



Plant Archives

Journal homepage: <http://www.plantarchives.org>

DOI Url : <https://doi.org/10.51470/PLANTARCHIVES.2025.v25.SP.ICTPAIRS-118>

FARMERS' ASPIRATIONS FOR ADVANCED POST-HARVEST METHODS FOR GROUNDNUT CULTIVATION

J.V. Chovatia^{1*}, P N Vavaliya², B V Patoliya³, S J Sindhi³ and P N Panchani⁴

^{1*}Dept.of Agri. Extension, COA, Junagadh Agricultural University, Junagadh.

²Office of Director of Research, Junagadh Agricultural University, Junagadh.

³Office of Registrar, Junagadh Agricultural University, Junagadh.

³Office of Registrar, Junagadh Agricultural University, Junagadh.

⁴PGIABM, Junagadh Agricultural University, Junagadh.

Email: jvchovatia@jau.in

ABSTRACT

The present study was conducted in the South Saurashtra Agro-climatic zone of Gujarat state. Out of 25 talukas, 10 talukas were selected based on lighter total groundnut area and productivity. Total 120 farmers from 10 villages of each taluka were selected randomly sampling method. The results of the research reveals that majority of the groundnut growers expressed their aspiration to increase their groundnut production, purchase of pod plucking machine, reducing the losses of production during grading of pods, marketing place for better price, storage method, drying method of plant and cleaning and winnowing of pods. Majority of the respondents were medium level of aspiration to the post-harvest techniques. The variable education, yield index, farm mechanization and extension participation were having positive and significant relationship with aspiration to the post-harvest techniques of groundnut.

Key words: Groundnut, Mechanization, Marketing, Yield index

Introduction

Groundnut cultivation plays a crucial role in the livelihoods of farmers across many regions, contributing significantly to agricultural income and food security. However, despite its economic and nutritional importance, post-harvest losses in groundnut production remain a major challenge. Inadequate post-harvest practices lead to reduced yield quality, lower market value, and significant financial losses for farmers.

In recent years, advancements in post-harvest technology have offered solutions to minimize these losses and enhance the efficiency of groundnut processing, storage, and marketing. However, the adoption of such advanced methods largely depends on farmers' awareness, accessibility, and aspiration for improvement. Understanding farmers' aspirations for advanced post-harvest methods is essential to tailor interventions that align with their needs, socio-economic conditions, and local challenges. This study explores the aspirations,

expectations, and perceived benefits among farmers regarding advanced post-harvest techniques for groundnut cultivation. By identifying their priorities and barriers to adoption, this research aims to bridge the gap between available innovations and practical implementation, ultimately contributing to sustainable agricultural development and improved livelihoods. In the sphere of post-harvest operations, considerable progress has been made in threshing, drying, cleaning, storage, transportation and marketing of food grains. There is considerable loss of groundnut in post-harvest operations. There is no information available on aspirations of farmers toward scientific post-harvest techniques of groundnut crop. Therefore, the present study was under taken with the following specific objectives.

Objectives:

- To identify the aspirations of the farmers for scientific post-harvest techniques in groundnut crop.

Table 1: Distribution of groundnut grower according to their aspiration to the post-harvest techniques of groundnut crop.

Aspiration Statement Score	None	Less	Medium	High	Total score	Rank
	0 % 0	Up to 33 % 1	34 to 67 % 2	Above 67 % 3		
1) What is your aspiration in respect to increasing your land in the next three year?	41	57	4	0	61	II
2) What is your aspiration in respect to increasing your production of the groundnut in the next three year?	2	94	8	0	102	I
3) What is your expectation in respect to purchase following post-harvest machines in the next three year?						
A) Pod plucking machine	43	55	4	0	59	I
B) Mechanical dryer	93	7	0	0	7	IV
C) Solar dryer	97	3	0	0	3	VI
D) Thresher	80	20	0	0	20	II
E) Winnowing fan	96	4	0	0	4	V
F) Pod grader	79	19	4	0	23	III
G) Decorticator	100	0	0	0	0	VII
4) What is your aspiration in respect to reducing following losses of post-harvest practices of groundnut in the next three year?						
A) Drying methods of plant	15	85	0	0	85	IV
B) Separation pods from plants	83	17	0	0	17	VII
C) Cleaning and winnowing of pods	31	69	0	0	69	V
D) Grading of pods	7	83	20	0	103	I
E) Packaging process of pods	95	5	0	0	5	IX
F) Repairing or construction of store room	43	54	6	0	60	VI
G) Storage method	24	63	26	0	89	III
H) Good transportation facilities	90	10	0	0	10	VIII
I) Marketing place for better price	9	85	12	0	97	II

- To ascertain the relationship between selected characteristics of the farmers on their aspiration of scientific post-harvest techniques in groundnut crop.

Research Methodology

Out of the 25 talukas in the South Saurashtra agro-climatic zone, 6 talukas from Junagadh district and 1 taluka each from Porbandar, Rajkot, Amreli, and Bhavnagar districts were selected based on their higher total groundnut cultivation area and productivity. This resulted in a total of 10 talukas included in the study. One village from each selected taluka (a total of 10 villages) was chosen, and 12 farmers from each village were randomly selected, making up a sample size of 120 farmers. A

Table 2: Distribution of respondents according to their level of aspiration N=120.

Sr. No.	Category	Percentage
1	Low (Below 5.63 score)	14
2	Middle (5.63to 10.75 score)	66
3	High(above 10.75 score)	20
	Mean 8.19 S. D. 2.56	

slightly modified version of the aspiration scale developed by Muthayya (1971) was used to assess the farmers' aspirations. Data collection was carried out through personal interviews using a structured interview schedule. The collected data were then systematically tabulated and analyzed in alignment with the study's objectives.

Result and Discussion

Aspiration of groundnut growers

It was evident from data Table 1 that majority of the respondents and their aspiration of post-harvest techniques of groundnut crop. N=120.

Sr. No.	Characteristics	r value
1	Age	-0.1377 ^{NS}
2	Education	0.2559**
3	Yield index	0.2003**
4	Farm mechanization	0.2476**
5	Social participation	0.1810*
6	Extension Participation	0.2331**

* Significant at 0.05 percent level of probability, table value ± 0.1655
**Significant at 0.01 percent level of probability, table value ± 0.1965
NS- Non significant.

respondents were replied regarding aspiration to the post-harvest techniques of groundnut crop, to increasing their production of groundnut in the next three years (102) ranked first and to increasing their land in the next three years (61) ranked second. In case of purchasing post harvesting implement/ machinery in the next three year was pod plucking machine (59) ranked first. Other implement/ machinery was less aspiration to purchase. Majority of the respondents had expected to reducing losses of groundnut production during the post-harvest practices in the next three year was grading of pods (103) ranked first, followed by marketing place for better price (97), storage method (89), drying method of plants (85), cleaning and winnowing of pods (69), repairing or construction of store room (60) ranking second, third, fourth, fifth and sixth respectively.

Level of aspiration

It was observed from the data presented in Table 2 that majority of the respondents (66.00 per cent) were in the category of medium level of aspiration to the post-harvest techniques of the groundnut crop, followed by high level of (20.00 per cent) aspiration. Only 14.00 percent of the respondents were found in low level of aspiration.

Relationship between characteristics of respondents and aspiration

It is evident from the data presented in table 3 that the calculated correlation co-efficient was non-significant at 0.5 level of probability in case of age. While, education, yield index, farm mechanization, extension participation were significant at 0.01 as well as 0.05 level of probability in case of social participation with their aspiration to the post-harvest techniques of groundnut crop.

Conclusion

The majority of the groundnut growers had aspiration to increase their production and to increase their land in next three year. Majority of the groundnut growers were expected to purchase of pod plucking machine and to reducing the losses of groundnut production during the post-harvest practices of grading of pods, marketing place for better price, storage method, drying method of plant, cleaning and winnowing of pod. Majority of the

respondents were medium level of aspiration to the post-harvest techniques of ground nut crop. There were significantly positive relationship between groundnut grower's education, yield index, farm mechanization, social participation, extension participation with their aspiration to the post-harvest techniques of groundnut crop. There is need to create awareness organizing training programme through demonstration on reducing groundnut losses during the post-harvest practices by the extension agency.

References

- Chandra Mohan Misra (2017). Trends in Area Production and Productivity of Groundnut in India: Issues & Challenges *Journal of Research in Agriculture and Animal Science*, **4(7)**, 01-06
- Gayathri, J. (2018). A Trend Analysis of Area, Production, and Yield of Groundnut in India. *Shanlax International Journal of Economics*, **6(3)**, 15-21.
- Gorfad, P.S., Chovatia J.V. and Kalsariya B.N. (2019). Impediments in Adoption of Bio Fungicide-Trichoderma in Groundnut Production Technology *Gujarat Journal of Extension Education*, **30(2)**, , 145-148.
- Gorfad, P.S., Chovatia J.V. and Kalsariya B.N. (2018). Adoption of improved groundnut production technology by groundnut growers. *Guj. J. Ext. Edu.* **29(2)**, 201-202.
- Hassan, M.H.A. and Geasa M.M. (2021). An investigation of engineering properties of groundnut pods and kernels related to design the post-harvest machines *Archives of Agriculture Sciences Journal*, **4(3)**, 144-160.
- Kumbhani, S.R., Kavadi S.D. and Patel G.R. (2017). Adoption of improved indian bean production technology. *Guj. J. Ext. Edu.* **28(1)**, 20-24.
- Muthayya, B.G (1971). Farmers and their aspirations influence of socio-economic status and work aspiration. National Institute of Community, Development, Hyderabad.
- Mande, J.V. and Nimbalkar S.D. (2010). Training needs of farm women in post-harvest technology *Agriculture Update*, 2010, **Vol. 5, No. 3/4**, 436-438
- Sipai, S.A., Vegad N.M. and Zala M.B. (2017). Adoption of sesame growers about sesame cultivation practices. *Guj. J. Ext. Edu.* **28(1)**, 40-42.
- Rai, A.K., Khajuria S. and Lata Kanak (2020). Impact of Front Line Demonstrations in Transfer of Groundnut Production Technology in Semi-Arid Region Gujarat. *Journal of Extension Education*, **31(1)**, 6-10.