

## RESEARCH NOTE

## Exploring Suggestion from the Farmers Regarding Prevent Pests Damage in Groundnut (*Arachis Hypogaea*) Crop

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### ABSTRACT

The aim of the present study was to document the suggestions from the farmer to overcome the constraints in prevent pest damage in groundnut crop. This study conducted in Junagadh district of Gujarat state. From Junagadh district, three talukas were selected maximum area under groundnut cultivation, purposively. Total twelve villages from three talukas were selected randomly. 120 groundnut growers from twelve villages were considered for the study. The study was conducted under ex-post facto research design and multistage simple random sampling technique. Major suggestion from farmer to overcome constraints during prevent pest damage were; 80.33 per cent of farmers was inputs like pesticide should be made available at subsidized rate, farmers should be protected by crop insurance during crop damage by pests (73.33%) with first and second rank, respectively. The study clearly indicates that, the groundnut farmer have more lost through insect, disease and wild animal etc.

**Key words:** Groundnut pest damage; Wire wall and stone wall; Blue bull (nil gai); Socio-economic characteristic;

Groundnut (*Arachishypogaea*), is the most important crop among the oilseedcrops grown in the country. Gujarat is leading state in groundnut production. Groundnut cultivation in Junagadh district of Gujarat state was constrained by inadequate, uncertain and erratic rainfall, infestation of pests and diseases. Pests like more numbers of wild animals like bluebull, pig etc., insects like white grub, *Spodoptera Litura*, *Helicoverpa Armygera*, *jassid*, *thripsetc.* 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. Worldwide food plants are damaged by more than 10,000 species of insects. The yield loss by insects reaches as high as 60-70%. Indian agriculture is presently suffering an annual loss of about Rs. 8, 63, 884 million due to insect pests (*Dhaliwal et al. 2010*). The presence of one grub/m<sup>2</sup> may cause 80-100 per cent plant mortality (*Yadav and Sharma, 1995*). Farmer use different practices and pesticide for reduce pest damage. Neem leaves and its seed extracts shall be used as bio-pesticidal preparations in various agricultural farming practices (*Singh et al. 2012*). Farmer have some problem during pest management.

Major constraints in adoption IPM technology that non-availability of IPM tools (82%) and lack of skill in using IPM tools (77%) were also reported (*Kumari, 2012*). Some suggestion also come from farmer to very effective management of pest. Hence, keeping this as opportunity the present study aim to document the suggestion from the farmer to overcome constraints faced by farmer during prevent pest damage.

### METHODOLOGY

The study was conducted under ex-post facto research design and multistage simple random sampling technique. The study in Junagadh district of Gujarat state because the Junagadh leading state in groundnut production. Junagadh consisted total nine talukas. Out of nine talukas three talukas were selected 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 was selected as respondents. Thus a sample of total 120 groundnut growers from twelve villages was considered for the study. Different socio economic characteristics of

farmers were studied. For ascertaining the suggestions to overcome the constraints in prevent pests damage in groundnut crop, the suggestions were invited openly from respondents. The frequency was calculated for each suggestion and converted into percentage and ranks were given.

## RESULTS AND DISCUSSION

The results of socio-economic characteristics of sample farmers are presented as under.

A perusal of table 1 indicated that the majority of the respondents belonged to middle age group (53.33%), about 30.00 per cent of respondents belonged to middle school level of education, more than half (53.33%) of the respondents had medium size of land holding and 43.33 per cent of respondent belongs to medium level of annual income.

Whereas in respect to characteristics of respondents more than half (60.00%) of the respondents had medium social participation, 59.17 per cent of the respondents had medium extension participation, farmer had medium training received about 62.50 per cent and 57.50 per cent of the respondents belonged to medium farm mechanization index.

As regards to more than half (64.17%) of the respondents had medium yield index, nearly two third (61.67%) of the respondents had found with medium cropping intensity, about 53.33 per cent of the respondents had favourable attitude towards modern agriculture, more than half (60.00%) of the respondents had medium innovativeness and 60.83 per cent of the respondents belonged to medium risk orientation.

The findings were in accordance with the studies conducted by *Gorfad (2012)*, *Mavani (2012)*, *Hadiya (2013)*, *Markana (2015)*, *Patel (2017)* and *Rajasreeet al. (2019)*.

A perusal of table 2 indicated that the most important suggestion offered by 80.33 per cent of farmers was inputs like pesticide should be made available at subsidized rate, followed by farmers should be protected by crop insurance during crop damage by pests (73.33%), *zatka* machine should be provided as low price and with a subsidy scheme (67.50%), government should made easy subsidy scheme for installing wire wall and stone wall (61.66%), as well as government should take some measures to protect the

**Table 1. SE characteristics of respondents (N= 120)**

Characteristics	Category	No.	%
Age	Young age (up to 35 years)	18	15.00
	Middle age (36 to 50 years)	64	53.33
	Old age (above 50 years)	38	31.67
Education	College/post-graduation	09	07.50
	Higher school (11 <sup>th</sup> & 12 <sup>th</sup> )	20	16.67
	Middle school (9 <sup>th</sup> to 10 <sup>th</sup> )	36	30.00
	Primary school (1 <sup>st</sup> to 8 <sup>th</sup> )	30	25.00
	Functionally Literate	21	17.50
	Illiterate	04	03.33
Land holding	Small size ( up to 1.00 ha )	15	12.50
	Medium size ( 1.01 to 2.00 ha )	64	53.33
	Large size ( above 2.00 ha )	41	34.17
Annual income (Rs.)	Low (<40,000)	21	17.50
	Medium (40,000 to 80,000)	52	43.33
	High (>80,000)	47	39.17
Social participation	Low (up to 04.25)	23	19.17
	Medium (4.26 to 10.77)	72	60.00
	High (above 10.77)	25	20.83
Extension participation	Low (up to 5.65)	26	21.66
	Medium (5.66 to 23.29)	71	59.17
	High (above 23.29)	23	19.17
Training received	Low (up to 0.33)	32	26.67
	Medium (0.34 to 02.29 )	75	62.50
	High (above 02.29)	13	10.83
Farm mechanization index	Low (up to 36.80)	28	23.33
	Medium (36.81 to 67.50)	69	57.50
	High (Above 67.50)	23	19.17
Yield index	Low (Up to 44.08)	18	15.00
	Medium (44.09 to 150.24)	77	64.17
	High (Above 150.24)	25	20.83
Cropping intensity index	Low (up to 150.19)	25	20.83
	Medium (150.20 to 221.35)	74	61.67
	High (Above 221.35)	21	17.50
Attitude towards modern agri.	Less (up to 8.46)	27	22.50
	Favourable (8.47 to 25.78)	64	53.33
	Highly (Above 25.78)	29	24.17
Innovativeness	Low (up to 02.01)	29	24.17
	Medium (02.02 to 04.53)	72	60.00
	High (above 04.53)	19	15.83
Risk orientation	Low (up to 09.78)	21	17.50
	Medium (09.79 to 17.64)	73	60.83
	High (above 17.64)	26	21.67

field of farmers from the damage caused by blue bull and pig (54.16%), with rank first, second, third, fourth and fifth, respectively. Majority of the farmer have medium size of land holding and annual income. So, requirement of insurance during crop failure and subsidy in control measure.

**Table 2. Suggestions from the respondents to prevent pests damage in groundnut crop (N=120)**

Suggestions	No.	%	Rank
Inputs like pesticide should be made available at subsidized rate	97	80.33	I
Farmers should be protected by crop insurance during crop damage by pests	88	73.33	II
Zatka machine should be provided as low price and subsidy scheme	81	67.50	III
Govt. should made easy subsidy scheme for installing wire wall, stone wall	74	61.66	IV
Govt. should measure to protect the field of farmers from the damage caused by blue bulland pig	65	54.16	V
Ext. workers should frequently contact the farmers to make them aware about the crop method of pests	57	47.50	VI
Promoting efficient storage facilities	44	36.66	VII
Disease and pests resistance varieties should be developed	37	30.83	VIII
More number of training programmes should be organized for the farmers for management of pests	31	25.83	IX
Educating the farmers about the role of bio agents in controlling pests and diseases	25	20.83	X

## CONCLUSION

Groundnut growers in the Saurashtra region of Gujarat state use a wide range of practices to protect their crops from insect pests, diseases, animals and birds. But, some problem faced by farmer in protection of crop from pests. Farmer give important suggestion for

overcome the constraints in prevent pests damage in groundnut crop, like; inputs like pesticide should be made available at subsidized rate, crop insurance during crop damage by pests. *Zatka* machine should be provided as low price and subsidy scheme for prevent entry of wild animal because the area are near to gir sanctuary.

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