

Identification of Dryland Farming Systems Adopted by Dryland Farmers

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ABSTRACT

The study was undertaken in five villages from each village of Akola and Balapur Taluka of Akola district of Maharashtra State. An exploratory design of social research was used. Total 100 respondents were selected for the present study. The salient finding of the present study was reported that the majority of the respondent adopted agriculture + cow farming system (40%), agriculture + goat (40%) and agriculture + buffalo farming systems (13%). All the respondents adopted different farming systems because they get additional income. About 98 per cent of the respondent said that they get by product which is useful to own farming as well as 95 per cent of the respondent said that the rationale behind adoption of different farming system is availability of raw material and input for systems locally.

Keywords: Adoption, Dryland agriculture, Farming system

INTRODUCTION

India has about 108 million ha Dry land area which constitutes nearly 75 per cent of the total 143 million ha of arable land in such area crop production become relatively difficult as it mainly depends upon intensity and frequency of rainfall. The crop production in such area is called Rainfed farming. As there is no facility to give any irrigation and even protective life saving irrigation is not possible. This area gets annual rainfall up to 750 mm which is unevenly distributed, highly uncertain and erratic. The crop production depending upon this rain is technically called dry land farming. Therefore dry land farming is defined as a practice of growing profitable crops without irrigation in area which receive an annual rainfall of 750mm or even less.

Maharashtra state has highest proportion of Rainfed area among the state. About 85 per cent of net cultivated area is Rainfed Agriculture in Vidarbha region. The production of crop in this region depends on natural rains, small size of land holdings, periodical droughts, soil erosion, and large dry spells, low crop yield and poor economic returns are the important features of the dry farming areas. The productivity

in dry land areas is low because of lack of use soil moisture conservation technology.

The Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola identified and recommended a package of dry land technology in respect of cropping systems in situ moisture conservation, integrated nutrient management, cropping systems and contingent planning. However, it was observed that farmers were not fully aware about this technology and adopt only few component of this technology at a given time. It may be related to the technology itself or to the farmers themselves and their situation. It is therefore through desirable to identify different farming system adopted by farmers and to assess the rationale behind adoption of different farming system by the farmers.

METHODOLOGY

The present study was undertaken in Akola and Balapur Taluka of Akola district in Vidarbha region of Maharashtra state because this area comes under dry land farming. The emphasis in the study was on identifying the different farming systems in Akola district and find out

rationale behind its adoption. Therefore the exploratory design of social research used for the present investigation. For the present study a random sampling method was used. After selection of Akola and Balapur Taluka, 5 villages were purposively selected from each Taluka and 100 farmers were selected from these Taluka; it means 10 farmers from each village were selected randomly.

RESULTS AND DISCUSSION

Identified farming systems

Table 1 : Identified different farming systems n=100

Sr. No	Identified farming system	No.	Per cent
1	Agriculture + Cow farming system	40	40.00
2	Agriculture +Goat farming system	40	40.00
3	Agriculture +Buffalo farming system	13	13.00
4	Agriculture +Poultry farming system	02	02.00
5	Agriculture +Cow+ goat farming system	03	03.00
7	Agriculture +Cow + buffalo farming system	01	01.00
8	Agriculture +Other (pigeon) farming system	01	01.00

From the Table 1, it is observed that 40 per cent dry land farmers adopted agriculture +cow farming system nearly same percentage (40%) of the respondents adopted agriculture +goat farming system and few respondents (13%) adopted agriculture +buffalo farming system and very small percentage of the respondent adopted (2%) farmers adopted Agriculture +poultry farming system.

There is also different mixed farming systems are identified that are agriculture +cow + goat (3%), agriculture + cow + buffalo (1%), and agriculture +other (pigeon) farming system (1%).

From above result it can be concluded that the majority of the dry land farmer's follows agriculture +cow and agriculture +goat farming systems.

Adoption of farming systems

Table 2 : Rationale behind adoption of different dry farming systems n=100

Sr. No	Particulars	No	Per cent	Rank
1	Getting byproduct which is useful to own farming	98	98.00	II
2	Get additional income	100	100.00	I
3	Availability of raw material or inputs required for systems locally	95	95.00	III
4	Adopting farming system as a traditional occupation in the family	35	35.00	VI
5	Get daily income from the farming system adopted	55	55.00	V
6	Proper utilization of time of family members	65	65.00	IV

The Table 2 shows that cent per cent (100.00%) of the respondents adopted different farming systems because they get additional income. About 98 per cent of the respondents said that they get by product which is useful to own farming as well as 95 per cent of the respondent said that the rationale behind adoption of different farming system is availability of raw material and input for locally. About 65 and 55 percent of the respondents said that the reason behind adopting of the different farming systems was proper utilization of time of family members and get daily income from the farming system adopted. Only 35 per cent of the respondent said that they adopt farming system because it was traditional occupation in the family.

CONCLUSION

It can be concluded that the majority of the respondents were adopted agriculture + cow farming system (40%), agriculture + goat (40%) and agriculture + buffalo farming systems (13%).

The entire respondent adopted different farming systems because they get additional income. About 98 per cent of the respondent said that they get by product which is useful to own farming as well as 95 per cent of the respondent said that the rationale behind adoption of different farming system is availability of raw material and input for system s locally. Therefore it is implies that the respondent should provide subsidy on the agriculture input. It will helpful for respondents in increasing their annual income. The contact with agriculture officer, BDO, university scientist is very low,

there fore it is suggested that the extension agencies should be take efforts to get higher participation of farmers in extension activities, farmers forums and self help groups should established to have collaborative and cooperative efforts for increasing awareness about dry land farming systems among farmers.

The result shows that among different farming systems agriculture +cow and agriculture +goat farming systems seem to be adopted by the more number of dry land farmers. Therefore farmers should focus on these two farming systems. Government and extension agencies given more promotion of these farming systems in the dry land areas. So the income of the farmer may increase. Return from the investment in the agriculture +cow and agriculture +goat farming system found to increase with increase size of herd. Therefore farmer should possess maximum number of animals to get maximum return.

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