

## Diversified Farming for Higher Income

### A. Kharif onion cultivation :

**KVKs : Gwalior, Datia**

#### Description of technology adopted :

Improved Variety of ADR (Agri-found Dark Red) is suitable for kharif season in light to medium black soils. The average yield of variety is 250-300 q/ha. The plant and row spacing is suitable 6-8 cm and 20-25 cm, respectively. Raised bed planting is suitable. Average bulb size is 4-6 cm and moderately pungent variety has average keeping quality .



#### Promising characteristics of technology:

Characteristics	Unit	Observation
Yield	q/ha	232.7
Size of bulb	cm	4.90
Weight (per bulbs)	gram	58.50
Variety used	-	Agri-Found Dark Red



#### Horizontal spread of technology

ACZs & KVKs	Varieties	No of villages covered	No of farmers	Area in ha	Mean yield (q/ha)	Cost Rs./ha.	Net return Rs./ha	B:C ratio
Gwalior	ADR	36	4200	1674	252.30	84880	1,12,000	2.61
Datia	ADR	22	1120	450	213.20	81440	193657	3.37
Average/Total		58	5320	2124	232.75	83160	1,52,829	3.0

**Name of schemes supported by central or state govt. large scale dissemination under convergence**

Govt.	Name of Govt. Scheme	Type of support
Central	-	-
State	Masala vistar yojna and ATMA	Kind , storage and demonstrations

### Additional revenue generated at district level through technology adoption

KVKs	Yield (q/ha)	Area(ha.)	Additional net Return (Rs. / ha)	Additional net Return at district level Rs. (Crore)
Gwalior	252.20	1674	91,500	15.31
Datia	213.20	450	1,78,657	8.05
Av./Total	232.75	2124	1,35,195	23.36

**Impact of Technology in Economic and Social Terms :** Technology has given high additional average net return( Rs. 1,35,195 / ha) in comparison to pearl millet/ Sesame (Rs. 20500/ ha).The technology generating additional income Rs. 15.31 crore in gwalior district and Rs.8.05 crore in datia district. level. Both district generating revenue about Rs.23 crore by adoption of technology. The technology is specially beneficial to the marginal and small farmers who are earning good return from small piece of land and engaged in cultivation of onion with family .Technology is socially accepted .

### B. Rice fallow – Okra cultivation

**KVKs : Gwalior**

**Description of Technology adopted :** HYV (VRO-6, VRO-22) / Hybrid. The crop has been cultivated in the district about 500-550 ha. specially by the small / marginal farmers after harvesting of paddy crop. The crop has been sown during 15 Jan. 15 Feb. in alluvial/ medium black soils .The plant x line spacing is suitable 8-10 cm and 45-60cm, respectively.

**Promising characteristics/indicators of technology:**

Characteristics	Unit	Observation
Avg. yield	q/ha	162.0
Avg. size of fruit	cm	13.50
Avg. fruit weight	gram	13.20
Variety used		VRO-6, VRO-22, Hybrid

### Horizontal spread of technology

ACZs & KVKs	Varieties	No of villages covered	No of farmers	Area in ha	Mean yield (q/ha)	Cost Rs./ha.	Net return Rs./ha	B:C Ratio
Gwalior	VRO-22, VRO-6, Hybrid	65	1200	550	162.0	86000	238000	3.77



**Name of schemes supported by central or state govt. in large scale dissemination of under convergence**

Govt.	Name of Govt. Scheme	Type of support
Central	-	-
State	Sabji Vistar Yojna and ATMA	Kinds/ through demonstrations

**Additional revenue generated at district level through Technology**

KVK	Yield (q/ ha)	Area (ha)	Additional Net return Rs./ ha	Additional Net return at district Rs./ ( Crore)
Gwalior	162.0	550	2,15,000	11.82

**Impact of Technology in Economic and Social Terms :** The technology ( Rice- fallow )is given higher Cost benefit ratio(3.77) as comparison to farmers practice-2.0) i.e. rice – wheat cropping system., therefore technology is beneficial for farmers . Small and marginal farmers are adopting the technology in the district and receiving good price of there produce. The technology is generating about an additional net return Rs. 11.82 crore of in 550 ha. Area at district level.

**C. Water Chestnut based cropping system in Rice field**

**KVKs : Seoni, Balaghat**

**Description of technology adopted**

- ▶ Technology suitable for lowland Rice field
- ▶ Replacement of Rice in low lying area – Where water stagnation more then 1.5 feet, annual rainfall more then 1100 mm and water stand up to month of last week October.
- ▶ Variety – Widely adopted Spineless Varieties Lalgulra and Kariya Harira



**Promising characteristics of technology:**

S. No	Characteristics	Observation (Unit)
1	No. of nuts per Vine of water chestnut	5.6 No.
2	Yield of water chestnut	95.0 q/ha
3	Yield of Chickpea crop (Next crop)	13.5 q/ha



**A view of farmers field**

### Horizontal spread of technology

KVKs	No. of village covered	No. of farmers	Area in ha
2	93 (73 +25)	760	296

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

S.No	Agency	Support
1	ATMA	Planting material

### Glimpses of Extension Activities



Performance of Water chestnut variety Lalgulara



Harvesting of water chestnut



FLD on Water chestnut

### Economics of adopted technology:

#### Water chestnut

Cost (Rs/ha)	Gross return (Rs/ha)	Net return (Rs/ha)	B:C ratio
49475	152000	102525	3.07

#### Chickpea

Cost (Rs/ha)	Gross return (Rs/ha)	Net return (Rs/ha)	B:C ratio
18900	59400	40500	3.14

#### Cropping sequence (Water chestnut – Chickpea)

Cost (Rs/ha)	Gross return (Rs/ha)	Net return (Rs/ha)	B:C ratio
68375	211400	143025	3.10

### Impact of adopted technology in economic and social terms

- ▶ Chickpea/chickpea can be grown successfully in rabi season.
- ▶ Enrichment of organic matter.
- ▶ Use of submerge land where rice cultivation is not profitable.
- ▶ Farmer earns Rs 423.35 lakh from 296 ha area.
- ▶ Submerged area where other crops can not be grown successfully.



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