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Role of Cooperatives as an Information Source of Dairy Cattle Farmers

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Abstract: This study investigated the role of dairy cooperatives as an information source in solving problems at dairy cattle production in the district of Osmaniye, Turkey. Local animal husbandry activities were investigated by collecting data using a questionnaire with owners of 112 dairy farms. The results showed that 31.3% of farmers were members of dairy cooperatives. Only 8.7% of farmers used cooperatives as a main source when they need information about solving their problems and getting information about new technologies. Most respondents (94.6%) evaluated the timeliness of advisory services provided by cooperative as poor. Almost 90 (89.3%) of farmers wanted better access to improved dairy technologies through cooperatives. The most significant problems in adopting innovations related to dairy cattle production were lack of access to relevant knowledge and financial problems in applying these innovations. It was also found that the farmers preferred veterinarians and other farmers as sources of knowledge and that the role of the cooperatives as knowledge sources was quite low.

Key words: Cooperatives, information sources, dairy cattle farms, source of knowledge, Turkey

INTRODUCTION

The livestock sector which has an important role in the balanced and adequate nutrition of the people has many social and economic functions as it contributes to increase in national income and employment, provide raw material for meat, dairy, textile, leather, cosmetics and pharmaceutical branches of industry, contribute to balanced development, reduce and prevent real and hidden unemployment in rural areas, financing industrializations trough assets, increase the foreign exchange income trough exports, prevent migration and decrease or prevent social problems led by migration. The sector provides an important economic activity in terms of input demand. There is a close relation between feed industry together with veterinary services and the level of development. In addition, the livestock sector creates an important marketing activity in national economy and has an integral feature for plant production (Anonymous, 2006). One-third of the agricultural activities relate to livestock farming involving about 2.1 million enterprises and farms. Turkey is among the 15 largest milk producers in the world. According to the General Agriculture Census of Turkey carried out in 2001, the enterprises dealing with only farm animal husbandry was 2.34% while the rest dealing with both animal husbandry and plant production were 97.64%. The majority of existing enterprises were far from being economically management, medium size or family business style. Such enterprises struggle to adapt to existing conditions rather than creating a better environment for a improved productivity. In these enterprises, breeding and production plans cannot be done since yield records and any other relevant registration are not kept properly or at all. Additionally, these enterprises lack adequate equipment and tools (MARA, 2004).

As a result of continues breeding of livestock sector, increase in animals and animal products imported and illegal entry of animal to country, new efforts has become underway for the development of new policies. In this regard, Decision of the Council of Ministers on Supports on Livestock was published in the Official Gazette dated May 10, 2000. According to this decision, purchase of culture race breeder animals, artificial insemination, milk production and processing, meat production will be supported.

One of the most important ways to increase agricultural productivity, obtain qualified products and improve the life qualities of the people working in agricultural section is efficient organization of the producers. Considering developed countries, it can be seen that the agriculture is developed and industrialized and the producers are organized. Because, developing agricultural policies, determining the conditions for practice and thus affecting the political mechanisms becoming efficient in the market, fulfilling the rural

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development by increasing productivity through modern productive methods is only possible with organizational power in other terms organized producers (Inan, 2004).

Although, there are lots of agricultural cooperatives and the Unions of Turkish Agricultural Chambers, the contribution of these foundations to the agricultural section and their partners is limited. However, in the EU countries economy and profession based farmer organizations have been developed and they play active roles in deciding processes of EU right fulfilling their vertical and horizontal integrations globally (MARA, 2004).

Organizing farmers through dairy cooperatives can have many advantages over individual farming. First, cooperatives can improve or facilitate access to market new information, reduce costs of marketing and can increase producers' access to technology, extension and related services and thereby enhance efficiency in the process of production and marketing of dairy. Second, dairy marketing cooperatives can help to decrease transaction costs, price risks and enhance bargaining power of dairy producers. These lead to increased return from commercial dairying which in turn stimulates innovation in the sector.

The aim of this study was to investigate the role of cooperatives as an information source at dairy cattle production in the district of Duzici, Osmaniye. In the study first socio-economic factors and main problems of dairy cattle farmers were determined and then farmers opinions about the dairy cooperatives as an information source analyzed.

MATERIALS AND METHODS

Dairy farming in Turkey has faced a number of unprecedented problems which have dramatically decreased the number of dairy animals since 1990. The Eastern Mediterranean region of Turkey has also had a rapid decrease in the number of dairy farms as many have gone out of business (Boz *et al*., 2011). This study was carried out villages in Duzici, Osmaniye which is at East Mediterranean region of Turkey. In the district, the main economic activity is agriculture.

A group of 112 dairy farms in Karagedik, Bostanlar, Cercioglu, Gokcayir, Pirsultanli, Citli, Camici, Cumalar, Guzelyurt, Atalan, Bocekli, Elbeyli, Alibozlu and Bayindir villages of the Duzici administrative district were selected randomly for this study which represents about 10% of the estimated households in these 14 villages. The villages were selected by the number of livestock and the intensity of their livestock production. Structured questionnaires were used to acquire information on dairy farming practices of the respondents. The questionnaires comprised of closed and open-ended questions which were answered by respondents through interviews.

RESULTS AND DISCUSSION

General characteristics of dairy farms: The respondents were predominantly male (97.3%) and the mean age was 46.7. The respondents education level was low with majority of them (66.1%) having a primary education. About 75.9% of the respondent farmers had been engaged in dairy farming for >10 years. Because of low income 43.7% has been working out of their farms for extra income. Labor allocation in dairy farming mainly (94.6%) originated from the family members (men, women and children).

On the farms there were an average 11.3 cattle head consisting of 3.4 cows, 6.2 heifers, 0.4 bulls, 0.8 calves and 0.5 yearlings on average. All respondents have barns for their animals but 50.9% had a small barn with 50 m^2. Only 20.5% of the dairy farmers are using cooperatives as marketing channels. Majority of them sell their milks to wholesalers. Keeping records is perhaps the most important issue of managerial skills. Unfortunately 96.4% of farmers did not keeping livestock production records. Most of the farmers (70.5%) did not use credit to improve their farm and 78.5% did not have insurance to protect their animals. Even though government has subsidies such as milk premium, artificial insemination subsidy, animal with breeding pedigree, feed crops and calves born by artificial insemination for dairy farming only 19.6% of producers used these subsidies. Farmers are required to fulfill the requirements to get subsidies from government.

Major problems of dairy farms: A number of production constraints are seriously affecting dairy farming. The major constraints to dairy farming according to the results obtained in this study were high feed prices (33.4%), animal diseases (27.1%), small and bad conditions of barns (11.4%), labor (9.8%) and breeding (5.4%) (Table 1). All the respondents were used grazing system and also supplementary for their cattle. However, the prices of the feeds used in supplementing in the dairy cattle are very high. This has an affect on production cost of dairy farms. Main diseases which were pointed out by respondents were; foot and mouth disease (44.9%), respiratory problems (10.2%), contagious mastitis (26.5%) and abortion (16.3%). It is well known that to quality of the veterinary services provided by public sector is poor and private veterinary service fees are expensive for small farms.

Table 1: Main problems at dairy farms

Problems	N	Percentage
Feed prices	106	33.4
Diseases	86	27.1
Barn	36	11.4
Labor	31	9.8
Breeding	17	5.4
Animal material	22	7.0
High temperature and humidity	16	5.0
No problem	3	0.9
Total	317*	100.0

*More than one responds given

Table 2: Main information sources

Sources	N	Percentage
Other farmers	67	38.9
Veterinarian	53	30.8
Cooperatives	15	8.7
Do not interests new information	14	8.1
Extension workers	10	5.8
Input sellers	7	4.1
TV	2	1.2
Internet	2	1.2
University	2	1.2
Total	172*	100.0

*More than one responds given

Main information sources of dairy farms: Knowledge and information play a significant role in improving productivity, linking producers to remunerative markets, improving competitiveness in markets and thus leading to improved livelihood, food security and national economies (Lemma *et al*., 2008).

Other farmers (38.9%) were the main source of information that the local farmers approach when they need information about solving their problems and getting information about new technologies. The second most important source of information is the veterinarians that are approached by 30.8% of the farmers followed by the cooperatives with 8.7%. About 8% of farmers declared that they did not need new information because they are good enough to do farming. All other sources of information have a relatively low importance for obtaining new techniques (Table 2).

The respondents were also asked to indicate how frequently they contacted with extension personnel. Almost 15 (13.4%) of respondents contacted once a month whereas 2.7% respondents contacted once a week. Training is also part of human capital endowments. The research findings indicate that the dairy cattle producer's attitude toward training programs about livestock production was extremely high. Almost all of them (96.4%) wanted to participate in educational activities because 94.6% of them were planning to continue dairy cattle production with increasing their herd size (46.4%).

Perceptions and expectations from cooperatives: Sample respondent members of the cooperative were asked about their perception on the advisory service that they got from their cooperative. Most respondents (94.6%) evaluated the timeliness of advisory services provided by cooperative as poor. On the other hand 53.5% of the respondents evaluated the importance of the service good. Feedback is an important issue in diffusion of innovation. Concerning the monitoring the feedback of the advisory service, 38.4% of farmers evaluated the cooperative as good. About 55% of the respondents evaluated the cooperative about its advisory service with respect finding solutions to common problem as good. Majority of respondents (89.3%) evaluated the educational materials which provided by cooperative as poor.

As pointed out earlier, only 31.3% of farmers were members of cooperatives and only 8.7% use as an information sources. The main problem was the mutual trust between management and members. The farmers (42.8%) believed that the chair of the cooperative should be a veterinarian and he should be appointed by government (74.0%). Majority of farmers (82.1%) pointed out that honesty is the most important characteristics they want from the cooperative leader because most cooperative leaders have used cooperatives as political platform.

It is found that 23.9% of farmers could not reach the new technology and 46.6% of farmers could not reach and also not enough sources to apply the new technologies. That is why 89.3% wanted better access to improved dairy technologies through cooperatives. Also 71.4% of respondents wanted better access to support services through cooperatives and all of them (100%) wanted better access to dairy inputs at reasonable prices through the cooperative.

CONCLUSION

Dairy is an important industry of the animal production sector and has a considerable potential and an important role in Turkish economy. Unfortunately, the small scale family farm structure, the low quality of raw milk, inefficiency in milk collection system and weak government policy tools make Turkish dairy sector uncompetitive in the EU market. In spite of all these defects, there are good chances to improve the dairy sector with necessary government policies or actions or tools. Increasing health concern among consumers, high potential of milk production, appropriate ecological conditions for fodder crops, growing population, investments in organic animal production and growing interest of international dairy companies offer important opportunities to Turkish dairy sector (Budak, 2009).

Farmers can have several benefits to be a member of cooperatives. As Parliament *et al*. (1990) pointed out cooperative gives farmers a means to organize for effective political action. Farmers can get quality supplies and services at a reasonable cost from the cooperative (Schroeder, 1992). Farmers should be educated about the importance of cooperatives, farmers organizations and agricultural extension service. Most of the farmers do not aware the opportunities which are provided by these services. Extension service, cooperatives, farmers' organizations or advisory services should help producers to improve milking practices and handling milk and to increase high quality milk production.

RECOMMENDATIONS

Farmers' training and educational materials are important to increase the productivity of dairy cattle farms. To improve dairy cattle farms, the cooperative had to fulfill the information needs of members with providing training programs and educational materials such as brochures, posters and leaflets.

Cooperatives provide strong economic benefits to farmers, through sharing and pooling resources such as barn, milking machine, cold rooms, improved access to markets and higher returns for their products. But cooperatives need to have more members because with very few members never achieve the goals which mentioned above. That is why farmers should be encouraged to be a member of cooperatives or farmers' unions. Farmers' cooperatives have a potential to promote rural development so existing cooperatives' abilities to serve farmers could be increased with new regulations. Government should encourage new investments in the Turkish dairy sector because Turkey is the largest producer of milk and dairy products in the region.

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