



**Rajasthan Agricultural Research Institute, Durgapura**



# ANNUAL PROGRESS REPORT

## JULY 2024- JUNE 25





# Rajasthan

## Agro-climatic Zones

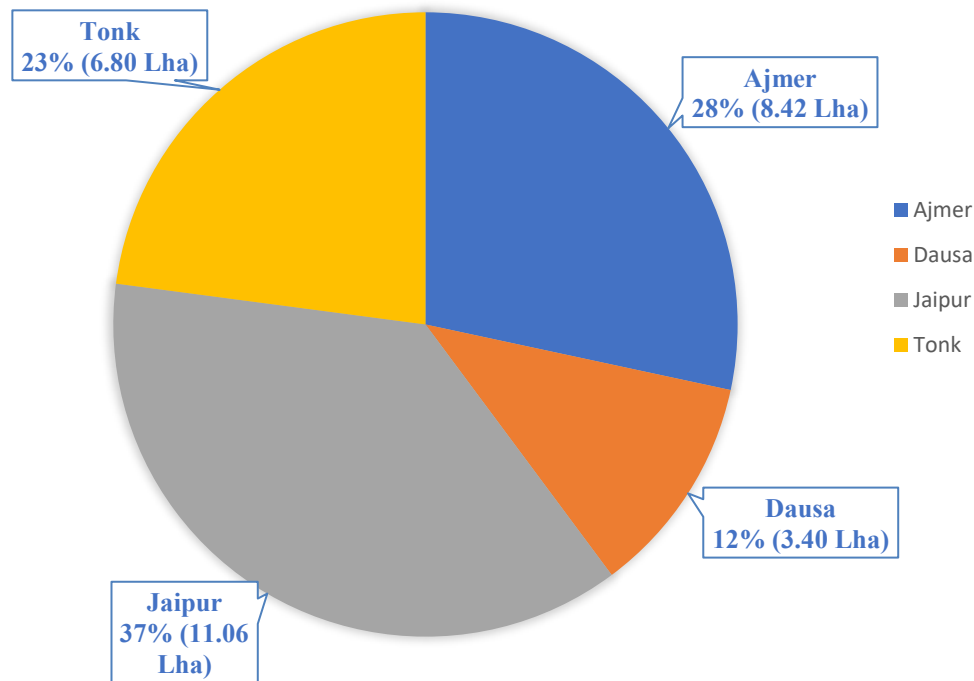
- I A
- I B
- I C
- II A
- II B
- III A
- III B
- IV A
- IV B
- V



# Geographical Area of Zone IIIa

**Total Area – 29.68 lakh ha (About 8.67% of the total area of Rajasthan)**

## DISTRICT-WISE AREA – ZONE IIIA



# STAFF STRENGTH

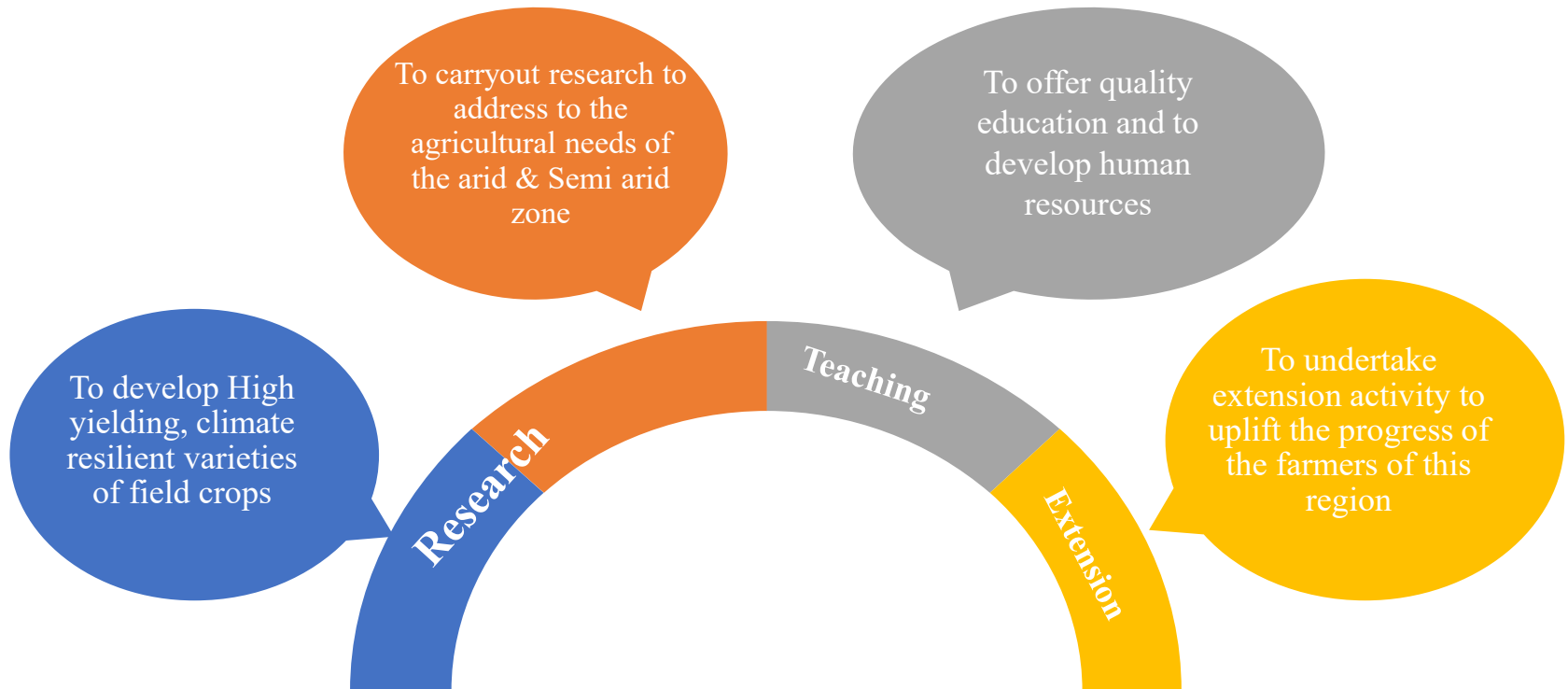
## Staff strength: Teaching

Head of Account	Adm. & Executives	Professor			Associate Professor			Assistant Professor			Total		
		Sanctioned	Filled		Sanctioned	Filled		Sanctioned	Filled		Sanctioned	Filled	
			M	F		M	F		M	F		M	F
Non-plan		6	1	-	5	2	2	52	8	3	63	11	5
State plan		-											
ICAR		1	1	-	10	5	1	28	15	6	39	21	7
Other agencies		-											
<b>Total</b>		<b>7</b>	<b>2</b>	<b>-</b>	<b>15</b>	<b>7</b>	<b>3</b>	<b>80</b>	<b>23</b>	<b>9</b>	<b>102</b>	<b>32</b>	<b>12</b>

## Staff strength: Non-Teaching

Head of Account	Technical			Ministerial			Supporting				Total	
	Sanctioned	Filled		Sanctioned	Filled		Sanctioned	Filled		Sanctioned	Filled	
		M	F		M	F		M	F		M	F
Non-plan	31	9	-	13	3	3	42	9	6	86	21	9
State plan												
ICAR	32	18	2	-	-	-	-	-	-	32	18	2
Other agencies												
<b>Total</b>	<b>63</b>	<b>26</b>	<b>2</b>	<b>13</b>	<b>3</b>	<b>3</b>	<b>42</b>	<b>9</b>	<b>6</b>	<b>118</b>	<b>39</b>	<b>11</b>

# MAJOR ACTIVITIES



# Projects Running at RARI

AICRP on Wheat & Barley

AICRP on Pearl millet

AICRP on Groundnut

AICRP on MULLaRP

AICRP on Chickpea

AICRP on Integrated Farming Systems

AICRP on Arid legumes

AICRP on Seed Technology Research

AICRP on Vegetables

AINP on Onion and Garlic

AINP on Soil Arthropods Pests (Network Coordinating Unit)

AINP on Pesticide Residues

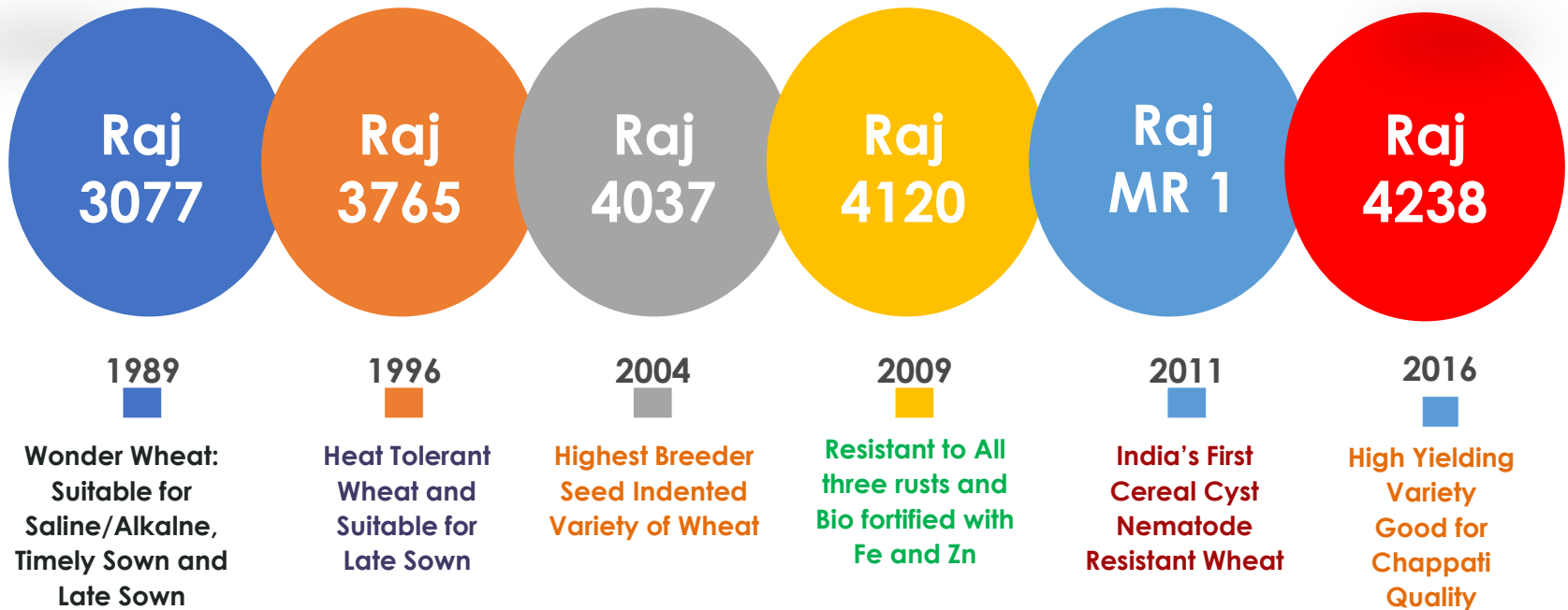
Monitoring of Pesticide Residue at National Level

CRP Agro-biodiversity in Chickpea for DRR

# 1. AICRP on Wheat and Barley (1972)

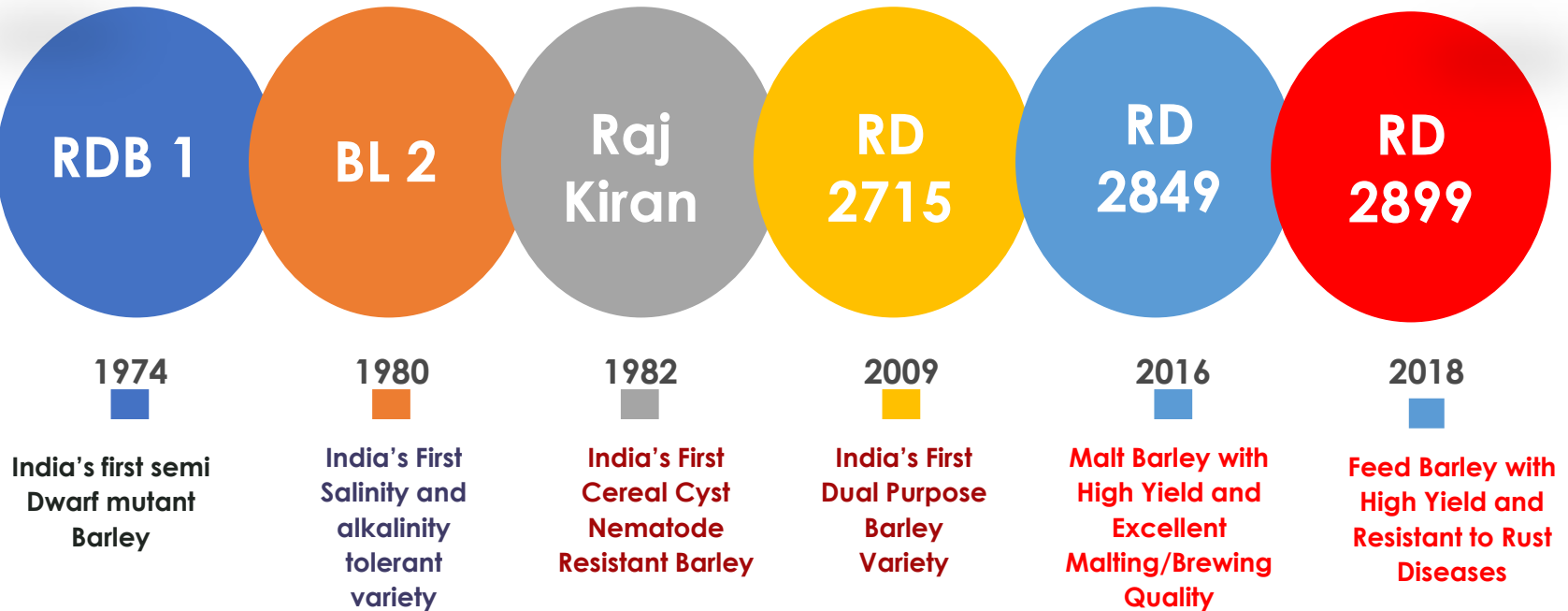


## Glorious Success: Wheat (29)





# Glorious Success: Barley (31)





# Recent Varieties Developed/ Released

## Wheat Entries Identified for State Release in ZREAC Rabi 2024-25

Raj 4548



Timely Sown

Late Sown

Raj 4581



## Four Barley Entries Identified for State Release in Rabi ZREAC 2024-25



RD 3064



RD 3053



RD 3067



**RD 3080  
(Salinity Tolerant)**

**"RD 3064 identified for national release at the Wheat Workshop hosted by RSKVV, Gwalior during August 25-27, 2025".**

# Package of Practices Recommended

## *National Level*

- For the effective management of weeds in the wheat crop, post-emergence tank mix application of Pyroxasulfone 85 % @ 127.5 g a.i./ha + Metsulfuron methyl 20 % @ 4 g a.i./ha at 30-35 DAS in 500 litres of water is recommended.
- For the effective management of weeds in the barley crop, post-emergence tank mix application of Pyroxasulfone 85 % @ 127.5 g a.i./ha + Metsulfuron methyl 20 % @ 4 g a.i./ha at 30-35 DAS in 500 litres of water is recommended.
- To increase the productivity and profitability of **wheat** application of Nano DAP as seed treatment @ 2.5 ml/kg seed and one foliar spray of Nano DAP @ 2.0 ml/L of water at 35-40 DAS alongwith 75 % recommended dose of phosphorus.

## 2. AICRP on Pearl Millet



### Milestone Varieties: Pearl millet

**2011**

**RHB 173**

Suitable for Arid region  
Medium maturity (78-80 days).

**2011**

**RHB 177**

Thin stem is  
advantageous for  
fodder purpose

**2018**

**RHB 223**

Early maturity  
(71days)  
Resistance to downy  
mildew and blast

**2019**

**RHB-233**

Biofortified - High  
iron (83 ppm) and  
high Zinc (50 ppm)

**2019**

**RHB 234**

Dual purpose hybrid  
Biofortified - High iron  
(84 ppm) and high Zinc  
(41 ppm)

**2021**

**RHB-228**

State released  
Hybrid



# Recent Varieties Developed/ Released

## (Identified for National Release)

### Hybrid RHB 273

- Dual-purpose three-way hybrid (grain + stover)
- High grain yield: 22–22.5 q/ha
- High stover yield: 48.03 q/ha
- Early flowering: 44 days
- Maturity: 74–76 days
- Resistant to downy mildew and blast disease
- Less damaged from smut, shoot fly, stem borer, and grey weevil
- Less bird damage due to bristles on panicles
- Green pigmentation on nodes and internodes and No anthocyanin pigmentation or tip sterility in hybrid and parental lines



Pearl millet hybrid RHB 273 for the A1 Zone (arid region of India) was identified by Central Varietal identification Committee meeting held as part of the AICRP on Pearl Millet Workshop from May 28–30, 2025 and notified in “The Gazette of India”. (Order awaiting)



## Package of Practices Recommended

- Application of  $\text{ZnSO}_4$  (25 kg/ha) and  $\text{FeSO}_4$  (20 kg/ha) at the time of sowing and 0.2 % Foliar spray of Borax at the time of tillering significantly increased pearl millet productivity with maximum net returns and B:C ratio

# 3. AICRP on Groundnut (1987)



## Glorious Success: Groundnut (8)



2012

**RG 510**

Resistant to collar rot, stem rot, early leaf spot, rust and stem necrosis

2015

**RG 578**

Virginia Bunch  
Resistant to LLS, dry root rot, rust  
Tolerant to *S. litura*, thrips, jassids and leaf miner

2016

**RG 559-3**

High Yielding Variety  
Virginia Bunch  
Large seeded; tolerant to *S. litura* and thrips

2023

**RG 638**

High shelling %, It matures in 122 days, average pod yield 35-40 Q/ha.

2024

**RG 648**

It exhibited 22.0% and 25.2% superiority in pod (32.69 q/ha) and kernel yield (22.73 q/ha) over best check, respectively.

2024

**RG 575-1**  
Biofortified with Protein (30%)

# Recent Varieties Developed/ Released

(Identified for National Release)

## RG 648 (Raj Mungfali 5)

- **Biofortified Variety (High Protein – 30%)**
- Virginia bunch type, growth habit: Semi spreading
- Raj mungfali 5 exhibited 22.0% and 25.2% superiority in pod (32.69 q/ha) and kernel yield (22.73 q/ha) over best check, respectively.
- Days to maturity = 123 days
- Plant height = 40-45 cm
- High shelling = 69%
- Good oil content = 47%
- Good protein content = 30%
- High SMK = 85%
- Medium seed size = 59g/100 seeds
- Fairly good resistance to major diseases (collar rot, early and late leaf spot, stem rot & PBNB) and insect-pests (leaf hopper, thrips and leaf minor).



# Recent Varieties Developed/ Released

## (Identified for National Release)

### RG 575-1 (Raj Mungfali 6)

- Virginia bunch type, growth habit: Semi spreading
- Raj mungfali 6 exhibited 11.08% and 12.3% superiority in pod (29.96q/ha) and kernel yield (20.38 q/ha) over best check, respectively.
- Days to maturity = 124 days
- Plant height = 40-45 cm
- High shelling = 69%
- Good oil content = 48%
- Good protein content = 30%
- High SMK = 85%
- Medium seed size = 50g/100 seeds
- Fairly good resistance to major diseases (collar rot, early and late leaf spot, stem rot & PBNB) and insect-pests (leaf hopper, thrips and leaf minor).



# Package of Practices Recommended

## *Zone III A*

- Application of 30 kg/ha of nitrogen in two equal splits i.e., half quantity at the time of sowing as basal and remaining half quantity as broadcasting in the standing crop at 30 DAS is recommended to enhance the productivity of groundnut.
- Application of 222 Kg dihydrate Nano DAP at the time of sowing alongwith recommended dose nitrogen and phosphorus is recommended to increase the productivity and profitability of groundnut.
- To increase the productivity and profitability of groundnut, application of Nano DAP as seed treatment @ 2.5 ml/kg seed and one foliar spray @ 2.0 ml/L of water at 60-65 DAS alongwith 50 % recommended dose of phosphorus through traditional phosphatic fertilizers is recommended.

## *National Level*

- Seed inoculation of Rhizobia IGR 6 coupled with soil application RD-NPK for *Kharif* groundnut
- Foliar supplementation of 0.2% Nano urea + 1 % Urea phosphate both at flowering and peg formation stages coupled with RD NPK for *Kharif* groundnut



# Groundnut Breeder Seed Hub (2024-25 to 2026-27)

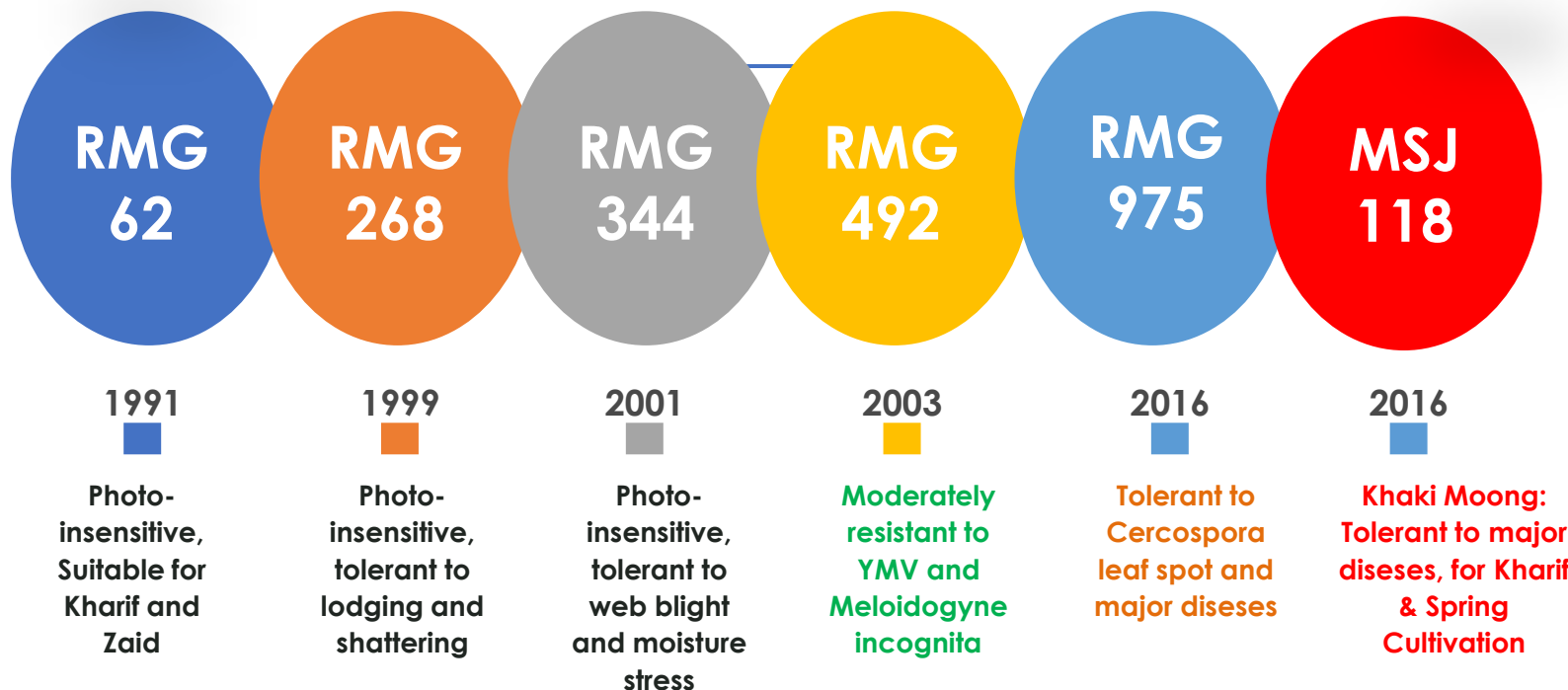


**Planning to produce farmers collaborative BS Production of 1200 q during *Kharif* 2025**

# 4. AICRP on MULLaRP (1976)



## Glorious Success: Mungbean (7)

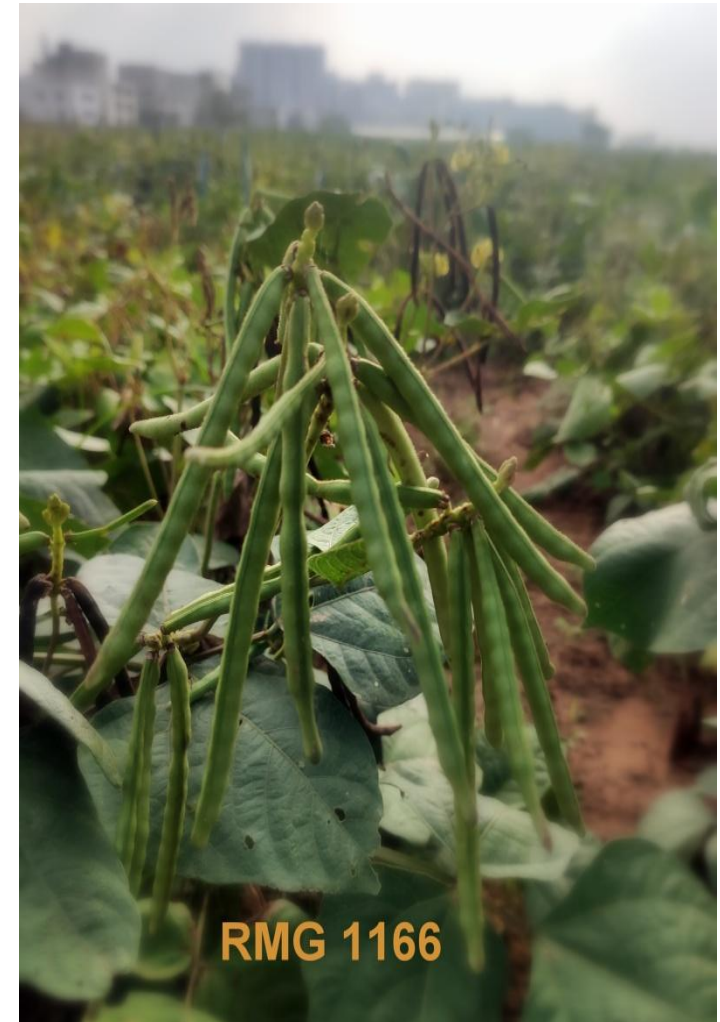


# Recent Varieties Developed/ Released

Identified for State Release in ZREAC Kharif, 2024

## RMG 1166

- It showed superiority over check varieties (MSJ 118, IPM 02-3 and RMG 975) for seed yield in pooled analysis.
- The mean seed yield of genotype RMG 1166 recorded was 1160 kg per hectare which is 14.39, 18.12 & 12.07 percent higher over the check varieties MSJ 118, IPM 02-3 and RMG 975, respectively.
- This genotype also well performed at ATC, Ajmer. Therefore, genotype RMG 1166 is proposed for state release.





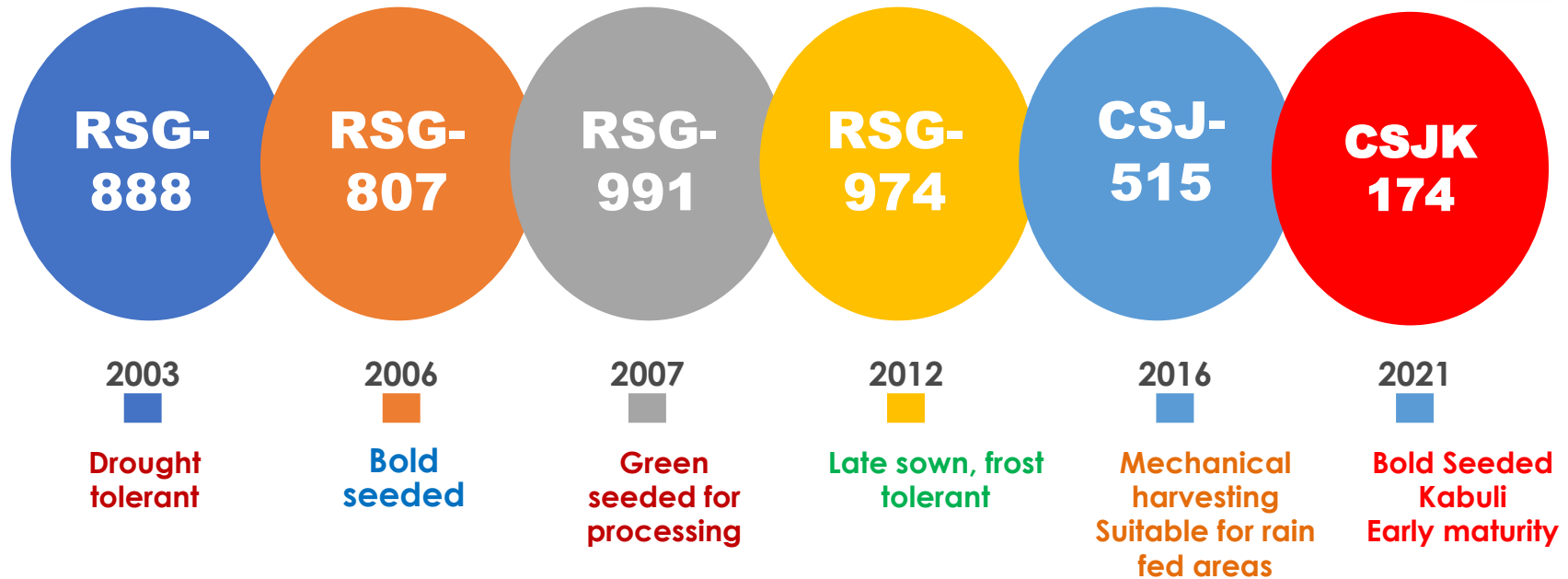
# Package of Practices Recommended

## *National Level*

- Seeds can be stored for nine months by treating them with Azadiractine 10000 ppm @ 7.5 ml/kg of mungbean seeds and then drying in the shade and store them. This also maintains the germination capacity of the seeds.
- Mungbean seeds can be stored safely for nine months by treating them with Flupyradifuran 200 SL @ 0.04 ml/kg. This also maintains the germination capacity of the seeds. The amount of insecticide should first be dissolved in 5 ml water and treated per kg of seeds and then stored after drying them in the shade. Do not use the treated seeds for eating.

# 5. AICRP on Chickpea (2002)

## Glorious Success: Chickpea (19)





# Recent Varieties Developed/ Released

## (Identified for National Release)

### **RSGD 1155 (Karan Chana 20)**

- Pedigree: RSG 807 x CSJD 884
- Higher grain yields (16.38 q/ha) in NEPZ Zone and 23-24 q/ha in NWPZ.
- The variety notified in “**The Gazette of India**” wide order no. **2082 dated May 13, 2025 (Serial No. 105)**
- Matures in 116 days (NEPZ), 130 Days (NWPZ) with medium-tall plants and purple flowers.
- The seeds are greenish brown with rough outer layer, round and wrinkled in shape with a pointed end.
- Medium-sized seed with a seed weight of 15-18 grams per 100 seeds.
- Moderate resistance to wilt, dry root rot, and stunt disease compared to check varieties and lower incidence of pod borer
- The variety has notable protein content (19.7%)



# Recent Varieties Developed/ Released

(Identified for State Release in ZREAC Rabi 2024)

## RSGD 926 (Karan Chhana-19)

The proposed chickpea variety RSGD 926 has given consistently higher seed yield (2304 kg/ha) as compared to checks RSG-931(1954 kg/ha), CSJ-515 (1931 kg/ha) and RSG-888(1929 kg/ha) .

- It has 17.96 % increase seed yield over RSG-931 followed by 19.37 % over CSJ-515 & 19.48 % over
- RSG-888.
- It has 17.78% Increase in seed yield over best RSG-888 in agronomical trials;
- It has 19.44 % increase over RSG-888 and 15.15 % increase over CSJ-515 under at farmer's field .
- It has 21.81 % increase over RSG-888, 14.30% increase over RSG-931 and 9.40 % increase over CSJ-
- 515 at ATC Trials.
- The proposed chickpea variety RSGD-926 (Karan Chhana-19) has medium maturity (135 days) and plants are medium tall with purple color flower. Seed are light brown, medium and oblate shape with the seed weight of 15-20g/100 seed.
- It is moderately resistant reaction against wilt, dry root rot and Stunt disease.
- Lower incidence of pod borer was observed in RSGD-926.
- The proposed variety has good protein (24.6%) and crude fibre content (11.05%).



# Recent Varieties Developed/ Released

(Identified for State Release in ZREAC Rabi 2024)

## RSGD 1245 (Karan Chhana-21)

The proposed chickpea variety RSGD 1245 has given consistently higher seed yield (2500 kg/ha)

- The proposed chickpea variety RSGD-1245 (Karan Chhana-21) has medium maturity (132 days) and plants are tall with purple color flower. Seed are light brown, bold and obviolate shape with the seed weight of 22-24g/100 seed.
- It is moderately resistant reaction against wilt, dry root rot and Stunt disease.
- Lower incidence of pod borer was observed in RSGD-1245.
- The proposed variety has good protein (22.6%) and crude fibre content (10.90%).
- **Suitable for Mechanical Harvesting**





# 6. AICRP on Integrated Farming System (2010-2011)



**Cropping  
System**



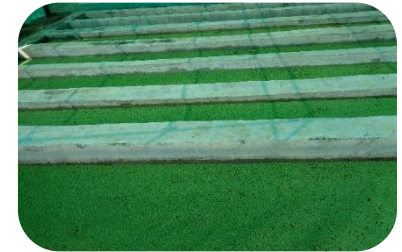
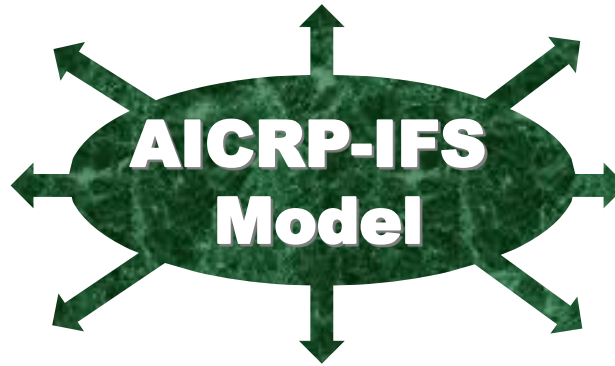
**Mixed Orchard**



**Vegetables**



**Vermi-  
Compost**



**Azolla**



**Dairy Cow (Gir)**



**Goatry**



**Poultry**

## On-going experiments/studies

Centre	Title of experiment	Year of Start	Year of completion
Main (Durgapura, Jaipur)	<b>CSR-(1-a):</b> Identification of cropping systems module for different farming systems	2023-2024	Long term
	<b>IFS Model:</b> Sustainable resource management for climate smart IFS / Development of region-specific Integrated Farming System models	2010-2011 2018-19 (Modified)	Long term
Sub (OFR), COA, Kumher, Bharatpur	On-Farm evaluation of management practices in pre dominant cropping system	2023	One year
	Diversification and improvement of existing farming system under small and marginal household condition	2023	One year



## Progress & Significant achievements

- ❑ Developed Bankable Model of Integrated Farming System for Rajasthan
- ❑ Developed Integrated Farming System for the farmers of Zone III of Rajasthan

**Source and amount of finance (Rs):** IIFSR, Modipuram Rs. 119.38 Lakhs

# 7. AICRP on Arid Legumes



## Glorious Success: Arid Legumes (Guar:15, Cowpea:6)



**RGC  
1066**

**2007**

Also Known as  
Lathi,  
Unbranched  
Variety  
Suitable for  
mixed cropping

**RGC  
1038**

**2009**

Suitable for  
semi-arid,  
sandy loam  
soils and rain-  
fed condition

**RGC  
1033**

**2011**

Medium maturity  
(100-105 days),  
branched with  
medium height  
with good grain  
yield potential  
(12.71 to 26.85  
qt./ha).

**RGr  
12-1**

**2018**

Early maturing  
(87 days),  
moderately  
resistance to  
bacterial  
blight and  
Alternaria leaf  
spot

**RGr  
18-1**

**2022**

Medium maturity  
(90-95 days),  
moderately  
resistance to  
bacterial blight  
and Alternaria  
leaf spot with  
yield potential of  
15.0q/ha

**CPD  
119**

**2018**

Cow Pea  
Variety,  
Medium bold  
(9.11 gm )  
white seeded  
variety and  
mature in 70  
days with seed  
yield of 6.0-  
8.0q/ha.

## Progress & Significant achievements

- Developed Clusterbean variety: RGr 20-70 , RGr 20-15

## Package of Practices Recommended

- Seed inoculation with microbial consortium @ 3-5 ml/kg seed and soil application of microbial consortium @ 4-5 lit/ha 5 lit/ha (Mix with FYM or organic manure) along with recommended doses of fertilizer recorded maximum seed yield of, net returns and B:C ratio of cluster bean

### ❖ National Level

- 100 % RDF + seed inoculation with microbial consortia ( 3-4 ml/kg seed) and soil application microbial consortia @ 5 l/ha, mixed with FYM showed yield advantage of 25.8% and 40.5 % over 100 % RDF in clusterbean and cowpea. The mean grain yield and B:C under this treatment were 1274 kg/ha (clusterbean) and 1395 kg/ha (cowpea) and 2.78 (clusterbean) & 3.92 (cowpea), respectively.

## 8. AICRP on Seed Technology Research (1982)

### **Progress & Significant achievements**

- In Seed Technology Research, a total of 17 trials were allotted in four components and successfully conducted at RARI Durgapura. The data were submitted to the Project Coordinating Unit.

## 9. AICRP on Vegetables Research (1970)

### **Progress & Significant achievements**

- Total 97 trials were conducted during the year 2024-25 out of them 68 were in crop improvement (45 varietal + 23 hybrid), 17 were biotic and abiotic stress, 06 were under Vegetable production , 05 were Disease management and 01 was Nematological trial.
- One recommendation also given in Okra crop for date of Sowing under changing climate scenario.
- Two Nutritional Kitchen Garden training also conducted at KVK, Bansathali and COA, Lalsot , during these training 100 farmers were benefited and also given to the vegetable seed, fertilizer, sprayer etc.





Distribution of Vegetable Seed Kit, Water Cane, Onion Seedling and other input to the TSP farm womens at COA, Lalsot  
(21.01.2025)



Distribution of Vegetable Seed Kit and other input to the TSP farm women at KVK Bansathali (Tonk)  
(17.02.2025)

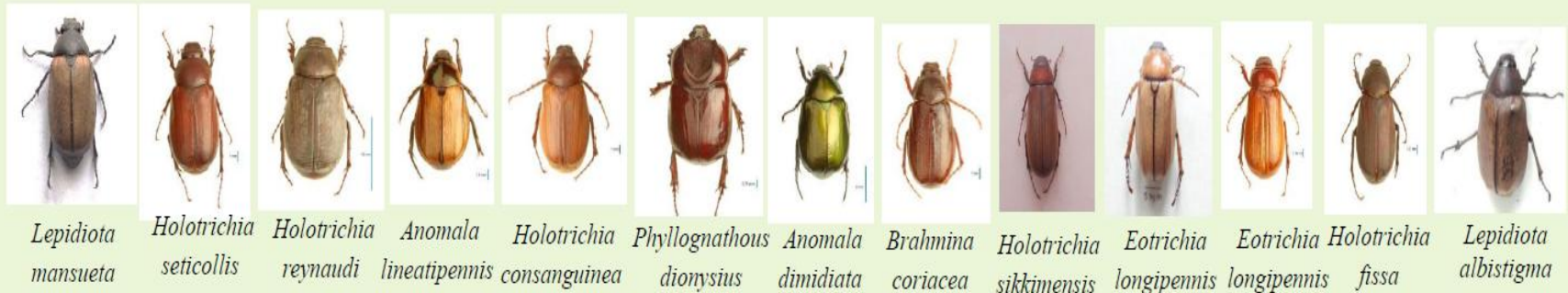
# 10. AINP on Onion and Garlic (2008)

## Package of Practices Recommended

- For the effective management of weeds in the onion, post-emergence application of Propaquizafop 5% + Oxyflurofen 12 % (Ready mix) @ 130g a.i. /ha at 40-45 DAT dissolved in 500 liters of water is recommended.

# 11. AINP on Soil Arthropod Pests

- **Initiation of the Project** : 1983 as AICRP on White Grubs
- **Renamed** : 2014 -All India Network Project on Soil Arthropod Pests
- **Focus** : Targets soil arthropod pests – mainly white grubs, cutworms, and termites
- **White grubs priority** : Main concern due to their economic impact, mechanization, and crop patterns
- **Species count** : 1000+ white grub species India; ~40 harmful (Melolonthinae & Rutelinae)
- **Key species** : *Holotrichia serrata*, *H. consanguinea*, *H. longipennis*, *Brahmina coriacea*, *Leucopholis* spp., *Lepidiota* spp., *Anomala dimidiata*, *Melolontha* spp.
- **Pest status** : White grubs are classified as national pests
  - *H. consanguinea*: Damages groundnut & sugarcane (Rajasthan, Bihar, Gujarat, UP); 20–100% losses
  - *H. serrata*: Affects pulses, vegetables, sugarcane (Karnataka, Maharashtra, AP, TN, Kerala)
  - *Leucopholis* spp.: Damages coconut, palms, tubers in peninsular India
  - *Lepidiota* spp.: Harms sugarcane (North India), maize (HP), potato (Assam)
  - *B. coriacea*: Causes over 50% tuber damage in NW Himalayas
- **Historical outbreak** : First major epidemic in Bihar (1956, sugarcane)



# Progress & Significant achievements



## Slow release nano gel formulation Shatpada whitegrubs lure- A Reusable Controlled Release Pheromone formulations for the Management of *Holotrichia consanguinea* and *Holotrichia setticollis*

- This pheromonal lure is effective in aggregation of beetles and the septa is effective up to three months.
- Slow release "Nano gel formulation of Methoxy benzene" technology has been tested in white grub endemic areas.
- Commercialized to one firm.

attractant for both the male and female adult beetles. The nanothene gel is reusable and recyclable. These products form non contact with food articles. This novel product is effective in causing the aggregation of beetles for upto one month, thereby saving the cost of daily loading septa. The cost of per sample is Rs. 10/- and is available at ICAR-NBAR, Bangalore and RARI, Jaipur. The catches of adult of white grubs per trap per day was upto 17.50.

**Shatpada whitegrubs lure- A Reusable Controlled Release Pheromone formulations for the Management of *Holotrichia consanguinea* and *Holotrichia setticollis*.**



**Slow release pheromone formulations**

**For more details contact:**  
The Director, NBAR, PB No2091, H.A. Farm Post, Bellary Road, Bangalore 560 024, Karnataka, India. Website: <https://www.nbar.ac.in/>  
Email: [shatpada@nbar.ac.in](mailto:shatpada@nbar.ac.in)  
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**ICAR-NBAR, Bangalore successfully commercialized a reusable nano gel formulation for the management of whitegrubs.**

The National Bureau of Agricultural Bioresources, Bangalore in collaboration with the ICAR State, Animal Husbandry and Fisheries, Bangalore has developed a nano gel formulation for the management of whitegrubs. The nano gel formulation is a reusable and recyclable product. The nano gel formulation is a reusable and recyclable product. The nano gel formulation is a reusable and recyclable product.



**For more details contact:**  
The Director, NBAR, PB No2091, H.A. Farm Post, Bellary Road, Bangalore 560 024, Karnataka, India. Website: <https://www.nbar.ac.in/>  
Email: [shatpada@nbar.ac.in](mailto:shatpada@nbar.ac.in)  
Contact number: 08023511982, 9902256372

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(ISO 1901:2008 Certified Institution)



## 12. AINP on Pesticide Residue & Contaminants

### **Progress & Significant achievements**

- Residue and persistence study of Solomon (Beta-Cyfluthrin 90 g/l + Imidacloprid 210 g/l OD) on cumin crop

## 13. Monitoring of Pesticide Residue at National Level

### **Progress & Significant achievements**

- Under the project 80 samples of vegetables (Cauliflower, Cabbage, Cucumber Brinjal and Okra) and fruits (Banana and Apple) were collected from farmer field, protected cultivation and mandi every month for monitoring the pesticide residues status in these agri. food commodities.



# Monitoring of Pesticide Residues at National Level

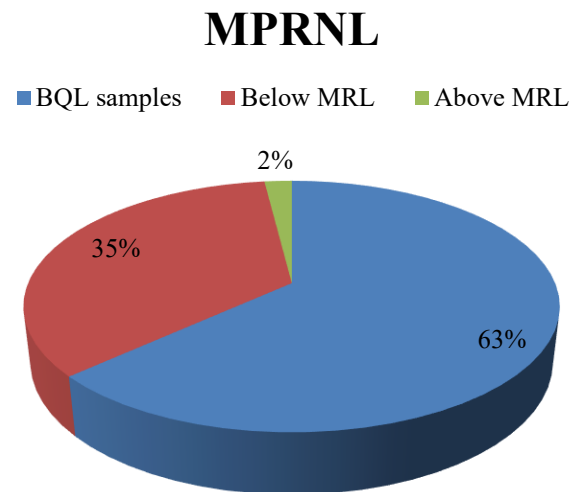
Pesticide residue status in protected polyhouses, farm gate, and market fruit and vegetable samples during Nov 2024 to Nov 2025

S.NO.	Location	Sample name	Collected sample	Tested sample	BQL samples	Below MRL	Above MRL
1	Jaipur, Tonk, Ajmer, Kotputli-Behror	Cauliflower, Cabbage, Brinjal, Cucumber, Apple, Banana	914	914	578	318	18

BQL- Below Quantification Limit  
MRL- Maximum Residue Limit



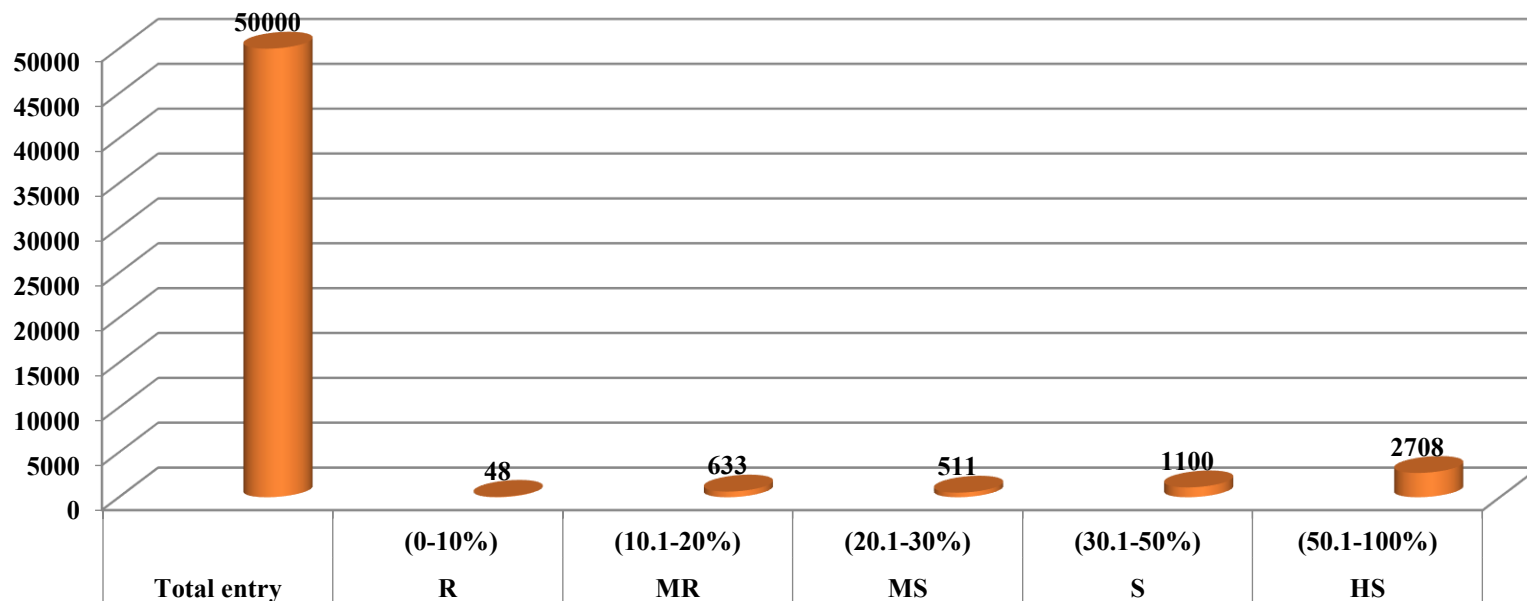
Pesticide Residue Laboratory



# 14. CRP Agro-biodiversity in Chickpea for DRR

## Progress & Significant achievements

Evaluation of 5000 lines of NBPGR under CRP Agro-biodiversity Project against DRR disease-*Rabi-2024-25*



No. of Entries	R (0-10 %)	MR (10.1-20%)	MS (20.1-30%)	S (30.1-50%)	HS (50.1-100%)
5000	48	633	511	1100	2708

Susceptible check L550 PDI up to >75 %

## Glimpses: Field day organized under CRP Agro-Biodiversity Project NBPGR at RARI Durgapura





# 15. Farmer friendly approach for vegetable cultivations under Low-Cost Poly house structures under RKVY

## Progress & Significant achievements

- Two low-cost poly house constructed and one folder developed to the farmers
- 500 sqm polyhouse with bamboo instead of GI Pipe constructed in Rs. 4,72,000 instead of Rs. 7,83,225



# 16. GKMS

## **Progress & Significant achievements**

- **Weather data recorded regularly.**
- **AAS bulletin prepared and disseminated on every Tuesday and Friday.**
- **SMS to farmers mobile sent regularly about AAS.**
- **Around Four lakh farmers getting the weather information via SMS.**



# Other Projects (10)

Name of projects	Source and amount of finance (Rs)	Duration/ period	Progress & Significant achievements during reporting year
<b>AICRP on Weed Management (Vol. Centre)</b>	60,000 Rs.	2021 to till date	➤ Developed 3 technologies on weed management (in barley, groundnut and clusterbean) which were included in the PoP of Zone IIIa. Also, developed “Weed Mobile App”
<b>Consortia for Research Platform (CRP) in ‘Bio-fortification in selected crops for nutritional security</b>	ICAR-IIRR, Hyderabad	2014 to continue	➤ The process of registering three pearl millet lines— RIB 15178, RIB 15185, and RIB 15186— identified for high iron (Fe) and zinc (Zn) content with NBPGR, New Delhi, is currently underway.
<b>ICAR-AICRP on Nematodes</b>	<b>ICAR &amp; State Govt. (75:25)</b>	2013 to continue	➤ Tested the Chickpea genotypes against root-knot nematode. To Developed the Management of Plant parasitic nematodes in Agri., Horti. crops & Protected cultivation systems
<b>Establishment of Centre of Excellence for Tissue culture for important fruits and flowers of Rajasthan</b>	State Govt. ₹ 2940 Lakh	Five Years (2024-25 to 2029-30)	➤ Tendering for Lab construction is in progress
<b>DUS on Barley</b>	PPVFRA, New Delhi 7,60,000	2015 Onwards	➤ Data recorded and submitted to PPVFRA, New Delhi.

<b>Name of projects</b>	<b>Source and amount of finance (Rs)</b>	<b>Duration/ period</b>	<b>Progress &amp; Significant achievements during reporting year</b>
<b>AICRP on Forage Crops &amp; Utilization, IGFRI, Jhansi. Volunteer centre, Since, 2020 handling as PI (Volunteer center)</b>	ICAR as per ICAR Rules; 1.0 Lakh	2020 to continue	Trials were conducted and a workshop is organized
<b>“Enhancement of FUE of magnesium rich phosphate (MEG-PHOS) and its effect on crop growth, yield and soil health under semi-arid conditions of Rajasthan”,</b>	Rajasthan State Mines and Minerals Ltd., Udaipur, <b>Budget -30.0 Lakhs;</b>	2025 onwards for three years	New Project
<b>Effect of Nano Nutrients and Biostimulants on Crop Performance and Soil Health”</b>	IFFCO, New Delhi Budget:34.67 Lakhs	2021- continue	Experiments were conducted and presented in workshop and ZERAC meetings. Recommendations were also released
<b>Studies on Response of POLY4 Fertilizer on Crop Growth, Yield and Soil Health under Semi-Arid Conditions of Rajasthan.</b>	AACN, New Delhi Budget: 39.00 Lakhs	2021- continue	Experiments were conducted and presented in workshop and ZERAC meetings. Recommendations were also released
<b>Development and Evaluation of Fortified Liquid Biofertilizers on Crop Performance and Soil Health</b>	IFFCO, New Delhi Budget: 10.175 Lakhs	2021- continue	Experiments were conducted and presented in workshop and ZERAC meetings. Recommendations were also released

# Testing Trials (10)

Title	Company	Amount (Rs)	Duration/ Season	Details
Evaluation of PIX 1084 on chilli crop	PI Industries Ltd. Gurgaon-122009	2,95,000	One Season	Dr. Y.K. Sharma, Asstt. Prof. (Hort.) conducted this trial on Chilli Crop
Evaluation of bio-efficacy of NNI 2101 30% w/v SC insecticide against shoot & fruit borer on Brinjal	Nichino India Private Limited A-24/25 APIE, Balanagar Hyderabad, Telangana, India	4,00,000	Two Seasons	Test insecticide: NNI 2101 30% w/v SC (27.2% w/w SC) Target pests : Shoot & fruit borer ( <i>Leucinodes orbonalis</i> )
Evaluation of bio-efficacy of NNI 2101 30% w/v SC against Diamond Back Moth on Cabbage	Nichino India Private Limited A-24/25 APIE, Balanagar Hyderabad, Telangana, India	4,00,000	Two Seasons	Test insecticide: NNI 2101 30% w/v SC (27.2% w/w SC) Target pests : Diamondback Moth ( <i>Plutella xylostella</i> )
<b>PVT 206:</b> Evaluation of Pearl millet hybrid LG 70502	Lima grain Field seed Pvt. Ltd., Hyderabad	2,50,000	<i>Kharif</i> 2024	The evaluation of pearl millet hybrid LG 70502 was conducted by Dr. S. K. Jain, and the data was submitted to Lima grain Field Seeds Pvt. Ltd., Hyderabad

<b>Title</b>	<b>Company</b>	<b>Amount (Rs)</b>	<b>Duration/ Season</b>	<b>Details</b>
<b>PVT 186:</b> Evaluation of Pearl millet hybrid PA 9190	Crystal Crop Protection Pvt. Ltd., Hyderabad	2,50,000	<i>Kharif</i> 2024	The evaluation of pearl millet hybrid PA 9190 was carried out by Dr. S. K. Jain, and the data was submitted to Crystal Crop Protection Pvt. Ltd., Hyderabad
Residue and persistence study of Pydiflumetofen 6.89% w/w+ Difenconazole 11.49% w/w SC in Cumin	Syngenta	3,00,000	Rabi 2024-25	The extracted samples of cumin leaves, cumin seed and cropped soil have been send to AAU, Anand for analysis work.
Evaluation of PIX 1084 on chilli	PI industry Ltd. Gurgaon	2,95,000	One Season	Co PI Dr. Sunita Gupta
Bio efficacy of Nematofree plus 1% WP ( <i>Pochonia chlamydosporia</i> ) against root knot nematodes in Capsicum	IPL Biologicals Ltd	2,00,000	Two Seasons	Data analysis on progress
Bio efficacy of Nematofree 2% AS ( <i>Paecilomyces lilacinous</i> ) against root knot nematodes in Cucumber	IPL Biologicals Ltd	2,00,000	Two Seasons	Data analysis on progress
Evaluation of tailing rock phosphate in groundnut crop	JS MinChem Udaipur	2,95,000	Kharif 2025	-

# Conferences/seminars/workshop

One day program on "Dialogue and Consultation with the stakeholders of Vegetables Oil Supply Chain" (November 3, 2025)





## Annual Group Meeting of All India Coordinated Research Project on Integrated Farming Systems (November 28-30, 2025)



## One day workshop on World Soil Day (December 5, 2025)





National Seminar on  
Emerging Trends in  
Information and  
Knowledge System in  
Digital Environment  
(December 06-07,  
2024)

IX<sup>th</sup> International  
Conference on Global  
Research Initiatives  
for Sustainable  
Agriculture and Allied  
Sciences (December  
10-12, 2024)



## 16<sup>th</sup> National Symposium of IAUA on “Protected Cultivation of Horticultural Crops; Challenges and Potential Solutions (December 29-30, 2024)



Hon'ble Governor of Rajasthan Shri Haribhau Kisanrao Bagde also laid the foundation stone for “Centre of Excellence for Plant Tissue Culture”



Seven Days Workshop  
on “Scientific  
Research and  
Technical Writing  
Skills” (November 23  
– December 02, 2024)



Workshop on  
“Charaghaah: Viksit  
Rajasthan ka aadhar”  
(September 25, 2024)



## National Conference on "Current Trends in Agricultural Research and Extension Services: Shaping the Future of Sustainable Agriculture and Food Security" (February 23-25, 2025)



## Chickpea Germplasm Field Day cum Workshop (March 12, 2025)





## Annual Group Meet on Kharif Pulses (May 07-09, 2025)



## Botanical Seed Bank Workshop (April 22, 2025)

# 24. Awards /recognitions to staff

Name of award	Name of recipient	Details
Young Researcher Award,	Dr. S. K. Bairwa, Asstt. Prof. (Hort.)	Society of Agriculture & Biological Sciences Research, Noida, in 8 <sup>th</sup> International Conference on “Recent Trends in Advancement of Agriculture, Horticulture, Livestock during 21-22 Nov., 2024
STAR Young Scientist Award	Dr. Bheem Pareek	Received “STAR Young Scientist Award” in 1 <sup>st</sup> STAR National Conference “Current trends in agriculture research and extension Services: Shaping the future of sustainable Agriculture and food Security” on 23-25 February 2025 at RARI Durgapura.
Certificate of Appreciation Award	Dr. Bheem Pareek	Certificate of Appreciation on significant contribution in organizing the 1st STAR National Conference on 23-25 February 2025 at RARI Durgapura.
STAR Professional Award	Dr.Seema Sharma	In 1 <sup>st</sup> STAR National Conference “Current trends in agriculture research and extension Services: Shaping the future of sustainable Agriculture and food Security” on 23-25 February 2025 at RARI Durgapura.
Excellence in Research Award	Dr Ram Niwas Choudhary	Received “Excellence in Research Award ” in 1 <sup>st</sup> in IX <sup>th</sup> International conference of Global Research Initiatives for Sustainable Agriculture & Allied Sciences on 10-12 Dec 2024 at RARI Durgapura
Conference Gold Award	Dr Ram Niwas Choudhary	Received “Conference Gold Award” for best oral presentation in 1 <sup>st</sup> STAR National Conference on 23-25 February 2025 at RARI Durgapura.

<b>Name of award</b>	<b>Name of recipient</b>	<b>Details</b>
Appreciation	Dr Ram Niwas Choudhary	Certificate of Appreciation on significant contribution in organizing the 1 <sup>st</sup> STAR National Conference on 23-25 February 2025 at RARI Durgapura.
Best Poster Presentation Award	Dr. Anju Kanwar Khangarot	Received in 1 <sup>st</sup> STAR National Conference “Current trends in agriculture research and extension Services: Shaping the future of sustainable Agriculture and food Security” on 23-25 February 2025 at RARI Durgapura.
Certificate of Appreciation Award	Dr. Anju Kanwar Khangarot	Certificate of Appreciation on significant contribution in organizing the 1st STAR National Conference on 23-25 February 2025 at RARI Durgapura.
Best oral presentation award	Dr. Shweta Gupta	Received in the ISWS Biennial Conference, held at BHU, Varanasi during 28-30 November, 2024.
STAR Young Scientist Award	Dr. Shweta Gupta	Received “STAR Young Scientist Award” in 1 <sup>st</sup> STAR National Conference “Current trends in agriculture research and extension Services: Shaping the future of sustainable Agriculture and food Security” on 23-25 February 2025 at RARI Durgapura.
Certificate of Appreciation Award	Dr. Shweta Gupta	Certificate of Appreciation on significant contribution in organizing the 1st STAR National Conference on 23-25 February 2025 at RARI Durgapura.

<b>Name of award</b>	<b>Name of recipient</b>	<b>Details</b>
STAR Excellence Award	Dr. S. K. Jain	For significant contribution in research and development in chickpea and millet crops by Science and Technology Applications Remodel (STAR) Society Jaipur (Rajasthan) on the occasion of National Conference organized by STAR society and SKNAU Jobner during, Feb. 23-25, 2025
Best oral presentation award (Silver Medel)	Dr. S. K. Jain	Received for paper presented entitled “Combining ability and heterosis studies for yield, grain iron and zinc content in pearl millet” during National Conference organized by STAR society and SKNAU Jobner during Feb. 23-25, 2025
Excellence in Research Award	Dr Ram Niwas Choudhary	Received “Excellence in Research Award ” in 1 <sup>st</sup> in IX <sup>th</sup> International conference of Global Research Initiatives for Sustainable Agriculture & Allied Sciences on 10-12 Dec 2024 at RARI Durgapura
Conference Gold Award	Dr Ram Niwas Choudhary	Received “Conference Gold Award” for best oral presentation in 1 <sup>st</sup> STAR National Conference on 23-25 February 2025 at RARI Durgapura.
Appreciation	Dr Ram Niwas Choudhary	Certificate of Appreciation on significant contribution in organizing the 1 <sup>st</sup> STAR National Conference on 23-25 February 2025 at RARI Durgapura.
Young Scientist Award by SGRRU-Dehradun on 21-22 Nov. 2024	Dr. Lokesh Kumar Jat	8 <sup>th</sup> International Conference-Recent Trends in Advancement of Agriculture : Horticulture, Livestock, and Allied Sciences



Name of award	Name of recipient	Details
Received appreciation certificate from ICAR- IIFSR, Modipuram for developing Bankable IFS- Model for Rajasthan.	Dr. Pratibha Singh	Biennial workshop of AICRP-IFS during 02-05 Dec., 2024 at PAU, Ludhiana
Received appreciation certificate from ICAR- IIFSR, Modipuram for developing IFS- Model for Rajasthan.	Dr. Pratibha Singh	Biennial workshop of AICRP-IFS during 02-05 Dec., 2024 at PAU, Ludhiana
STAR Excellence Award	Dr. Pratibha Singh	<i>Current Trends in Agriculture Research and Extension Services: Shaping the Future of Sustainable Agriculture and Food Security</i> ”, organized by the Science and Technology Applications Remodel Society in collaboration with SKNAU, Jobner during 23-25 February, 2025 at RARI, Durgapura.
Best Poster Presentation Award	Dr. Pratibha Singh	1 <sup>st</sup> International Farming System Conference (IFSC-2025) on Transforming Food, Land and Water System under Global climate Change organized by Farming System Research and Development Association at ICAR- IIFSR, Modipuram, Meerut
Best Poster Presentation Award	Dr. Pratibha Singh	<i>Current Trends in Agriculture Research and Extension Services: Shaping the Future of Sustainable Agriculture and Food Security</i> ”, organized by the Science and Technology Applications Remodel Society in collaboration with SKNAU, Jobner during 23-25 February, 2025 at RARI, Durgapura.

# 25. Publications

Category	<i>Number</i>	
	Staff	Students
Research articles in international journals	19	2
Research articles in national journals	43	10
Books	9	
Book chapters	40	5
Peer-reviewed research reports		
Manuals	3	
Conference/seminar/symposium papers	4	1
Reports	4	
Popular articles / Review papers / Extension bulletins	50	5
e-publications / open access articles	3	
<b>TOTAL</b>	<b>175</b>	<b>23</b>

# Seed Production

## A. Breeder Seed production during Rabi 2024-25

Crop	Production (q)
Muskmelon	0.045
Watermelon	0.030
Wheat	186.58
Barley	60.9
Gram	18.95
Coriander	1.30
<b>Total</b>	<b>267.80</b>

## B. Breeder Seed Production During Kharif 2024

Crop	Production (q)
Groundnut	224.25
Clusterbean	29.45
Cowpea	0.95
Urdbean	18.38
Pearlmillet	4.35
<b>Total</b>	<b>273.03</b>

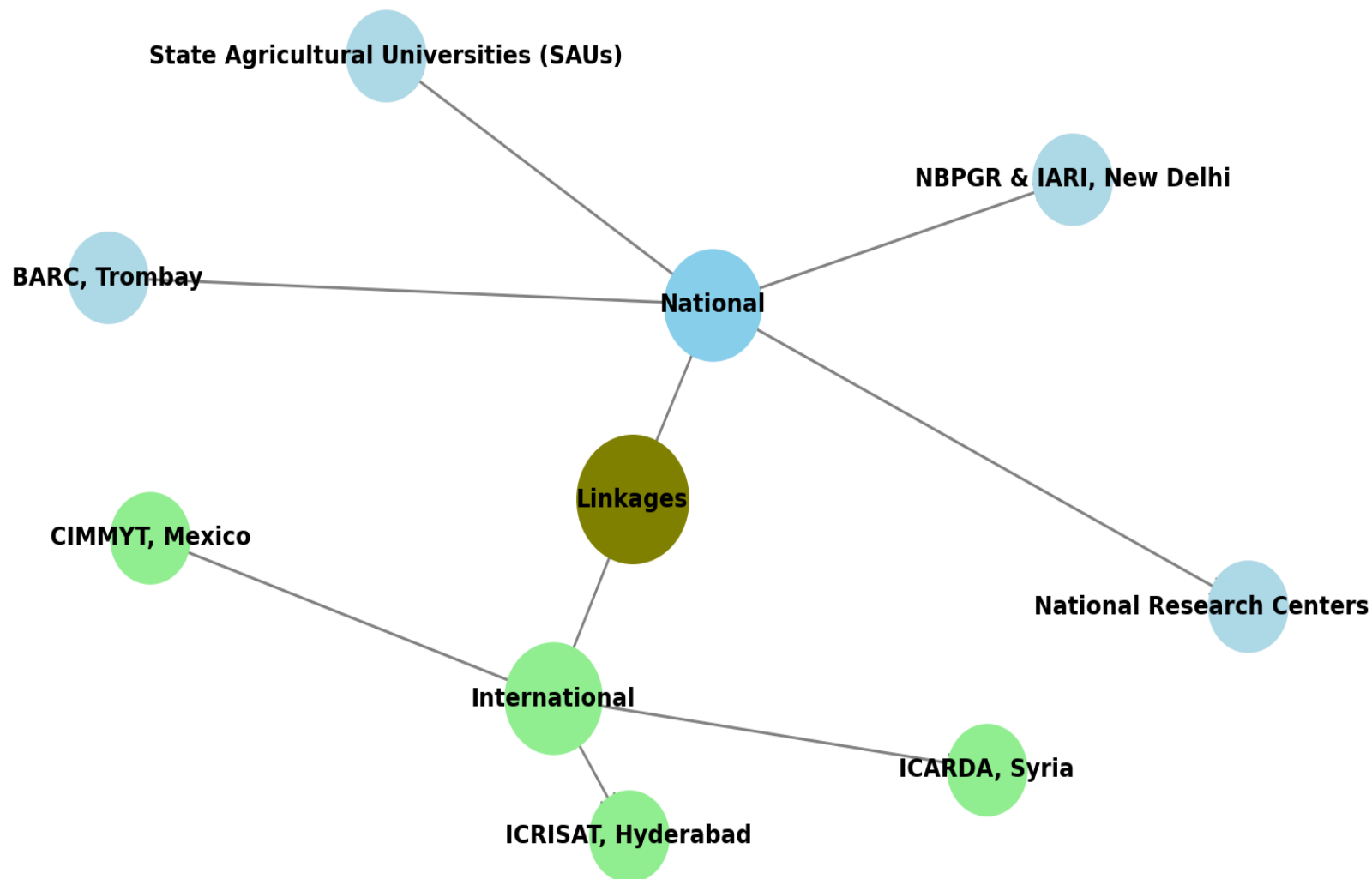
### **C. TFL/Foundation/ Certified Seed Production of Rabi and Kharif 2024-25**

<b>Crop</b>	<b>Production (q)</b>
Wheat	207.5
Barley	5.85
Gram	111.0
Mustard	145.80
Clusterbean	217.02
<b>Total</b>	<b>687.17</b>

### **D. Certified Seed Production of Rabi and Kharif 2024-25 (under seed hub)**

<b>Crop</b>	<b>Production (q)</b>
Moong	287.35
Urd	4.45
Gram	66.54
<b>Total</b>	<b>358.34</b>

# LINKAGES







**THANK YOU**