

## EDUCATION IN RURAL AREAS IN THE SELECTED EU COUNTRIES ON THE EXAMPLE OF EDUCATIONAL FARMS

Alexandru SIN<sup>1</sup>, Czesław NOWAK<sup>2</sup>, Małgorzata BOGUSZ<sup>2</sup>, Elżbieta KMITA-DZIASEK<sup>3</sup>,  
Magdalena KOWALSKA<sup>2</sup>

<sup>1</sup>National Institute for Economic Research “Costin C. Kirițescu”, Romanian Academy,  
Bucharest, Romania

<sup>2</sup>University of Agriculture in Krakow, Krakow, Poland

<sup>3</sup>Agricultural Advisory Center in Brwinów – Krakow Unit, Krakow, Poland

**Corresponding author:** alxsin@gmail.com

### **Abstract**

*Education in rural areas, more and more frequently, takes place in agricultural holdings which address their educational offer, in particular, to specific groups of children and youth. The aim of the paper was to characterize such holdings in the selected EU countries. The characterization was based on the results of research obtained from two sources, firstly, the international FARMLAND project, secondly, the original study conducted by the authors in Poland and Romania. The research results clearly point to the development of educational activities in agricultural holdings, with the use of natural and cultural resources of the given areas.*

**Key words:** rural areas, education, educational farms, rural development

### **INTRODUCTION**

In accordance with the definition in force in the European Union member states, an educational farm is a farm which regularly hosts children and youth within the framework of school trips, as well as other groups and private individuals, “with the aim of teaching them about farming and the role of farmers” [1, 7], in turn, argues that “farms as sites of learning award the opportunity to impart knowledge related to the field of agriculture. These farms are sites where people can gather experiences with plants and animals and which illustrate the meaning of sustainable and product-oriented production of food”.

In Poland, educational farms, as approved by the Ministry of Agriculture and Rural Development, are defined as the activity conducted by rural inhabitants and located in rural areas, involved in the implementation of at least two of the following objectives: education in terms of plant and/or animal production and the processing of agricultural products; education in terms of environmental and consumer awareness; education in terms of the material heritage of rural areas,

handicraft, folk art and traditional occupations [8].

One can argue that the most important function of educational farms is the pedagogical one. Depending on the adopted concept of educational services, two types of such farms can be distinguished:

– farms whose activity is focused on school children education, the aim of which is to “familiarize pupils with the life in an farm and knowledge on the origin of food, and allow contact with natural, rural environment”. It seems of particular importance given that children, especially those living in large cities, have less and less contact with the traditional countryside, and, often, have a distorted idea about the origin of food;

– farms offering dedicated programs (often in the form of workshops) which complement or support therapies or psychophysical development of children with a range of dysfunctions [6].

### **MATERIALS AND METHODS**

The characterization of educational farms in the selected EU countries was based on the results of research obtained from two sources.

The first one is the material obtained as a result of the international FARMLAND project. The project was implemented by the consortium of six partners from five EU member states: Romania, Italy, Belgium, Spain and Poland, and led by the *Agricultural Advisory Center in Brwinow, Krakow Unit*.

As part of the project, in 2014, surveys were conducted on a group of 267 rural residents and experts from the five countries involved in the project. The objective was to analyze trends in terms of innovation in rural areas, diagnose training needs and expectations of people engaged in educational activities in their farms, and determine perspectives of development of educational farms as an innovative model of multifunctional agriculture.

The second source used in the present paper is the results of the original study conducted by the authors in 2015 on a group of fifty educational farm owners associated in the National Network of Educational Farms in Poland. The sample represents almost one fourth of all educational farms in Poland associated in the Network.

At the time of the article's submission, 210 farms were associated in the National Network of Educational Farms.

The research tool used during the questionnaire surveys allowed characterizing the functioning of educational farms in all the Polish voivodeships.

In Poland, the research was conducted during the National Meeting of Educational Farms thanks to the courtesy and commitment of the Agricultural Advisory Center in Brwinów, Krakow Unit, and many years of fruitful cooperation between the Center and the University of Agriculture in Krakow.

## RESULTS AND DISCUSSIONS

The results of research conducted within the framework of the FARMLAND project on the owners of educational farms and people interested in such activity in the future clearly show that the demographic structure of the respondents from all the partner countries is quite homogeneous. The breakdown by

gender indicates that in Italy and Poland women-farmers are more often than men interested in providing educational services, while the opposite situation can be observed in Spain and Romania. For comparison, it is important to take note that the results of the survey conducted by the authors on a national sample of educational farm owners revealed a predominance of women, whose number almost doubled the number of men.

Another interesting point was the age structure of the respondents surveyed as part of the FARMLAND project. Interest in the issue of education in agricultural holdings was clearly higher among young people in Belgium (mostly people in their thirties) and the older generation in Poland (the respondents being 51 years old on average). In the remaining countries, that is, Spain, Romania and Italy, the average age was comprised between 37 and 40. For comparison, it is worth mentioning that over 50% of the owners of educational farms taking part in the authors' national research were aged 46 to 60, approx. 20% were aged 31 to 45, while the least represented were the youngest and the oldest age groups.

The respondents' education structure, both in case of the FARMLAND project and the authors' research, seems favorable. In Spain and Romania, the majority of respondents were people with higher education (similar is the case of the national research where over 50% of the surveyed participants graduated from a higher education institution), while in Italy and Poland the respondents were mostly people with secondary education. In general, one can argue that in all the partner countries the respondents were mostly people with good education and entrepreneurial attitude [5].

The size structure of farms studied within the framework of the FARMLAND project is clearly diversified. In the entire sample, that is, in all the partner countries, the majority of farms are sized from 16 ha in Poland to 50 ha in Belgium (in Italy, the average acreage is 27 ha, while in Spain, 22 ha). Only Romania is an exception – an average size of a farm providing educational services is 164 ha, which results from the fact that innovative solutions are introduced mainly in large

holdings, among others, due to easier access to financial resources when compared with small farms [5].

Pantelimon Dairy Farm, for example, a rather large dairy farm located near Bucharest, started its education services by establishing an educational farm in 2010. The number of visitor has steadily increased since then, reaching around 3,000-4,000 visitors per weekend and between 10 and 600 persons per day during weekdays, depending on season. Around 20% of the visitors are school organized groups of children. Now, putting agricultural subsidies aside, the income generated by the educational activities count for as much as 25%-30% of the total farm's income.

It is also important to take note that the authors' national research showed that educational services are most often provided in small farms (from 1 to 5 ha of arable land), while in other acreage groups (6-10 ha, 11-20 ha, 21-50 ha and over 50 ha) their share was 12% or more.

The educational programs offered by Polish agricultural holdings are focused, mostly, on sustainable farming, with emphasis on the promotion of healthy, organic food. Frequently, the offered programs enable participants to track the origin of food from field to fork. Also, many programs are devoted to the natural, cultural and historic heritage of a specific region. It appears that the topics raised by educational farm owners in Poland are similar to those demonstrated in the 2014 research conducted in Belgium, Spain, Italy and Romania as part of the FARMLAND project. According to the farmers participating in the study the most interesting innovative themes for educational farms were: ecology, biological biodiversity, farm inventory, and herbal and medicinal plants [5].

The offer of the educational farms involved in the authors' research is targeted at both individual clients and organized groups (Tables 1A and 1B). In the first case, these are most commonly families with children in preschool and school age – as much as 46% of the respondents agreed that such clients are their most common guests. Similar is the

percentage of farms which do not address their offer at seniors and people traveling without children (42% in both cases).

Table 1. Clients benefiting of educational services in the respondents' farms, broken down by individual clients and organized groups, in a 1 to 5 scale, where "0" = "none" and "5" = "very often" (%)

**1A. Individual clients**

| Type of clients                                    | Scale |   |    |    |    |     | Total |
|--|-------|---|----|----|----|-----|-------|
|  | 0     | 1 | 2  | 3  | 4  | 5   |       |
| families with children in school and preschool age | 20    | 6 | 10 | 20 | 18 | 26  | 100   |
| people traveling without children                  | 42    | 8 | 12 | 22 | 8  | 8   | 100   |
| seniors  | 42    | 4 | 16 | 16 | 6  | 160 | 100   |
| others   | 88    | 2 | 4  | 4  | -  | 2   | 100   |

Source: own research.

**1B. Organized clients**

| Type of clients                                     | Scale |    |    |    |    |    | Total |
|---|-------|----|----|----|----|----|-------|
|   | 0     | 1  | 2  | 3  | 4  | 5  |       |
| children in preschool age                           | 12    | 2  | 8  | 20 | 24 | 34 | 100   |
| children in school age (primary school)             | 8     | 2  | -  | 10 | 32 | 48 | 100   |
| youth in school age (secondary school, high school) | 22    | 16 | 14 | 24 | 12 | 12 | 100   |
| students  | 60    | 16 | 8  | 14 | 2  | -  | 100   |
| adults  | 16    | 8  | 30 | 22 | 10 | 14 | 100   |

Source: own research.

Organized groups benefiting of educational services offered by the studied farms are mostly children in school age (almost 80% of the respondents claim to often or very often host such groups) and preschool age. The least frequently, such services are offered to students and secondary school or high school youth.

The analysis of the programs chosen by tourists, as demonstrated in Table 2, shows that the most popular are short visits (42%), then, all day visits without accommodation, and the least popular are few day programs with accommodation. The situation probably stems from the fact that the main target of short or all day visits are, mostly, organized

groups, particularly children and youth in school age. Few day programs are usually combined with a stay in an agritourism farm or a guest house.

Table 2. Types of educational programs offered at the respondents' farms, in a 1 to 5 scale, where "0" = "none" and "5" = "very often" (%)

| Type of program                   | Scale |    |    |    |    |    | Total |
|-----------------------------------|-------|----|----|----|----|----|-------|
|                                   | 0     | 1  | 2  | 3  | 4  | 5  |       |
| short visit of 1-3 h              | 10    | 2  | 2  | 24 | 20 | 42 | 100   |
| all day visit (without accommod.) | 18    | 16 | 12 | 20 | 26 | 8  | 100   |
| few days program (with accommod.) | 48    | 10 | 12 | 16 | 4  | 10 | 100   |

Source: own research.

The fact that educational farms operate mostly based on activities targeted at children in school age is also true in other European countries, e.g. Norway [4], Spain, Belgium or Romania [6]. Also in Italy a vast majority of farms offer, mostly, programs for the youngest visitors [2]. In the Netherlands, too, educational programs are, first and foremost, addressed to children in school age, and, what is important, studies conducted there correspond with the authors' research results, showing that the most popular are one day farm visits [3].

Educational farms associated in the National Network of Educational Farms, usually, offer more than one educational program. In the studied farms, the number of programs offered ranges from 2 to 10. A predominant majority of the farms offer 3 programs (56%), and over 18% – 2 programs. It is important to take note that as much as 12% of the farms offer 6 programs, and individual farms – 7, 8 or 10 programs. Usually, the more different programs offered, the higher the number of people engaged in teaching. In such cases, apart from the farmers themselves, also family members and employees are involved.

Educational activity is always provided with the use of own resources and, usually, constitutes (as was already mentioned in the paper) one of the courses of business activity.

According to the trends identified as a result of the FARMLAND project the topics of the innovative activities implemented seem correlated with the conditions and development stage of domestic farming. It turned out that what is important in Spain is the diversification of revenue combined with sustainable agriculture; in Italy – organic farming combined with biological protection, and social and environmental functions of agricultural activity; in Belgium – the involvement of agriculture in services provided to persons with disabilities and dysfunctions. In the developing Romanian agriculture, in turn, the key to innovation is the technology of food production or ways of saving energy [5].

Taken into account that education in farms is a relatively new concept of employing their potential, it is worth to diagnose changes that have occurred in Polish farms as a result of such activity (Table 3).

Table 3. Changes in Polish farms since the beginning of educational activity\*

| Changes in terms of:                     | increase | no change |       |
|--|----------|-----------|-------|
| number of guests choosing accommodation  | 11.9     | 7.6       |       |
| number of foreign tourists               | 7.2      | 11.2      |       |
| number of tourists outside of the season | 12.9     | 6.9       |       |
| number of weekend tourists               | 7.7      | 11.2      |       |
| number of school trips/organized groups  | 19.6     | 3.1       |       |
| length of stay                           | 4.1      | 11.2      |       |
| clients'/tourists' expectations          | 6.2      | 10.0      |       |
| operation costs                          | 7.7      | 9.4       |       |
| investment expenditure                   | 9.8      | 6.9       |       |
| price of accommodation/services          | 3.6      | 16.9      |       |
| volume of sales of the farm's produce    | 9.3      | 5.6       |       |
| Total answers                            | L        | 194       | 160   |
|  | %        | 100.0     | 100.0 |

\*More than one answer was permitted

Source: own research.

The results of the research show that the most important increase has been observed in the number of school trips and other organized groups (almost 20% of answers), as well as the number of guests outside of the season (almost 13%) and the number of guests

choosing accommodation (almost 12%). Educational services, in turn, had no influence on, first and foremost, the prices of accommodation and other services provided (17%), as well as the number of foreign and weekend tourists, and the length of their stay (in all the three cases – approx. 11%).

What is important, only in individual cases educational farm owners indicated a decrease in particular areas of operation (11 such answers), mostly: the number of guests choosing accommodation, number of foreign tourists and number of visitors outside of the season. Therefore, it can be assumed that a decrease in the sector is almost unnoticeable, while the largest number of answers for growth shows that the educational activity in farms has a positive impact, especially on tourism.

The results of the research, both within the framework of the FARMLAND project and the authors' original study, allow identifying the form of trainings and courses as the one preferred by educational farm owners and others interested in this type of activity. It appears that, in Italy, the respondents would prefer to employ e-learning courses, as well as stationary courses of up to one week. They have also shown interest in video-conferences. In Spain, in turn, the preferred forms of training are mixed courses (stationary and online modules), as well as stationary courses (shorter than the online ones). What is more, educational farm owners pointed to the importance of learning by doing, i.e. participating in meetings, workshops and study visits. According to the respondents in Romania, as in Spain, the best form of training are mixed stationary and online courses, as well as active participation in classes, for instance, in the form of workshops. The choice of such form of training is certainly linked with the fact that educational farms in Romania are poorly developed, thus, every form of training is welcome. In Belgium, in turn, the most popular form was learning by doing, study visits in other farms in particular; stationary and online courses turned out to be the least popular [6].

For comparison, it is worth to take note that the authors' original study has unequivocally shown that, in Poland, the owners of educational farms most appreciate active trainings, especially study visits in other farms, as well as workshops and lectures whose main objective is the exchange of experiences. In case of stationary courses, as in other countries, the most popular are those of up to one week. It appears that the least popular among Polish educational farm owners is the mixed method, combining stationary and online courses.

Certainly, a positive fact is that in all of the discussed countries farm owners do notice the need for trainings, which, with no doubt, has a positive impact on the quality of the services offered.

## CONCLUSIONS

Rural areas are characterized by rich natural and cultural heritage. Since a dozen or so years, Europe aims at the popularization of traditions and culture of specific regions, while ensuring their sustainable development. Within the framework of such actions, in the selected EU countries, education in rural areas is promoted. Both literature and empirical studies conducted by the authors prove the development of educational activities in agricultural holdings. The conducted research shows the emergence of professional educational farms, offering specially designed, specialist education programs. Such programs are, in particular, targeted at children and youth in school age. A positive fact is that the topics of programs are usually focused on issues valid in a specific country or region. It should be emphasized that, very often, these include: the promotion of ecological principles, sustainable development, traditions and culture of given area. The analysis of Polish educational farms, as well as farms interested in this type of activity (within the framework of the FARMLAND project), shows that the farms in question are of different size; some of them very large, willing to broaden the scope of activities. Furthermore, according to the research results, farm owners demonstrate the

need to participate in trainings, workshops and courses, which will, certainly, translate into improving the quality of educational services provided.

## REFERENCES

- [1]Delling, H., 2010, How is the farm as site of learning related to social services? in: Academic foundation of learning on farms. Series of the Competence Centre for Regional Learning. Volume 2. Competence Centre of Regional Learning, University of Vechta, p.34.
- [2]Fattorie didattiche, <http://www.alimos.it/it/fattorie-didattiche.html> (12.02.2016).
- [3]Haubenhofer, D., Hassink, J. *et al.*, 2010, Results of a Dutch effect study on different farm education programs. in: Academic foundation of learning on farms. Series of the Competence Centre for Regional Learning. Volume 2. Competence Centre of Regional Learning, University of Vechta, p.21, 21-29.
- [4]Jolly, L., Krogh, E., 2010, School-farm Cooperation in Norway: Background and recent Research. in: Academic foundation of learning on farms. Series of the Competence Centre for Regional Learning. Volume 2. Competence Centre of Regional Learning, University of Vechta, p.19.
- [5]Kmita-Dziasek, E., 2015, Koncepcja i funkcjonowanie Ogólnopolskiej Sieci Zagrod Edukacyjnych. Europejski Fundusz Rolny na Rozwoju Obszarow Wiejskich: Europa inwestująca w obszary wiejskie, Krakow, (The concept and functioning of the National Educational Farms' Network. European Agricultural Fund for Rural Development: Europe investing in rural areas), p.6-15.
- [6]Kmita-Dziasek, E., 2015, Wprowadzenie do zagadnień edukacji w gospodarstwie rolnym, Europejski Fundusz Rolny na Rozwoju Obszarow Wiejskich: Europa inwestująca w obszary wiejskie, Krakow, (Introduction to the issues of education on the farm, European Agricultural Fund for Rural Development: Europe investing in rural areas), p.15.
- [7]Open farms, Bridging the gap between town and country, [http://ec.europa.eu/agriculture/cap-communication-network/open-farms/pdf/open-farms\\_en.pdf](http://ec.europa.eu/agriculture/cap-communication-network/open-farms/pdf/open-farms_en.pdf) (02.04.2016).
- [8]Rules and Regulations of the National Network of Educational Farms, Agricultural Advisory Center, Kraków, 2015.