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Short Communication

Adoption Gap in Mung Bean and Moth Bean Production Technology in Arid Zone of Rajasthan

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Pulses are grown in about 3.35 million hectare area in Rajasthan, which is about 16% of the total cropped area of the state. Mung bean and moth bean are the main rainfed crops of arid zone. The average productivity of these crops is very low (250-300 kg ha^{-1}). Despite many factors, low adoption of improved technologies is one of the important reasons for low production. Lot of technologies have been developed by research institutes and agricultural universities, but few of them have been adopted by the farmers. There may be gap between the technologies developed at Research Station and technologies adopted by the farmers. Keeping this in view the present study was under taken to find out the adoption gap in mung bean and moth bean production technology.

The study was conducted in two villages of Luni Panchayat Samiti of Jodhpur District selected under lab to land program. Forty farmers (20 beneficiaries and 20 non-beneficiaries) were randomly selected. Beneficiary farmers were provided, inputs (seed of HYV and fertilizers), technical guidance. Non-beneficiary farmers were not provided any kind of input and technical guidance. A structured interview schedule was developed on mung bean and moth bean for data collection from the respondents. To assess the adoption gap, important practices namely high yielding varieties, seed rate, seed treatment, time of sowing, fertilizer application and plant protection measures of mung bean and moth bean were considered. The adoption gap index was worked out by following formula:

$$\text{Adoption} = \frac{R-A}{R} \times 100$$

where,
R- Recommended technology
A- Technology adopted by farmers.

The overall adoption gap was 46.88 and 65.63% in mung bean and 52.96 and 69.03% in moth bean in beneficiary and non-beneficiary farmers, respectively (Table 1).

In case of non-beneficiary farmers, the maximum adoption gap was 86.43 and 90.18% in seed treatment followed by plant protection measures (85.34 and 87.37%) and fertilizer application (84.20 and 85.62%) for mung bean and moth bean, respectively, while it was 67.45 and 70.31, 52.50 and 56.75, and 72.31 and 76.40%, respectively, in same practices in beneficiary farmers. The adoption gap in high yielding varieties, seed rate and time of sowing was found 39.49 to 58.72% for mung bean and 35.45 to 75.41% for moth bean, respectively, in

Table 1. Adoption gap in respect of use of recommended mung bean and moth bean production technology

Practices	Adoption gap (%)					
	Mung bean			Moth bean		
	B	NB	't' value	B	NB	't' value
High yielding varieties	42.15	58.72	1.71NS	55.25	75.41	2.36*
Seed rate	26.67	3961	4.50**	30.42	40.22	3.45**
Seed treatment	67.45	86.43	2.27*	70.31	90.18	4.08**
Time of sowing	20.15	39.49	3.06**	28.67	35.45	1.14 NS
Fertilizer application	72.31	84.20	2.01*	76.40	85.62	1.40 NS
Plant protection measures	52.50	85.34	4.50**	56.75	87.30	4.07**
Overall	46.88	65.63	5.78**	52.96	69.03	6.25**

B: Beneficiaries, NB: Non-beneficiaries
NS: Non-significant, *Significant at 5% level, **Significant at 1%.

non-beneficiary farmers, whereas it was 20.15 to 42.15% for mung bean and 28.67 to 55.25% for moth bean in beneficiary farmers. Similar findings were also reported by Nikhade *et al.* (1994).

The adoption gap in mung bean was found to be significantly higher in non-beneficiary farmers than the beneficiary farmers in the seed rate, seed treatment, time of sowing, fertilizer application and plant protection measures. Whereas, in moth bean it was higher in respect of high yielding varieties, seed rate, seed treatment and plant protection measures.

In both the pulse crops, the adoption of seed rate and time of sowing is much higher than other practices by both the categories of the farmers. The recommended practices in respect of seed treatment and fertilizer application had little adoption even at the beneficiary field in both the crops. In soybean crop, more than 50% adoption gap has been reported by Nikhade *et al.* (1993)

It is concluded that overall adoption gap was 46.88 and 65.63% in beneficiary and non-beneficiary farmers, respectively, in mung bean production technology, whereas it was 52.96 and 69.03% in moth bean production technology in beneficiary and non-beneficiary farmers. The adoption gap was more in all the practices in non-beneficiaries as compared to beneficiaries in mung bean and moth bean production technology. The study suggests that the extension workers, subject matter specialists and mass media should concentrate and spend more time on the practices which are not known to the most of the farmers.

References

Nikhade, D.M., Bhople, R.S. and Sarkharkar, V. S. 1994. Adoption of improved practices of soybean crop. *Indian Journal of Extension Education* 29(3&4): 76-80.

Nikhade, D.M., Bhople, R.S. and Mohadikar, D.G. 1994. Adoption in paddy technology among contact and non-contact farmers. *Agricultural Extension Review* 6(5): 2-25.