

Consortium Research Platform (CRP) project on “Agrobiodiversity-Pigeonpea (Characterization)”

Lead Centre: IIPR, Kanpur

Cooperating Centres: (i) ARS, Gulbarga (ii) SDAU S K Nagar & (iii)
PDKV, Akola

Center-Wise Progress Reports (2014-15):

1. IIPR, Kanpur:

Annual Progress Report for the year 2014-15

1. **Name of the Crop:** *Cajanus cajan* (Pigeonpea)
2. **Name of the Lead Centre:** IIPR, RS, Bhopal
3. **Name of the Nodal person with designation:** Dr. Dibendu Datta, Principal Scientist
4. **Name of the collaborating centres:**
5. **Name of Nodal person with designation:**
6. **Number of accessions received from ICAR-NBPGR:** 498
7. **Number of accessions sown for characterization/multiplication:** 498
8. **Number of accessions germinated as data were recorded:** 496
9. **Experimental design:** Augmented Design
10. **Checks used:** 3 common checks (BSMR 736, ICPL 87119 (Asha), PT0012 (Rajeshwari) one local check VKS11/24-2
11. **Details of the characterization:**

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	IIPR,RS, Bhopal	496	30.7.14 to 3.8.14	19	1.1.2015 to 25.4.2015	3 rd week of June, 2015	1 st week of June, 2015
2							
3							

4							
6							
-							
-							

*Please attach the list of descriptors/descriptor status

List of descriptors:

- i. Early Plant vigour
- ii. Plant Growth habit
- iii. Plant habit
- iv. Days to 50% Flowering
- v. Base Flower colour
- vi. Stem colour
- vii. Leaf pubescence
- viii. Flower streaking pattern
- ix. No. of primary branches per plant
- x. Pod pubescence
- xi. Pod shape
- xii. Pod colour
- xiii. Days to 80% maturity
- xiv. Seed yield per plant
- xv. 100 seed weight
- xvi. Seed colour pattern
- xvii. Seed eye length
- xviii. Base Seed colour
- xix. Seed shape

12. Same descriptors were used at all the locations: Yes/No

13. Detailed report on salient achievements of characterization with details of promising lines identified for important characters:

Among the lines that matured in 145-160 days, the lines namely, IC396824, IC 397508 , IC 423985, ICP 10792, ICP 1836, IC 74070, IC 74101, IC 376290 were comparatively better than other lines of the same maturity group (145-160 days) . IC 397508 gave an estimated yield of about 20 q/ha followed by IC 376290 (18.5 q/ha). Among the lines that matured in 161-180, the lines namely, IC397381, IC 396819, IC 376251, IC331201, ICP 12667, ICP 8143, ICP7881 , ICP 3620 were comparatively better than other lines of the same maturity group (161-180 days). IC 397381 gave an estimated yield of about 21 q/ha followed by ICP 12667 (20.8 q/ha). Among the lines that matured in less than 145 days, the lines namely, IC376302, IC 73976, IC 339087, IC 392220, IC22508, IC 339053, IC 339043, AS 35, SH/AC/136 and VKG 19/52 were comparatively better than other lines of the same maturity group (less than 145 days). IC 376302 gave an estimated yield of about 17.2 q/ha followed by ICP 339043 (16.5 q/ha). All these lines were evaluated for maturity and yield potential in 2015-16. In the evaluation, maturity ranged from 170-204 days and highest yield (25 q/ha) was observed in IC 376251 whereas, IC 339087 matured in 170 days with estimated yield of 17 q/ha. These lines were heterogeneous and need to be selfed for two more generations for their stabilization.

14. **Details of monitoring:** Monitoring was not done in 2014-15 season

15. **Papers Published:**

- (i) Papers published in peer reviewed journal (NAAS rating may be given)
- (ii) Papers presented at scientific meetings:
- (iii) Manuscripts under preparation:

16. **Patents/varieties and products developed or in pipeline:**

15 lines that gave more than 17q/ha grain yield in the evaluation trial of 2015-16 season, were selected for further evaluation and purification.

2. **ARS Gulbarga:**

Annual Progress Report for the year 2014-15

1. **Name of the Crop:** Pigeonpea

2. **Name of the Lead Centre:**

3. **Name of the Nodal person with designation:**

4. **Name of the collaborating centres:** ARS, Gulbarga (Kalaburagi)

5. **Name of Nodal person with designation:** Dr. Muniswamy, S Scientist (GPB)

6. **Number of accessions received from ICAR-NBPGR:** 500

7. **Number of accessions sown for characterization/multiplication:** 500

8. **Number of accessions germinated as data were recorded:** 493

Among 500 germplasm accessions seven germplasms were not germinated (*viz.*, IC350007, IC350298, IC344772, IC344812, IC344813, IC343909 and IC343833) rest of the genotypes showed good germination and crop stand.

9. **Experimental design:** Augmented Block Design (ABD)

10. **Checks used:** 03 (PT-012 (Phule Rajeswari), BSMR-736 and ICPL 87119)

11. **Details of the characterization:**

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	Gulbarga	493	30.07.2014 & 31.07.2014	19	Dec-20 To Jan- 25	23.7.2015	20.5.2015

*Please attach the list of descriptors/descriptor status : Enclosed separately

12. **Same descriptors were used at all the locations:** Yes/No

13. **Detailed report on salient achievements of characterization with details of promising lines identified for important characters:**

Days to maturity:

Days to maturity ranged from 114 (EC109901) to 204 days (IC342939). The genotypes EC109901 (114), IC344613 (118), EC109909 (118), C344667 (121), and EC552873 (123) were early maturing genotypes.

Number of pods per plant: The number of pods per plant ranged from 48 (IC407240) to 676 (IC407232). The genotypes IC407232 (676), IC407304 (581), IC343095 (569), IC407305 (494) and IC415622 (479) were recorded high mean values for this trait.

Hundred seed weight (g):

The hundred seed weight ranged from 5.09g (IC353799) to 12.11g (IC407207). The highest seed weight was recorded in IC407207 (12.11g) followed by IC407182 (12.08g), C353818 (12.08g), IC407476 (12.07g) and IC53891 (11.84g).

Seed yield per plant (g)

Seed yield per plant (g) ranged from 6.03 (IC407196) to 100.00g (EC552924). The highest seed yield per plant of 100.00g was recorded by the genotype EC552924 followed by IC415622 (98.67), IC407304 (96.67), EC109903 (89.33) and IC407303 (87.67).

Seed yield per hectare (kg)

Seed yield per hectare (kg) ranged from 169 kg/ha (IC407025) to 2758 kg/ha (IC407477). The highest seed yield per hectare of 2758 kg was recorded by the genotype IC407477 followed by IC349776 (2686 kg/ha), EC552924 (2625 kg/ha), IC355594 (2551 kg/ha) and IC343098 (2400 kg/ha).

14. Details of monitoring: Monitoring was not done

Sl. No.	Name of the Centre	Date of monitoring	Crop stage at the time of monitoring	Monitoring team members
1	---	---	---	---

15. Papers Published:

- (i) Papers published in peer reviewed journal (NAAS rating may be given): ----
- (ii) Papers presented at scientific meetings: ----
- (iii) Manuscripts under preparation: **02**

16. Patents/varieties and products developed or in pipeline:

The accessions IC 407476 and IC 407008 found wilt resistant with having desirable plant features, hence it will be multiplied and will be used in crossing programme

3. PDKV Akola:

Annual Progress Report for the year 2014-15

1. **Name of the Crop:** Pigeonpea
2. **Name of the Lead Centre:** IIPR Kanpur
3. **Name of the Nodal person with designation:** : Dr. I.P..Singh, **Project coordinator (pigeonpea)**
IIPR ,Kanpur
4. **Name of the collaborating centres:** Pulses Research Unit, Dr. PDKV, Akola
5. **Name of Nodal person with designation:** Dr. A.N. Patil. Senior Research Scientist
6. **Number of accessions received from ICAR-NBPGR:** 500
7. **Number of accessions sown for characterization/multiplication:** 500
8. **Number of accessions germinated as data were recorded:**487
9. **Experimental design:** Augmented Design
10. **Checks used:** PT 0012, BSMR 736
11. **Details of the characterization:**

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	Pulses Research Unit Dr PDKV, Akola.	487	5/08/2014	Stem colour, colour of Petal, Leaf shape, Pod colour, Plant height, No. Of branches, 100 seed wt ,pattern of streaks on petal ,pod onstriction ,etc.	2/12/2014 to 15/01/2015	01/10/2015	1/02/2015

*Please attach the list of descriptors/descriptor status

12. **Same descriptors were used at all the locations:** Yes

13. **Detailed report on salient achievements of characterization with details of promising lines identified for important characters:** High yield, Early maturity, Bold seeded, Drought tolerant

14. **Details of monitoring:** nil

15. **Papers Published:**

- (i) Papers published in peer reviewed journal (NAAS rating may be given) Nil

- (ii) Papers presented at scientific meetings: Nil
- (iii) Manuscripts under preparation: Nil

16. Patents/varieties and products developed or in pipeline: nil

4. SDAU S K Nagar:

Annual Progress Report for the year 2014-15

1. **Name of the Crop:** Pigeonpea
2. **Name of the Lead Centre:** Pulses Research Station, S.D. Agricultural University, Sardarkrushinager, Gujarat
3. **Name of the Nodal person with designation:** Dr. Y. Ravindra Babu
4. **Name of the collaborating centres:** PRS, S. K. Nager (Gujarat)
5. **Name of Nodal person with designation:** Dr. Y. Ravindra Babu (Principal Scientist Pulses)
6. **Number of accessions received from ICAR-NBPGR:** 500
7. **Number of accessions sown for characterization/multiplication:** 500
8. **Number of accessions germinated as data were recorded:** 500
All the germplasm accessions were germinated and having crop stand.
9. **Experimental design:** Augmented Block Design (ABD)
10. **Checks used:** 05 (PT-012 (Phule Rajeswari), BSMR-736 ,ICPL 87119, GT 101, GT-103)
11. **Details of the characterization:**

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing	No. of descriptors	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	S.K. Nager	500	21.07.2014	19	Jan- 15 to 30, 2015	2.06.2015	11.5.2015

*Please attach the list of descriptors/descriptor status : Enclosed separately

12. **Same descriptors were used at all the locations:** Yes
13. **Detailed report on salient achievements of characterization with details of promising lines identified for important characters:**
As per annexure -1
14. **Details of monitoring:** ----

Sl. No.	Name of the Centre	Date of monitoring	Crop stage at the time of monitoring	Monitoring team members
1	---	---	---	---

15. Papers Published:

Sl No.	Morphological Character s of Pigeon pea germplasm under study with score
1	Early Plant Vigour: 1=poor,2=Good,3= Very good, 99=others
2	Plant Growth: 1=Errect and compact,2=Semispreading,3= Spredding, 4= Trailing,99=others
3	Plant Habit: 1=Determinate,2=Semi determinate, 3= Indeterminate, 99=others
4	Days to 50 % Flowering: Quantitative
5	Base Flower colours: 1=Light,2=Light Yellow,3= Yellow, 4= Orange yellow, 99=others
6	Stem Colour: 1=Green,2=Sun red,3= Purple, 4= Dark purple,99=others
7	Leaf Pubescence: 1=Glabrous,2=Pubescent ,99=others
8	Streaks Patterns: 3= Sparse streaks ,5=Medium streaks,7= Dense Streaks 9= Uniform coverage of second colour 99=others
9	Primary Branches Per Plant: Quantitative
10	Pod Pubescense: : 1=Glabrous,2=Pubescent ,99=others
11	Pod Shape: 1=Flat,2=Cylindrical,3= Purple,,99=others
12	Pod colour: 1=Green,2=Purple,3=Green and Purple(Mixed), 4= Dark purple,99=others
13	Days to 80% Maturity: Quantitative
14	Seed yield per plant (g): Quantitative
15	100 Seed weight(g): Quantitative
16	Seed Colour Pattern: 1=Plain,2=Mottled ,3= Speckled, 4= Mottled and Speckled,5= Ringed, 99=others
17	Seed Eye Width:3= Narrow, 5= Medium, 7= wide, 99= Others
18	Base Seed Colour: 1=White,2=Cream,3=Orange, 4=Light Brown, 5= Reddish Brown,6= Light Grey, 7= Grey, 8= Purple, 9= Dark purple,10= Dark gray, 99=others
19	Seed Shape: 1=Oval2=Globular,3= Square 4= Elongate ,99=others
20	Protein Content(%):Quantitative
21	Biotic Stress Susceptibility: 1= Very low or no visible sign of susceptibility,3= Low,5= Intermediate,7= High, 9=Very high
22	Biotic notes: Text

16. (i) Papers published in peer reviewed journal (NAAS rating may be given): ----
- (ii) Papers presented at scientific meetings: ----
- (iii) Manuscripts under preparation: -

17. Patents/varieties and products developed or in pipeline:

Nil

Center-Wisr Progress Reports (2015-16):

1. IIPR, Kanpur:

Annual Progress Report for the year 2015-16

2. Name of the Crop: *Cajanus cajan* (Pigeonpea)
3. Name of the Lead Centre: Regional Station, Indian Institute of Pulses Research, Bhopal
4. Name of the Nodal person with designation: Dr. Dibendu Datta, Principal Scientist
5. Name of the collaborating centres:
6. Name of Nodal person with designation:
7. Number of accessions received from ICAR-NBPGR: 599
8. Number of accessions sown for characterization/multiplication: 599
9. Number of accessions germinated as data were recorded: 599
10. Experimental design: Augmented design
11. Checks used: 3 common checks (BSMR 736, ICPL 87119 (Asha), PT0012 (Rajeshwari) one local check VKS11/24-2
12. Details of the characterization:

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	IIPR,RS, Phanda, Bhopal	599	10.6.15	21	01.12.2016 to 05.04.2016	Seed will be despatched by 3 rd June	Data will be sent by 20 th May

*Please attach the list of descriptors/descriptor status

List of descriptors:

- xx. Early Plant vigour
- xxi. Plant Growth habit
- xxii. Plant habit
- xxiii. Days to 50% Flowering
- xxiv. Base Flower colour
- xxv. Stem colour
- xxvi. Leaf pubescence
- xxvii. Flower streaking pattern
- xxviii. No. of primary branches per plant

- xxix. Pod pubescence
- xxx. Pod shape
- xxxi. Pod colour
- xxxii. Days to 80% maturity
- xxxiii. Seed yield per plant
- xxxiv. 100 seed weight
- xxxv. Seed colour pattern
- xxxvi. Seed eye width
- xxxvii. Base Seed colour
- xxxviii. Seed shape
- xxxix. Seed yield per plot
- xl. Plant height

13. Same descriptors were used at all the locations: Yes/No

14. Detailed report on salient achievements of characterization with details of promising lines identified for important characters:

The 599 germplasm lines were characterised as per the descriptor traits and useful lines were identified.

List of promising lines with traits of interest

Sl No	Name of the line	Traits of interest
1	IC-299021	High yield potential
2	IC-299077	High yield potential
3	IC-347154	High yield potential
4	IC-368827	High yield potential
5	IC-368955	High yield potential
6	IC-56066	High yield potential
7	IC-56085	High yield potential
8	IC-94504	High yield potential
9	IC-368966	High yield potential
10	IC-47237	More primary branches & High yield potential
11	IC-14989	More primary branches
12	IC-15710	More primary branches
13	IC-16205-1	More primary branches
14	IC-16206	More primary branches
15	IC-22540	More primary branches
16	IC-33726	More primary branches
17	IC-33755	More primary branches
18	IC-299050	More primary branches
19	IC-347151	High 100 seed weight
20	IC-368999	High 100 seed weight
21	IC-369008	High 100 seed weight
22	IC-78333	Maturity less than 150 days
23	IC-78346	Maturity less than 150 days
24	IC-78339	Maturity less than 150 days

25	IC-78341	Plant height less than 60 cm & Maturity less than 150 days
26	IC-78342	Plant height less than 60 cm & Maturity less than 150 days
27	IC-78343	Plant height less than 60 cm & Maturity less than 150 days
28	IC-78344	Plant height less than 60 cm & Maturity less than 150 days
29	IC-78345	Plant height less than 60 cm & Maturity less than 150 days
30	IC-78337	Plant height less than 60 cm & Maturity less than 150 days
31	IC-78370	Plant height less than 60 cm & Maturity less than 150 days
32	IC-78335	Plant height less than 60 cm
33	IC-78336	Plant height less than 60 cm
34	IC-94496	Plant height less than 60 cm

Report is being compiled. It will be ready in 1st week of June.

15. Details of monitoring:

Sl. No.	Name of the Centre	Date of monitoring	Crop stage at the time of monitoring	Monitoring team members
1	IIPR, Regional Station, Bhopal	8.12.2016	Maturity stage for early lines and Pod filling stage for mid early lines and flowering stage for medium duration lines	Dr. Neeta Singh Dr. Dibendu Datta

16. Papers Published:

- (i) Papers published in peer reviewed journal (NAAS rating may be given)
- (ii) Papers presented at scientific meetings:
- (iii) Manuscripts under preparation:

17. Patents/varieties and products developed or in pipeline:

Lines maturing in 140-150 days were identified. Other promising lines were selected for evaluation. Seed of these lines are multiplied for evaluation and use in breeding programme.

2. ARS Gulbarga:

Annual Progress Report for the year 2015-16

1. Name of the Crop: Pigeonpea

2. **Name of the Lead Centre:**
3. Name of the Nodal person with designation:
4. **Name of the collaborating centres:** ARS Gulbarga (Kalaburagi)
5. Name of Nodal person with designation: Dr Muniswamy,S, Scientist (GPB)
6. **Number of accessions received from ICAR-NBPGR:** 600
7. **Number of accessions sown for characterization/multiplication:** 600
8. **Number of accessions germinated as data were recorded:** 600
9. **Experimental design:** Augmented block design (ABD)
10. **Checks used:** 03 (PT-012, BSMR-736 and ICPL 87119)
11. **Details of the characterization:**

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	Gulbarga	600	17 th July and 23 th July	25	Dec-20 th to Feb-16 th	Yet to be sent	Yet to be sent

*Please attach the list of descriptors/descriptor status: Enclosed separately

12. **Same descriptors were used at all the locations:** Yes/No

13. Detailed report on salient achievements of characterization with details of promising lines identified for important characters:

Days to maturity: It ranged from 125 (IC 490168) to 187 days (IC 489957). The genotypes IC 490168 (125.00), IC490170 (130), IC490219 (130.00), IC424196 (131.00) and IC441980 (133.00) were early maturing genotypes.

Number of pods per plant: It ranged from 25.7 to 581.3. The genotypes IC424003 (581.33), IC424002 (469), IC423739 (441.00), IC423843 (379.00) and IC 423959 (379.00) were recorded high mean values for this trait.

Hundred seed weight (g): It ranged from 5.10g (IC 489692) to 14.4g (IC 423860). The highest seed weight was recorded in IC 423860 (14.4g) followed by IC423887 (11.5g) IC423914 (11.8g), IC423952 (11.1g) and IC423949 (10.9g).

Seed yield per plant (g) Seed yield per plant (g) ranged from 0.08 to 72.22g .The highest seed yield per plant of (72.22g) was recorded by the genotype IC423746 followed by IC423748 (66.2), IC424065 (64.8), IC 423923 (64.2) and IC423839 (60.9).

Seed yield per hectare (kg)

Seed yield per hectare (kg) ranged from 69 kg/ha to 2509 kg/ha (IC423875).The highest seed yield per hectare of 2509 kg was recorded by the genotype IC423875 followed by

IC423924 (2462 kg/ha), IC423739 (2420 kg/ha), IC423746 (2314 kg/ha) and IC423741 (2304 kg/ha).

14. Details of monitoring:

Sl. No.	Name of the Centre	Date of monitoring	Crop stage at the time of monitoring	Monitoring team members
1	ARS, Kalaburagi	07.12.2015	Flowering to Pod filling	Dr N Sivaraj Principal Scientist NBPGR Dr. Muniswamy,S Scientist (GPB)

15. Papers Published:

- (i) Papers published in peer reviewed journal (NAAS rating may be given)
- (ii) Papers presented at scientific meetings:---
- (iii) Manuscripts under preparation: will be prepared after finalisation of report

16. Patents/varieties and products developed or in pipeline: The following are the promising lines identified for next year evaluation.

Sl.No	IC No	Maturity	Yld/Plot	100 Seed
1	IC423754	170	1.61	10.3
2	IC423865	161	1.56	9.9
3	IC424098	163	1.42	10.1
4	IC490228	133	1.38	9.3
5	IC441958	133	1.38	8.6
6	IC423892	157	1.34	9.6
7	IC423887	164	1.34	11.5
8	IC423949	165	1.29	10.9
9	IC423844	160	1.29	9.8
10	IC423854	155	1.27	9.1

3. PDKV Akola:

Annual Progress Report for the year 2015-16

- 2. Name of the Crop:** Pigeonpea
- 3. Name of the Lead Centre:** IIPR Kanpur.
- 4. Name of the Nodal person with designation:** Dr. I.P..Singh, **Project coordinator (pigeonpea) IIPR ,Kanpur**
- 5. Name of the collaborating centres:** Pulses Research Unit, Dr. Panjabrao Deshmukh krrishi vidyapeeth, Akola. (maharastra)
- 6. Name of Nodal person with designation:** Dr. A.N. Patil. Senior Research Scientist
- 7. Number of accessions received from ICAR-NBPGR:** 589
- 8. Number of accessions sown for characterization/multiplication:**589

9. Number of accessions germinated as data were recorded:562

10. Experimental design: Augmented Design

11. Checks used: PT 0012, BSMR 736

12. Details of the characterization:

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	Pulses Research Unit Dr PDKV, Akola.	562	24/07/2015	Germination count, Stem colour, colour of Petal, Leaf shape, Pod colour, Plant height, No. Of branches, 100 seed wt etc.	05/12/2015 to 27/01/2016	17/03/2016	Compilation, is in progress

*Please attach the list of descriptors/descriptor status

13. Same descriptors were used at all the locations: Yes

14. Detailed report on salient achievements of characterization with details of promising lines identified for important characters: High yield, Early maturity, Bold seeded, Drought tolerant.

15. Details of monitoring:

Sl. No.	Name of the Centre	Date of monitoring	Crop stage at the time of monitoring	Monitoring team members
1	RARS Warangal, Telangana	20/12/2015	Podding stage	1) Dr. P .Jagmohan Rao 2) Dr .G. Veeranna 3) Dr. A. Vijaya Bhaskar Rao
2	Project co-ordinator (pigeonpea) IIPR ,kanpur	21/12/2016	Podding stage	Dr I P. singh

16. Papers Published:

- (i) Papers published in peer reviewed journal (NAAS rating may be given) : Nil.
- (ii) Papers presented at scientific meetings: Nil.

(iii) Manuscripts under preparation: Nil.

18. **Patents/varieties and products developed or in pipeline:** Nil.

4. SDAU S K Nagar:

Annual Progress Report for the year 2015-16

1. **Name of the Crop:** Pigeonpea
2. **Name of the Lead Centre:** Pulses Research Station, S.D. Agricultural University, Sardarkrushinager, Gujarat
3. **Name of the Nodal person with designation:** Dr. Y. Ravindra Babu
4. **Name of the collaborating centres:** PRS, S. K. Nagar (Gujarat)
5. **Name of Nodal person with designation:** Dr. Y. Ravindra Babu, Principal Scientist (Pulses)
6. **Number of accessions received from ICAR-NBPGR:** 600
7. **Number of accessions sown for characterization/multiplication:** 600
8. **Number of accessions germinated as data were recorded:** 600
9. **Experimental design:** Augmented block design (ABD)
10. **Checks used:** 03 (PT-012, GT-101 and ICPL 87119)
11. **Details of the characterization:**

Sl. No.	Name of the Centre	No. of accessions characterized/ multiplied	Date of sowing (From – to)	No. of descriptors*	Date of harvesting (From – to)	Date of dispatch of data and seed material to NBPGR	
						Seed	Data
1	S. K. Nagar	600	4-07-2015	20	30 Jan. to 10 th Feb, 2016	27-4-2016	30-3-2016

*Please attach the list of descriptors/descriptor status: Enclosed separately

12. **Same descriptors were used at all the locations:** Yes/No

13. **Detailed report on salient achievements of characterization with details of promising lines identified for important characters:** Annexure II attached

14. Details of monitoring:

Sl. No.	Name of the Centre	Date of monitoring	Crop stage at the time of monitoring	Monitoring team members
1	PRS, S.K .Nagar	21-08-2015	Vegetative growth	Dr Jyoti kumari and Dr. Sandeep Kumar
2	PRS, S.K .Nagar	29-01-2016	Harvesting Stage	Dr. Neeta Singh

15. Papers Published: Nil

- (i) Papers published in peer reviewed journal (NAAS rating may be given)
- (ii) Papers presented at scientific meetings:---
- (iii) Manuscripts under preparation: will be prepared after finalisation of report

16. Patents/varieties and products developed or in pipeline: The following are the promising lines identified for next year evaluation.-Nil

Signature:



Name: I. P. SINGH

Designation: Project Coordinator (Pigeonpea)

Date: 10.06.2016