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Analysis the Constraints faced by the fodder sorghum growers in Tirupur District of Tamil Nadu State

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ABSTRACT :

The study entitled the constraints expressed by the fodder sorghum growers.The study was taken up in five selected villages in Avinashi block of Tirupur district of Tamil Nadu. A fixed sample size of 120 respondents was selected by proportionate random sampling technique. The data was collected from the respondents with the help of a well-structured and pre-tested interview schedule. It could be interpreted that hundred per cent of the respondents regularly faced the production constraints like pest and disease problem followed by fear about natural disaster and rainfall. Marketing constraints faced by more than half of the respondents viz., lack of market information and fixation of the price by the commission agent. Some of the respondents were facing the input constraints viz., non-availability of bio-fertilizer and farmers and labour are unskilled due to lack of training. One-third of the respondents were expressed technical constraints viz., lack of technical guidance and lack of technical guidance about recommended varieties. One-third of the respondents were facing the institutional constraints viz., inadequate ATMA officials at block level and weak extension activities at village level.

Keywords – Constraints, fodder sorghum growers, proportionate random sampling

INTRODUCTION :

The backbone of the Indian economy is farming. India is hence sometimes referred to as a nation dominated by agriculture. According to Economy of India (2018), it accounts for 14.70 percent of our nation's total exports, employs about 65.00 percent of the labor force, and contributes 22.00 percent of the GDP. In order to support globalization and the consumer's need for productivity, farming must be viewed as an enterprise, with farmers acting as entrepreneurs to achieve the ultimate aim of profitability enhancement. Developing countries also use sorghum plant products for cooking fuel, construction materials, leather dyes and as physical support for vining crops like yams (NRC, 2004). Cultivated sorghum ranks fifth in worldwide cereal crop production behind maize, rice, wheat and barley (FAOSTAT, 2017). It is a widely adapted species capable of growing in semiarid, subtropical, tropical and temperate climates. An extensive root system and the ability to become dormant during water stress make cultivated sorghum drought-resistant (Whiteman and Wilson, 1965), typically requiring only one-half to two-thirds the amount of rainfall as maize (Hancock, 2000). Plants are primarily self-pollinated, but some wind pollination occurs. Cultivated sorghum is physiologically a perennial that is typically grown as an annual. In some environments a second ratoon (resprouted) crop is produced from the unharvested roots and stolons of the first crop.

RESEARCH METHODOLOGY :

The study was conducted in Tirupur district of Tamil Nadu as this district noted for its rich wealth of indigenous wisdom. The maximum area criterion was followed in the selection of block. The Tirupur district consists of 13 blocks. Avinashi block was selected based on the highest area under fodder sorghum cultivation. There were 34 revenue villages in Avinashi block. Among 34 Revenue villages, totally six villages were selected based on highest area under Fodder Sorghum Cultivation. The villages viz., Tekkalur, Thandukarampalayam, Vadugapalayam, Pothampalayam, Nambiyampalayam and Muriyandampalayam were selected for the study. A sample size of 120 was fixed for the study considering the limitation of time and resources. The respondents were identified from the selected villages by following proportionate random sampling method. Based on the review of available literature, discussion with subject matter experts and observations of the researcher, the constraints encountered in Fodder sorghum cultivation and marketing were listed out. The respondents were asked to mention the production and marketing constraints separately and the data collected were analysed using percentage analysis.

OBJECTIVES :

To study the constraints faced by the fodder sorghum growers

RESULTS AND DISCUSSION :

This section discussed on the specific constraints faced by the respondents in fodder sorghum cultivation are presented in Table-1.

Table – 1 Distribution of respondents according to their constraints faced during cultivation of fodder sorghum

S.NO	CONSTRAINTS	NUMBER OF RESPONDENTS	MEAN SCORE	RANK
A.	**PRODUCTION CONSTRAINTS**			
1.	Pest and disease problem	120	100.00	I
2.	Fear about natural disaster and lack of rainfall	104	87.00	II
3.	High cost of inputs	99	83.00	III
4.	High cost of labour	78	65.00	IV
5.	Inadequate credit facilities.	77	64.00	V
6.	Non- availability of inputs at right time	74	62.00	VI
7.	Unawareness about technical information regarding Post harvest management practices	73	61.00	VII
8.	Problem regarding theft of fodder grains	65	54.00	VIII
9.	Non – availability of labour in time	62	51.66	IX
10.	Unawareness about different government schemes	49	40.83	X
B.	**MARKETING CONSTRAINTS**			
1.	Lack of market information	79	66.00	I
2.	Fixation of the price by the commission agent	71	59.00	II
3.	Fluctuation in market price	66	55.00	III
4.	Poor quality of fodder	57	48.00	IV
C.	**INPUT CONSTRAINTS**			
1.	Non – availability of bio-fertilizer	77	64.16	I
2.	Farmers and labour are unskilled due to lack of training	76	63.33	II
3.	Non-availability of input at proper time	68	56.66	III
4.	Non – availability of threshing machine at proper time	49	40.83	IV
5.	High charges for threshing of fodder sorghum	41	34.16	V
D.	**TECHNICAL CONSTRAINTS**			
1.	Lack of technical guidance about recommended varieties	66	55.00	I
2.	Lack of technical guidance	46	38.33	II
E.	**INSTITUTIONAL CONSTRAINTS**			
1.	Inadequate ATMA officials at block level	46	38.33	I
2.	Weak extension activities at village level	39	32.50	II

A. Production constraints

i. Pest and disease problem

The various sub-items under production constraints were presented in Table 1. Major production constraint faced by 100% of the fodder sorghum growers were pest and disease problem . Nematode is the most destructive pest of fodder sorghum causing damage to roots and tender shoots, immature cob and various stages of crop development. In severe case of damage even up to 100% loss in the yield may observe. Peacock and reindeer is also serious pest. Disease like charcoal rot, head smut and downy mildew etc., also contribute to yield loss and quality of produce.

ii. II.Fear about natural disaster and lack of rainfall:

The second major production constraint expressed by 87.00 per cent of the respondents were 'fear about natural disaster and lack of rainfall'. The severe drought has created huge damage in Tirupur district. Lack of rainfall is also reported as the major constraints by the respondents. The recent climatic changes had resulted in low rainfall in the region.

iii. III.High cost of inputs:

The third major production constraint expressed by 83.00 per cent of the respondents was 'high cost of inputs.' This may be due to the rise in price of fertilizers, pesticides, etc., in every year. Whereas, the price of the produce has not increased proportionately every year. Most of the respondents having small land holdings with less socio – economic status do not have adequate savings for the purchase of inputs in their cultivation. They always depend upon private input dealers/ commission agents to get money for their cultivation purpose. In these occasions, they sell their inputs at high cost to the farmers. This may be the reason for above constraint in fodder sorghum cultivation.

iv. IV. High cost of labour

The fourth major production constraint expressed by 78.52 per cent of the respondents was 'high cost of labour'. Farm labourersare presently shifting to industries due to increased wages from industries. The labour move to industries have created a scarcity of labour for agriculture. The additional reason might be due to the fact that the agricultural labourers demand higher wages for irrespective nature of work resulted in the non-availability of labourers for the agriculturaloperations.

v. V. Non-availability of labour in time

The fifth major production constraint expressed by 78.00 per cent of the respondents was 'non-availability of labour in time'. More number of labours was required from planting to harvesting of the fodder sorghum. The labour requirement for harvesting operations is more as it involves frequent number of harvests. The major reason might be due to the fact that all the farmers usually start the intercultural operations like pesticide application,

weeding and harvesting at the same time. Another reason for the labour scarcity might be due to increased rate of literacy make the peoples to migrate from rural to urban areas to do the industrial works is one of the major reason for the unavailability of labours to do the agricultural works.

vi. VI. Inadequate credit facilities

The sixth major production constraints expressed by 64.00 per cent of the respondents was 'inadequate credit facilities'. This might be due to the fact that fodder sorghum growers always depend on private money lenders with the high rate of interest. Co-operatives and commercial banks of the study area had lesser sanction loan to purchase vital inputs by getting loan from the banks which takes long time process.

vii. VII. Unawareness about technical information regarding post-harvest management practices

Unawareness about technical information regarding post-harvest management practices was also a major production constraint reported by 61.00 per cent of the fodder sorghum growers. Post harvest handling and packaging of export commodity is very important in achieving quality products that attracts better prices in the export market. Lack of awareness about the post-harvest practices and due to the inadequate extension work of the Department of Agriculture to disseminate fodder sorghum flour processing technologies to the processors and also lack of training by them plays as a major constraint among the rural farmers.

viii. VIII. Non - availability of inputs at right time

The eighth major production constraint expressed by 62.00 per cent of the respondents was 'non-availability of inputs at right time'. This might be due to the fact that most of the respondents started their farm operations under Government schemes at a same time. Supplying of inputs to all the beneficiaries at a same time leads to non - availability of inputs at right time.

ix. IX. Problem regarding thefts of fodder grains

Due to the unavailability of labourers to safeguard the fodder sorghum silage and grains at the ripening stage was the main reason for the thefting of grains and it also causes major losses in the production. This was reported by 54.00 per cent of the respondents.

x. X. Unawareness of different government scheme

Unawareness of different government scheme as a constraint expressed by 40.83 per cent of the fodder sorghum growers. Though the scheme added value to the buyers as well as growers, many of them were unaware of the scheme. Most of the schemes do not reach the poor but siphoned away by miscreants who were middleman and corrupted officials.

B.Marketing constraints

Marketing constraints experienced by the respondents in fodder sorghum cultivation

i. Lack of market information

The major marketing constraint expressed by 65.83 per cent of the respondents was 'lack of market information' by the fodder sorghum growers as minimum number of traders were getting market information through the internet and they were no sytematic way to get market information at village level. Most of them depend upon input dealers to get their vital information like traditional varieties, pesticides and fertilizer recommendation and most of the time they get wrong information. It leads to heavy loss in their fodder sorghum cultivation and also middlemen intervention was more due to unavailability of regulated markets.

ii. Fixation of the price by the commission agent

Fixation of price was done mostly by the commission agents as a marketing constraints expressed by 59.16 per cent. They fix very low prices without considering the production cost and charge heavy rate of commissions, brokerages ete. Various malpractices also done by the commission agents and middle man regarding price and weighting.

iii. Fluctuation in market price

Fluctuation in market price was the major marketing constraints faced by 55.00 per cent of the fodder sorghum growers. Majority of the fodder sorghum growers faced high price fluctuation before and after harvesting. This might be due to the fact that during post-harvest period farmers get lower price for their produce due to heavy arrival of the produce in the market.

iv. Poor quality of grains

The third major marketing constraint expressed by 47.50 per cent of the respondents was 'poor quality of grains'. These might be due to the fact that the low knowledge level of fodder sorghum growers in handling the silage and grains have caused the poor quality.

C. Input Constraints:

I. Non- availability of bio-fertilizer

Non-availability of bio-fertilizer were considered to be the first input constraints expressed by 64.16 per cent of the respondents. As majority of the respondents applied bio-fertilizers at the same time, which resulted with a heavy demand for bio- fertilizers and irregular supply of bio-fertilizers by the government depots and private input dealers might be the reason for reporting this constraint.

II. Farmers and labour are unskilled due to lack of training

Farmers and labour are unskilled due to lack of training as a second input constraint was expressed by 63.33 per cent of respondents of fodder sorghum growers, " Lack of personal incentives to training", "lack of motivation", and " Lack of adequate resources", and encouragement by other farmers are some major problems faced by the farmers.

III. Non- availability of input at proper time

Non availability of inputs was considered to be third input constraint was faced by 56.66 per cent of the respondents. Planting and storing of the grain as the vend for the next season was not done properly and also non-availability of agriculture depots within easy reach may also be a reason for the above constraints.

IV. Non -availability of threshing machine at proper time

Non-availability of threshing machine at proper time were one of the serve input constraints faced by 40.83 per cent of the respondents. The availability of threshing machine is considered to be low in the nearby areas. Hence this may be the reason for this constraint.

V. High charges for threshing of fodder sorghum

High charges for the threshing sorghum to be the fifth input constraint faced by 34.16 per cent of the respondents. Less availability of the threshing machine and the charges they demand was also very high which is not affordable by the sorghum farmers.In threshing of fodder sorghum in machine may increase the threshing efficiency, threshing capacity and to reduce the cost of threshing in comparison traditional methods of threshing sorghum crop. The machine is of low cost, simple in structure, convenient in operating and easy for repairing. But farmers are not aware of it, they mostly go with traditional method by using stick. So, traditional methods charges high for threshing of fodder sorghum.

D.Technical constraints

i. Lack of technical guidance

Lack of technical guidance were considered to be the major technical constraints was expressed by 55.00 per cent of the respondents. They felt that the extension personnel were not taking adequate efforts to provide the latest technological information to the respondents.

ii. II. Lack of technical knowledge about recommended varieties

Lack of technical knowledge about recommended varieties (African tall, Moti composite, Ganga -5 and Jawahar) were reported by 38.33 per cent of the respondents. The reason for this constraint is that, after attending ATMA training they may forget about the variety name and details of sorghum. This is due to the majority of therespondents belonged to middle andold age groups. It is quite natural, that the age factor is the main reason for forgetting the information.

E. Institutional Constraints

i. Lack of ATMA officials at block level

Among the two institutional constraints 'lack of ATMA officials at block level' becomes the first major constraints with 38.33 per cent of the respondents. In block level only one BTM and two ATM officials were present. They are not possible to disseminate the technical facilities and may not cover every farmer needs. This may be the reason for the above constraint.

ii. II.Weak extension activities at village level

Weak extension activities at village level were reported as the second institutional constraints by 32.50 per cent of the respondents. The possible reason may be the lack of sufficient extension functionaries to act as facilitator to and to disseminate the information. Due to the overload of the extension officials, they may not possible to visit all the farmer houses. This may be due to the insufficient staff members in the state department of agriculture may be the reason. They are not possible to cover the entire area in disseminating the technologies. It may lead to weak extension activities. This might be the reason for the above expressed constraint by the respondents.

CONCLUSION :

The major production constraint expressed by all the respondents were pest and disease problem followed by fear about natural disaster and lack of rainfall, high cost of inputs, non-availability of labour in time, inadequate credit facilities, unawareness about technical information regarding post-harvest management practices, non-availability of inputs at right time, problem regarding thefts of fodder grains and unawareness of different government scheme. The major marketing constraint expressed by most of the respondents were lack of market information followed by fixation of the price by the commission agent, fluctuation in market price and poor quality of grains.The major input constraint expressed by most of the respondents were non-availability of bio-fertilizer followed by farmers and labour are unskilled due to lack of training, non-availability of input at proper time, non-availability of threshing machine at proper time and high charges for threshing of fodder sorghum. The major technical constraints expressed by most of the respondents were lack of technical guidance followed by lack of technical knowledge about recommended varieties. The major institutional constraint expressed by the respondents was lack of ATMA officials at block level followed by weak extension activities at village level.

REFERENCES :

1. FAOSTAT, 2017. "**Production – Crops –Area harvested/yield/production quantity – sorghum –2014**", FAO Satistics (online database), Food and Agriculture Organization, **www.fao.org/faostat/en** (accessed 22 September 2017).
2. Hancock, J.D. 2000, "Value of sorghum and sorghum co-products in diets for livestock", in: Smith, C.W. and R.A. Frederiksen (eds.), **Sorghum: Origin, History, Technology**, **and Production**, John Wiley & Sons, New York, pp. 731-749.
3. NRC 2004, **Biological Confinement of Genetically Engineered Organisms**, National Academies Press, Washington, DC.
4. Whiteman, P.C. and G.L. Wilson.1965.**"Effects of water stress on thereproductive development of Sorghum vulgare Pers",** University of Queensland Papers, Vol. IV/14, pp. 233-239.