Socio-economic characteristics and its relationship with information seeking pattern of dairy farmers in Tamilnadu, India

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ABSTRACT
Livestock plays a significant role in the rural economy of Tamil Nadu. Every rural household is associated with livestock. The present study was endeavored to know about the profile of dairy farmers and its association with information dynamics. The study was conducted in Villupuram and Salem districts representing two diverse agro climatic zones of Tamil Nadu. The results of the study revealed that 76.67 per cent of the respondents belonged to old and middle aged categories, 45.00 per cent belonged to illiterate, 78.33 per cent and 21.67 per cent of the respondents had agriculture and dairying as their primary occupation respectively. Most of the respondents (70.83 per cent) belonged to nuclear family. More than half (64.16 per cent) of the respondents had high dairy farming experience. Nearly three-fourth (73.30 per cent) had medium livestock possession and 74.16 per cent adopted innovations after seeing the results of adoption by other farmers. Less than half (40.00 per cent) of the respondents had membership in one organisation and belonged to cosmopoliteness category.

Key words: Dairy farmers, Information dynamics, Socio-economic characteristics.

INTRODUCTION
Dairying is an important component of the mixed farming system which has sustained Indian agriculture since ages by providing a strong economic support to the farmers. India has largest population of cattle (195.87millions) and buffaloes (76.77 millions). The anticipated milk production in India in 2013 is 135.5 million tonnes. Even though, it is apparent that the present status of dairy modernization in the country reveals that dairy innovations are not adopted at a speed at which these are being evolved at the research stations. Information sources, channels, methods, messages and change agencies are playing important role in bringing about the desired changes among dairy farmers.

As Dr. V. Kurien, ex-chairman NDDB has noted, “The real dimension of dairying is not merely the development of cow, but the true development of man”. Hence, the attitude of the farmer is to be changed fast with new demands and preferences, viz., quality, quantity and cost. In most cases, farmers differ in their individual characteristics, access to and utilization of information from different sources. Such diversity among farmers could be related to various personal, social, economical, or institutional factors. So, understanding and studying the socio-economic characteristics of the dairy farmer is fundamental to develop appropriate methods to transfer information and to analyze the information system used by dairy farmers and to strengthen the information process. With the above back ground the study was carried out to identify the socio-economic characteristics of the dairy farmers and its effect on information behaviour.

MATERIALS AND METHODS
The study was conducted in North Western zone and North Eastern zone representing two diverse agro climatic zones of Tamil Nadu. Salem district from North Western zone and Villupuram district from North Eastern zone were selected based on highest milk production. Mecheri block in Salem district and Vikravandi block in Villupuram district were randomly selected. From the selected blocks, three villages were randomly selected for this study. Twenty respondents from each village were selected randomly to constitute a sample size of 120 respondents. To understand the socio-economic characteristics of the respondents, thirteen variables viz., age, sex, education, occupation, family type, family size, dairy farming experience, land holding, livestock possession, social participation, extension participation, cosmopoliteness, innovativeness were identified and relevant data were collected by using pre tested structured interview schedule.

RESULTS AND DISCUSSION
The socio-economic characteristics and its relationship with information seeking pattern of the dairy farmers were analysed and presented as follows:

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**Socio-economic characteristics**

**Age:** The age of the dairy farmers ranged between 20-85 years and the average age was 44 years. About two-fifth (41.67 per cent) of the dairy farmers belonged to old age group, while 35.00 per cent of them were in middle age group and only 23.33 per cent were in young age group. Similar observations are reported by Sharma et al. (1994).

**Sex:** More than half (52.50 per cent) of the farmers were female and the remaining 47.50 per cent were male. This finding is in contrast with the findings of Adesohinwa (2004) and Manivannan (2008).

**Education:** Nearly half (45.00 per cent) of the respondents were illiterate followed by high school education (19.17 per cent), primary school and middle school education (each 13.33 per cent), can read and write (5.00 per cent) and can read only (2.50 per cent). A negligible 1.67 per cent of the respondents had collegiate education. Most of the farmers were in old age, poor educational facilities available at the village level in earlier days might be the reason for most of them being illiterate. This result is in conformity with the findings of Sheela and Sundraswamy (1999) and Gosain et al. (2000).

**Occupation:** More than three-fourth (78.33 per cent) of the farmers had agriculture as the primary occupation whereas the remaining 21.67 per cent were practicing dairying as the primary occupation. Farmers were practicing agriculture as the main source of livelihood from ancestral period with dairying as a subsidiary occupation. This finding derives support from the observations of Sakthivel (2005) and Mishra and Bardhan (2011).

**Family type:** Nearly three-fourth (70.83 per cent) of the farmers was from nuclear family, while the rest 29.17 per cent were from joint family. The farmers opined that middle and young age people wished to lead an independent life with less responsibility and the Indian traditional joint family system is decreasing day by day, might be reason for more number of nuclear families. This finding derives support from the findings of and Satyanarayan and Jagadeeswary (2010) and Sathyaranarayan et al. (2010).

**Family size:** Nearly three-fourth (73.33 per cent) of the farmers had up to 5 members whereas the remaining 26.67 per cent had more than 5 members in their family. The farmers expressed that they could lead better and comfortable life with small families might be the reason. This result is in accordance with the finding of Satyanarayan and Jagadeeswary (2010).

**Dairy farming experience:** More than three-fifth (64.16 per cent) of the farmers had high dairy farming experience, whereas 24.17 per cent and 11.67 per cent had low and medium level of dairy farming experiences respectively. Agriculture and dairy farming are complementary to each other might be the reason for high level of experience. This finding is in accordance with the finding of Shinde (2011).

**Land holding:** Nearly two-fifth (39.16 per cent) of the farmers were marginal farmers followed by small (29.17 per cent), landless (22.50 per cent) and large (9.17 per cent) farmers. This finding derives support from the finding of Rathod et al. (2011).

**Livestock possession:** Nearly three-fourth (73.33 per cent) of the farmers had medium livestock possession followed by low (20.83 per cent) and high (5.84 per cent) livestock possession. Most of the farmers had dairying as a subsidiary occupation might be the reason. The results are in line with the findings of Thirumavalvan (2003) and George and Chauhan (2004).

**Social participation:** Two-fifth of the farmers (40.00 per cent) were member in either dairy co-operative society or primary agricultural co-operative society; 36.67 per cent of them were member in both dairy co-operative society and primary agricultural co-operative society and 21.67 per cent of them had no membership in any organisation such as dairy co-operative society, primary agricultural co-operative society, self help groups, farmers association and NGOs. Each 0.83 per cent of them were office bearers in one and more than one organisation. It is mandatory for the respondents to avail the service of primary agricultural and dairy cooperative societies might be the reason for most of the respondents had membership in the societies. This finding derives support from the finding of Thirumavalvan (2003).

**Extension participation:** It shows that about three-fourth of the farmers (76.67 per cent) had medium level of participation in group meetings; training programmes; field visits; demonstrations and exhibitions; whereas, 19.17 per cent and 4.16 per cent of the farmers had low and high levels of extension participation respectively. This finding is in agreement with the findings of George and Chauhan (2004) and Narmatha (2007).

**Cosmopolitaness:** More than three-fourth (78.33 per cent) of the farmers had membership in organisation outside their village and they gone to nearby town to meet officials to seek information related to farming activities. Interest in gathering recent information about dairy farming might be the reason for more cosmopolitaness.

**Innovativeness:** Nearly three-fourth (74.16 per cent) of the farmers reported that they adopted innovations after seeing the adoption of other farmers while 24.17 per cent of the farmers preferred to wait and taken their own time and 1.67 per cent adopted innovations as soon as it was brought to their knowledge.
Relationship between independent variables and information seeking pattern of dairy farmers

Correlation between socioeconomic characteristics and information pattern: In order to understand the association between the socioeconomic characteristics of dairy farmers and their information input, processing and output pattern, correlation analysis was carried out and the results are presented in Table 1.

Out of 11 independent variables studied education, land holding, livestock possession, social participation, extension participation, cosmopoliteness and innovativeness had positive and significant relationship at 1 per cent level with information input pattern. The results are in accordance with the findings of Singh and Tyagi (1994) and Lahoti et al. (2011).

Age had negative and significant relationship with information input pattern at 5 per cent level. The results are in accordance with the finding of Hossain et al. (2011).

Education, land holding, livestock possession, social participation, extension participation, cosmopoliteness and innovativeness had positive and significant relationship at 1 per cent level whereas family size had positive and significant relationship at 5 per cent level with information processing pattern. The results are in accordance with the findings of Kadian and Kumar (2002). Age had negative and significant relationship with information processing pattern at 5 per cent level.

Education, land holding, livestock possession, social participation, extension participation, cosmopoliteness and innovativeness had positive and significant relationship at 1 per cent level and family size had positive and significant relationship at 5 per cent level with information output pattern. The results are in accordance with the finding of Brar et al. (2004).

The farmers who had more informal education with social participation, extension participation, cosmopoliteness and innovativeness would increase the herd size based on their land holding. As age increases, access to information decrease due to decline in mobility. High social and extension participation along with innovativeness motivate the farmers to act as opinion leaders and they disseminate more information than others.

Contribution of independent variables towards information pattern

The independent variables influence over dependent variables and the extent of their contribution made by these variables, multiple regression analysis was carried out. Among the 11 variables, based on correlation co-efficient value six variables have been included for multiple regression analysis.

It could be observed that all the selected independent variables put together could explain 65.80 per cent of variations on information input pattern. Among the six variables taken for analysis only three variables viz., education, livestock possession and extension participation were found to be positively significant at 1 per cent level, whereas land holding was significant at 5 per cent level. The results also explained that a unit increase in the variables like education, livestock possession, extension participation and land holding would increase the information input pattern by 0.428, 0.240, 0.257 and 0.157 units respectively (Table 2).

The significant F value explains all the selected independent variables put together could explain 66.80 per cent variations in the information processing pattern. Among the chosen six variables, four variables viz., education, livestock possession, extension participation and cosmopoliteness were found to be positively significant at 1

### Table 1: Pearson correlation analysis of information pattern of dairy farmers

<table>
<thead>
<tr>
<th>Variable No.</th>
<th>Variables</th>
<th>Information input pattern</th>
<th>Information processing pattern</th>
<th>Information output pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>Age</td>
<td>-0.199**</td>
<td>-0.192**</td>
<td>-0.132 NS</td>
</tr>
<tr>
<td>X2</td>
<td>Education</td>
<td>0.623**</td>
<td>0.636**</td>
<td>0.591**</td>
</tr>
<tr>
<td>X3</td>
<td>Occupation</td>
<td>-0.127 NS</td>
<td>-0.057 NS</td>
<td>-0.093 NS</td>
</tr>
<tr>
<td>X4</td>
<td>Family size</td>
<td>0.157 NS</td>
<td>0.188</td>
<td>0.224</td>
</tr>
<tr>
<td>X5</td>
<td>Dairy farming experience</td>
<td>0.013 NS</td>
<td>-0.018 NS</td>
<td>0.077 NS</td>
</tr>
<tr>
<td>X6</td>
<td>Land holding</td>
<td>0.460**</td>
<td>0.403**</td>
<td>0.457**</td>
</tr>
<tr>
<td>X7</td>
<td>Livestock possession</td>
<td>0.501**</td>
<td>0.449**</td>
<td>0.545**</td>
</tr>
<tr>
<td>X8</td>
<td>Social participation</td>
<td>0.384**</td>
<td>0.426**</td>
<td>0.383**</td>
</tr>
<tr>
<td>X9</td>
<td>Extension participation</td>
<td>0.447**</td>
<td>0.445**</td>
<td>0.387**</td>
</tr>
<tr>
<td>X10</td>
<td>Cosmopoliteness</td>
<td>0.481**</td>
<td>0.564**</td>
<td>0.510**</td>
</tr>
<tr>
<td>X11</td>
<td>Innovativeness</td>
<td>0.250**</td>
<td>0.256**</td>
<td>0.278**</td>
</tr>
</tbody>
</table>

**Significant at 1 per cent level, *Significant at 5 per cent level and NS – Non Significant
per cent level. The results also stated that a unit increase in the variables like education, livestock possession, extension participation and cosmopoliteness would increase the information processing pattern by 0.717, 0.318, 0.592 and 0.563 units respectively (Table 2).

All the selected independent variables put together could explain 63.90 per cent variations in the information output pattern. Among the six variables taken for analysis, three variables viz., education, livestock possession and cosmopoliteness were found to be positively significant at 1 per cent level, whereas land holding and extension participation were positively significant at 5 per cent level. The results also explained that a unit increase in the variables like education, land holding, livestock possession, extension participation and cosmopoliteness would increase the information output pattern by 0.366, 0.140, 0.308, 0.153 and 0.192 units respectively.

Informal education plays an important role in extension participation and would improve the information seeking, processing and evaluation behaviour of the respondents and this paved way for increasing herd size.

**CONCLUSION**

The farmers’ selected characteristics indicates that overwhelming majority (85.83 per cent) of the farmers belonged to old aged categories except a few (23.30 per cent), among which 45 per cent belonged to illiterate to education ranged from primary to secondary, far below the national average. 78.33 per cent had agriculture as primary occupation and the rest 21.67 per cent carried out dairying as primary occupation. Most of the farmers (70.83 per cent) belonged to nuclear family and the remaining 29.17 per cent fell in to joint family. Large portion (73.33 per cent) of the respondents belonged to medium and 26.67 per cent belonged to large family. More than half (64.16 per cent) of the farmers had high level of dairy farming experience and the rest had low and medium level of dairy farming experience. Nearly three-fourth (73.30 per cent) had medium livestock possession and nearly 40.00 per cent had social participation. 40.00 per cent of dairy farmer have cosmopoliteness and nearly three fourth (74.16 per cent) of the respondents adopted innovations after seeing the result of adoption by other farmers.

Identifying discrepancy in the independent variables and the farmer’s current level of access and utilization of information is of paramount importance for proper information delivery to enhance the production and productivity from dairy animals which in turn increases the growth prospects in the dairy sector.
REFERENCES