

## Research Paper

# Identification of Organic Milk Production Potentials and Requirements in Rural and Tribal Areas from the Viewpoints of Ardabil Provincial Animal Husbandry Experts

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**Citation:** Mohammadzadeh, M., Shabanali Fami, H., Motiee, N., & Sanjabi, M. (2020). [Identification of Organic Milk Production Potentials and Requirements in Rural and Tribal Areas from the Viewpoints of Ardabil Provincial Animal Husbandry Experts (Persian)]. *Journal of Rural Research*, 10(4), 698-713, <http://dx.doi.org/10.22059/jrur.2019.275421.1328>

**doi:** <http://dx.doi.org/10.22059/jrur.2019.275421.1328>

Received: 06 Feb. 2019  
Accepted: 11 Nov. 2019

## ABSTRACT

Organic farming involves the use of indigenous knowledge and experiences and new scientific information to reduce or control use of different chemicals and drugs in the production of animal products, including organic milk, which is a flow and promising product produced in different countries across the world. The purpose of this study was to identify the potentials and prerequisites of organic milk production in rural and nomadic areas from the viewpoints of experts in *Ardabil* province. This study was a descriptive-correlation research in which statistical population consisted of experts from Organization of Jihad-Agriculture and consultancy-technical private companies in *Ardabil* province (N=200) out of which a sample of 130 people were selected in accordance with Krejtsy & Morgan sampling table. Stratified proportionate random sampling technique was applied to select the samples. For collecting data, a questionnaire was developed based on an information provided by literature review. The validity of the questionnaire was confirmed by expert judgment who were some people working in the area of organic production and faculty members of in the Department of Agricultural Management and Development in the University of Tehran. The reliability of the interview instrument was assessed by using Cronbach's alpha coefficient, its values were found between 0.85 and 0.94, respectively. The data analysis has identified five potentials viz., economic, environmental, technical, production and yield-related. The results also showed that seven basic requisites for organic milk production are social, economic, research, regulatory, institutional, education and awareness and policy implications. According to the results, *Ardabil* province has substantial potential for organic livestock production, including organic milk, which requires the creation of basic infrastructure in various fields.

**Key words:**  
Production  
Requirements,  
Organic Milk, Rural  
Areas, Nomadic  
Areas, *Ardabil*  
Province

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## Extended Abstract

### 1. Introduction

O

ver the past two decades, manufacturers, policymakers, and consumer

policy makers around the world have focused on organic products. One of the most important reasons for this is the environmental, social and economic benefits and the adaptation of organic systems to local resources and inputs. Organic farming involves the use of indigenous knowledge and experiences and new scientific informa-

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tion to reduce or control the use of different chemicals and drugs in the production of animal products, including organic milk, which is a flow and promising product produced in different countries across the world. The general objective of this research is to identify the potentials and prerequisites of organic milk production in rural and nomadic areas from the point of view of experts in *Ardabil* province, with the following specific objectives: 1. Identification of personal and job characteristics of the experts' 2. Identification and analysis of the potential and production areas of organic milk in *Ardabil* province 3. Identification and analysis of infrastructure and prerequisites for the production of organic milk in the province of *Ardabil*.

## 2. Methodology

Statistical population consisted of experts from Organization of Jihade-Agriculture and consultancy-technical private companies in *Ardabil* province (N=200) out of which a sample of 130 people were selected in accordance with Krejtsy & Morgan sampling table. Stratified proportionate random sampling technique was applied to select the samples. For collecting data, a questionnaire was developed based on an information provided by literature review. The validity of the questionnaire was confirmed by expert judgment who were some people working in the area of organic production and faculty members of in the Department of Agricultural Management and Development in the University of Tehran. The reliability of the interview instrument was assessed by using Cronbach's alpha coefficient, its values were found between 0.85 and 0.94, respectively exploratory factor analysis was used to analyze the data obtained from the research, extracting and categorizing the most effective variables in the fields of organic milk production and the prerequisites for organic milk production in *Ardabil* province.

## 3. Results

Descriptive data analysis indicated that the majority of subjects (72.1%) were male and their average age was 35 years. Half of the surveyed experts had an undergraduate degree in livestock breeding, and 89% of them had graduated from different academic disciplines. In addition, the majority of the experts (80.60%) serves as animal husbandry advisory services with an average of 10 years of work experience. The results of factor analysis of the potential and the capacity in *Ardabil* province for converting organic milk production showed that there are significant capacity and backgrounds in the region in the context of economic, environmental, technical, production and quality of organic milk. The results of the analysis of the prerequisites for organic milk production in *Ardabil* province

showed that socioeconomic, economic, research, regulatory, support, educational, informational and policy platforms are very crucial for the transition from conventional system of livestock production into organic production of milk in *Ardabil* province.

## 4. Discussion

The findings of this study indicate that livestock farming, is one of the key pillars of the agricultural development sector which is one of the main sources of human nutrition needs. On the other hand, producers, politicians and consumers during the past two decades have been oriented towards the production of organic milk based on the potentials available in *Ardabil* province. Therefore, based on the indigenous economic, environmental, technical, and production resources in the province, livestock farmers should be more informed about organic farming and the process of production of organic milk should be gradually introduced to the animal sector of *Ardabil* province.

## 5. Conclusion

Moreover, by following all the institutional and social infrastructure, economic, policymaking, legal, research and educational information, it expands the use of organic livestock to the optimum level. Hence, policymakers and livestock development planners are advised to focus on the production of organic milk as follows:

- 1- Plans are needed to provide educational services for standardization services and animal husbandry skills to livestock farmers and livestock experts.
- 2- Organic dairy farms will act as a model of supporting, serving, counseling and institutionalizing of all dairy farmers in the province of *Ardabil*.
- 3- It is necessary to facilitate access to the family labor force in livestock farms for employment.
- 4- The organic milk market should be more sensitive and aware to the increasing demand for natural dairy protein products.
- 5- The use of indigenous knowledge in the management of livestock health to reduce and eliminate use in chemical drugs is emphasized.

### Acknowledgments

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### Conflict of Interest

The authors declared no conflicts of interest