Pali, Nagaur, Jalore, Bhilwara, Jaisalmer, Tonk	▪ Phyto Sanitary Laboratory unit
		▪ Two Cold Storage
		▪ Two Seed Infrastructure unit
		▪ One Market Infrastructure unit (Nagaur)
		▪ Four Disease Forecasting units
		▪ Four Plant Health clinics
Coriander (14917 ha)	Kota, Baran, Jhalawar, Bundi, Chittorgarh, S. Madhopur	▪ Ten Seed Infrastructure units
		▪ One Cold Storage
		▪ One Phyto Sanitary Laboratory
		▪ Five Disease Forecasting Units
Fenugreek (11119 ha)	Nagaur, Jaipur, Jhunjhunu	▪ Two Seed Infrastructure units
Fennel (1145 ha)	Sirihi, Tonk	

Table 2: Availability of seed spices in Rajasthan

S. No.	Source of planting material	Name of crop	Variety of seed spices	Availability of seed (Qtls.)
A	Rajasthan State Seed Corporation limited, Jaipur	Coriander	CS-6, RCR – 435, RCR – 436	300.00
		Cumin	RZ-19, RZ-209, RZ-223	400.00
		Fenugreek	RMT-1	260.00
B	Rajasthan Agricultural University, Bikaner	Fennel	RF-125, RF-101	40.00
C	Rajasthan Horticulture and Nursery Society	Fenugreek	RMT-1	300.00

Opportunities in Spices Farming in India

(1) India is considered the richest germplasm reservoirs of seed spices crops.

(2) India is largest producer, consumer and exporter of seed spices in the world.

(3) There is good opportunity to grow intercrops between the rows of long duration seed spices viz fennel and ajwain.

(4) There are ample opportunities to strengthen the linkages among different national and international activities engaged with the seed spices research.

(5) In India, varied agro climatic condition provide good opportunity for cultivation of different seed.

CONCLUSION

The seed spices are grown in different parts of the world covering mainly Mediterranean region, South Europe and Asia. Almost all of the seed spices crops are cultivated in India and have got the privilege to be called as the largest seed spices producing country in the world. The prominent states where seed spices produced are Rajasthan and Gujarat. The climatic condition of Rajasthan favors growing of various horticulture crops and specially the seed spices. State is having prominent position in production of seed spices in the country.

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