

Research Article

Training needs about improved cultivation practices for the onion growers

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SUMMARY : Training need is essential to induce knowledge and adoption of any growers about particular crop. The present study was, therefore, designed to ascertain the training needs of onion growers based on exploratory research design of social research. The research study was carried out in Akot tahsils of Akola district in Vidharbha region of Maharashtra State during 2011-2012. Result of this study revealed that near about two third (65.00%) of the growers comes under medium to high training need level. Similarly in case of the practice wise training need of the onion growers it was observed that there are various practices of onion crop about them growers require training need like spraying of mallic hydrazide (100.00%), to identify major diseases of onion crop (97.00%), plant protection measures against onion diseases (96.00%), improved storage practices of onion (88.00%), important intercultural operation recommended for onion crop (65.00%), different storage methods of onion (63.00%), plant protection measures against onion pests(50.00%), irrigation water management (49.00%) and identification of major pests of onion crop(47.00%). Hence, the study imply that the extension functionaries should arrange training programme and cover the above explained training need areas of onion crops, that will also help for improving knowledge and adoption of this practices.

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BACKGROUND AND OBJECTIVES

Vegetables are nature's precious gift to mankind. Onion (*Allium cepa.*) is a broadly adapted and highly variable crop, cultivated around the world primarily as cash but also as a vegetable.

India has a largest area under onion crop. Yield wise it is second in the world. In export, India is the third exporter after the Netherland' and Spain. Onion account for 90 per cent of exports of vegetables from India in terms of value (Desai, 2005).

Maharashtra have the largest area under onion and have a bumper production. The area under onion cultivation is 1.60 lakh ha while total yield is 13.92 lakh tones. The per cent share in production of all India is 20.98 per cent. (Shrungare, 1997).

In Maharashtra onion crop is grown in both *Kharif* and *Rabi* seasons. On an average, 55.00 per cent production is from *Kharif* season while the remaining 45.00 per cent is from the *Rabi* season. The cultivation of onion, in Vidharbha region, is mostly concentrated in five districts viz., Akola, Buldana, Nagpur, Amravati and Yavatmal. Different varieties and technologies in onion, suiting to the need of the farmer of the region are involved and recommended by the university to boost up the yield of onions.

In Vidharbha region onion production per hectare area is comparatively low. The low yield may be attributed to non adoption of latest technologies by onion growers. It is therefore, necessary to find out the knowledge and adoption level of onion growers. It really helpful to identify the area of training to be given to the onion growers, to increase the knowledge and adoption

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of recommended cultivation practices of onion. With this view, the study was proposed to be undertaken with the following objectives:

- To study the personal, socio-economic and psychological characteristics of onion growers.
- To identify training needs of onion growers about recommended cultivation practices of onion.

RESOURCES AND METHODS

The present research study was based on exploratory research design of social research. The present study was carried out in Akot tahsils of Akola district in Vidarbha region of Maharashtra State during 2011. Out of seven Panchayat Samiti in Akola district, Akot tahsils was purposively selected for the study. In Akot Panchayat Samiti the area under onion crop was 745 ha during 2009-2010 which was comparatively higher than any other tahsils in Akola district.

The list of villages having cultivation of onion during 2009-10 was obtained from office of the Akot Panchayat Samiti. Out of the total villages, 10 villages were selected purposively where the majority of farmers cultivated onion during 2009-10. The selected villages were namely Vadaley Satave, Pimpal Khuta, Adgaon, Belora, Umri, Navri, Jalgaon rahate, Pimpri, Shivpur and Bordi. From selected ten villages 100 growers were drawn with help of disproportionate random sampling method. Data were collected by personally interviewing the growers with the help pre structured and pre tested interview schedule. Collected data were tabulated; categorized and relational analysis were employed for interpretation of the data.

Training need:

It is operationally defined as the gaps identity in between the actual knowledge required to onion growers about the recommended cultivation practices of onion and actually they possessed about the onion crop.

The training needs about each practices of onion crop of individual onion grower were worked out by adopting the following formula:

Training need = Maximum obtainable knowledge score for each practices of onion – Actually obtained knowledge score for each practice of onion

Thus, the above obtained raw score of training need was again converted into the training need index by applying following formula:

$$\text{Training need index} = \frac{\text{Maximum obtainable knowledge score} - \text{Actually obtained knowledge score}}{\text{Actually obtainable knowledge score}}$$

OBSERVATIONS AND ANALYSIS

From Table 1, it was observed that there is training needs

for onion growers about spraying of mallic hydrazide (100.00%), to identify major diseases of onion crop (97.00%), plant protection measures against onion diseases (96.00%), improved storage practices of onion (88.00%), different storage methods of onion (63.00%), plant protection measures against onion pests (50.00%) and identification of major pests of onion crop 47.00 per cent. Similarly 49.00 per cent and 41.00 per cent of growers were noticed those required training need about irrigation water management and grading of onion bulb, respectively.

It was also revealed that area of training need about various varieties of onion, FYM application, suitable time of raising seedlings, harvesting methods of onion, different colour varieties of onion and training needs with seed bed prepared for onion seedlings was 22.00 per cent, 18.00 per cent, 14.00 per cent, 14.00 per cent, 5.00 per cent and 5.00 per cent, respectively. Overall training need level of the selected growers was also asserted result has been given in Table 2.

It was observed that 39.00 per cent onion growers come under medium training need level for onion cultivation. It was also noticed from the Table 2 that about 35.00 per cent growers had low training need level and 26.00 per cent were observed who requires high training need about onion cultivation practices.

In view of the results presented above, it can be concluded that majority of the growers felt medium level of training need of onion cultivation practices. Thus, there is a scope to organize training need programme about onion cultivation technology so that they will be motivated to undertake each and every details about improved onion cultivation practices.

Traninig need:

From Table 2, it was observed that majority (39.00%) of the growers were in medium training needs category. However, only 26.00 per cent of the growers perceived high training need. As regards to practice wise training need, spraying of mallic hydrazide, identifying major disease of onion crops, plant protection measures against onion disease and improved storage practices of onion required 100.00 per cent, 91.00 per cent, 96.00 per cent and 88.00 per cent, respectively by the growers which observed very large in number.

It was also revealed that area of training need about various varieties of onion, different colour varieties of onion, FYM application, suitable time of raising seedlings, harvesting methods of onion, and training needs with seed bed prepared for onion seedlings was 22.00 per cent, 05.00 per cent, 18.00 per cent, 14.00 per cent, 14.00 per cent and 05.00 per cent, respectively.

Table 1 : Distribution of the growers according to their training need of recommended cultivation practices of onion crop

Sr. No.	Improved cultivation practices	Growers required training (n=100)	
		Frequency	Percentage
A.	Land preparation		
1.	Ploughing, harrowing.	34	34.00
B.	Variety		
2.	Different colour varieties of onion	5	5.00
3.	Various varieties of onion	22	22.00
C.	Raising of seedlings		
4.	Suitable time for raising of onion seedlings	14	14.00
5.	Seed bed prepared for raising of onion seedlings	5	5.00
D.	Seed rate		
6.	Seed rate per hectare of onion crops.	25	25.00
E.	Transplanting of seedlings		
7.	Transplanting of onion seedlings in main field	23	23.00
F.	Spacing		
8.	Required spacing for onion crop.	38	38.00
G.	Intercultural operation		
9.	Important intercultural operation recommended for onion crop	65	65.00
H.	Organic manures		
10.	FYM application.	18	18.00
I.	Fertilizer application		
11.	Recommended time and dose of fertilizer application	24	24.00
J.	Irrigation		
12.	Irrigation water management.	49	49.00
K.	Plant protection		
13.	Identify major pests of onion crop.	47	47.00
14.	Plant protection measures against onion pests.	50	50.00
15.	Identify major diseases of onion crop.	97	97.00
16.	Plant protection measures against onion diseases	96	96.00
L.	Harvesting		
17.	Method of harvesting for onion crop	14	14.00
18.	Spraying of mallic hydrazide	100	100.00
M.	Curing		
19.	Curing of onion.	39	39.00
N.	Grading		
20.	Grading of onion bulb	41	41.00
O.	Storage		
21.	Different storage methods of onion.	63	63.00
22.	Improved storage practices of onion.	88	88.00
P.	Yield per hectare		
23.	Actual production of onion from one hectare of field	44	44.00

Table 2: Distribution of the growers according to their overall training need level about all recommended cultivation practices

Sr. No.	Training need level (Level)	Growers (n=100)	
		Frequency	Percentage
1.	Low (Upto 33.33)	35	35.00
2.	Medium (33.34 to 66.66)	39	39.00
3.	High (Above 66.67)	26	26.00
	Total	100	100.00

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