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Profile of *Bt* cotton growers for control of pink bollworm

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Abstract

The present study on profile of *Bt* cotton growers for control of pink bollworm was conducted in Parbhani district of Marathwada region in Maharashtra State. In Parbhani district there are 9 talukas. Out of these three talukas Parbhani, Purna and Pathri was selected randomly as area and infestation of pink bollworm was more in these region. The data were collected through personal interview with the help of interview schedule by contacting 120 respondents. The data was processed by making primary and secondary tables. The distributional analysis pertaining to age of the farmers indicated that (50.00%) of the respondents belonged to middle age category. It was found that, majority (30.00%) of the respondents belonged to primary education category, majority (54.16%) of the respondents had medium level of area under *Bt* cotton of respondents, 47.50 per cent of the respondents had semi-medium land holding (2.01 to 4.00 ha), 67.50 per cent of the respondents had medium annual income (Rs.98,000 to Rs 2,98,000). While majority (50.00%) of the respondents had medium level of social participation, 50.00 per cent of the respondents had medium economic motivation, larger proportion (50.00%) of the respondents belonged to medium innovativeness, 41.66 per cent of the respondents had medium risk orientation, 55.00 per cent of the respondents had medium level of farming experience, majority (58.33%) of the respondents had medium level of source of information of source of information, 66.68 per cent of the respondents had medium level source of irrigation, 58.33 per cent of the respondents had medium extension contract.

Keywords: Age, land holding, Pink bollworm, Area, Land holding etc.

Introduction

Cotton plays a key role in national economy in terms of both employment generations and foreign exchange earnings. Cotton is a basic raw material for Textile Industry. The Indian Textile Industry has an overwhelming presence in the economic life of the Country. Apart from providing one of the basic necessities of life, the Textile Industry also plays a pivotal role through its contribution to industrial output, employment generation and export earnings of the Country. Cotton is the second most important field crop in Indian for the production of table oil; 13.7 per cent of the 7.88 million tons of table oil produced in India is obtained from Cotton seed. Cotton seed has also become the main ingredient (33.00%) in processed animal fodder, with soya, rapeseed and groundnuts lagging far behind. The "pressed cake" that remains after the oil extracted sometimes processed in animal feed. *Bt* proteins can be found in the seed and the pressed cake of *Bt* cotton, but not in the oil. The Cry toxins are specifically toxic to specific classes of insects. For example the Cry 1Ac is toxic to three species of cotton bollworms, but is less toxic to the tobacco caterpillar, *spodoptera litura* and is non-toxic to other classes of insects which are sap-sucking pests such as mealy bugs, jassids, aphids, whiteflies etc.

Results and discussions

The study was conducted in randomly selected Parbhani district of Marathwada region. In Parbhani district there are 9 talukas. Out of these three talukas Parbhani, Purna and Pathri was selected randomly as area and infestation of pink bollworm was more in these region. The names of villages which come under the selected talukas were collected from the secondary source. To obtain the desired no of respondent of villages this comes under Parbhani district. Ten *Bt* cotton growers were selected randomly from each village to comprise the sample of 120 respondents for study. Respondents were selected according to the considerable area under *Bt* cotton growers. The study sample consists of having 120 respondents from three talukas. The Data were analyze by using mean, S.D., and coefficient of correlation methods were used for data analysis.

Observation and analysis

The findings of the study as well as discussion have been showed under the following tables:

Table 1: Distribution of respondents according to their age.

| Sr. No. | Category | Frequency | Per cent |
|---------|-------------------------|------------|---------------|
| 1. | Young (up to 33 years) | 30 | 25.00 |
| 2. | Middle (34 to 56 years) | 60 | 50.00 |
| 3. | Old (Above 56 years) | 30 | 25.00 |
| | Total | 120 | 100.00 |

The data presented in Table 1 indicate that majority (50.00%) of the *Bt* cotton growers belonged to middle age group, followed by young and old age (25.00%).

Table 2: Distribution of respondents according to their education.

| Sr. No. | Category | Frequency | Per cent |
|---------|--|------------|---------------|
| 1. | Illiterate | 18 | 15.00 |
| 2. | Can write and read only | 25 | 20.34 |
| 3. | Primary Education (Std 1 st to 7 th) | 36 | 30.00 |
| 4. | Secondary Education (Std 8 th to 10 th) | 34 | 28.33 |
| 5. | Higher Secondary Education (11 th to 12 th) | 6 | 5.00 |
| 6. | Graduate and above | 1 | 0.83 |
| 7. | other | 0 | 0.00 |
| | Total | 120 | 100.00 |

It was seen from Table 2 that nearly on 30.00 per cent of the respondents belonged to primary education, 28.33 per cent of the respondents had secondary education, 20.34 per cent of the respondents can write and read only, nearly 1.00 per cent of the respondents had education up to graduate and above whereas, 15.00 per cent members were illiterate.

Table 3: Distribution of respondents according to their land holding.

| Sr. No. | Category | Frequency | Per cent |
|---------|---------------------|------------|---------------|
| 1. | Marginal farmers | 11 | 9.16 |
| 2. | Small farmers | 37 | 30.83 |
| 3. | Semi-medium farmers | 57 | 47.50 |
| 4. | Medium farmers | 15 | 12.50 |
| 5. | Big farmers | 00 | 00.00 |
| | Total | 120 | 100.00 |

It was seen from Table 3 that, nearly one third (30.83%) of the farmers found in small land holding, later then those with marginal (9.16%), semi medium (47.50%), medium (12.50%) land holding category.

Table 4: Distribution of respondents according to their area under *Bt* cotton.

| Sr. No. | Category | Frequency | Per cent |
|---------|-----------------|------------|---------------|
| 1. | Low (Up to 2) | 35 | 29.16 |
| 2. | Medium (2 to 4) | 65 | 54.16 |
| 3. | High (Above 4) | 20 | 16.66 |
| | Total | 120 | 100.00 |

It was seen from Table 4 that, nearly 29.16 per cent of the farmers found in low land holding, later than those majority in (54.16%) in medium area, while 16.66 per cent in high land area under *Bt* cotton category.

Table 5: Distribution of respondents according to their annual income.

| Sr. No. | Category | Frequency | Per cent |
|---------|----------------------------|------------|---------------|
| 1. | Low (Up to 98000) | 20 | 16.66 |
| 2. | Medium (98000 to 2,98,000) | 81 | 67.50 |
| 3. | High (Above 2,98,000) | 19 | 15.83 |
| | Total | 120 | 100.00 |

It was observed from Table 5 that, majority (67.50%) of farmers were from medium annual income followed by low (16.66%) and high (15.83%) annual income.

Table 6: Distribution of respondents according to their social participation.

| Sr. No. | Category | Frequency | Per cent |
|---------|------------------|------------|---------------|
| 1. | Low (Up to 6) | 40 | 33.33 |
| 2. | Medium (6 to 12) | 60 | 50.00 |
| 3. | High (Above 12) | 20 | 16.67 |
| | Total | 120 | 100.00 |

It is elucidated from Table 6 that, majority (50.00%) of the respondents was having medium social participation followed by low (33.33%) and high (16.67%) social participation.

Table 7: Distribution of respondents according to their extension contact

| Sr. No. | Category | Frequency | Per cent |
|---------|------------------|------------|---------------|
| 1. | Low (Up to 7) | 30 | 25.00 |
| 2. | Medium (7 to 16) | 70 | 58.33 |
| 3. | High (Above 16) | 20 | 16.66 |
| | Total | 120 | 100.00 |

It is apparent from the data in Table 7 that majority (58.33%) of the *Bt* cotton growers were found to have medium level of extension contact, followed by low (25.00%) and high (16.66%) level of extension contact.

Table 8: Distribution of respondents according to their economic motivation.

| Sr. No. | Category | Frequency | Per cent |
|---------|-------------------|------------|---------------|
| 1. | Low (Up to 17) | 30 | 25.00 |
| 2. | Medium (17 to 24) | 60 | 50.00 |
| 3. | High (Above 24) | 30 | 25.00 |
| | Total | 120 | 100.00 |

The results from the Table 8 stated that, majority (50.00%) of the *Bt* cotton growers had low level of economic motivation while 25.00 per cent of the *Bt* cotton growers belonged to low and high level of economic motivation respectively.

Table 9: Distribution of respondents according to their innovativeness

| Sr. No. | Category | Frequency | Per cent |
|---------|-------------------|------------|---------------|
| 1. | Low (Up to 13) | 30 | 25.00 |
| 2. | Medium (14 to 19) | 60 | 50.00 |
| 3. | High (Above 19) | 30 | 25.00 |
| | Total | 120 | 100.00 |

It is revealed from Table 9 that majority (50.00%) of the respondents had medium and low (25.00%) level of innovativeness and 25.00 per cent had high level of innovativeness. Thus, it can be concluded that a more of the *Bt* cotton farmers had medium innovativeness.

Table 10: Distribution of respondents according to their risk orientation

| Sr. No. | Category | Frequency | Per cent |
|---------|-------------------|------------|---------------|
| 1. | Low (Up to 13) | 40 | 33.33 |
| 2. | Medium (13 to 21) | 50 | 41.66 |
| 3. | High (Above 21) | 30 | 25.00 |
| | Total | 120 | 100.00 |

It is noticed that regarding risk orientation that majority (41.66%) of the respondents had medium risk orientation, followed by low and high risk orientation with (33.33%) and (25.33%) respectively.

Table 11: Distribution of respondents according to their farming experience

| Sr. No. | Category | Frequency | Per cent |
|---------|------------------|------------|---------------|
| 1. | Low (Up to 8) | 30 | 25.00 |
| 2. | Medium (8 to 27) | 66 | 55.00 |
| 3. | High (Above 27) | 24 | 20.00 |
| | Total | 120 | 100.00 |

It was seen from Table 11 that, nearly 25.00 per cent of the farmers found that have a low farming experience, later then those majority in (55.00%) in medium area while, 20.00 per cent in high level of farming experience.

Table 12: Distribution of respondents according to their source of information

| Sr. No. | Category | Frequency | Per cent |
|---------|------------------|------------|---------------|
| 1. | Low (Up to 6) | 40 | 33.33 |
| 2. | Medium (6 to 12) | 70 | 58.33 |
| 3. | High (Above 12) | 10 | 8.33 |
| | Total | 120 | 100.00 |

It was seen from Table 12 that, nearly 8.33 per cent of the farmers found that have a high source of information, later than those majority in (58.33%) in medium, while 33.33 per cent have low source of information.

Table 13: Distribution of respondents according to their source of irrigation

| Sr. No. | Category | Frequency | Per cent |
|---------|--------------|------------|---------------|
| 1. | Low 1 | 20 | 16.66 |
| 2. | Medium 2 | 80 | 66.68 |
| 3. | High 3 | 20 | 16.66 |
| | Total | 120 | 100.00 |

It was seen from Table 13 that, nearly 16.66 per cent of the farmers found that have a low source of irrigation, later then those majority in (66.68%) in medium, while 16.66 per cent in high.

Conclusion

The distributional analysis pertaining to age of the farmers indicated that (50.00%) of the respondents belonged to middle age category. It was found that, majority (30.00%) of the respondents belonged to primary education category, majority (54.16%) of the respondents had medium level of area under *Bt* cotton of respondents, 47.50 per cent of the respondents had semi-medium land holding (2.01 to 4.00 ha), 67.50 per cent of the respondents had medium annual income (Rs.98,000 to Rs 2,98,000). While majority (50.00%) of the respondents had medium level of social participation, 50.00 per cent of the respondents had medium economic motivation, larger proportion (50.00%) of the respondents belonged to

medium innovativeness, 41.66 per cent of the respondents had medium risk orientation, 55.00 per cent of the respondents had medium level of farming experience, majority (58.33%) of the respondents had medium level of source of information of source of information, 66.68 per cent of the respondents had medium level source of irrigation, 58.33 per cent of the respondents had medium extension contract

References

- Shambharkar V. A study on rythu vhaitanya yatra- A farmer empowerment programme in Mahboob nagar district of Andhra Pradesh. Msc (agri) thesis. Acharya N.G. Ranga agriculture university, Hyderabad, 2018.
- Padwal D, Jahanar MH, Bose DK, Srivastava JP. A study on knowledge of *Bt* cotton cultivation practices in Rangareddy district of Telangana. Journal of pharmacognosy and phytochemistry 2018;7(3):2204-2205.
- Jakkawad SR, Patange NR, Kadam SB. Extent of adoption of practices by cotton growers for the management of pink bollworm. Trends in Biosciences 2019;12(3):246-250.
- Kadam P. Attitude of the farmers towards integrated pest management technology programme on cotton. International journal of agricultural science 2016;12(2):294-297.
- Jamdhade SS, Tekade VS, Bhalekar DN. Knowledge and use of information communication technology (ICT) tools by orange growers, International Journal of Commerce and Business Management 2016;9(2):267-271.
- Hipparkar BG. Entrepreneurial behaviour of pomegranate growers. M.Sc. (Agri.), Thesis, submitted to V.N.M.K.V., Parbhani, 2015.
- Patil SD. Utilization of farm implements by the farmers. Ph.D. (Agri.) thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri, 2015.