

## CLUSTER FRONTLINE DEMONSTRATION OF KHARIF PULSES (2019-20) PERFORMANCE DATA

1. Name of KVK: Deogarh

2. Year of establishment: 2006

3. Host Institution: OUAT, Bhubaneswar

4. Address: Krishi Vigyan Kendra Deogarh, At/PO-Purunagarh  
(Near Town High School), Dist.-Deogarh, Odisha, PIN-768119

5. District: Deogarh

6. State: Odisha

7. Performance of the demonstration:

A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha)	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
1.	Pigeonpea (PRG-176)	Local	8.6	160.0	36.0	1640.0	Variety : PRG-176, Seed treatment with Vitavax (carboxin+thiram) @ 2g per 1kg of seed, line sowing in spacing 90cm X 30 cm., application of pre-emergence herbicide Pendimethalin 30 %EC @3 lit /ha and release of Trichogramma chilonis with need based plant protection measures	50	20	16.5	9.2	12.85	45.52	30.27	27.6

**B. Economic parameters**

Sl. No.	Variety demonstrated & Technology demonstrated	Farmer's Existing plot				Demonstration plot			
		Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio
1	Variety : PRG-176, Seed treatment with Vitavax (carboxin+thiram) @ 2g per 1kg of seed, line sowing in spacing 90 cm X 30 cm., application of pre-emergence herbicide Pendimethalin 30 %EC @3 lit /ha and release of Trichogramma chilonis with need based plant protection measures	26,500/-	46,000/-	19,500/-	1.73	37,800/-	95,000/-	56,000/-	2.51

### C. Socio-economic impact parameters

Sl. No.	Crop and variety Demonstrated	Total Produce Obtained (kg/ha)	Produce sold (Kg/household)	Selling Rate (Rs/Kg)	Produce used for own sowing (Kg)	Produce distributed to other farmers (Kg)	Purpose for which income gained was utilized	Employment Generated (Man days/house hold)
1	Pigeonpea (PRG-176)	1285	900	73/-	257	130	Agriculture & household needs	98

### D. Farmers' perception of the intervention demonstrated

Sl. No.	Technologies demonstrated (with name)	Farmers' Perception parameters					
		Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	Suggestions, for change/improvement, if any
1	High yielding variety, seed treatment, Integrated Weed Management, Integrated Nutrient Management and Integrated Pest Management	Suitable	PRG-176 variety obtaining good yield in Deogarh district climate	Yes	No	Yes	This new high yielding variety of pigeon pea should be available to the farmers for improvement.

**E. Specific Characteristics of Technology and Performance**

<b>Specific Characteristic</b>	<b>Performance</b>	<b>Performance of Technology vis-a vis Local Check</b>	<b>Farmers Feedback</b>
High yielding variety	Enhancement of yield	Enhancement of yield against local check	Farmer observed and assessed specific characteristics of the demonstrated technologies and will adopt the technologies in coming year for crop production
Seed treatment	Reduce disease incidence	Reduce disease incidence against local check	
Pre-emergence herbicide	Check weed infestation	Reduce weed infestation against local check	
Fertilizer management	Micronutrient application improves fruit setting	More fruit setting from flower than local check	
Plant protection measures	Reduce pest and disease incidence	Reduce pest and disease incidence against local check	

**F. Extension activities under FLD conducted till dates:**

<b>Sl. No.</b>	<b>Extension Activities organized</b>	<b>Date and place of activity</b>	<b>Number of farmer attended</b>
1	Field day	11.02.2020, Kadapoda	100

**8. Sequential good quality photographs (as per crop stages i.e. growth & development)**



**Crop at Post-germination stage**



**Crop at vegetative stage**



**Crop at flowering initiation stage**



**Crop at Pod filling stage**

## 9. Farmers' training photographs

## 10. Quality Photographs of field visits/field days and technology demonstrated.

	
<p><b>Dignosis visit of Pod borers</b></p>	<p><b>Field Day</b></p>

## 11. Details of budget utilization

Crop (provide crop wise information )	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Pigeonpea	i) Critical input	1,62,000/-	1,62,000/-	Nil
	ii) TA/DA/POL etc. for monitoring	18,000/-	18,000/-	Nil
	iii) Extension Activities (Field day)			
	iv) Publication of literature			
<b>Total</b>		<b>1,80,000/-</b>	<b>1,80,000/-</b>	<b>Nil</b>

## 12. List of Farmer under FLD (Crop wise)

### a) Crop1-Pigeonpe

Name of farmer	Father's name	Village	Block	Aadhar No.	Email ID	GPS Coordinates (DDMMSS format)		Soil testing done (Yes/No)	Recommendations based on soil test value	Brief technology intervention	Variety	Area (ha)	Seed quantity used	Demo. Yield (q/ha)			Yield of local check q/ha	% increase
						Latitude	Longitude							H	L	A		
Binod Behera	Bhaba Behera	Talabahal	Reamal	873965165515		21°20'59.7"	84°38'22.3"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	Variety : PRG-176, Seed	PRG-176	0.4	8kg	13.2	8.2	10.7	8.6	24.4
Kumuda Bisawal	Keshab Biswal	Talabahal	Reamal	307267737474		21°20'59.3"	84°38'22.2"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	treatment with Vitavax	PRG-176	0.4	8kg	17.5	9.6	13.6	8.6	57.6
Kulu Behera	Gautam Behera	Talabahal	Reamal	613434163007		21°20'59.7"	84°38'23.8"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	(carbo xin+t hiram ) @ 2g per 1kg of seed, line sowin	PRG-176	0.4	8kg	16.4	10.3	13.4	8.6	55.2
Binod Pradhan	Siru Pradhan	Talabahal	Reamal	707948225399		21°20'57.2"	84°38'23.9"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG-176	0.4	8kg	14.3	9.5	11.9	8.6	38.4

Kishore Chandra Behera	Niladri Behera	Talabahal	Ream al	572525 862563		21°20'58.1"	84°38'25.1"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	g in spacin g 75 cm X 30 cm., applic ation of pre-emerg ence herbic ide Pendi metha lin 30 %EC @3 lit /ha and releas e of Trich ogram ma chilon is with need based plant protec	PRG- 176	0.4	8kg	1 4 . 5	1 0 . 5	1 2 . 5	8.6	45.3
Kuni Behera	W/o Gokula Behera	Talabahal	Ream al	431152 110220		21°20'58.0"	84°38'26.1"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG- 176	0.4	8kg	1 2 . 6	8 . 2	1 0 . 4	8.6	20.9
Asili Sendha	Hari Sendha	Talabahal	Ream al	350963 017623		21°20'57.1"	84°38'31.9"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG- 176	0.4	8kg	1 5 . 6	8 . 4	1 2 . 0	8.6	39.5
Bangali Behera	Sukru Behera	Talabahal	Ream al	624181 560488		21°20'53.9"	84°38'32.3"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG- 176	0.4	8kg	1 7 . 8	1 1 . 6	1 4 . 7	8.6	70.9
Balaram Behera	Sukru Behera	Talabahal	Ream al	242493 116603		21°20'51.5"	84°38'28.0"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG- 176	0.4	8kg	1 6 . 5	1 0 . 4	1 3 . 5	8.6	56.4
Indramani Biswal	Sankhali Biswal	Talabahal	Ream al	261159 018580		21°20'58.7"	84°38'39.3"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG- 176	0.4	8kg	1 6 . 7	1 0 . 7	1 3 . 7	8.6	59.3
Susama Pradhan	W/o Najar	Talabahal	Ream al	392654 782269		21°20'51.7"	84°38'32.3"	Yes	N-25kg/ha P-50kg/ha		PRG- 176	0.4	8kg	1 1	8 .	9 .	8.6	13.4



	Pradhan								K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	tion measu res				. 3	2	8		
Gautam Pradhan	Dholei Pradhan	Talabahal	Ream al	993385 152441		21°20'50. 3"	84°38'26.6 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG- 176	0.4	8kg	1 4 5	9 4	1 2 0	8.6	39.0
Soubhagini Swain	Dharani dhar Swain	Talabahal	Ream al	984630 371803		21°20'48. 3"	84°38'28.6 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 17.815kg/ha		PRG- 176	0.4	8kg	1 2 6	8 3	1 0 5	8.6	21.5
Jagdish Sahu	Sahade ba Sahu	Talabahal	Ream al	497318 765698		21°20'27. 9"	84°38'28.5 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG- 176	0.4	8kg	1 3 5	8 4	1 1 0	8.6	27.3
Jitu Pradhan	Nityana nda Pradhan	Talabahal	Ream al	518833 377946		84°38'28. 5"	84°38'28.1 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG- 176	0.4	8kg	1 6 7	8 4	1 2 6	8.6	45.9
Kasi Sahu	W/o Bida Sahu	Talabahal	Ream al	446765 520337		21°20'54. 4"	84°38'26.6 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG- 176	0.4	8kg	1 4 5	9 5	1 2 0	8.6	39.5
Sabita Sahu	W/o Madan Sahu	Malehi pada	Ream al	414060 660470		21°20'24. 3"	84°38'30.9 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha		PRG- 176	0.4	8kg	1 3 5	8 6	1 1 1	8.6	28.5

									Zn SO4 - 15kg/ha									
Pinki Sahu	W/o Sudersan Sahu	Maleihipada	Real	351790 320240		21°20'24.2"	84°38'31.6"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO4 - 15kg/ha	PRG-176	0.4	8kg	13.5	8.3	10.9	8.6	26.7	
Guru Dehuri	Linga Dehuri	Maleihipada	Real	250990 195510		21°20'23.5"	84°38'30.5"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO4 - 15kg/ha	PRG-176	0.4	8kg	12.4	10.5	11.5	8.6	33.1	
Benudhar Sandha	Khetri Sandha	Maleihipada	Real	497155 253166		21°20'23.2"	84°38'28.8"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO4 - 15kg/ha	PRG-176	0.4	8kg	11.6	8.6	10.1	8.6	17.4	
Bijuli Pradhan	Ananta Pradhan	Maleihipada	Real	982263 277126		21°20'21.4"	84°38'29.2'	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO4 - 15kg/ha	PRG-176	0.4	8kg	13.5	9.6	11.6	8.6	34.3	
Sika Pradhan	Ananta Pradhan	Maleihipada	Real	870569 486584		21°20'24.6"	84°38'30.4"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO4 - 15kg/ha	PRG-176	0.4	8kg	13.4	8.9	11.2	8.6	29.7	
Narmada Sandha	W/o Agadhu Sandha	Maleihipada	Real	870569 486584		21°20'23.5"	84°38'30.5"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO4 - 15kg/ha	PRG-176	0.4	8kg	14.6	8.8	11.7	8.6	36.0	

Deepak Biswal	Netra Biswal	Maleihi pada	Reamal	757369 212845		21°20'21.7"	84°38'30.8"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg	1 2 · 6	8 · 6	1 0 · 6	8.6	23.3
Rajendra Sahu	Kapiles war Sahu	Maleihi pada	Reamal	224038 880366		21°20'21.1"	84°38'30.8"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg	1 2 · 4	8 · 7	1 0 · 6	8.6	22.7
Jatra Maharna	Dirju Moharana	Maleihi pada	Reamal	631208 665332		21°20'20.6"	84°38'31.0"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg	1 6 · 4	8 · 4	1 2 · 4	8.6	44.0
Sabita Sahu	W/o Lokanath Sahu	Maleihi pada	Reamal	631208 665332		21°20'30.2"	84°38'18.4"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg	1 4 · 6	8 · 6	1 1 · 6	8.6	34.9
Anjana Swain	W/o Laxman Swain	Maleihi pada	Reamal	976204 115417		21°20'29.7"	84°38'17.3"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg	1 3 · 8	1 0 · 1	1 2 · 0	8.6	39.0
Manoj Swain	Bhola Swain	Maleihi pada	Reamal	570982 139735		21°20'30.8"	84°38'17.0"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg	1 3 · 5	8 · 8	1 1 · 2	8.6	29.7
Hiradhar Swain	Indukanta	Maleihi pada	Reamal	886884 935378		21°20'30.6"	84°38'15.3"	Yes	N-25kg/ha P-50kg/ha	PRG-176	0.4	8kg	1 2 ·	8 ·	1 0	8.6	21.5

	Swain								K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha					.4	5	.5		
Ranjit Behera	Rabi Behera	Maleihipada	Reamal	376379 231553		21°20'29.1"	84°38'15.1"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg		1 2 9	9 2	1 1 1	8.6	28.5
Aruna Sahu	Duryodhan Swain	Maleihipada	Reamal	231172 888799		21°20'32.0"	84°38'15.3"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg		1 6 5	1 0 3	1 3 4	8.6	55.8
Anadi Pradhan	Lambodar Pradhan	Kadapada	Reamal	763641 089065		21°20'03.2"	84°37'43.1"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg		1 3 8	8 7	1 1 3	8.6	30.8
Dharanidhar Dehury	Hara Dehury	Kadapada	Reamal	768405 590491		21°20'05.5"	84°37'41.0"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg		1 4 6	9 2	1 1 9	8.6	38.4
Bishnu Pradhan	Abhima nyu Pradhan	Kadapada	Reamal	940745 033224		21°20'02.3"	84°37'42.5"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG-176	0.4	8kg		1 4 6	9 7	1 2 2	8.6	41.3
Rashana nda Pradhan	Banam ali Pradhan	Kadapada	Reamal	568578 842808		21°19'50.5"	84°37'47.6"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha	PRG-176	0.4	8kg		1 6 2	9 7	1 3 0	8.6	50.6

									Zn SO <sub>4</sub> - 15kg/ha									
Himansu Pradhan	Abhima nyu Pradha n	Kadapa da	Ream al	442988 609134		21°19'49. 9"	84°37'48.5 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG- 176	0.4	8kg	1 4 · 2	8 · 7	1 1 · 5	8.6	33.1	
Ganeshram Sahu	Ratnak ar Sahu	Kadapa da	Ream al	548662 217547		21°19'48. 4"	84°37'49.1 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG- 176	0.4	8kg	1 3 · 7	9 · 8	1 1 · 8	8.6	36.6	
Birabara Sahu	Ratnak ar Sahu	Kadapa da	Ream al	697729 744586		21°19'47. 6"	84°37'48.3 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG- 176	0.4	8kg	1 5 · 2	1 0 · 3	1 2 · 8	8.6	48.3	
Bijuli Sahu	Punia Sahu	Kadapa da	Ream al	867755 002767		21°19'46. 7"	84°37'48.3 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG- 176	0.4	8kg	1 6 · 8	8 · 6	1 2 · 7	8.6	47.7	
Promod Pradhan	Chumb ala Pradha n	Kadapa da	Ream al	358622 722055		21°19'39. 7"	84°37'45.3 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG- 176	0.4	8kg	1 4 · 3	9 · 4	1 1 · 9	8.6	37.8	
Bairagi Pradhan	Khagrs war Pradha n	Kadapa da	Ream al	620782 731035		21°19'31. 7"	84°37'46.5 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG- 176	0.4	8kg	1 5 · 4	1 0 · 3	1 2 · 9	8.6	49.4	

Bandhu Kumura	Haguru Kumura	Kadapada	Reamal	875736794055		21°20'04.3"	84°37'48.5"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG-176	0.4	8kg	11.6	8.6	17.4
Pradip Pradhan	Chumbaka Pradhan	Kadapada	Reamal	839226109118		21°19'45.2"	84°37'48.5"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG-176	0.4	8kg	12.9	8.6	26.2
Indramani Behera	Birabar Behera	Kadapada	Reamal	431943254010		21°19'44.3"	84°37'50.0"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG-176	0.4	8kg	15.1	8.6	54.7
Arun Pradhan	Lingara Pradhan	Kadapada	Reamal	960827389288		21°19'42.1"	84°37'48.9"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG-176	0.4	8kg	11.9	8.6	23.8
Nayana Pradhan	Ghanashyam Pradhan	Kadapada	Reamal	476101314977		21°19'41.0"	84°37'49.4"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG-176	0.4	8kg	14.1	8.6	53.5
Manjulata Kumura	W/o Antaryami Kumura	Kadapada	Reamal	242904790831		21°19'39.4"	84°37'49.4"	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha		PRG-176	0.4	8kg	10.8	8.6	11.6
Pabitra Pradhan	Purna Chandr	Kadapada	Reamal	756150349196		21°19'38.6"	84°37'49.6"	Yes	N-25kg/ha P-50kg/ha		PRG-176	0.4	8kg	14.8	8.6	34.9

	a Pradha n								K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha					. 4	8	. 6		
Budhia Sahu	Dukhu Sahu	Kadapa da	Ream al	746195 114877		21°19'42. 2"	84°37'45.9 "	Yes	N-25kg/ha P-50kg/ha K-25kg/ha S-20kg/ha Zn SO <sub>4</sub> - 15kg/ha	PRG- 176	0.4	8kg	1 3 .6	1 0 .4	1 2 .0	8.6	39.5	



**Senior Scientist & Head  
KVK, Deogarh**