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A STUDY ON TECHNOLOGICAL GAP AMONG SAFFLOWER GROWERS

Emsetty Sanghavi*, J.V. Ekale and M.V. Kulkarni

Department of Agricultural Extension, VNMKV, Parbhani, Maharashtra, 431 401, India.

*Email: emsettysanghavi@gmail.com

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ABSTRACT

The present study explored technological gap among safflower farmers. The study was conducted in Vikarabad District of Telangana State of India during the year 2020-2021. Two talukas namely Bashirabad and Shankarpally and among them four villages were purposively selected where safflower is grown on majority of the area. For each selected village 30 farmers were selected randomly. In this way 120 respondents were selected for the study. An Ex-post-facto research design was followed for the study. Data was gathered using a well-structured interview schedule created with the objectives in mind. The collected data was analyzed, classified and tabulated. Statistical tools like percentage, mean, standard deviation and coefficient of correlation were used to interpret findings and draw conclusions. A detailed analysis was done and component wise technological gap was categorized.

Component wise technological gap observed in adoption of suggested safflower seed production technology in descending order were chemical weed control (60.00 per cent), seed treatment with fungicide (51.66 per cent), seed treatment with bio-compost (50.00 per cent), disease management (45.00 per cent), utilization of nitrogenous manure subsequent to planting (44.58 per cent), use of nitrogenous manure (43.34 per cent), insect control (43.33 per cent), thinning (40.00 per cent), irrigation (35.84 per cent), inter culturing (35.41 per cent), spacing (35.00 per cent), hand weeding (33.95 per cent), season of planting (29.00 per cent), use of FYM (28.75 per cent), use of phosphatic compost (27.50 per cent), harvesting (23.75 per cent), rouging (15.00 per cent), land preparation (13.00 per cent) and seed rate (0.00 per cent).

Keywords : Technological gap, Safflower, Recommended package of practices, Yield, Adoption

Introduction

Safflower (*Carthamus tinctorius*) prevalently known as Kusum is most significant oilseeds crops next to groundnut. As far as world positioning, safflower stands first among the oil seed crops. In India, it is cultivated over a area of 4.38 lakh ha with a yearly production of 2.0 lakh tones and productivity of 465 kg/ha. The region under safflower is generally concentrated in Maharashtra and Karnataka. It is additionally grown in Andhra Pradesh, Madhya Pradesh, Orissa and Bihar .

In Telangana it is grown in 3500 to 4000 ha of black cotton soil, majorly in Sangareddy, Kamareddy, Nizamabad, Vikarabad districts. Whenever there is a loss of kharif crops due to irregular monsoon safflower aids the loss effectively. Safflower is adjusted to a wide scope of climatic conditions. In India safflower is principally developed somewhere in the range of 14- degrees and 22-degrees N and 73.5- degrees and 73-degrees E during the rabi season (September/October to Spring/April). It is pretty much day neutral however thermo sensitive. The crop is tolerant to low temperature at seedling and vegetative stages however sensitive at elongation, blooming and post-blossoming stages. For great yields, safflower requires moderate to profoundly fertile, genuinely

profound, dampness retentive and well depleted soils with neutral response.

Hybrids

- Andhra Pradesh Hybrids: DSH-129, MKH-11
Varieties: Manjra, Sagar Muthyalu, NARI-6
- Karnataka Hybrids: DSH-129, MKH-11
Varieties: S-144, A-300, A-1, A-2, NARI-6
- Maharashtra Hybrids: DSH-129, MKH-11
Varieties: Bhima, Nira, Sharda
- Madhya Pradesh: Hybrids: DSH-129, MKH-11
Varieties: JSF-1, JSI-7, NARI-6

Materials and Methods

The current examination was undertaken in Vikarabad district which is having safflower seed cultivating area. Vikarabad district is having 18 districts. Out of these, two talukas have been opted randomly during the investigation, where safflower seed cultivation has been in practice. Two villages from each taluka were opted purposively where safflower seed cultivation was undertaken. So, totally 4

villages were opted for the current investigation. A comprehensive list of the safflower seed cultivators was obtained from district agriculture office Vikarabad. The names of all safflower seed cultivators were prepared in alphabetical order of each village individually. From the list 30 safflower seed cultivators were selected randomly for the investigation. Thus, 120 safflower seed cultivators were opted for the investigation. Ex-post facto design was applied for this examination.

Technological gap was calculated by the difference between the package of practices of safflower cultivation and the extent of adoption of selected recommended practice at farmers field level. The technological gap is calculated by using the formula

$$\text{Technological gap} = \frac{\text{Maximum possible score} - \text{Actual score}}{\text{Maximum possible score}} \times 100$$

Results and Discussion

The average technological gap in adoption of various segment of safflower seed production technology among safflower seed producers are summed up in Table 16.

It may be seen from Table 16 that the average technological gap was found changing from one part to another. The practice shrewd average technological gap among the safflower seed producers was gone from 0.00 per cent to 60.00 per cent.

Table 1: Component wise average technological gaps in adoption of recommended safflower seed production technology.

| S. No | Different components of safflower seed production technology | Technological gap (per cent) | Rank |
|--|--|------------------------------|-------|
| 1 | Land preparation | 13.00 | XVIII |
| 2 | Time of sowing | 29.00 | XIII |
| 3 | Seed rate | 00.00 | XIX |
| 4 | Seed treatment with fungicide | 51.66 | II |
| 5 | Seed treatment with bio- fertilizer | 50.00 | III |
| 6 | Spacing | 35.00 | XI |
| 7 | Application of FYM | 28.75 | XIV |
| 8 | Application of Nitrogenous fertilizer | 43.34 | VI |
| 9 | Application of Phosphatic fertilizer | 27.50 | XV |
| 10 | Application of nitrogenous fertilizer after sowing | 44.58 | V |
| 11 | Thinning | 40.00 | VIII |
| 12 | Inter-culturing | 35.41 | X |
| 13 | Hand weeding | 33.95 | XII |
| 14 | Chemical weed control | 60.00 | I |
| 15 | Irrigation | 35.84 | IX |
| 16 | Roughing | 15.00 | XVII |
| 17 | Insect control | 43.33 | VII |
| 18 | Disease management | 45.00 | IV |
| 19 | Harvesting | 23.75 | XVI |
| Overall technological gap (Average) | | 34.05 | |

It can be summarized from the Table 2 that the training wise technological gap observed in adoption of suggested safflower seed production technology in descending order of rank were chemical weed control (60.00 per cent, Rank I), seed treatment with fungicide (51.66 per cent, Rank II), seed treatment with bio-compost (50.00 per cent, Rank-III), disease management (45.00 per cent, Rank-IV), utilization of nitrogenous manure subsequent to planting (44.58 per cent, Rank-V), use of nitrogenous manure (43.34 per cent, Rank-VI), insect control (43.33 per cent, Rank-VII), thinning (40.00 per cent, Rank-VIII), irrigation (35.84 per cent Rank-IX), inter culturing (35.41 per cent, Rank-X), spacing (35.00 per cent, Rank-XI), hand weeding (33.95 per cent, Rank-XII), season of planting (29.00 per cent, Rank-XIII), use of FYM (28.75 per cent, Rank-XIV), use of phosphatic compost (27.50 per cent, Rank-XV), harvesting (23.75 per cent, Rank-XVI), rouging (15.00 per cent, Rank-XVII), land preparation (13.00 per cent, Rank-XVIII) and seed rate (0.00 per cent, Rank-XIX).

The overall technological gap joining all of the recorded practices was noticed 34.05 per cent in adoption of suggested safflower seed production practices.

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