

Hi-Tech Spices Farming

KVKs: Balaghat, Betul, Chhindwara, Dindori, Damoh, Harda, Jabalpur, Satna, Mandla, Narsinghpur, Panna, Rewa, Sagar, Seoni, Tikamgarh, Umaria, Badwani, Dhar, Jhabua, Shivpuri, Khandwa, Indore, Ratlam, Mandsaur, Bhind, Neemuch, Guna, Shajapur, Durg-I, Durg-II, Mainpat

Description of technology adopted

High value row spices such as

- ▶ Hybrid chilli production on ridge and furrow system at 1x5 feet plant and row spacing with plastic mulching and drip irrigation.
- ▶ Seedlings were treated with carbendazim+thiram @ 1+2 gram/liter of water followed by Imidacloprid @ 0.3 ml/liter of water, Integrated nutrient management with N: P: K (75:100:50 kg/ha), plastic mulching and drip irrigation were also adopted.
- ▶ Chilli variety Disha (Hyb.) + Spacing (60 x 45) + STV based fertilizers application + Seed Treatment + Drip Irrigation.
- ▶ Coriander, ginger, garlic also grown in raised bed in drip irrigation system fetches more income for farmers.
- ▶ Garlic mulching with 25 micron white sheet over 3 feet raised bed along with laying of two rows in line drip system. Punching hole on white sheet for sowing 6x6 inch plant to plant and row to row with mechanized machine attached to the tractor covering area 0.25 ha / hr.
- ▶ Fertigation through ventury.
- ▶ Recommended package and practices comprised of seed treatment balance dose of nutrient, plant protection measure and improved grading and packing.
- ▶ Linkage to market.

Promising characteristics of technology: Chilli

S. No.	Characteristics	Observation (Unit)
1.	No. of Fruits/plant	No. 120-130
2.	Fruit weight/ plant (Kg)	Kg- 3.5-4.2
3.	Increase in yield	% 40-60
4.	Yield	q/ha 450-600 (Green) 12-15 (dry)

S. No	Characteristics	Observation (Unit)
1	Control of weed through plastic mulch sheet	90% weed control
2	Saving water	70%
3	Increase yield	22% increase yield
4	Higher productivity per unit area	-
5	Quality improvement – Shape size and color	Got 30% bigger size
6	Protection of soil born disease	18%



Plastic Mulching and Raised Bed Planting of Chilli



High tech farming (Spices-Chilli)

Economics of adopted technology/ha (pooled data)

	Cost (Rs.)	Gross return	Net return (Rs.)	B:C ratio
Chilli	72000.00	254778	183434	2.75
Coriander Pant- Haritima	20000.00	137000	135000	6.85
Garlic	240000	675000	435000	2.8



Horizontal spread of technology

University	Horizontal Spread of Technology		
	No. of village covered	No. of z farmers	Area in ha or no. of units
JNKVV	1268	7477	8657
RVSKVV	1474	61224	27282
IGKVV	326	5230	4150
Total	3068	73931	40089

Name of schemes supported by Central/State Govt. in large scale dissemination under convergence

S. No.	Scheme	State Govt./Central Govt.
1.	KVK, NHM	District Horticulture Department, MIDH
2.	Pradhan Mantri Krishi Sinchai Yojna	Drip irrigation scheme in Badi of maginal/ Small farmers
3.	National Horticulture Mission	State micro-irrigation Scheme



Use of Plastic Mulch in Chillies at Farmers Field in Chhindwara District



Use of Plastic Mulch in Chillies at Farmer's Field in Satna District



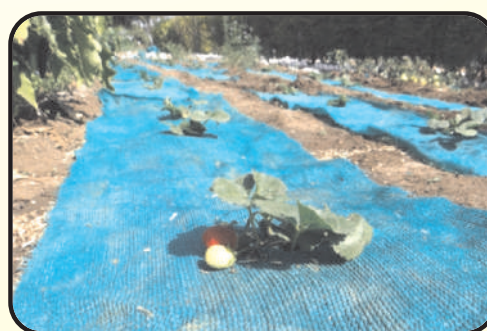
Standing Coriander Crop at Farmer's Field in Satna District

Impact of adopted technology in economic and social terms

- ▶ Economically viable for resourceful farmers and good option for high value crop diversification and good financial return.
- ▶ This technology brought out the changes in economic and socio life of the farmers through increased production and income.
- ▶ Farmers were convinced with the result of technology and want to developed drip irrigation.
- ▶ Fertilizer and nutrient loss is minimized due to localized application and reduced leaching.
- ▶ Resource conservation technologies like deep ploughing, drip irrigation, mulching, control of weed (80% with mulch sheet) and water saving 60% with use of drip irrigation and moisture conservation ultimately saving of labour cost, higher productivity per unit area, quality improvement – shape, size and color, protection of soil burn diseases and high market value.
- ▶ Leading varieties of spices: Chilli- HPH-1900, 2680,
- ▶ Onion- Agri Found Dark Red, ALR, Bheema Super
- ▶ Garlic- G-282, G-283
- ▶ Coriander- Pant Haritima

District wise horizontal spread of technology in JNKVV

District	No. of village covered	No. of Farmers	Area in ha.
Balaghat	52	184	164
Betul	8	15	17
Chhindwara	321	18	635
Dindori	223	1215	340
Damoh	168	3175	4736
Harda	63	212	342
Jabalpur	2	5	5
Satna	32	71	46
Mandla	35	150	95
Narsinghpur	25	1500	1200
Panna	8	13	6
Rewa	6	17	03
Sagar	145	240	450
Seoni	156	507	569
Tikamgarh	6	10	4
Umaria	20	150	50



District wise horizontal spread of technology in RVSKVV

Name of KVKs	No of village covered	No of farmers	Area in ha or No of units
Ratlam	50	10	20
Dhar	14	1500	4500
Guna	575	1230	5916
Gwalior	36	4200	1674
Mandsaur	743	53684	14493
Neemuch	16	300	55.0
Shajapur	40	300	624



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