

**‘Richa 2000’ – a new variety of Pigeon pea (*Cajanas cajan*)**

**Name of the Innovator:** Mr. Rajkumar Rathore, Madhya Pradesh

**Age:** Education:

**Summary of the Innovation:**

Farmer has developed a new variety of pigeon pea using twin skills of breeding and farm practice viz., (A) selecting plants from the population of ICPL 7 with twin coloured big flower, long leaves, bunchy type pod bearing at the top and plant remaining green for a longer duration as compared to other plants in the population and (B) topping a day prior to weeding (45, 90 DAS). Both the practice were tried to facilitate better growth, restrict vegetative growth, enhance more top branching and to increase over yield.

Farmer observed that the plants on which both the criteria were practices bore six branches at 45 DAS and total of 12-14 branches at 90 DAS when, 1<sup>st</sup> and 2<sup>nd</sup> topping was practiced, respectively. At the end of three years of continuous trials and experimentation farmer has standardized the variety as RICHA 2000 and practice of topping at (45 and 90 DAS). He claims following features of the new variety to be superior to other varieties that are sold in the market viz., enhanced yield (24 quintals/acre), more branches / plant (12-14) and more pods/plant (700 – 800), dual picking (1st week of December and 2nd week of April) and synchronous maturity.

<b>CHARACTERS</b>	<b>RICHA</b>	<b>ICPL 87</b>
Sowing time	June – July	June-July
Seed rate	3 kg/acre	8-10/acre
Spacing	3ft * 3 ft	1ft * 1 ft
Plant height	6 - 7 ft.	5- 5.6 ft
Growth type	Pods are at the top and hence branches bow down at maturity. Bunchy growth habit	Erect and pods are scattered all over the plant
Pod length	3 - 4 inches	1.5 – 2 inch
Number of branches	12 – 14	5-6
Number of pods/plant	700 – 800	150 – 200
Seeds/pod	5 –6	2 – 3
Yield	24 quintal/acre (2 pickings)/ acre	5 – 6 quintal/acre
Seed type	Bold	Normal
Seed Colour	Dark red	Red
Flower colour	Red and yellow	Yellow
Pickings/year	Twice (1st Dec and 2nd Apr )	One (December)

Farmer in past five years has provided seeds to various farmers in Chattisgarh, Gujarat, Andhra Pradesh, Uttar Pradesh, West Bengal, Punjab, Haryana, Maharashtra and Madhya Pradesh at the rate Rs. 300 / Kg. He actively disseminates large quantity of seeds through IFFCO under their CORDET programme.

Farmers who have sown the variety are were much impressed with the type of yield and its yield and IFFCO on observing performance at various locations provides free stall to Mr RajKumar to showcase his variety at various agricultural exhibitions

#### **EXTERNAL EXPERTS COMMENTS**

Cooperative Rural Development trust, IFFCO, Gandhinagar after conducting trials of the variety in 2004-05 found that the growth was very good. The seeds obtained were distributed to farmers, who were very much impressed with the performance of new variety.

#### **FORMAL RAC DISCUSSION**

- One of the main features is that it is synchronous in maturity and yield can be taken twice a year. Another special feature is that the bearing of pods is in upper portion of plant, so it is easy to harvest the crop mechanically.
- **Dr. A.K Singh** told that there is lot of variation in pigeon pea crop. ICRISAT has developed some early maturing varieties of pigeon pea, which has got synchronous maturity. He also added that ICPL 87 is an annual variety and it should not be compared with the two pickings (as in case of the farmer's variety). Yield and other attributed of this variety should be compared with some medium and long duration germplasm of ICRISAT. All early maturing varieties are determinate types.
- **One of the experts** made a point that the variety needs to be compared with the long duration variety/perennial variety for its performance. Further, there was a common view among the experts that the characteristics claimed by the innovator should be validated through the pioneering institutes in field of Pigeon pea research viz., ICRISAT, AICRP, etc. **Also characteristics claimed can be validated through checking with the characteristics in the germplasm database of NBPGR and ICRISAT.**

#### **RAC FOLLOW UP SUGGESTED:**

Write to Dr. Varaprasad and ICRISAT for there comments on variety.

#### **ACTION TAKEN:**

Written to ICRISAT for released variety manual

Written to Dr. Varaprasad.

#### **FEEDBACK RECEIVED POST RAC:**

Dr. Varaprasad, NBPGR, Hyderabad Regional Station quotes 'I appreciate the innovative procedure by Shri Rajkumar Rathore who has developed "Richa" by extending a horticultural practice to a pulse crop. The germplasm selected as "Richa" by the farmer is also responding excellently to this innovative practice as evidenced by photos and video clippings. I recommend the "Richa" pigeonpea farmer Shri Rajkumar Rathore, be awarded for his contribution'.