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## 21<sup>st</sup> ESEE European Seminar on Extension Education

# Extension Education Worldwide

trends, challenges and  
cases

### *Proceedings*

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Extension Science

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# 21<sup>st</sup> ESEE

## European Seminar on Extension Education

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## trends, challenges and cases

*Coordinated by*

**Orhan Özçatalbaş**

with the collaboration of

International Scientific and Organizing Committee



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### *Distinguished Colleagues,*

The ESEE is a biennial event that is organized in rotation by European countries for training and research in the purpose of communication for agricultural and rural extension. The first seminar was organized in Finland 40 years ago. This year, the 21st ESEE took place between September 2 to 6, 2013 in Antalya, Turkey.

As it known the story of ESEE starts in Helsinki. ESEEs have also a substantial history and tradition which began in Helsinki, Finland, in 1973. The success of the first venture in 1973 led to a decision to meet again after two years in a different venue within Europe for broadly, the same purposes, and this practice has been continued. In a way, the use of European experience and expertise in other parts of the world has become an associated issue with implications for the ESEEs.

The main purpose of this seminar traditionally is to share the ideas and practices of the participants on participatory approach to agricultural extension works. As usual this year, we will see and list to the best practice in extension between public and private extension services around the world starting from Europe. We have the possibilities to discuss and argue and to adopt them in other countries, and to meet good friends during years. During these passed years we are the Extension Educators, Scientists and have met all around. The issue, "train trainers to train" is the same but the world around has changed. As it known, we need food, and the farmers are still providing the material for safety foods as well as they are most responsible of security of food. We, the extension educators are finding the innovations for new and less time consuming and easier work for agriculture.

The seminar programme is added to the end of this book, as it can be seen during the seminar has implemented plenary and working group session, and parallel sessions, are part of brain storming and help all participants, to share their knowledge and experiences on extension and relevant subjects, and to organize technical and cultural tour activities.

We hope that the proceedings book will be very good reference for all participants and others who are involved in rural extension and education and 21st ESEE has been fruitful for each participant.

I would like to express our special thanks to the founders of ESEE initiative as Dr. Harri Westermarck, Dr. Maurice Rolls, Dr. Anne Van den Ban, Dr. Niels Röling, Dr. Volker Hoffmann and European and all other colleagues of who contributed to the profession and Seminar's organizers.

Finally, my thanks go to members of the scientific and organizing committees, moderation and distinguished participants for valuable collaboration and contributions.

Sincerely yours,

**Orhan Özçatalbaş, PhD.**  
President of 21th ESEE

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# **What are the Possible Training Methods and Materials for New Entry Farmers and the Innovative Agricultural Activities and Management Themes? A Preliminary Study**

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**Keywords:** needs assessment, training, Portugal, revitalization.

## **Abstract**

In Portugal, there has been an increase in the number of work places and employment in the agricultural sector. The revitalization of the agricultural sector is related to an increase in exports and new entrants to agriculture. These new entrants are the result of the difficulty in the general economy, economic austerity policies and high unemployment in other economic sectors. The new entrants are growing strawberries in vertical greenhouse production or mushroom reproduction activities and distribution. The preliminary study procures information about training needs and innovative activities from researchers, university professors, advisory services and trainers. The methodology for the study is a survey design that uses a questionnaire with primarily closed questions. The paper will discuss the results from the questionnaire directed at third parties to determine the type of training and educational tools to be used for preparing farmers to diversify farm activities. The educational needs assessment is a part of a European project: RURAL/ITER: Lifelong Learning Programme (project 2012 1- GR1-LEO05-10058). The paper will also identify the priority training areas or interests to diversify the farm activities and provide a brief historical review about farmer training in Portugal.

## **INTRODUCTION**

In Portugal, since 2008, the economy has been under an economic crisis and the only sector where there has been growth is within agriculture (Journal of Noticias, 2013). The rest of the economy is suffering from an unemployment rate nearing 19%. As the agricultural sector has new entrants, activities and an employment increase; training, education and raising the level of human capital can play an important role to strengthen agricultural production and exports (de Mello, Luis and S. Guichard, 2013).

Unfortunately, the level of instruction for Portuguese farmers is low with at least 22% of farmers with no education, while the majority completed only the first cycle. It has been documented that 8% of the farmers have completed secondary education or post secondary and only about 50% of these have completed higher education. The agricultural producers with less than 35 years of age are literate and more than 30% have completed secondary education or higher education. Illiteracy is a strong reality for those farmers with more than 65 years of age and a rare case if in this age bracket one finds someone with an undergraduate degree. The farm income for one-third of the farmers is dependent upon an additional source of income outside of their farm, as a worker for someone else or as a business-person working in another activity. In Northern Portugal and the interior, where there is a scarce possibility to find additional work, there is less chance to find another source of income.

In the analysis of farm families, INE has determined that only 6% of the farms have income exclusively from agricultural activities. In fact, 84% are dependent on

outside sources of income such as pensions and salaries from outside of agriculture in such areas as the service sector (INE, 2011).

In this context, some general agricultural aspects identified by the Portuguese 2009 census are the following:

- “Women account for one third of the farmers;
- The utilized area for agriculture has increased from 9.3 hectares to 12 hectares as a result of absorption of small farms to larger farms;
- The small-sized farms continue to prevail, but 2/3 of the Utilized Agricultural Area is now managed by farms with more than 50 hectares;
- The size of farms in Portugal is on average 5 hectares smaller than in the EU
- The average farmer is a male, aged 63, completed the 1st cycle of basic education has only practical agricultural training and works exclusively in activities on the farm about 22 hours per week” (INE, 2011 pp 3-4).

As the social media has communicated, the agricultural sector is attracting new entrants into agriculture which could change the trend in the snapshot for the average farmer. This is important for a sector that has as the average age 63 for a male farmer. New entrants into farming in Portugal have been innovative and come with experience in other areas as noted by the social media in Portugal. One example is a graduate from an undergraduate degree in International Relations who is now raising beef cows instead of risking unemployment in other economic sectors. In the *Journal de Noticias*, 2012, they documented the success of a young farmer who graduated in Marketing Management and now is producing vertical strawberries in greenhouses. He recently was awarded a prize for most innovative farm activity in Europe.

## **BRIEF AGRICULTURAL TRAINING HISTORY**

The idea of training is associated to the agricultural knowledge system considering the component made up of farmers and next the institutions involved in this educational process. The information and educational system requires diverse methods, methodologies and policies for learning to attract farmers. This section will discuss the secondary vocational agricultural education system and farmer training programs in Portugal without addressing the higher agricultural educational systems or rural extension.

The secondary agricultural educational system continues, but with a reduced number of schools. An earlier evaluation of the performance of these schools by Koehnen (1994) suggested at the time greater supervision of students in a work experience program or on their family farm. Also, the necessity to increase recruitment of female students, greater investment in instructional materials (this links well to e-learning packages for example), more record keeping and planning activities and the need to increase in-service training of the teachers at these educational institutions. The study emphasized the importance of instructional materials and the development of a regional or national unit to prepare these instructional materials. The RURAL/ITER project will develop instructional materials (off-line courses via internet) for new entrants and women farmers at a higher agricultural education institution. This suggests the relevance of a mixed form of methodologies in the teaching-learning process for farmers that include self long distance learning courses such as off-line training. The instructional packages will be developed targeting new entrants and women farmers. An additional needs assessment will also include the perceptions of farmers. In this paper, the team focuses

only on the perceptions of 3<sup>rd</sup> party specialists.

The farmer training courses such as residential or non-residential are still a part of the training system in Portugal, today. Koehnen and Alves (1993), Koehnen, Baptista and Portela (2004) and Koehnen and Baptista (2012) document the strengths and weaknesses of these programs. In these studies, the problems and weaknesses identified were access to and distances to training centres, the need to recognise and involve rural women in educational activities and poor public transport in the rural areas. Innovative learning materials and instruction for the young farmers and women will need to be considered and developed to overcome some of these challenges.

## **METHODOLOGY**

This research involves a survey research methodology of 3<sup>rd</sup> party specialist concerning innovative trends and training needs in Portugal. Isaac and Michael (1981) have recognised the survey design to collect quantitative and qualitative data by questionnaire. The research team made contacts to 3<sup>rd</sup> party specialist in the northern Regional Directorate of Agriculture, vocational schools, higher educational institutions and private consultant agencies working in agriculture. The number of respondents to the questionnaire was 24 and the questionnaire was translated from English to Portuguese in February, 2013 and administered from March to May 2013. The Italian research partners constructed the questionnaire for the RURAL/ITER project. The Lifelong Learning Project involves other European partners as well. The questionnaire is an instrument to assist in the identification of agricultural knowledge and skill needs for new entrants and women farmers.

In the next section, the paper will discuss the preliminary results from a survey by 3<sup>rd</sup> party specialists in Portugal related to the RURAL/ITER: Lifelong Learning Program, Reintroduction upon Rural Agricultural Lands of Innovative Training for Entrepreneurs on Return, project number 2012 1-GR1-LEO05-10058. The paper will use data from the Survey Report on the Analysis of Agricultural Innovative Trends and Training needs for Portugal. This will be a brief summary of the research data gathered and analysed at this time from Portugal. The overall purpose of the RURAL/ITER project is to develop training materials for new entry and women farmers. The training materials will be developed in an off-line format as decided by the project partners.

## **PRESENTATION OF RESULTS**

The results presented in this section have a preliminary nature, as this research is still in progress. It also only analyses the opinions of the 3<sup>rd</sup> party specialists. Table 1 describes the specialists as predominately female with an average work experience of 16 years. They work at the Regional Directorate, Higher Educational Institutions, Vocational Agricultural Secondary Schools, Training Centres and Private Consultancies. The respondents are basically from northern Portugal, where the farm size is about 12 hectares and where you can find new entrants into the agricultural sector. These respondents have experience as professors, vocational agricultural teachers, administrators and trainers in the residential and non-residential courses.

**Table 1 - Data about respondents**

Variable	no.	%
Total	24	

- Women	15	63
- Men	9	37

#### Agencies

- Regional Directorate
- Higher Educational Institutions (agrarian)
- Vocational Agricultural High Schools
- Training Centres

#### Positions:

- Professors
- Trainers
- Administrators

Experience (average of no. of years )	16
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Table 2 expresses the necessity for innovative trends, more specifically, why farmers are introducing change to their farm businesses. The respondents did select more than one item with this question. The 3<sup>rd</sup> party specialists believe that the changes and trends that farmers are making on their farms relate to the earning of extra income and profitability as well as linked to European funds that assist them to make farm changes. One important trend has to do with escaping from unemployment in other sectors. This indicates the importance for the revitalization in the agricultural sector in Portugal. The economic crisis has been severe and the political result is structural changes in the agricultural sector in order to promote exports. It appears that the 3<sup>rd</sup> party specialist believe the farmers also want to make their business sustainable in the long term which relates to diversification of income to make it more stable.

**Table 2: In the area where you work, for which reason do you think that farmers are introducing some changes?**

Motivation for change	no.	%
a. To make their farm more profitable and to earn extra income	19	32
b. To diversify their sources of income, to make it more stable	6	10
c. To make their business more sustainable in the long term.	6	10
d. To give their relatives better employment opportunities.	3	5
e. To receive a grant in form of a project under European funds.	15	25
f. To search for a better way of life.	4	7
g. To escape from unemployment in other sectors.	7	12
h. Others		
Total	60	100

Table 3 relates to training needs for farmers. The table addresses the innovative activities required for training of farmers selected by the 3<sup>rd</sup> party specialists. The respondents could select more than one item. The four highest activities selected by the respondents were organic farming, on-farm processing of traditional and quality foods, biodiversity protection and medicinal plants and health/nutraceutical products. The two lowest activities were non-food on farm activities and nursery, gardening and landscaping. The

activity involving social farms to create a didactic learning environment for young children seems to be a means to bridge urban populations with rural areas. In Portugal, other innovative activities are mushroom cultivation and fish and oyster farming along the coasts and estuaries. Covas and Covas (2011) have suggested using renewable energy resources as well which was selected by 3<sup>rd</sup> party specialists in a lesser extent.

**Table 3 - For which innovative activities is training required?**

Activities	no.*	%
a. Organic farming (cultivations and livestock breeding)	19	16
b. Biodiversity protection (seed and/or breed saving)	13	11
c. Medicinal plants and health/nutraceutical products	10	8
d. On farm processing of traditional and quality foods <sup>o</sup>	16	14
e. Alternative animal production	6	5
f. Non food on farm activities (silk, wool and their products)	3	3
g. Nursery, gardening and landscaping	1	1
h. Direct selling of products (various modalities)	6	5
i. Agro-tourism	7	6
j. Outdoor, environmental and didactic tourism	9	8
k. Didactic and social farms linked to social issues of civil society	7	6
l. Biomass for renewable energy or composting	8	7
m. Photovoltaic or solar energy production	8	7
n. Wind energy	5	4
o. Others		
Total	118	

Table 4 is showing the most important themes for improving the managerial attitudes of farmers. The respondents selected at least three of the most important themes. The three dominant themes selected were group marketing strategies, strategic planning and business plan and administration and bookkeeping. These themes should be considered in the development of the learning materials.

**Table 4 - Most important themes for improving the managerial attitudes of farmers**

Subject	no.*	%
a. Administration and bookkeeping	16	24
b. Use of the European structural funds (EAFRD, ERDF, ESF)	2	3
c. Use of the Common Agriculture Policy measures	5	7
d. Strategic planning and business plan	17	25
e. Relationships with banks	1	2
f. Relationships with insurance companies	0	0
g. Safety at work	2	3
h. Individual marketing strategies	7	10
i. Group marketing strategies	18	26
j. Other		
Total	68	100



Table 5 shows the preferred learning methods selected by 3<sup>rd</sup> party specialists. The respondents could choose more than one of these methods. Learning by doing, with meetings at, and visits to pilot farm (s) was selected 19 times with a weight of 40%. The blended methodology was selected 11 times and self long distance learning once. These innovative methods could be the instructional forms for the new entrant farmers and young farmers who have difficulty with transport or distances to training centres.

**Table 5 - Preferred learning method**

	Method	no.	%
a.	Residential courses, lasting one week	6	13
b.	Non residential courses, with lectures spread over several weeks or months	9	19
c.	Self long distance learning (offline courses via internet)	1	2
d.	Video-conference organized by the training centre	1	2
e.	Learning by doing, with meetings at, and visits to pilot farm(s)	19	40
f.	Blended methodology (front classroom, online and offline training)	11	23
g.	Others		
	Total	47	

## CONCLUSIONS

In general, in Portugal, there is a need to strengthen the learning programs for farmers. The preliminary findings suggest the use of traditional training and learning methods such as residential and non-residential courses. The interest in visits to pilot farm (s) has been discussed. Nevertheless, the preliminary study has recognised the importance of a blended methodology for learning such as on-line and off-line training. The identification of innovative farm activities indicates the topics and areas for learning such as organic farming, on-farm processing of traditional foods, biodiversity protection (seed and or breed protection) and the production of medicinal plants can be relevant for women and new entry farmers. The important management themes selected by the 3<sup>rd</sup> party specialists were administration and bookkeeping, strategic planning and group marketing strategies of their agricultural products.

The new entrants and women farmers will be consulted in order to clarify the offerings and learning methods. The strengths for self long distance learning would diversify the learning methods and permit greater access and reduce problems associated to travel to and from training centres, meetings and pilot farm visits. The scheduling of the learning process would also reduce the problem of fitting the course schedule to a number of users. The future teaching-learning activities and policies must represent a continuous non-formal educational process with as many alternatives in the learning endeavour for the new users in the agricultural sector.

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