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Mapping the success of **Coriander Varieties** across Andhra Pradesh



Editorial board

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INTRODUCTION

Coriander (*Coriandrum sativum* L.), an annual spice crop from the Apiaceae family, originated in the Mediterranean and Middle East but is now widely cultivated, with India leading in global production at 73.46%. In 2023-24, India produced 7.91 lakh metric tons of coriander, mainly in Madhya Pradesh, Gujarat, Rajasthan, Assam, West Bengal, Odissa, Uttar Pradesh and Andhra Pradesh. The crop is valued for its seeds, herb, and essential oils, especially linalool, used in culinary, pharmaceutical, and cosmetic industries. Despite low productivity under rainfed conditions in Andhra Pradesh, improved technologies and genetic advancements have significantly increased yields. Eight coriander varieties released since 1990 have enhanced productivity and doubled farmers' income, contributing to better livelihoods in the region.

BOTANICAL DESCRIPTION

Coriandrum sativum, commonly known as coriander, is an annual herbaceous plant that grows to 30-90 cm in height. It features a slender, hollow stem and pinnately compound leaves that vary in shape; the lower leaves are broad and lobed, while the upper leaves are finely dissected and feathery. The plant produces small white to pale pink flowers in compound umbels, with five petals per flower. The fruit is a globular schizocarp, 3-5 mm in diameter, which splits into two aromatic mericarps upon maturity. The fruits and leaves contain essential oil glands, contributing to their distinctive aroma and flavor. The fruit essential oil is rich in linalool, thus giving typical aroma. Coriander has a deep taproot system, aiding in moisture access. The plant is seasonal and complete its life cycle in one season, highly valued for culinary, medicinal, and industrial uses.



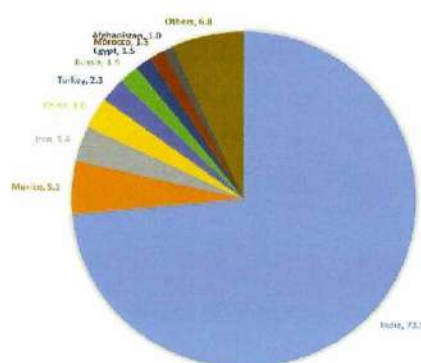
Source: Franz Eugen Köhler,
Köhler's Medizinal-Pflanzen, Wikipedia

PHYTOCONSTITUENTS

Coriander seeds are rich in diverse phytoconstituents that contribute to their medicinal and culinary value. The seeds contain essential oils, the primary component of which is linalool, making up 60-70% of the oil. Linalool is responsible for coriander's distinctive aromatic and flavor profile. Other significant constituents in the essential oil include geraniol, limonene, camphor, and borneol. Beyond essential oils, coriander seeds are a source of several other bioactive compounds, including flavonoids (such as quercetin and kaempferol), phenolic acids (like caffeic and chlorogenic acids), and tannins. The seeds also contain fatty acids, mainly petroselinic acid, which is unique to the Apiaceae family. These phytoconstituents contribute to the seeds' antioxidant, antimicrobial, anti-inflammatory, and digestive health-promoting properties.

GLOBAL SCENARIO

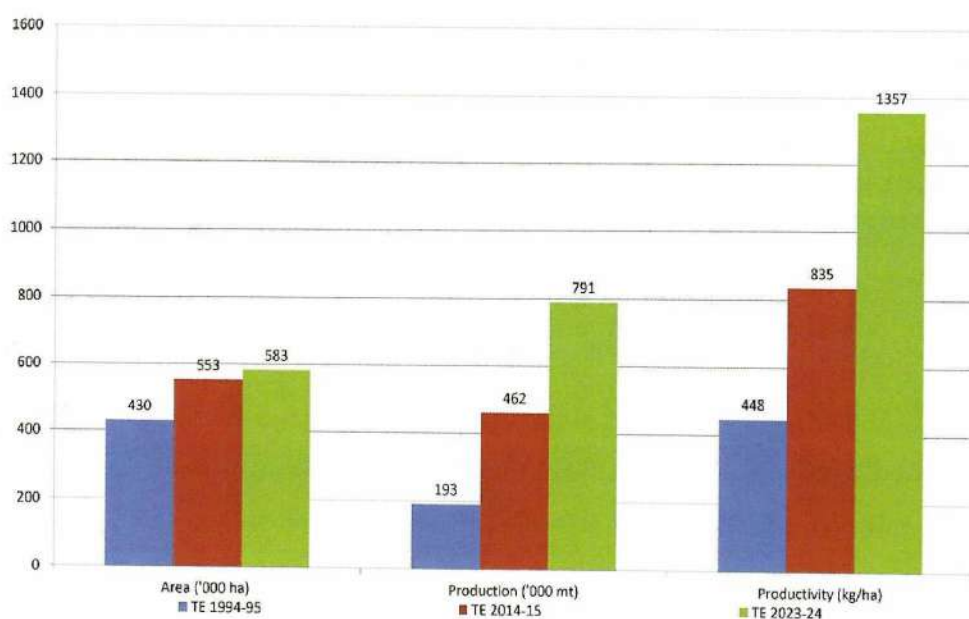
India is the largest producer of coriander in world with a production share of 73.46% of the total output, followed by Mexico (5.10%), Syria (4.19%), Iran (3.44), China (3.01%), Turkey (2.34%), Russia (1.91%), Egypt (1.51%), Morocco (1.45%), Afghanistan (0.97%) and others (6.81%). Globally, coriander is traded for both medicinal and food purposes. Currently, use of spices in the world has increased remarkably after COVID emergence.



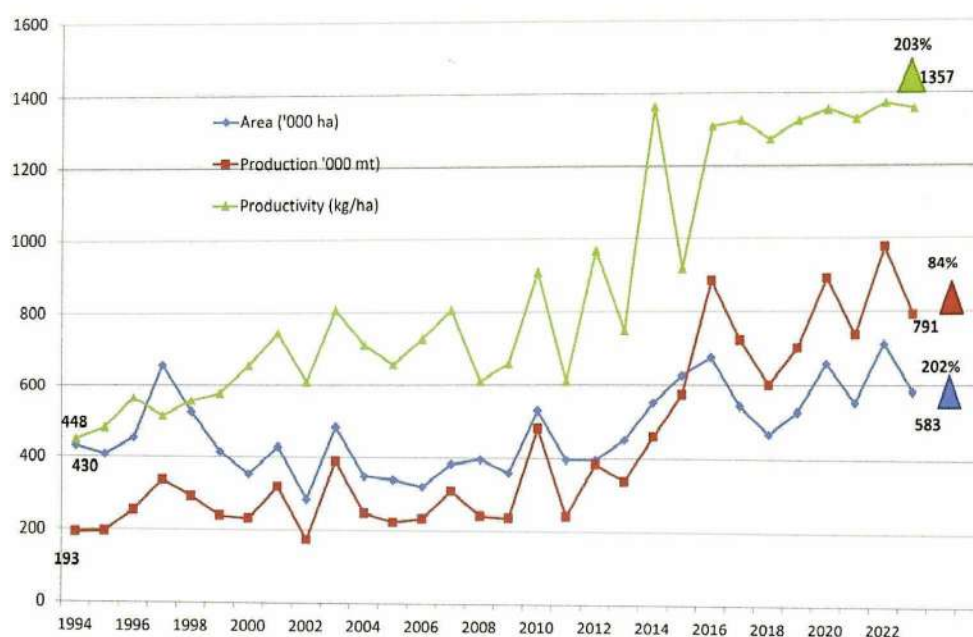
Global production scenario of coriander

PRODUCTION AND EXPORT SCENARIO IN INDIA

Coriander is cultivated in Rajasthan, Madhya Pradesh, Uttar Pradesh and Southern States like Andhra Pradesh, Karnataka and Tamil Nadu. The crop occupies an area of 5.83 lakh hectares with a production of 7.91 lakh metric tonnes, while the national productivity stands at 1357 kg/ha (2023-24). The area under the crop increased by 202% from 1994 to 2023, while production increased by 84%. The productivity rose by 203%, which is a glaring example of success of green revolution effect on the crop. In recent past, 2017-19, lower prices fetched by farmers have made them switch to other crops. According to trade sources, both area and production has declined in the period. However, gradual upsurge of prices witnessed the expansion of area and production of coriander.



Robust growth in area, production and productivity in India
(Source: Indiastat, 2024 & Spices Board, 2024)



Productivity driven growth in coriander (India)

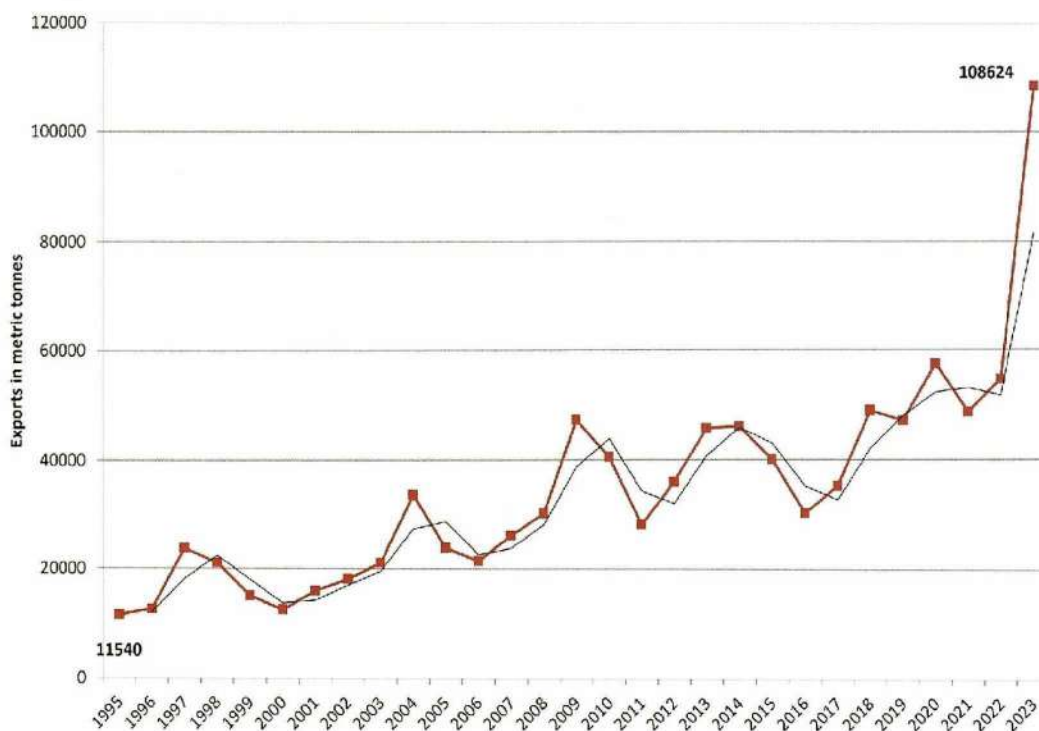
CAGR of area, production, and productivity for coriander (1969-2023)

	India	AP	Bihar	Gujarat	Karnataka	MP	Odisha	Rajasthan	TN	UP
Area	1.40	-6.46	-2.51	19.8	-5.1	4.29	1.31	1.16	-3.7	0.5
Production	4.20	-2.82	-2.82	-1.38	20.82	7.00	1.85	3.22	-3.65	0.31
Productivity	2.80	3.90	4.51	14.7	7.40	6.10	4.00	5.50	3.43	3.13

The unit area required to produce 1 MT of coriander, in 1969, was 3.17 ha as against only 0.74 ha in 2023, which is highly significant. The CAGR (1969-2023) indicated that on average, the area grew by 1.40% in the last 55 years, whereas production increased annually by 4.20% and productivity by 2.80%. Among the states, largest increase in area, production and productivity was observed in Gujarat followed by Madhya Pradesh and Rajasthan. All the major producing states achieved higher CAGR (Compound Annual Growth Rate) than the national average.

Status of coriander export

Coriander has been an export commodity from India, since ancient times, and continued after Independence. The coriander seeds found in the famous *Tutankhamum* tomb were imported from South India. Coriander exports observed to be in an increasing trend. Coriander was exported in form of whole seeds as well as in powder form in which seeds accounted for larger portion, while powder form accounted for 30% share. Malaysia and U.A.E are the largest export destinations for coriander seeds, whereas in case of coriander powder, South Africa emerged as the largest export market. India's export peaked during 2023-24, while earning 948.3 crores from exporting a quantity of 108624 metric tonnes.



Quantum jump in exports of coriander from India
(Source: Spices Board, 2024)

PRODUCTION SCENARIO OF SPICES IN ANDHRA PRADESH

Andhra Pradesh ranks seventh in the country in production and productivity of grain spices. Majorly, coriander is being cultivated in 5,000 to 10,000 hectares in Andhra Pradesh, depending on the rainfall pattern. The mean productivity of the crop is 1895 kg/ha (TE 2018-23). In Andhra Pradesh, coriander is mainly cultivated under rainfed conditions in black soils with residual soil moisture resulting in low productivity. Fenugreek is an important spice crop primarily grown for its leaves throughout the state, while its seeds are cultivated to a limited extent due to inadequate marketing facilities. Ajwain is also one of the important spice crops being cultivated commercially in late kharif. Recently, ajwain has gained importance and area under Andhra Pradesh has been increasing. Due to limited marketing infrastructure, fennel cultivation is confined to areas surrounding cities.

Area and production of coriander in Andhra Pradesh

During the initial five-year plan periods, area and production under coriander was high while it was found reduced in the advanced plans. However, it was also noticed that though the area decreased in the advanced plans, the production was in pace with area in comparison to earlier plans.

The national average productivity of coriander is 609 kg/ha. Through the combined efforts of AICRP on Spices' technology and extensive outreach via mass media, electronic platforms, and training programs, Andhra Pradesh has exceeded the national average, achieving a productivity of 1200 kg/ha entirely through rainfed production systems. This is a significant accomplishment, especially considering coriander is typically grown as an irrigated crop in other states, where productivity tends to be higher. Despite a decline in the area under coriander cultivation, productivity has continued to rise. From 1990 to 2000, the area under coriander was 64,500 ha, with a yield of just 276-342 kg/ha. However, since 2000, productivity has significantly increased to 1000-1895 kg/ha.

Major production constraints in Andhra Pradesh

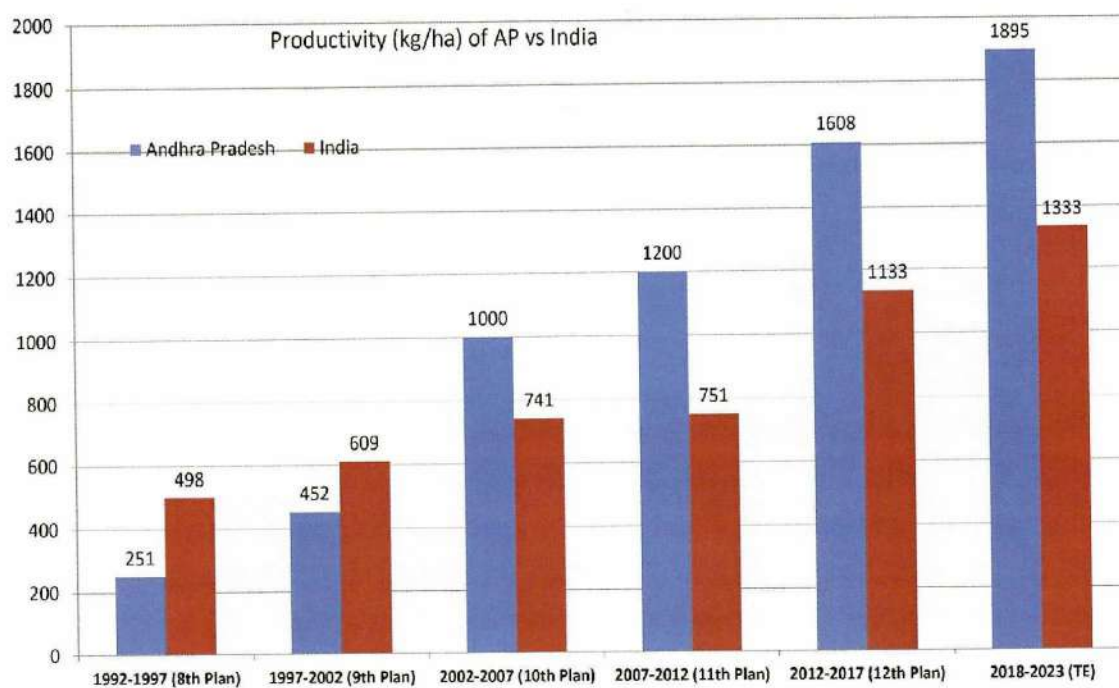
Coriander is a rainfed crop in Andhra Pradesh. The crop is raised on residual moisture or rains received through North-East monsoon. The farming situation is rainfed-vertisols. Hence, the major constraint in the production is mid season and terminal moisture stress. Many times, the residual moisture is not sufficient for germination, and frequently early season moisture stress prevents the crop growth. In certain pockets, powdery mildew is the major disease that reduces the crop yield. Coriander cultivation is traditionally restricted to certain pockets of Andhra Pradesh, due to which, *Fusarium* wilt is a major constraint in production. Aphids, flower thrips, black thrips (*Thrips parvispinus* Karny) are other constraints. The low productivity of the crop in the early nineties was mainly due to the lack of high yielding varieties that tolerate terminal moisture stress, which is very common in the coriander growing areas of the state.

The release of certain coriander varieties viz., Sudha, AD-1, Suguna and Susthira has significantly addressed the challenges faced in Andhra Pradesh, leading to increased productivity. These newly developed varieties are better suited to the region's extreme temperatures and water management issues, offering improved resilience against terminal moisture stress. Additionally, they are designed to thrive under varying water conditions, helping mitigate issues related to drought. The extensive adoption of these advanced varieties has played a crucial role in enhancing overall productivity and overcoming the previous limitations in coriander farming.

Productivity of coriander in Andhra Pradesh relative to India

- 8th year plan: The productivity in India was 498 kg/ha while 251 kg/ha in AP.
- 9th year plan: The productivity in India was 609 kg/ha while 452 kg/ha in AP.
- 10th year plan: The productivity in India was 741 kg/ha while 1000 kg/ha in AP.
- 11th year plan: The productivity in India was 751 kg/ha while 1200 kg/ha in AP.
- 12th year plan: The productivity in India was 1133 kg/ha while 1608 kg/ha in AP.
- TE 2018-2023: The productivity in India was 1333 kg/ha while 1895 kg/ha in AP.

The fluctuations in productivity of coriander might be attributed to various factors *viz.*, adoption of improved varieties, improved production technologies, institutional support etc. The reasons for improved productivity are the pragmatic strategy of application of technologies developed by AICRP on Spices through research and extension activities. This has led to substantial improvement in crop productivity. The pivotal components involved in crop production are mainly crop improvement and soil and crop management. Finally, genetic improvement and agronomical factors played a vital role and thus accounted for increase in crop productivity. During 12th five year plan, adoption of micro-irrigation in certain pockets of cultivation enhanced the productivity of the crop. The implementation of improved technologies emanated from AICRP on Spices contributed towards the present scenario of improved productivity surpassing national productivity.

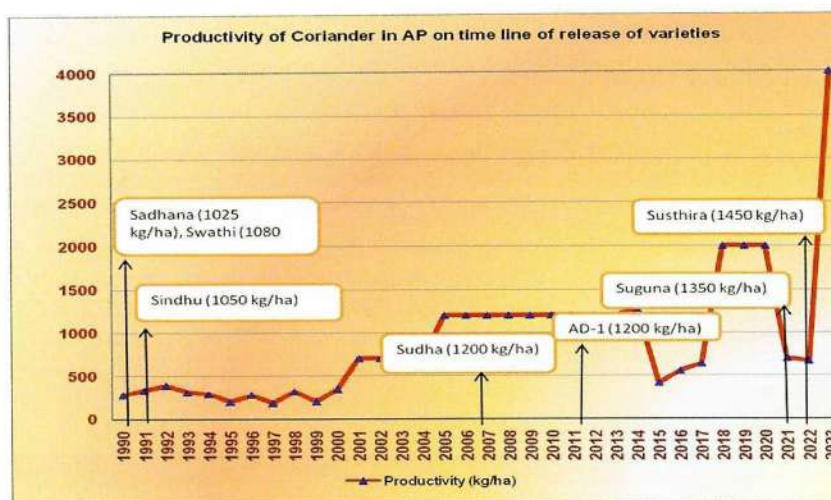


Comparative analysis of coriander productivity in Andhra Pradesh Vs India

VARIETAL CONTRIBUTION IN IMPROVEMENT OF PRODUCTIVITY IN ANDHRA PRADESH

Various coriander varieties *viz.* Sadhana, Swathi, Sindhu, Sudha, AD-1, Suguna and Susthira released from the station since 1990 had significantly contributed towards the increased productivity of coriander upgrading the livelihood of farmers involved in seed spice cultivation. The timeline graph also depicts the same, where the productivity increased to fourteen folds in the year 2023 compared to the year 1990. Thus, it could be inferred that the efforts put forth in genetic improvement of varieties helped in harnessing the increased yields.

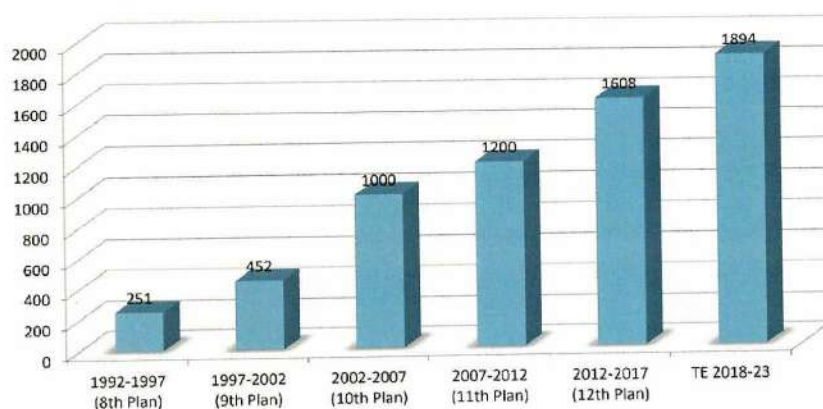
The productivity of coriander in 8th five-year plan was recorded as 251 kg/ha while it was 452 kg/ha in the following 9th five-year plan, which contributed to 80% increase over the preceding year. The varieties Sindhu, Sadhana and Swathi with the yield potential of ~1000 kg/ha, were released during this plan, had replaced the old varieties. Subsequently, the variety Sudha that was released in the 10th five-year plan triggered its adoption subsequently enhanced the yield in the state. The productivity of Sudha was 1200 kg/ha, the introduction of which improved the productivity of the state by 121% over the preceding five-year plan.



Timeline graph showing the productivity change and released varieties of coriander

Further in 11th and 12th five-year plans, the varieties like AD-1 and Suguna and Susthira were released, respectively. Adoption of Sudha and AD-1 extensively, registered 20% increased productivity of the state compared to the preceding plan. It is evident from the pictorial representation that productivity registered 1608 kg/ha by 12th five-year plan. Extensive adoption of newly released varieties viz., AD-1, Suguna and Susthira, might have contributed to the increase in productivity. Especially adoption of Susthira, which is a terminal moisture stress tolerant variety, is projected to improve the yield even under drought conditions. Further adoption of microirrigation systems might have improved the productivity. Thus, the productivity increased by 34% in 12th plan over the 11th plan period. Similarly, productivity increased by 18% in TE 2018-23 over the 12th plan period.

Productivity (kg/ha) improvement in different periods



Plan	Varieties contributed to productivity	Productivity (kg/ha)	Increase from previous plan
9th Plan	Sindhu, Sadhana, Swathi	452 kg/ha	80% increase
10th Plan	Sudha	1000 kg/ha	121% increase
11th Plan	AD-1	1200 kg/ha	20% increase
12th Plan	Suguna	1608 kg/ha	34% increase
TE 2018-23	Susthira	1894 kg/ha	18 % increase

Varietal contributions in various plan periods

The increased productivity was due to:

1. High yielding varieties: University released eight varieties in coriander from 1990 onwards viz.,

Sindhu,	APHU Dhania-1,
Sadhana,	Suguna,
Swathi,	Susthira,
Sudha,	Suruchi

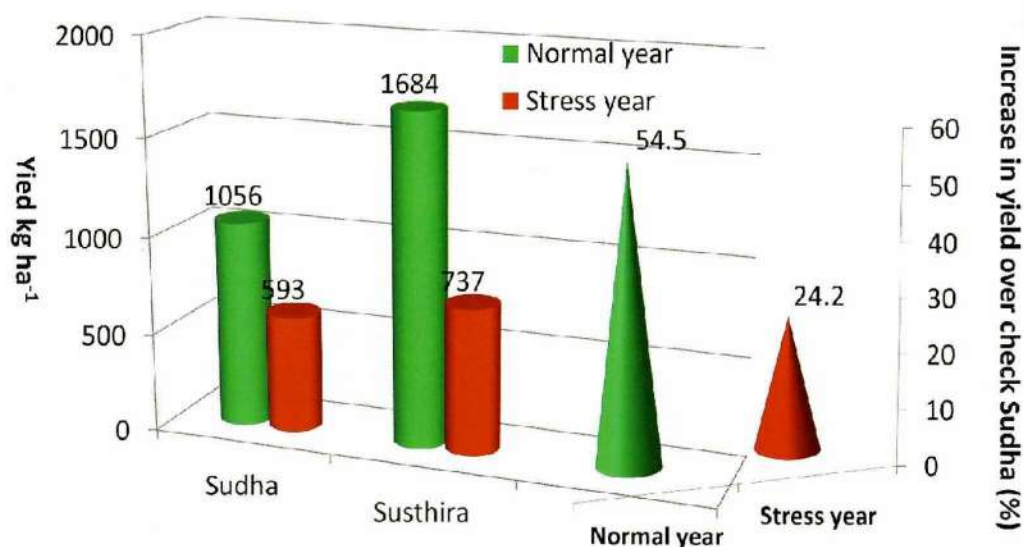
which are widely accepted by the farmers

2. Improved production technology in coriander

3. INM and IPM practices developed at AICRP on Spices, Dr. YSRHU-HRS, Lam.

4. Introduction of microirrigation in coriander growing areas of coriander.

Advantages of moisture stress tolerant coriander variety



Rainfall received at critical stages of growth:

Normal year: 75.2 mm

Stress year: 5.7 mm

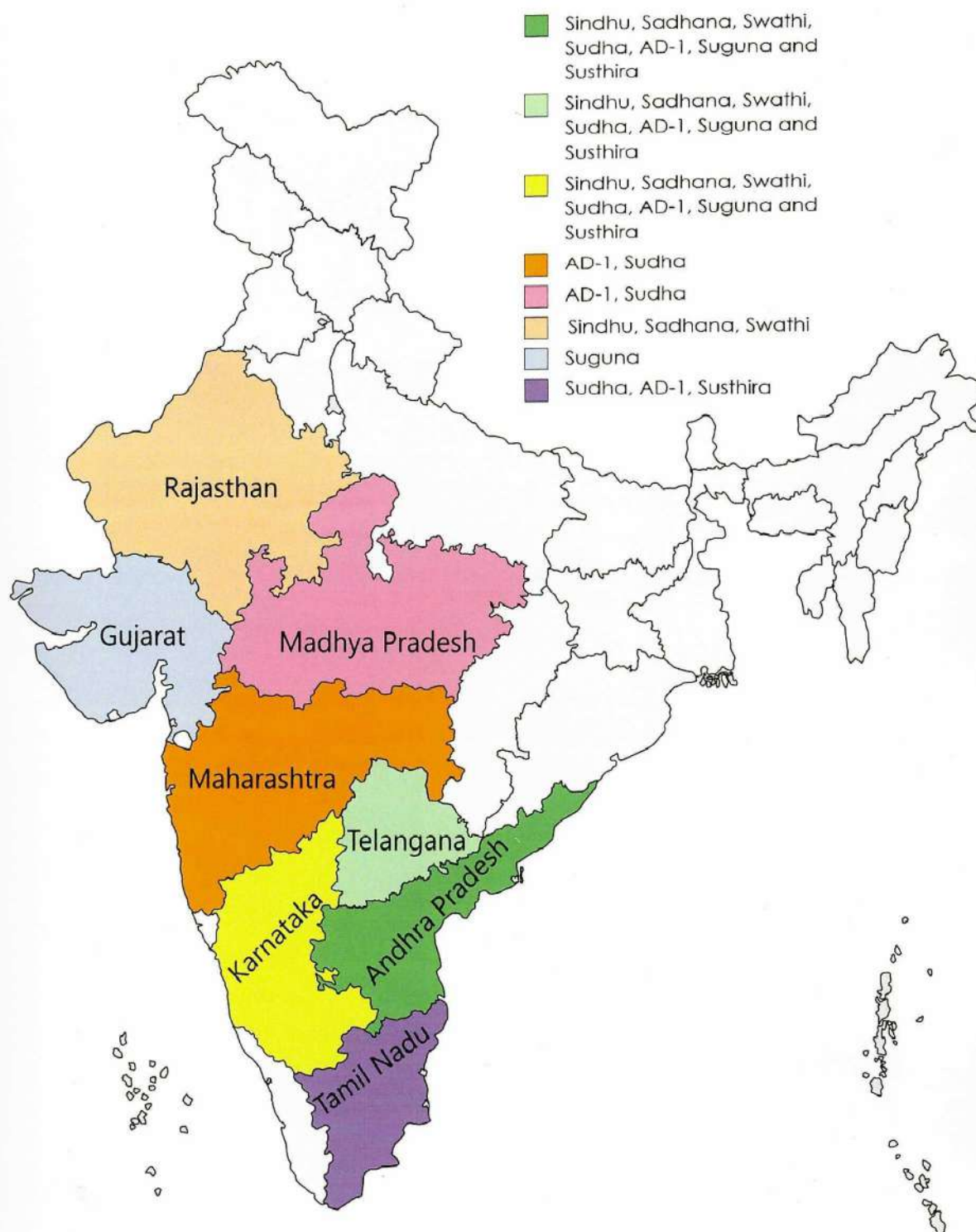


POPULARITY OF DEVELOPED VARIETIES

India has different agro-climatic zones and crop growth periods, thus each zone has a different preference and acceptance for varieties. All the varieties developed by the institute are adopted by various states of the country. States like Telangana and Karnataka are cultivating almost all the varieties of coriander developed by Dr. YSRHU-HRS, Lam, Guntur. Varieties AD-1 and Sudha are popularly grown in all major states, implying the farmers' preferences to varietal characteristics. Sindhu, Sadhana and Swathi varieties of coriander are also found to grow in Rajasthan and Suguna is popular in Gujarat state, implying their suitability to the specific regions. Susthira, the recently released variety, has found its way in Tamil Nadu amidst popularly grown local as well as other state released varieties.

S.No	Variety	Year of Release	Yield (Kg/ha)	Specific Characteristics
1.	Sadhana	1990	1100	Drought tolerant variety
2.	Swathi	1990	900	Early maturing variety
3.	Sindhu	1991	1000	High yielding with high essential oil content
4.	Sudha	2006	750-1000	High yielding with high essential oil content
5.	APHU Dhania-1 (AD-1) National variety	2010	750-1000	High yielding with high essential oil content and bold seed
6.	Suguna National variety	2018	750-1350	Climate resilient and widely adaptable across the country and suitable for cultivation both under rainfed and irrigated conditions
7.	Susthira National variety	2019	1200-1450	High yielding variety, tolerates terminal moisture stress, with very high essential oil content (0.6%)
8.	Suruchi National variety	2020	2500-4500 (herb yield)	Herb variety with very good aroma, suitable for summer cultivation under shadenet. Herb oil: 0.15%.

Popularity of varieties developed by AICRPS, Guntur



Varietal popularity in various states of India

Coriander varieties released from Dr. YSRHU



SADHANA

SWATHI



SINDHU

SUDHA





APHU DHANIA -1

SUGUNA



SUSTHIRA

SURUCHI



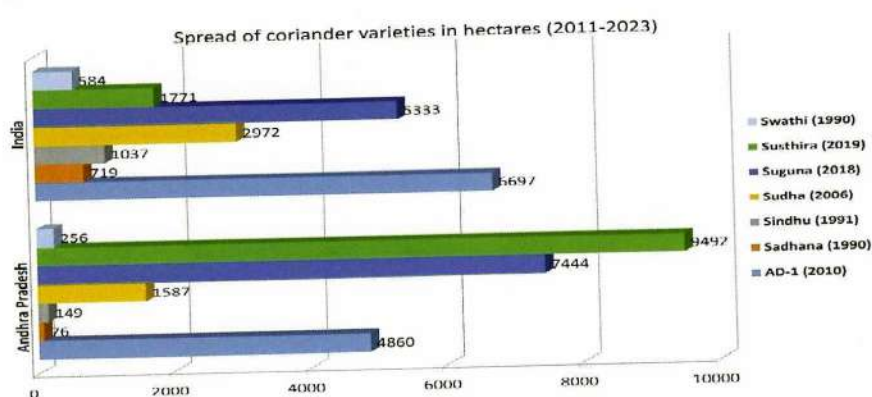
VARIETAL ADOPTION OF CORIANDER IN ANDHRA PRADESH

Estimated spread of coriander varieties in India and Andhra Pradesh

Spread of varieties released in the country is estimated from the seed distributed during 2011-2020 to various agencies, farmers and other stakeholders. The spread of varieties indicates the area directly contributed by AICRP on Spices, Guntur through seed production system.

➤ **INDIA:** Among all the varieties of coriander, AD-1 released in the year 2010 had occupied majorly in India with an area of 6697 ha followed by Suguna, which was released in the year 2018 and cultivated in an area of 5333 ha. The variety Sudha released in the year 2006 had covered an area of 2972 ha while Susthira, which was released recently in the year 2019 had occupied an area of 1771 ha, exhibiting good impact compared to other varieties. Sindhu, Sadhana and Swathi which were released during year 1990 - 1991 had occupied an area of 1037, 719 and 584 hectares in India, respectively. The varieties released in 8th plan are now being replaced by newer varieties like Sudha, AD-1, Suguna and Susthira.

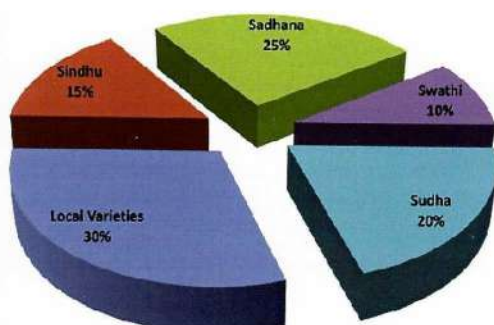
➤ **ANDHRA PRADESH:** In AP state, Susthira (9492 ha) occupied major area followed by Suguna (7444 ha), AD-1 (4860 ha) and Sudha (1587 ha). Whereas, Swathi, Sindhu and Sadhana occupied an area of 256, 149 and 76 hectares, respectively. The varieties released during and after 11th plan period gained huge popularity viz., AD-1, Suguna, Susthira, in the place of earlier varieties indicating the adoption of newer varieties by the farmers.



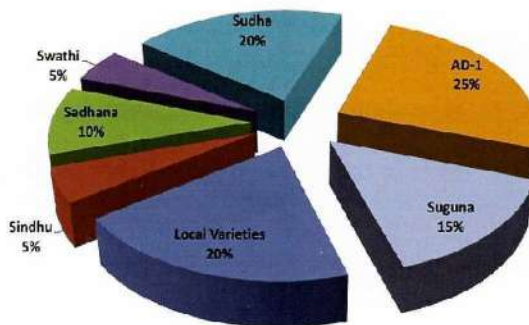
Spread of coriander varieties in India and Andhra Pradesh

Extent of coriander varietal adoption in Andhra Pradesh

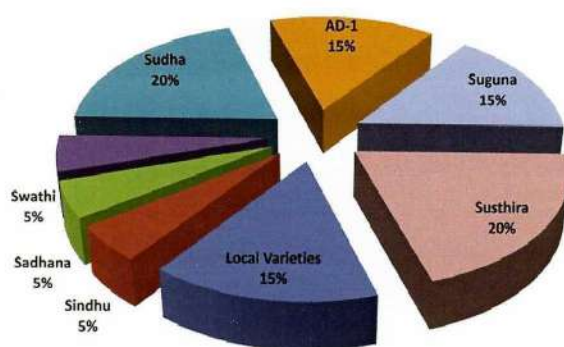
During 8th plan, three important HYVs viz., Sindhu, Sadhana and Swathi were released. They were widely popular by 9th plan. Subsequently, a new HYV variety i.e. Sudha was released and adopted extensively by farmers. During 11th plan, the varieties released by the university occupied 70% of the total area improving the productivity of the crop significantly. During 2012-2019, three more HYVs viz., AD-1, Suguna and Susthira, were introduced in farms' fields. Among these, AD-1 has become very popular among the farmers. The recently released varieties i.e. Suguna and Susthira are gaining popularity among the coriander farmers of the state.



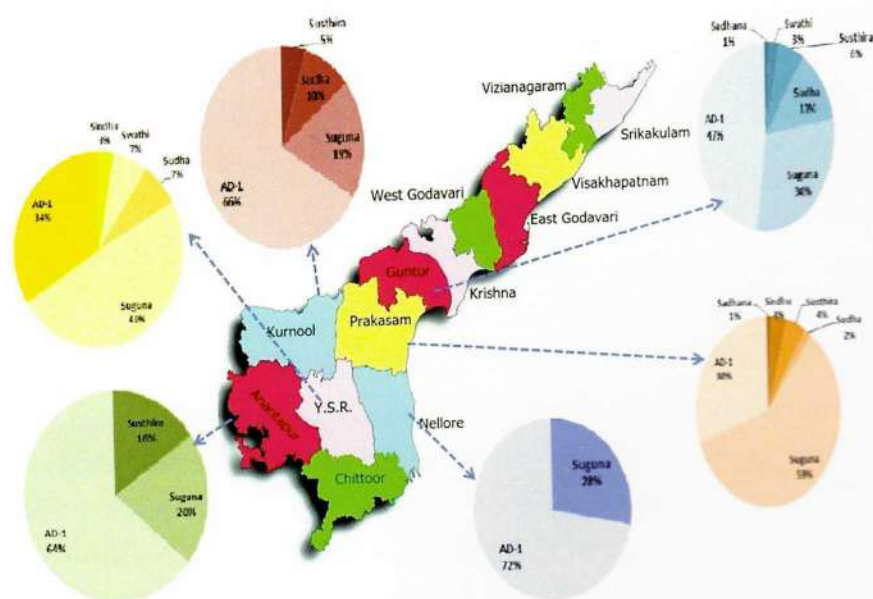
Extent of coriander varietal adoption during 11th plan



Extent of coriander varietal adoption during 12th plan



Extent of coriander varietal adoption during TE 2018-23



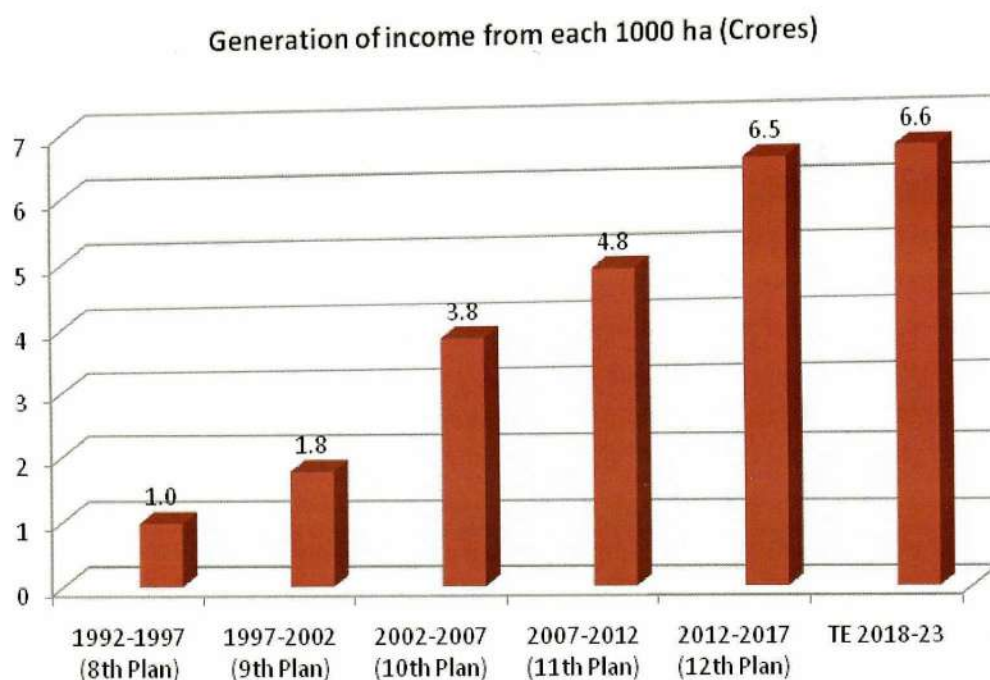
Preference of coriander varieties in major districts of Andhra Pradesh

District wise varietal preference in Andhra Pradesh

The distribution of seed to various stakeholders such as farmers, seed corporations, private companies, NGOs and research agencies from the period 2011-2020 was utilized to generate the district wise popularity of varieties developed by AICRP on Spices, Guntur. Varieties were found to spread mainly in six districts viz., Ananthapur, Y.S.R. Kadapa, Kurnool, Guntur, Prakasam and Nellore.

- In Ananthapur district, 64% of demand of seed was for AD-1, followed by Suguna (20%) and Suthira (16%)
- In YSR Kadapa district, 49% of demand of seed was for Suguna, followed by AD-1 (34%), Sudha and Swathi (7% each) and Sindhur (3%)
- In Kurnool district, 66% of demand of seed was for AD-1, followed by Suguna (19%), Sudha (10%) and Suthira (5%)
- In Guntur district, 47% of demand of seed was for AD-1, followed by Suguna (30%), Sudha (13%), Suthira (6%), Swathi (3%) and Sadhana (1%)
- In Prakasam district, 59% of demand of seed was for Suguna, followed by AD-1 (30%), Sindhur and Suthira (4% each), Sudha (2%) and Sadhana (1%)
- In Nellore district, 72% of demand of seed was for AD-1, followed by Suguna (28%)

Income generation through coriander cultivation

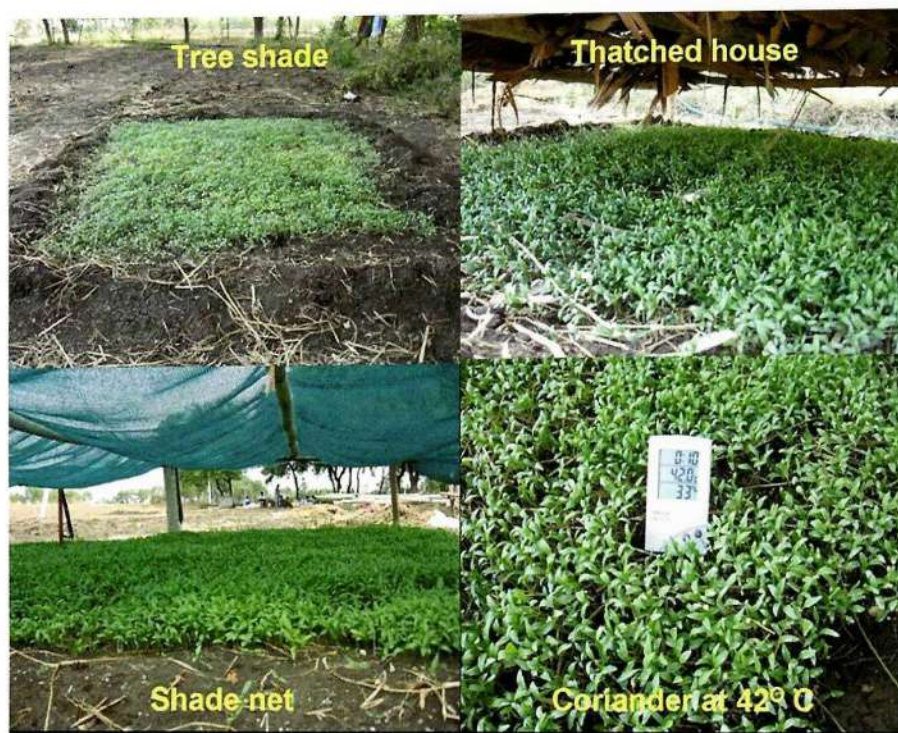


Generation of income from each 1000 ha in different plan periods

Improvement of crop productivity through adoption of new technologies could be an option for rural farmers to get increased yield from rainfed agriculture. The use of high yielding crop varieties facilitates the growth of processing industries and stimulates the transition from low productivity subsistence agriculture to a high productivity agro-industrial economy. Further, developing and promoting the adoption of yield increasing crop varieties in a sustainable manner helps improve livelihood of rural farmers. Income generation graph depicted comparatively highest income in 12th five-year plan and TE 2018-23 through coriander cultivation and production.

Significant contribution through technology in coriander

- Off-season coriander production technology developed by AICRPS, Guntur is now widely followed for production of coriander herb in various parts of the country during summer season. It is now widely adopted in Pune, Bengaluru, Noida and other areas where polyhouses and shadenet houses are extensively used. The Benefit-cost ratio for this technology is 5.23.



Coriander production under shadenet

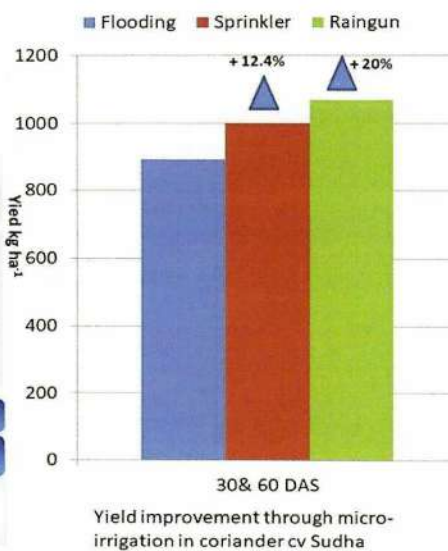
- For the first time, micro-irrigation scheduling was developed in coriander, which is now very popular across the country. The technology improved the yield by 20% compared to the traditional irrigation system.

Advantages of Raingun

- Cheapest capital option for large area coverage.
- Suited for small or large holders.
- Farmer can cover at least 1/3 acre at a time using single gun.
- Flooding disadvantageous due to land loss.



Performance Data					
Nozzle (mm)	Pressure (kg/cm ²)	Radius (mtr)	Discharge (ltr/min)	Irrigated Area (m ²)	Precipitation Rate (mm/hr)
12x5	2.00	20	152	1256	7.2
	3.00	24	182	1809	6.0
	4.00	27	211	2289	5.5
	5.00	30	236	2826	5.2



Impact of micro-irrigation on yield of coriander cv. Sudha

In Andhra Pradesh, farmers facing challenges with traditional rabi crops due to irregular rainfall, pests infestation, and fluctuating market prices have turned to coriander as a viable alternative. The varieties viz., Sudha, AD-1 and Suguna, released during 10th plan, has proven successful in the Prakasam and Guntur districts. Despite a harsh rabi season with severe drought and reduced rainfall, coriander has offered farmers a more resilient option, requiring less investment and attention. Success stories from various regions show that innovative farmers who adopted coriander varieties released from Dr. YSRHU-HRS, Lam, Guntur achieved impressive yields and net incomes, even under adverse conditions.

Challenging rabi season for farmers in Andhra Pradesh

Rabi season in Andhra Pradesh poses severe challenges for farmers due to significant rainfall deficits, which results in a drought-like situation. The state's rabi season crops typically include pulses such as chickpea, black gram, and green gram. Spices like chilli, coriander, and ajwain are also cultivated during this period, with their growth heavily reliant on rainfall from the North-East monsoon. However, the insufficient rains critically impact the establishment, growth, and productivity of these crops, making the season extremely difficult for the farmers. Despite the widespread crop failures, a few farmers in Andhra Pradesh succeeded by adopting modern technology and innovative farming practices. Farmers from different agro-climatic zones braved the harsh conditions and managed to achieve impressive yields through adaptive measures. Their stories offer valuable lessons in resilience and the importance of making the right choices in farming.

Innovation amidst adversity

In the drought-prone region of Prakasam district, where *rabi* rainfall was 74% below normal (2016), most farmers faced devastating losses. The light soils and lack of rainfall made it nearly impossible to grow *rabi* crops, but a few farmers followed the advice from Dr. YSRHU. Despite skepticism from neighboring farmers, the coriander crop grew well even with deficit rainfall, where even fodder jowar failed. The variety Suguna yielded 115 kg per acre, and APHU Dhanial-1 yielded 125 kg per acre, bringing the farmers significant profits despite the challenging conditions. The benefit-cost ratio for Suguna was 2.46, and for APHU Dhanial-1, it was 2.76, showcasing the profitability of coriander even during a severe drought.

Success of coriander in rice fallows

In Guntur district, black gram, the traditional *rabi* crop, was decimated by viral diseases (2017). Faced with poor prospects for black gram, marginal farmers chose coriander as an alternative crop and the crop was sown in the first week of January in rice fallows. The variety APHU Dhania-1 gave an average yield of 315 kg per acre. The success of his coriander crop, along with minimal pest or disease problems, resulted in a net income of Rs. 23,368 from just one acre, with a benefit-cost ratio of 4.7. The use of conserved soil moisture from the previous rice crop was key to this success, highlighting the importance of soil management and crop rotation.

Coriander in cropping systems

In the western part of the Krishna-Godavari zone, where rainfall during *rabi* is meagre, traditional crop is chickpea. Chickpea had become less viable due to high pest pressure. Marginal farmers in Dachepalli opted coriander as potential alternative to chickpea. The coriander variety Suguna was grown and yielded 450 kg per acre. This fetched a net income of Rs. 34,000, with a benefit-cost ratio of 5.2, proving that adoption of coriander as a contingency crop, can lead to success even in adverse conditions.

Doubling the income through microirrigation

In the scarce rainfall zone of Kadapa district, the region received only 61.9 mm of rainfall during the *rabi* season (2016), making cultivation difficult. Farmers were initially hesitant to grow coriander due to the low soil moisture. However, after seeking advice, APHU Dhania-1 was sown and installed a sprinkler irrigation system to ensure the crop received adequate water during critical stages of growth. The crop yielded 750 kg per acre, which was significantly higher than the national average. The net income from the crop was Rs. 57,500 per acre, with a benefit-cost ratio of 5.8, demonstrating the advantages of timely irrigation and appropriate crop and variety selection.

Transforming coriander cultivation in Andhra Pradesh with higher yields and quality

In various regions of Andhra Pradesh, coriander variety Susthira, released during TE 2018-23, has shown significantly promising results in cultivation. Introduced in Ananthapur and Kadapa district during 2019-22, Susthira yielded 20-25% more than local varieties and was favored for its aroma and essential oil content. Similarly, during 2022-24, Susthira achieved a 15-20% yield increase over local varieties and was praised for its high oil content and superior grain quality. Farmers and traders alike have expressed strong approval for Susthira, along with other varieties like Sadhana, AD-1, and Swathi.



Coriander as an IPM component

Coriander in rice fallows



FLD on Micro-irrigation

Suguna in Prakasam district of AP





Suguna in
Ananthapur district of AP



Susthira in
Ananthapur district of AP



Susthira in
YSR Kadapa district of AP



Susthira in
Guntur district of AP

Lessons in resilience

The farmers who adopted the developed varieties and technologies by Dr. YSRHU emphasize the importance of adapting to climate challenges and making informed decisions in coriander cultivation. Despite facing severe drought, innovative techniques, such as the use of drought-tolerant crops and sprinkler irrigation, enabled these farmers to achieve success where others struggled. Their stories offer hope and valuable insights for farmers across Andhra Pradesh and beyond, demonstrating that even in the face of adversity, resilience and innovation can lead to success.

As a result, the coriander varieties developed at this station have been widely adopted across various states of India and districts of Andhra Pradesh. This demonstrates their potential to contribute significantly to both the state and national economies. Furthermore, these varieties, originally developed for rainfed farming systems, have gained popularity in irrigated conditions, resulting in higher yields and increased income in other states as well. As demand for spices grows, increasing the productivity and resilience of crops like coriander will support agricultural sustainability and strengthen the spice industry, benefiting both local economies and global trade.

A roadmap for future

- ★ Development of trait specific varieties with high essential oil, bold/slender size, moisture stress (mid-season and terminal), disease and insect pest resistance to reduce cost of cultivation, and for promotion of export.
- ★ Development of input efficient varieties.
- ★ Area expansion through strengthening seed supply chain and promotion of modern varieties.
- ★ Creation of export clusters in major growing areas and empowering farmers through formation of commodity groups.
- ★ Implementing Good Agricultural Practices (GAP) to reduce environmental impacts, such as minimizing the use of chemical pesticides.
- ★ Mechanization of crop production functions to reduce the cost of cultivation.
- ★ Encouraging research into product development, value addition, and organic production aimed at enhancing export opportunities.



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