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Production of millets and socio-economic characteristics of farm families in selected districts of Telangana state

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Abstract

The Indian economy is built on agriculture, which is a key component of that nation's economy. Agriculture includes not only the cultivation of food crops such as rice and wheat, but also maize, finger millet, sorghum, barley, pearl millet, small millets, and so on. In emerging nations in the semi-arid tropics of Asia and Africa, particularly in India, Nigeria, and Niger, millets are major grains that are crucial to the food and nutritional security of the populations. Sorghum, bajra (pearl millet), ragi (finger millet), and small millets such as kora (foxtail millet), little millet, kodo millet, proso millet, and barnyard millet are important millet crops farmed in India. The study showed that more than half of the respondents did not use a lease land to cultivate millets, whereas the majority of respondents were cultivating on less than 5 acres., sorghum is cultivated majorly in kharif season and rabi season, yield of 1- 5 quintals per acre in kharif season and rabi season, majority of the respondents belonged to young age, Illiterates, main occupation were agriculture, small farm size, had 5–10 years of farming experience, sources of information received through AEO, family members.

Keywords: Production, millet, farm families, mass media

Introduction

India has made a remarkable progress toward achieving food security with adequate production of cereals and oil seeds, but the issue of children and women malnutrition continues to be a difficult challenge. Rice-based diets are sufficient in calories, but they are deficient in some essential elements. Therefore, it is vital to expand the food selection in order to improve the nutritional value of the meals and increase the overall amount of nutrients provided to women and children. Due to their higher levels of fibre, vitamins, minerals, and micronutrients, small millets including finger millet, foxtail millet, and little millets, among others, can close the gap. Millets due to their beneficial qualities, perform a highly specific role in human nutrition. Millets are known as "Nutri-cereals" because they are full of vitamins, minerals, sulphur-containing amino acids, and phytochemicals. In terms of nutrition, they are on par with or even better than common cereals like wheat and rice. Each of the millets contains more fibre than wheat and rice together. Every other millet has at least twice as much calcium as rice, with the exception of finger millet, which has a thirty-fold higher calcium content. Foxtail and tiny millet are so rich in iron that rice is far behind them in the race. Millets contain large amounts of beta carotene, a vitamin that the majority of us look for in pharmaceutical pills and capsules.

Harshitha (2018) ^[4] conducted a study on production and marketing of finger millet in Doddaballapura taluk of Bengaluru rural district, reported that total cultivable land in the study were 53.75 acre out of which 39.75 acres is under rainfed and remaining 14 acres of land is under irrigation.

Ramachandra (2018) ^[10] investigated that, majority (57.50%) of the respondents had medium level of farming experience followed by low level of farming experience (24.17%) and high level of farming experience (18.33%).

Rao *et al.* (2018) found that most of the respondents bought their seeds from local traders or seed companies in three states. Gujarat (79.00%), Rajasthan (86.00%) and Uttar Pradesh (93.00%) followed by local seed producers (10.00%), (4.00%) and (1.00%) in Gujarat, Rajasthan and Uttar Pradesh respectively.

Materials and Methods

An action research design was adopted for the present study. The study was conducted in Mahabubnagar and Nalgonda districts based on the highest and lowest millet cultivation (source: Directorate of Economics and Statistics (2018) [2] of Telangana state, from each selected districts six mandals were randomly selected by simple random sampling method. From each mandals two villages were chosen. Hence total of (12) villages were selected randomly. From the selected 12 villages, 25 respondents from each village were selected by random sampling procedure, from each district, a sample of 150 farm families were selected, thus comprising the 300 total sample for the study. The data was collected by using personal interview method with the help of a structured interview schedule, combine with direct observation. Statistical procedures were used to analyse and interpret the data.

Results and Discussion

The findings of the present study were tabulated, discussed, and presented below in details regarding the production of millets among farm families in selected districts from Telangana state. Production of millets included millet cultivation, purchase of seed, types of millet grown in selected study area, area under cultivation, yield of millets. Socio- economic characteristics of farm families.

Production of millet

In India, millet production has increased to approximately 11 million tonnes in all the subsequent years. It is observed that millet is intensely produced in India. According to FAO, the global millet production was estimated 97.4 million metric tonnes in 2020. India is the largest global producer with 17.70 per cent global market share followed by Chad with 8.57per cent of global share (Source: Food and agricultural Organization (FAO) 2020).

In India, millets are grown on about 13.8 million ha with an annual production of 17.2 million tonnes and contribute 49.1 million tonnes to the country's food grain basket. However, the direct consumption of jowar and other millets as food has significantly lessened over the past three decades. The major producing states of millets are Rajasthan, Karnataka, Maharashtra, Gujarat, Madya Pradesh, Tamilnadu, Andra Pradesh, and Telangana, respectively (Source: SDDS-DES,

Ministry of Agriculture (2019-20).

The production of millets in Telangana from 2013-2021 has subsequent downfalls and upgrades, but the production of millets in overall Telangana in 2013-14 and 2020-21 are same and are highest in all these years. In 2018-19, the millet production in all districts of Telangana was the least. The research areas Mahabubnagar and Nalgonda has drastically downgraded their production in all the subsequent years, except Nalgonda has improvement in the year 2016-17. keeping in view a study on production and socio-economic characteristics were studied.

Millet production

The table 1 indicates that, the cent percent of the respondents were aware of millet production grown in the Mahabubnagar and Nalgonda districts, the study revealed that in Mahabubnagar district, that the majority (44.67%) of the respondents had 6–10 years of experience, followed by 2–5 years (43.33%), above 10 years (11.33%) and less than 1 year (0.67%). Whereas in Nalgonda district, out of 150 respondents, more than half (63.33%) of the respondents had 2–5 years of experience in millet production followed by 6–10 years (36.67%), However, out of the total respondents, revealed that the majority of respondents have 2–5 years (53.33%) followed by 6–10 years (40.67%), above 10 years of experience (5.67%) and less than 1 year (0.33%) of experience. The study is in line with Ramachandra (2018) [10]. With regard to water sources for cultivation, In Mahabubnagar district, the majority (73.33%) of respondents cultivated millets in rainfed areas followed by tanks (14.00%) and bore wells (12.67%) and none of the respondents had canals for millet cultivation due to limited irrigation facilities. While in Nalgonda, the majority (66.67%) of respondents were cultivating in rain fed areas, followed by open wells (26.67%), and borewells (6.67%), none of them cultivating in tanks. However, out of total respondents, the majority (70.00%) of the respondents were doing cultivation through rainfall followed by open wells (13.33%), bore wells (9.67%) and tanks (7.00%). Agricultural production is predominantly based on meteorological conditions and irrigation systems. Hence, the majority of the respondents' agricultural practises depend on rain. A similar study conducted by Harshitha (2018) [4].

Table 1: Distribution of respondents according to their awareness on millet production, Experience & Water sources

S. No	Production	Mahabubnagar N1=150	Nalgonda N2=150	Total N=300
		F (%)	F (%)	F (%)
1.	Awareness on millet production	150 (100%)	150 (100%)	300 (100%)
2.	Millet production experience			
	a) < 1year	1 (0.67%)	6 (4.00%)	7 (2.33%)
	b) 1-5 year	45 (30.00%)	90 (60.00%)	135 (45.00%)
	c) 6-10 years	87 (58.00%)	54 (36.00)	141 (47.00)
	d) >10years	17 (11.33%)	0 (0.00)	17 (5.67%)
3.	Water sources for cultivation			
	a) Irrigated area			
	Borewell	19 (12.67%)	11 (7.33%)	30 (10.00%)
	Canal/open well	0 (0.00%)	39 (26.00%)	39 (13.00)
	Tanks	21 (14.00%)	0 (0.00%)	21 (7.00%)
	b) Rainfed	110 (73.33%)	100 (66.67%)	210 (70.00%)

Sources of seed purchase for production

It is clear from Table 2 that in the Mahabubnagar district, majority (59.33%) of the respondents purchased seed from a wholesaler/retailer, followed by from their own farm

(20.00%), zonal agricultural research station (14.67%) and weekly marketers (6.00%). While in Nalgonda district, more than half (74.00%) of the respondents purchased seed from wholesalers/retailers and weekly markets (26.00%). However,

out of total respondents from Mahabubnagar and Nalgonda districts, the majority (66.67%) of them purchased seed from wholesalers/retailers, followed by weekly markets (16.00%), their own form (10.00%), and very few respondents purchased seed from zonal Agri-research station (7.33%).

The probable reason might be that the majority of the respondents were not sticking to one source to purchase the seeds; they were switching between different sources as per their convenience. A similar study conducted by Rao *et al.* (2018).

Table 2: Distribution of respondents according to their sources of seed purchase for millet production

S. No.	Sources of seed purchased	Mahabubnagar N1=150	Nalgonda N2=150	Total N=300
		F (%)	F (%)	F (%)
1	Kirana stores	0	0	0
2	KVK	0.00	0.00	0.00
3	Zonal agril. Research station	22 (14.67%)	0 0.00	22 (7.33%)
4	Local traders/ Seed company	89 (59.33%)	111 (74.00%)	200 (66.67%)
5	Weekly marketers	9 (6.00%)	39 (26.00%)	48 (16.00%)
6	From own farm	30 (20.00%)	0 0.00	30 (10.00%)

Types of millet grown

Under the research area, the majority of respondents were cultivating millets like sorghum, finger millet, pearl millet, and foxtail millet. Millets do remarkably well in severe drought conditions because they are adapted to drylands, where crops thrive and there are less options. They are simple to grow, inexpensive to grow quickly, adaptable to various soil conditions, and improved farming methods can yield higher returns with minimal external inputs; they are also water and fertiliser responsive.

The table 3. Shows season wise millet grown in Mahabubnagar district, in kharif season, majority (35.33%) of the respondents were cultivating sorghum, followed by finger millet (23.33%), foxtail millet (2.67%) and pearl millet (2.00%). While in Nalgonda district, majority (26.00%) of the respondents were cultivating sorghum followed by pearl millet (11.33), foxtail millet (8.67%) and finger millet (3.33%). However, out of total respondents' the majority (30.67%) of the respondents were cultivating sorghum, followed by finger millet (13.33%). and pearl millet (6.67%)

and foxtail millet (5.67%).

With regard to rabi season, in Mahabubnagar district, majority (28.00%) of the respondents were cultivating finger millet (28.00%) and sorghum (8.67%). while, in Nalgonda district, sorghum (25.00%), pearl millet (14.67%), and foxtail millet (8.67%) and only (2.00%) of the respondents cultivating finger millet. Among the total respondents, the majority (17.00%) of the respondents cultivating sorghum, followed by finger millet (15.00%), pearl millet (7.33%) and foxtail millet (4.33%).

This could be because finger millet farming is more prevalent in Mahabubnagar district during the rabi season due to its better yield success rates when compared to other crops and its minimal maintenance requirements. Meanwhile, the majority of respondents in Nalgonda district grew sorghum and pearl millet during the kharif and rabi seasons because it doesn't need fertilisers or irrigation. They are resistant to disease and have a healthy market for consumption by both humans and animals. Similar research was done by Sahu (2018).

Table 3: Distribution of respondents according to their types of millet grown

S. No	Millet grown	Mahabubnagar N1=150	Nalgonda N2=150	Total N=300
1.	Kharif			
	Finger millet	35 (23.33%)	5 (3.33%)	40 (13.33%)
	Sorghum	53 (35.33%)	39 (26.00%)	92 (30.67%)
	Pearl millet	3 (2.00%)	17 (11.33%)	20 (6.67%)
	Foxtail millet	4 (2.67%)	13 (8.67%)	17 (5.67%)
2.	Rabi			
	Finger millet	42 (28.00%)	3 (2.00)	45 (15.00%)
	Sorghum	13 (8.67%)	38 (25.33%)	51 (17.00%)
	Pearl millet	0 (0.00)	22 (14.67%)	22 (7.33%)
	Foxtail millet	0 (0.00)	13 (8.67%)	13 (4.33%)

Area under millet production

It is observed from Table 4. that the majority (50.67%) of respondents in Mahabubnagar district cultivated 6–10 acres, followed by less than 5 acres (43.33%) and 11–15 acres (6.00%). While the majority of respondents (70.00 %) in the Nalgonda district were cultivating less than 5 acres and 6–10acres (30.00 %). Moreover, out of the overall respondents, the majority (56.67%) of the respondents were cultivating less than 5 acres followed by 6-10 acres (40.33%) and 11- 15

acres (3.00%). However, 15.33% of respondents in the Mahabubnagar district cultivate millets on leased land of less than 5 acres.

This probable reason might be due to non-availability of much irrigation infrastructure because this area is prone to drought. Its growth is hampered by a lack of resources, inadequate rainfall, and poor soil fertility. A similar study was conducted by Sahu (2018).

Table 4: Distribution of respondents according to their area under millet production

S.no	Area under millet production	Mahabubnagar N1=150	Nalgonda N2=150	Total N=300
1.	Own land			
	>5 acres	65 (43.33%)	105 (70.00%)	170 (56.67%)
	6-10 acres	76 (50.67%)	45 (30.00%)	121 (40.33%)
	11-15 acres	9 (6.00%)	0 0.00	9 (3.00%)
2.	Lease land			
	< 5 acres	23 (15.33%)	0 (0.00%)	23 (7.67%)
	No lease	127 (84.67%)	150 (100%)	277 (92.33%)

Millet's productivity

Table 5. reveals that during the kharif season in the Mahabubnagar district, In the Mahabubnagar, in Kharif season, majority (39.33%) of the respondents were yielding 1-5quintal per acre followed by 6-10 quintal (24.00%). in rabi season, yield is 6-10 quintals (26.67%) followed by 1-5quintal (10.00%). in Nalgonda district, in Kharif season,

majority (43.33%) of the respondents were getting 1- 5quintal yield and 6-10 quintal (12.00%). in rabi season getting 1- 5quintal yield (32.67%) and 6- 10quintal (12.00%). Overall respondents' majority (41.33%) of the respondents were 1- 5quintal getting yield per acre and 6-10 quintal (18.00%). in rabi 1-5 quintal (21.33%) and 6-10 quintal (19.33%). In line with Vishnu (2019).

Table 5: Distribution of respondents according to their productivity

	Productivity / acre	Mahabubnagar N1=150	Nalgonda N2=150	Total N=300
1	Kharif			
	1-5 quintal	59 (39.33%)	65 (43.33%)	124 (41.33%)
	6-10 quintal	36 (24.00%)	18 (12.00%)	54 (18.00%)
2	Rabi			
	1-5 quintal	15 (10.00%)	49 (32.67%)	64 (21.33%)
	6-10 quintal	40 (26.67%)	18 (12.00%)	58 (19.33%)

Socio-economic characteristics of farm families

Age

It was clear from the table 6 in Mahabubnagar district, the majority (44.00%) of the respondents belong to middle age followed by young (30.67%) and old age (25.33%). The mean age of the respondents was 38.71years with a standard deviation of 11.06. The results were in accordance with Das (2019). While in the Nalgonda district, the majority (45.33%) of the respondents belong to the young age group, followed

by middle age (28.67%) and old age (26.00%). The mean age of the respondents was 37.41 years with a standard deviation of 12.04. The results were in accordance with the results of Durgad (2021) [3]. However, out of total respondents, the majority (38.00%) of the respondents belonged to a young age, followed by middle age (36.33%) and middle age (25.67%). The mean age of the respondents was 38.06 years with a standard deviation of 11.56.

Table 6: Distribution of respondents according to their Age

S. No	Age (in years)	Mahabubnagar (N1=150)		Nalgonda (N2=150)		Total (n=300)	
		F	%	F	%	F	%
1.	Young (18 – 35 years)	46	30.67	68	45.33	114	38.00
2.	middle (36-50 years)	66	44.00	43	28.67	109	36.33
3.	Old age (above 50 years)	38	25.33	39	26.00	77	25.67
	Total	150	100	150	100	300	100
	Mean±S.D	38.71±11.06		37.41±12.04		38.06±11.56	

Education

It is clear from Table 7 in Mahabubnagar district, the majority (44.00%) of the respondents were illiterates followed by primary school (31.33%), middle school (10.67%), high school (8.67%), intermediate/diploma (4.00%) and graduation and above (1.33%).While in Nalgonda district, the majority (32.67%) of the respondents were illiterate followed by primary school (27.33%), middle school (12.67%), high

school (11.33%), intermediate/diploma (7.33%) and graduation and above (8.6%). The results were supported by Shirisha (2019) [12]. However, out of total respondents, the majority (38.33%) of them were illiterates and the minority of the respondents were from graduation and above (5.00%). The mean education of the respondents was 2.30 with a standard deviation of 1.46.

Table 7: Distribution of respondents according to their education levels

S. No	Education levels	Mahabubnagar (n1=150)		Nalgonda (n2=150)		Total (n=300)	
		F	%	F	%	F	%
1.	Illiterate	66	44.00	49	32.67	115	38.33
2.	Primary School	47	31.33	41	27.33	88	29.33
3.	Middle School	16	10.67	19	12.67	35	11.67
4.	High School	13	8.67	17	11.33	30	10.00
5.	Intermediate/ Diploma	6	4.00	11	7.33	17	5.67

6.	Graduation & above	2	1.33	13	8.67	15	5.00
	Total	150	100	150	100	300	100
	Mean±S.D	2.01±1.22		2.59±1.62		2.30±1.46	

Occupation

It was evident from the table 8 that in Mahabubnagar district and Nalgonda district, the majority of the respondents' main occupation was agriculture (56.0% & 49.33%) followed by agricultural labour + agriculture (38% & 42%). whereas in Nalgonda district, 8.67% of the respondents' main occupations were agriculture + business, while in Mahabubnagar district, 6.0% of the respondents' main

occupations were agriculture + business. However, in both districts, none of them were in the government sector. The results were supported by Harshitha (2018) [4]. However. Among the total respondents, majority (52.00%) of the respondent's main occupation was agriculture followed by agricultural labour + agriculture (40.67%). A very less (7.33%) respondents are involved in Business+ agriculture.

Table 8: Distribution of respondents according to their occupation

S. No	Occupation	Mahabubnagar (N1=150)		Nalgonda (N2=150)		Total (N=300)	
		F	%	F	%	F	%
1.	Agriculture	84	56.00	74	49.33	158	52.00
2.	Agricultural labour+ Agriculture	57	38.00	63	42.00	120	40.67
3.	Agriculture + Business	9	6.00	13	8.67	22	7.33
4.	Government job	0	0	0	0	0	0
	Total	150	100	150	100	300	100
	Mean±S.D	1.50±0.61		1.59±0.65		1.55±0.63	

Farm size

Based on farm size, the respondents were divided into five categories namely: marginal (up to 1ha), small (1 to 2 ha), semi- medium (4 to 10ha), medium (4-10 hectars) and large (10ha or above).

It is evident from table 9 that in Mahabubnagar district, most (46.00%) of the respondents had semi-medium farm size followed by small (42.00%), marginal (6.00%) medium (4.00%) and large (2.00%). The mean farm size of the respondents was 2.54 with a standard deviation of 0.76 Whereas, In Nalgonda district, the majority (45.33%) of respondents had small farm size, followed by semi-medium (37.33%), medium (12.00%), large (2.67%), and marginal

(2.67%). The mean farm size of the respondents was 2.67 with a standard deviation of 0.82.

However, out of the total respondents, the majority (43.67%) of the respondents had small farm size, followed by semi-medium (41.67%), medium (8.00%), marginal (4.33) and large (2.33%). The mean farm size of the respondents was 2.60 with a standard deviation of 0.79. This may be due to the cultural practise of the Indian family system. Parents used to give a part of their land to their children as a share after their marriage, and it is a continuous process that resulted in a reduction in the landholding capacity of farm families. The results were in line with Ramachandra (2018) [10].

Table 9: Distribution of respondents according to their Farm size

S. No	Farm size	Mahabubnagar (N1=150)		Nalgonda (N2=150)		Total (n=300)	
		F	%	F	%	F	%
1.	Marginal (up to 1 ha)	9	6.00	4	2.67	13	4.33
2.	Small (1-2 ha)	63	42.00	68	45.33	131	43.67
3.	Semi-medium (2-4 ha)	69	46.00	56	37.33	125	41.67
4.	Medium (4-10 ha)	6	4.00	18	12.00	24	8.00
5.	Large (10 ha and above)	3	2.00	4	2.67	7	2.33
	Total	150	100	150	100	300	100
	Mean±S.D	2.54±0.76		2.67±0.82		2.60±0.79	

Annual income

The results in table 10 indicated that in Mahabubnagar district, the majority (48.67%) of the respondents belonged to the high-income group followed by the medium (40.00%) and low (11.33%) income groups. The mean annual income of the respondents was 2.37 with a standard deviation of 0.68. The results were in line with Iliger (2012) [5].

However, in Nalgonda district, the majority (42.00%) of the respondents belonged to the medium income group followed

by the high (29.33%) income group, and the low (10.00%) income group. The mean annual income of the respondents was 2.01 with a standard deviation of 0.76. The results were in line with Ramachandra (2018) [10]. Among the total respondents, the majority (41.00%) of the respondents belonged to the medium income group followed by the high (39.00) income group, and the low (20.00) income group. The mean annual income of the respondents was 2.19 with a standard deviation of 0.75.

Table 10: Distribution of respondents according to their Annual income

S. no	Annual income	Mahabubnagar (N1=150)		Nalgonda (N2=150)		Total n=300	
		F	%	F	%	F	%
1	Low (Below 1 lakh)	17	11.33	43	28.67	60	20.00
2	Medium (1 lakh -2 lakhs)	60	40.00	63	42.00	123	41.00
3	High (Above -2 lakhs)	73	48.67	44	29.33	117	39.00

	Total	150	100	150	100	300	100
	Mean \pm S.D	2.37 \pm 0.68		2.01 \pm 0.76		2.19 \pm 0.75	

Sources of information

Table 11 indicates, in Mahabubnagar and Nalgonda district, cent percent of the respondents got information about farming through Agricultural Extension Officer (AEOs), family members and neighbors, followed by seed fertilizer shops (54.67), television (34.67%) newspapers (15.33%), equal per cent of mobile phone and Krishi Vignan Kendra (14.67) and radio (1.33%). While in Nalgonda districts seed fertilizer shop (64.00), television (31.33%) newspapers (30.67%), mobile phones (28.00), Krishi Vignan Kendra (KVKs) (7.33%) and radio (3.33%).

However, out of total respondents, indicated that cent per cent (100%) of respondents got the farming information through Agricultural Extension Officer (AEOs), family members and

neighbors by farm families. As most of the farm families were from traditional farming background and their ancestors were involved usually in farming as India is an agrarian society. Next by Seed fertilizer shop (59.33%). seed fertilizers play a greater role in farming in agriculture and influence the farm families. Farming information received from Television (TV) is about 33.00 percent and Newspaper was about 23 percent, and mobile phones (21.33%). while only minimal (11%) of farm women were getting information from Krishi Vignan Kendra (KVKs) as there are no KVKs working nearby locale of the study and only 2.33 percent of the farm families received information through radio. The results were with the findings of Sunitha (2019)^[13].

Table 11: Distribution of respondents according to their source of information

S. no	Source of information	Mahabubnagar (N1=150)	Nalgonda (N2=150)	Total (n=300)
		F (%)	F (%)	F (%)
1	News paper	23 (15.33)	46 (30.67)	69 (23.00)
3	Agricultural Extension Officer (AEO)	150 (100.00)	150 (100.00)	300 (100.00)
5	Television (TV)	52 (34.67)	47 (31.33)	99 (33.00)
6	Radio	2 (1.33)	5 (3.33)	7 (2.33)
7	Mobile phone	22 (14.67)	42 (28.00)	64 (21.33)
8	Family members	150 (100.00)	150 (100.00)	300 (100.00)
9	Neighbors	150 (100.00)	150 (100.00)	300 (100.00)
10	Seed fertilizer shop	82 (54.67)	96 (64.00)	178 (59.33)
11	Krishi Vignan Kendra (KVKs)	22 (14.67%)	11 (7.33)	33 (11.00)

Conclusion

The resilience of Indian agriculture, weathering all the vagaries of the monsoon has resulted in fall in food grain production, in spite of an increase in area under fine cereals which had necessitates a paradigm shift towards increase in production of minor millets, as it has wide adaptability to extremes of soil and climatic conditions. The study indicated that most of the respondents were cultivating millets in less than 5 acres, In kharif season the majority of the respondents were cultivating sorghum, In rabi season cultivating sorghum, followed by finger millet and pearl millet, in kharif season got yield of 1- 5 quintals per acre and 6-10 quintals, While in rabi season, farmers got 1-5 quintal yield and 19.33% of them got 6-10 quintal of yield. Further the socio-economic characteristics revealed that majority of respondents were young age, Illiterates, main occupation were agriculture, small farm size, medium income group had 5-10 years of farming experience, With regard to the overall sources of information in two districts, cent per cent (100%) of information about farming was received through family members Agricultural Extension Officer (AEO) and neighbours.

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