

ADOPTION OF STATE AGRICULTURAL UNIVERSITY RECOMMENDED COTTON CULTIVATION PRACTICES BY THE COTTON GROWERS IN MORBI DISTRICT OF GUJARAT

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ABSTRACT

Cotton is the one of the oldest and most important commercial fiber crop of the world. Majority of cotton growing farmers do not practicing scientific management practices and unaware about recommendation pertaining to scientific cultivation practices recommended by SAUs. Government, State Agriculture University & Krishi Vigyan Kendra spent lot of money behind training, FLDs, OFTs to ensure optimum adoption of scientific recommended practices to highest production and productivity per unit with less expenditure. Looking into this present study was under taken Morbi district of Saurashtra region of Gujarat state. Total 200 cotton growers with minimum 4 years of experiences in cotton cultivation were selected randomly from 10 villages of selected two taluka (Wankaner & Tankara) of Morbi district. Total sample size is 200. The majority of cotton growers had medium level (64.50 percent) of overall adoption regarding recommendation practices of cotton by SAUs, followed by 26 percent and 9.5 percent of cotton growers had high and low level of adoption respectively. Most of cotton growing farmers had high level of adoption SAUs recommendation pertaining of soil preparation, irrigation & inter culturing. Whereas low adoption level was found regarding seed treatment, pest control & diseases control measures.

Keywords: cotton cultivation practices, adoption, cotton growers

INTRODUCTION

Cotton (*Gossypium spp.*) the “white Gold”, is a very important commercial crop of India. It sustains the country’s cotton textile industry which is perhaps the largest organized industry in the country. Cotton is grown chiefly for its fiber use in the manufacture of clothes and for the purpose like making threads for mixing in other fiber and extraction of oils from the cotton seeds. Cotton is mainly rainfed crop in Gujarat (Neware *et al.*, 2015). About 54 percent of state production comes from Surendranagar, Morbi, Rajkot, Vadodara, Ahemadabad & Sabarkatha districts. About 74 percent of total area and production of cotton in country are contributed by four states of Gujarat, Andhra Pradesh, Maharashtra & Punjab (Chaudhary *et al.* (2010). Gujarat is the largest producer of cotton in India followed by Maharashtra and Andhra Pradesh (Anon.,2016). Gujarat states accounts 17.10 Lake Hectare area in 1960 and increases up to 30.60 Lake Hectare area during year 2014-15. Production of cotton crops increases 36.78 lakes bales to 125.00 lakes bales from year 1960 to 2014-15. Productivity of cotton crops increases from 86 kg per hectare to 707 kg per hectare from year 1960 to 2014-15 (Anon, 2016).

Scientists of State Agricultural University are

effortlessly engaged in doing research for low cost and suitable technology regard to improve the cotton cultivation practices which it adopted by cotton growers may not only result in increases in productivity of cotton but also reasonable reduce cost of cotton cultivation. Scientist of Krishi Vigyan Kendra, JAU, Rajkot and Morbi are also making every effort for increasing knowledge of cotton growing farmers in their operational area for intensive working by imparting need base training programmes through implementing FLDs, OFTs & advisory service to cotton growing farmers. So that adaptation of recommendation of SAUs pertaining to location specific and improve scientific cotton cultivation practices could be increases and take place to optimum level of cotton growing farmers. But level of adaptation is still miles away from its desired level and gap still persist. Looking into efforts and intervention carried out by KVK, Rajkot & Morbi. It is high and right time to measures adaptation level of beneficiaries is cotton growing farmers regarding to cotton cultivation practices recommended by SAUs for the Morbi region of Saurashtra.

Keeping this in view, present study was taken up with specific objectives to study adaptation regarding SAUs recommendation pertaining to location specific and improved cotton cultivation practices of cotton growing farmers.

OBJECTIVE

To know the adoption of state agricultural university recommended cotton cultivation practices by the cotton growers in Morbi district of Gujarat

METHODOLOGY

The present study was conducted in Morbi district of Saurashtra region of Gujarat states. Krishi Vigyan Kendra, JAU, Rajkot and Morbi is engaged in doing intensive work for betterment of farming community in cotton grower community of Wankaner and Tankara taluka of Morbi district. For study purpose two taluka of Morbi district namely Wankaner and Tankara was selected purposefully as KVK Rajkot & Morbi was working in this two talukas. From each taluka five villages were selected through purposive and randomly from list of villages in which KVK was working since last four years from each village. Twenty respondents were selected from each village having cotton cultivation as their major crop. Thus, total 200 beneficiaries were randomly selected as sample size.

Data was collected through the personnel interview to get most authentic first hand information with view of objectives study. The data were analysis and average, frequencies and percentage, mean and standard deviation were used.

RESULTS AND DISCUSSION

Table 1 : Distribution of cotton growers according to their overall adaptation of recommended package of practices of cotton

n=200

| Sr. No | Extent of adoption | Number | Per cent |
|--------|--------------------|--------|----------|
| 1 | Low | 19 | 09.50 |
| 2 | Medium | 129 | 64.50 |
| 3 | High | 52 | 26.00 |

It is clear from Table.1 that majority of cotton growers (64.50 per cent) had medium level of overall adaption regarding SAUs recommended practices of cotton followed by 26.00 per cent and 9.50 per cent of cotton growers had high and low overall adaption level respectively. Similar finding were reported by Bhagawat (2003) and Khandave *et al.* (2017).

Table 2 : Practice wise adoption of recommended cotton cultivation practices by cotton growers

n=200

| Sr. No | Recommended practices | Adoption | |
|--------|---------------------------|----------|----------|
| | | Number | Per cent |
| 1 | Soil preparation | 190 | 95 |
| 2 | irrigation applied | 188 | 94 |
| 3 | Interculturing | 180 | 90 |
| 4 | Picking and Harvesting | 178 | 89 |
| 5 | Improved variety | 176 | 88 |
| 6 | Time of sowing | 164 | 82 |
| 7 | Weeding | 154 | 77 |
| 8 | Chemical fertilizer | 116 | 58 |
| 9 | Farm yard manure | 88 | 44 |
| 10 | Spacing | 86 | 43 |
| 11 | Seed rate | 84 | 42 |
| 12 | Pest control measures | 36 | 18 |
| 13 | Seed treatment | 18 | 09 |
| 14 | intercropping | 16 | 08 |
| 15 | Diseases control measures | 12 | 06 |

The above Table 2 showed that among different recommended cotton cultivation practices majority percent of cotton growers adopted practices namely soil preparation (95 per cent), irrigation application (94 per cent), inter-culturing (90 per cent) picking and harvesting (89 per cent), improved variety (88 per cent), sowing time (82 per cent) and weeding (77 per cent) followed by chemical fertilizers (58 per cent), farm yard manure (44 per cent), spacing (43 per cent) and seed rate (42 per cent). This finding are in line with reported by Ban *et al.* (2010) and Patel, *et al.* (2017)

While low adaption of technology was found in pest control measures (18 per cent), seed treatment (9 per cent), Intercropping (8 per cent) and diseases control measures (12 per cent). This finding has been supported by finding of Desai and Girase (2000) & Dodiya *et al.* (2017).

CONCLUSION

From the above discussion it could be concluded that majority of cotton growers were found medium level of overall adaption regarding recommended practices of cotton. Practices wise adoption that among different recommended cotton cultivation practices majority percent was cotton growers adopted technology namely soil preparation, irrigation, interculturing, picking & harvesting, improved varieties, time of sowing, weeding followed by chemical fertilizer, farm yard manure, spacing, seed rate. While low adaption of practices was found in pest and diseases control

measures and intercropping.

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