



Research Article

PERCEPTION OF THE GROUNDNUT GROWERS ABOUT DAMAGE CAUSED BY PESTS IN JUNAGADH DISTRICT OF GUJARAT STATE

ZALA P.H.^{*1}, JADAV N.B.² AND KAPURIYA T.D.¹

¹Department of Agricultural Extension, College of Agriculture, Junagadh Agricultural University, Junagadh, 362001, Gujarat, India

²Senior Scientist and Head, ICAR-Krishi Vigyan Kendra, Pipalia, 360410, Junagadh Agricultural University, Junagadh, 362001, Gujarat, India

*Corresponding Author: Email - zalaprasanth7@gmail.com

Received: March 02, 2019; Revised: March 11, 2019; Accepted: March 12, 2019; Published: March 15, 2019

Abstract: Pests like more numbers of wild animals like bluebull, pig etc., insects like white grub, *Spodoptera litura*, *Heliothis armigera*, jassid, thrips etc. and diseases like, stem rot, bud necrosis, root rot etc. can cause more damage in groundnut. Management of pests are prerequisite for increase the production. Considering above instances, the following research objective has been linked for the study. To know the perception of the respondents about damage caused by pests. The study was conducted under *ex-post facto* research design and multistage simple random sampling technique. The study in Junagadh district of Gujarat state. Three talukas were selected based on criterion maximum area under groundnut cultivation. Total twelve villages from three talukas were selected randomly. 120 groundnut growers from twelve villages were considered for the study. Majority (65.00 per cent) of the respondents had medium level of perception about damage caused by pests of groundnut.

Keywords: Perception, Groundnut, Pest

Citation: Zala P.H., et al., (2019) Perception of The Groundnut Growers About Damage Caused by Pests in Junagadh District of Gujarat State. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 11, Issue 5, pp.- 7988-7989.

Copyright: Copyright©2019 Zala P.H., et al., This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Introduction

Groundnut is most important among the other oil seed crop in Gujarat state. Junagadh is leading district in groundnut production of Gujarat state. Now a day's groundnut production continues to be constrained by a number of biotic and abiotic factors. For instance, insect pest, disease, weeds and wild animal cause considerable damage to potential groundnut production. The elephant problem is one of the best examples. Crop damage by deer, blue bull, blackbuck, wild boar, and porcupine has been widely reported from more or less all corners of India [1]. Among the different *Heliothis armigera* and *Spodoptera litura* are considered as key foliar insect pests infesting groundnut crop in Saurashtra region of Gujarat state. Damage at flowering stage can result in 20 percent yield loss and severe occurrence caused 30 to 40 percent yield loss in groundnut due to *Spodoptera litura* [2]. In addition to above cited factors, the level of perception of farmers towards the crop damage by pests are also important which influence the groundnut production. Therefore, it is worthwhile to assess the level of perception of the farmers about crop damaged caused by pests.

Objective

To know the perception of the respondents about damage caused by pests.

Methodology

The study was conducted under *ex-post facto* research design and multistage simple random sampling technique. Study in Junagadh district of Gujarat state. Junagadh consisted total nine talukas. Out of nine talukas three talukas were selected based on criterion maximum area under groundnut cultivation. From each selected taluka four villages were selected randomly. Total twelve villages from three talukas were selected randomly and ten groundnut growers from each village were selected as respondents. Sample of total 120 groundnut growers from twelve villages was considered for the study. The collected data were classified, tabulated and analyzed with frequency, percentage and weighted mean score.

Results and Discussion

Table-1 Distribution of respondents based on the perception about damage caused by pests in groundnut, (n=120)

SN	Categories	Frequency	Percentage
1	Low level of perception (up to 77.17)	22	18.33
2	Medium level of perception (77.18 to 92.29)	78	65.00
3	High level of perception (Above 92.29)	20	16.66
Total		120	100.00
Mean = 84.73		S.D. = 7.56	

From the perusal of the data in [Table-1], it is clear that 65.00 per cent of the respondents had medium perception about damage caused by pests followed by 18.33 and 16.66 percent of respondents were in low and high perception group. This might be due to fact that the majority of the respondents had medium level of education, social participation, extension participation as well as risk orientation.

Table-2 Distribution of respondents based on the perception about damage caused by pests in groundnut as per various phase, (n=120)

SN	Phase	WMS	Rank
1	Pre sowing phase	1.85	IV
2	Sowing phase	1.90	II
3	After/post sowing phase	1.91	I
4	Harvesting phase	1.88	III
5	Post harvesting phase	1.61	V

Responded were classified according to strongly agree, agree, disagree based on the perception about damage caused by pests in groundnut as per various phase like pre sowing phase, sowing phase, after/post sowing phase, harvesting phase, post harvesting phase. From that after/post sowing phase (mean = 1.91) got rank first because during this period critical to prevent damage otherwise may affect

yield, so respondent had better experienced as well as perception towards it, at second rank possessed by sowing phase (mean = 1.90), at third rank harvesting phase (mean = 1.88), pre sowing phase (mean = 1.85) got fourth rank, post harvesting phase (mean = 1.61) was on fifth rank because less awareness or ignorance about final stage without taking essential care like proper storage and sanitation etc. which were essential need of post harvesting phase.

Conclusion

Majority (65.00 percent) of the respondents had medium level, followed by low level and high level of perception about damage caused by pests of groundnut. With respect to perception about damage caused by pest in groundnut as per various phase: post sowing phase (mean = 1.91) got rank first because during this period critical to prevent damage otherwise may affect yield, so respondent had better experienced as well as perception towards it. Groundnut farmers should be facilitated and motivation to participate in extension activities to increase their latest technical knowledge and their perception about damage caused by pests.

Application of research: Perception of the groundnut growers about damage caused by pests.

Research Category: Agricultural Extension

Acknowledgement / Funding: Authors are thankful to Department of Agricultural Extension, College of Agriculture, Junagadh Agricultural University, Junagadh, 362001, Gujarat, India.

***Research Guide or Chairperson of research:** Dr N. B. Jadav

University: Junagadh Agricultural University, Junagadh, 362001, Gujarat, India.

Research project name or number: MSc Thesis

Author Contributions: All authors equally contributed

Author statement: All authors read, reviewed, agreed and approved the final manuscript. Note-All authors agreed that- Written informed consent was obtained from all participants prior to publish / enrolment

Study area / Sample Collection: Junagadh district of Gujarat state

Cultivar / Variety name: Groundnut (*Arachis hypogaea*)

Conflict of Interest: None declared

Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.

Ethical Committee Approval Number: Nil

References

- [1] Prater S. H. (1980) *The book of Indian animals. Bombay Natural History Society.*
- [2] Kulkarni S. A. (1989) *Bio ecology and management of Spodoptera litura on groundnut, Ph. D. thesis submitted to UAS Dharwad, Karnataka.*