

PERCEPTION OF FARMERS ABOUT THE TECHNOLOGICAL TRAITS OF MOONG CULTIVAR GAM-5 (ANUBHAV BRAND SEED) OF AAU

V. B. Patel¹, P. C. Patel² and J. K. Patel³

1 Assistant Professor, RRS, AAU, Anand - 388110

2 Assistant Extension Educationist, Directorate of Extension Education, AAU, Anand - 388110

3 Associate Extension Educationist, EEI, AAU, Anand - 388110

E-mail: vijaykumar@aau.in

ABSTRACT

Quality crop seeds are produced annually by the Regional Research Station of the Anand Agricultural university for the farming community. The investigation was conducted on a 100 randomly selected beneficiaries of Anubhav brand seed (GAM-5) adopted farmers. The results revealed that in case of Perception of farmers about different technological traits of GAM-5 variety Compatibility Cost effectiveness, Relative advantage were mostly perceived by the farmers whereas triability; practicability, and accessibility were the least perceived by the farmers.

Keywords: perception, GAM-5, technology traits, mung

INTRODUCTION

Seed is the most crucial component in farming. A significant factor in agricultural productivity is seed. The farming community can obtain high-quality seeds of various important crops from Anand Agricultural University. Mung bean is cultivated in all the seasons in India. Panchmahal, Kheda, Dahod and Vadodara are major summer mung bean grown area in the middle Gujarat. A variety GAM 5 released in 2015 having a resistant to YMV for summer cultivation in middle Gujarat. This variety was grown among farmers since last two years. The present investigation was carried out to know the perception of this variety among farmers growing GAM 5 variety. Mungbean (*Vigna radiata* L. Wilczek), popularly known as the green gram, believed to be native crop of India, is a plant species in the legume family. It is a tiny circular shaped bean in green color which is mainly cultivated in East, Southeast and South Asia. It is used as an ingredient in both savory and sweet dishes. In general, mungbean is a source of high-quality protein (20-24 %) with higher digestibility, which can be consumed as whole grains, dhal, or sprouted form and is an excellent complement to rice in respect to balanced human nutrition.

It is an excellent source of flavonoids, phenolics and other antioxidants, besides being rich in dietary fibre, carbohydrates, energy, minerals and vitamins such as iron, magnesium, phosphorous, potassium, vitamin B6 and copper. It is low in saturated fat and cholesterol, which makes it

suitable for therapeutic and novel food formulations. In addition to being the prime source of human food and animal feed, it plays an important role in maintaining the soil fertility by enhancing the soil physical properties and fixing atmospheric nitrogen. Mungbean contains a variety of essential amino acids and is rich in lysine. The intake of mungbean protein may improve the plasma lipid profile by normalizing insulin sensitivity. Mungbean also contains fatty acids such as linoleic acid and linolenic acid that promote the growth and health. Mung beans have a slightly sweet taste and are sold fresh, as sprouts or as dried beans. Mung beans are incredibly versatile and typically eaten in salads, soups and stir-frys (Nishu et al., 2023).

OBJECTIVES

- (1) To study the profile of GAM-5 growers
- (2) To study the perception farmers about the technological traits of Mung cultivar GAM-5 (Anubhav Brand Seed)

METHODOLOGY

Total 100 randomly selected beneficiaries of Anubhav brand seed (GAM-5) adopted farmers were interviewed. A pretested interview schedule in Gujarati was developed in order to obtain data. After statistical analysis, the data was presented as a mean and percentage. Arbitrary method was used for categorization of the data.

RESULTS AND DISCUSSION**Profile of beneficiaries of anubhav brand seed of AAU****Table 1 : Profile of beneficiaries of anubhav brand seed of AAU**

(n=100)

Sr. No.	Characteristic	Category	Frequency	Percent
1	Age	Young (Up to 35 years)	15	15
		Middle (36 to 50 years)	53	53
		Old (51 & above)	32	32
2	Education	Illiterate	01	01
		Primary	18	18
		Secondary	00	00
		Higher secondary	64	64
		Collage & Above	17	17
3	Farming experience	Very Low (Up to 5 Years)	02	02
		Low (6 to 10 Years)	22	22
		Medium (11 to 15 Years)	39	39
		High (16 to 20 Years)	24	24
		Very High (21 & Above)	13	13
4	Experiences in GAM-5	Very Low (Up to 1 Years)	30	30
		Low (1 to 2 Years)	56	56
		Medium (2 to 3 Years)	14	14
		High (3 to 4 Years)	00	00
5	Social participation	No Membership	75	75
		Membership in 1 Organization	19	19
		Membership in more than 1 Organization	06	06
		Membership along with position holder	00	00
6	Total land	Marginal (up to 1.0 ha)	45	45
		Small (1.1 to 2.0 ha)	25	25
		Medium (2.1 to 4.0 ha)	20	20
		Large (4.1 & above)	10	10
7	Land under GAM-5	Up to 1.0 ha	92	92
		1.1 to 2.0 ha	06	06
		2.1 to 4.0 ha	02	02
		4.1 & above	00	00
8	Income	Very low (up to ₹ 50,000)	27	27
		Low (₹ 50,001 to ₹1,00,000)	47	47
		Medium (₹ 1,00,001 to ₹1,50,000)	09	09
		High (₹ 1,50,001 to ₹ 2,00,000)	06	06
		Very high (₹ 2,00,001 & above)	11	11
9	Extension contact	Very low (up to 2.4)	01	01
		Low (2.41 to 4.80)	14	14
		Medium (4.81 to 7.20)	39	39
		High (7.21 to 9.60)	06	06
		Very high (9.61 & above)	40	40
10	Mass-media	Very low (Up to 3.60)	05	05
		Low (3.70 to 7.20)	10	10
		Medium (7.21 to 10.80)	22	22
		High (14.41 & above)	08	08
		Very high (10.80 to 14.40)	55	55

Sr. No.	Characteristic	Category	Frequency	Percent
11	Economic motivation	Very low (06 to 10.80)	00	00
		Low (10.81 to 15.60)	01	01
		Medium (15.61 to 20.40)	05	05
		High (25.21 & 30.00)	12	12
		Very high (20.41 to 25.20)	82	82
12	Scientific orientation	Very low (14.00 to 25.20)	00	00
		Low (25.21 to 36.40)	04	04
		Medium (36.41 to 47.60)	38	38
		High (58.80 to 70.00)	44	44
		Very high (47.61 to 58.80)	14	14
13	Risk orientation	Very low (10 to 18)	00	00
		Low (19 to 26)	02	02
		Medium (27 to 34)	45	45
		High (43 to 50)	01	01
		Very high (35 to 42)	52	52

From the above table it can be concluded that slightly more than half (53 per cent) of the respondents belonged to middle age group, followed by slightly less than two third 64 per cent of the respondents had higher secondary level of education, more than one – third (39 per cent) of the responded had 11 to 15 years of farming experience, more than half of the respondents (56 per cent) had 1 to 2 years of experience, majority (75 per cent) of them had a no membership in any organization, less than half (45 per cent) of the respondents had marginal farm size, a vast majority (92 per cent) of them had up to 1.0 ha of land under GAM- 5

cultivation, less than half (47 per cent) of them had a low level of annual income, exactly two fifth (40 per cent) of them had a very high level of extension contact, more than half (55 per cent) of the respondents had a very high level of mass media exposure, a great majority (80 per cent) of the respondents had a very high level of economic motivation, more than two fifth (44 per cent) of the respondents had a high level of scientific orientation and more than half of the respondents (52 per cent) had a very high level of risk orientation, respectively.

Perception of farmers about the technological traits of mung cultivar GAM-5 (anubhav brand seed) of AAU

Table 2 : Perception of the Beneficiaries about GAM-5 variety

(n=100)

Sr. No	Statement	Exiled	Good	Fair	Score	Mean score	Rank
1	GAM-5 variety has enough plant height	77	21	02	175	1.75	III
2	GAM-5 variety has more number of pods per plant	43	42	15	128	1.28	IX
3	GAM-5 variety has a bigger and bold seed size then other variety	54	43	03	151	1.51	VII
4	GAM-5 variety has more number of grains/ pod	36	59	05	131	1.31	VIII
5	GAM-5 variety has more grain weight/ pod	87	09	04	183	1.83	I
6	The grain size of GAM-5 variety is bigger in terms of size	81	16	03	178	1.78	II
7	GAM-5 is a early maturing variety	60	38	02	158	1.58	VI
8	Grains of GAM-5 has a very good cooking quality	74	23	03	171	1.71	IV
9	GAM-5 variety is resistant against the yellow vein mosaic disease	72	26	02	170	1.70	V
10	GAM-5 variety is high yielding as compared to local varieties	29	69	02	127	1.27	X
11	GAM-5 variety has more market demands	35	51	14	121	1.21	XI
12	GAM-5 fetch more price in comparison with other variety	16	68	16	100	1.00	XII

The table 2 revealed that technological trait “GAM-5 variety has more grain weight/ pod ranked first with measure of 1.83 followed by the grain size of GAM-5 variety is bigger in terms of length and width ranked second, GAM-5 variety has enough plant height ranked third, Grains of GAM-5 has

a very good cooking quality ranked fourth, GAM-5 variety is resistant against the yellow vein mosaic disease ranked fifth, GAM-5 is a early maturing variety ranked sixth, GAM-5 variety has a bigger and bold seed size then other variety ranked seventh, GAM-5 variety has more number of grains/

pod ranked eighth, GAM-5 variety has more number of pods per plant ranked nine, GAM-5 variety is high yielding as compared to local varieties ranked tenth, GAM-5 variety has more market demands ranked at eleven and GAM-5 fetch more price in comparison with other variety ranked at twelfth, with a mean score of 1.83, 1.78, 1.75, 1.71, 1.70, 1.58, 1.51, 1.31, 1.28, 1.27, 1.21 and 1.00, respectively. The findings are somewhat in line with the findings of Patel, et.al. (2020).

Overall Perception Level

From the table 3 it can be concluded that majority (85 per cent) of the farmers had a medium level of perception about GAM-5 variety, followed by low (8 per cent), high (5 per cent) and very low (2 per cent) level of perception,

Perception of farmers about different technological traits of GAM-5 variety

Table 4 : Perception of farmers about different technological traits of GAM-5 variety

(n=100)

Sr. No.	Traits	High (3)	Moderate (2)	Low (1)	Score	Mean score	Rank
1	Triable	36	42	22	214	2.14	IX
2	Practicability	32	46	22	210	2.10	X
3	Visible	28	68	04	224	2.24	VIII
4	Cost effectiveness	60	40	00	260	2.60	II
5	Accessibility	11	86	03	208	2.08	XI
6	Sustainability	38	57	05	233	2.33	VI
7	Compatibility	85	13	02	283	2.83	I
8	Acceptability	45	47	08	237	2.37	V
9	Utility	50	48	02	248	2.48	IV
10	Profitability	29	68	03	226	2.26	VI
11	Relative advantage	62	33	05	257	2.57	III

The table 4 revealed that among the perception of the farmers regarding the technological traits *viz.* Compatibility ranked first, followed by Cost effectiveness ranked second, Relative advantage ranked third, Utility ranked fourth, Acceptability ranked fifth, Sustainability ranked sixth, Profitability ranked seventh, Visible ranked eighth, Triable ranked ninth, Practicability ranked tenth and Accessibility ranked at eleven, with a mean score of 2.83, 2.60, 2.57, 2.48, 2.33, 2.26, 2.24, 2.14, 2.10 and 2.08, respectively.

CONCLUSION

Finally, it can be concluded from the above findings that majority of the farmers had a medium level of perception about GAM-5 variety and in the case of Perception of farmers about different technological traits of GAM-5 variety Compatibility, Cost effectiveness, Relative advantage were mostly perceived by the farmers whereas triability; practicability, and accessibility were the least perceived by the farmers.

respectively. Whereas, none of them had a very high level of perception. The findings are in contradiction with the findings of Patel, et.al. (2020) and Laveti and Bariya (2022).

Table: 3 Overall Perception of the Beneficiaries about GAM-5 variety

(n=100)

Sr. No.	Perception Category	Frequency	Percent
1	Very Low (up to 20)	02	02.00
2	Low (21 to 40.00)	08	08.00
3	Medium (41 to 60.00)	85	85.00
4	High (61 to 80.00)	05	05.00
5	Very High (81 to 100.00)	00	00.00

CONFLICT OF INTEREST

All authors declare that they have no conflict of interest

REFERENCES

- Laveti, Mohini Devi and Bariya, M. K. (2022) Perception of agricultural graduates towards agriculture as a profession. *Guj. J. Ext. Edu.* 33(1):38-40. <https://doi.org/10.56572/gjoe.2022.33.1.0009>
- Nishu., Sood, M., Julie., Bandral and Sheetal. Mungbean - A Legume for Human Health. *Indian Farmer*, Vol. 10 (03); March-2023
- Patel, D. B., Mistry, J. J. and Patel, V. M. Farmers' perception on use of bio fertilizers. *Guj. J. Ext. Edu.* Vol. 28 : Issue 2 : December 2017
- Prajapati, R. C., Mistry, J. J. and Patel, D. B. Perception of farmers about organic farming. *Guj. J. Ext. Edu.* Vol. 29 : Issue 1 : December 2018