The Role of Human Factor in the Innovation of Apricot Production-Empirical Study in a Disadvantage Area of East-Central European Country

Nagyné Demeter, D.1, Nyéki, J.2, Soltész, M.3 & Szabó, Z.2

1Károly Róbert College, Institute of Agroinformatics and Rural Development, H-3200 Gyöngyös, Mátrai str. 36.
2University of Debrecen, Centre of Agricultural Sciences and Engineering, Faculty of Agricultural and Food Sciences and Environmental Management, H-4032 Debrecen, Bőszörményi str. 138.
3Collage of Kecskemét, Faculty of Horticulture, H-6000 Kecskemét, Erdei Ferenc tér 1–3.

Summary: Hungary is a traditional fruit growing country for ages. As fruit sector has a very high hand work request and value added, it has an important role to decrease the elimination of unemployment and the lack of income in the disadvantage rural areas. The study was made in the year of 2009, the studied population consisted of the members of the fruit-grower marketing organization (Gyümölcsért Ltd.), that organizes growing and sales of stone fruits in Hungary. The number of studied population were 95 capita, the number of filled out and evaluated questionnaires was 35. By the composition of the questions both qualitative and quantitative methods have been used. We tried to get answers to the following questions: Are the studied human factors (age, educational level, sex etc.) of growers, determined the extension of innovation of apricot production?

Key words: apricot variety use, questionnaire survey, human factor

Introduction

During our research, we intended to explore the characteristics of the apricot plantations of the Gönc production area, the knowledge and practice of farmers concerning variety use, their future changes and its specific reasons. Besides this, our aim was to gather the qualitative and quantitative information necessary for the development of consultancy and the research guidelines. Therefore, the basic objective of the study is to put together a comprehensive situation report that supports the identification and reinterpretation of the problems in the variety use in this production area, as well as the solutions to these problems. It is important to emphasise that this current examination is a “situation report”, therefore, it cannot describe the temporal changes of the explored phenomena (Nagyné Demeter et al., 2010 a). So, this current study intends to represent one part of this comprehensive research. We wish to briefly introduce mainly the research results concerning the role of human factor in the innovation, in this case variety use, of apricot production use.

Methods

The Gönc production area is the sample area of examination (Figure 1). The quantity of apricot produced in the examined sample area is significant even on the national level. Based on the data of the Agricultural Register (ÁMÖ), 22.2% of the net area of the Hungarian apricot plantations is constituted by the Gönc production area that is located in Borsod-Abaúj-Zemplén County. Therefore, this production area has a high importance in the Hungarian apricot production, this is why the survey and evaluation of the variety use that basically determines the success of production could serve as a guideline even on the national level, mainly in the issues of variety use, variety switch and the acquisition and use of information about varieties. The issues of variety selection
strongly depend on the production site endowments of each production area, therefore, research results often describe the characteristics of the given sample area. Nevertheless, in cases when we examined the role of human capital, the results could serve as a guideline even on the national level. In order to be able to fully support these issues, similar survey results could serve as a guideline even on the national level. In cases when we examined the role of human capital, the characteristics of the given sample area. Nevertheless, in cases when we examined the role of human capital, the results could serve as a guideline even on the national level.

The distribution of involved people reflects the national and county conditions as well. 85.7% of the involved people are men (national rate: 86%), while only 14.3% are women (national rate: 14%). This fact lets us conclude that although farming is present in women’s lives, still they lead a farm rather rarely. In most of the cases they are represented as assisting or employed labour in the production. Regarding the farming period, 51.4% of answerers have been dealing with apricot production for more than ten years. 37.1% have been farming for 5–10 years. It can give us a favourable basis for the evaluation of questions in connection with the investigation of farmers’ opinion and reactions. Regarding the farming character, mainly fruit growers have been asked. The most part of these growers don’t deal with other agricultural production. The reason for that was mainly that questions in connection with fruit growing had a significant role in the survey that motivated us to have our questionnaires filled in at forums and training courses. Regarding the education of farmers it can be stated that rate of the answerers have a secondary school education and the rate of the answerers have a higher education degree equivalent (28.6%). The second largest group (25.7%) has secondary technical school and 2.9% has only basic skills. This value is favourable than the regional and county data. This indirectly shows that in this large value added and labour intensive sector must the growers have up-to-date production knowledge. Because of it, without these knowledge they could not manage their farms. This favourable phenomenon due to the average age of the involved people was 44 years, and the involved answerers belong to the age group 60 or older were very low. As well as the most part of growers is market-oriented.

Regarding to the farming state the population consisted mostly of part-time growers (54.3%), then the full-time growers (40%), and 5.7% of the sampling population is pensioner. The examination of the factors affecting farmers’ variety use had a high priority in the study. The generally held view that the innovative skills of the farmers are weak and that they rather stick to their production traditions instead of market-focused farming is not true in this case. It can be seen from the answers that the farmers in the production area mainly prefer competitiveness (Figure 3) in variety use (Nagyné Demeter et al., 2010 b).

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### Results and discussion

Regarding the distribution between different age-categories of the in the research work involved people a relative high homogeneity could be observed. The average age of the involved people was 44.14 years, the mean was 45 years. The value of average age and the median was near to each other. So the distribution of age-categories are showed normal distribution. The value of standard deviation was law (St. Dev.=11.7), too (Figure 2.).

![Figure 2.](image-url)  
*Source: On the basis of empirical research, self-edited.*  
**Figure 2.** The distribution of involved answerers between different age-groups, regarding the frequency of the valid answers, 2009

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**Figure 3.** Distribution of determinate of used nectarin species, in the distribution (%) of valid answers, 2009
Nevertheless, there are many occasions when this preference does not prevail in practice. As it will be seen later, the probable reason for this phenomenon is the lack of information and capital, instead of the frequently mentioned problems with mentality. It can be seen in the figure that variety use is mainly affected by sales alternatives, customer needs and production site endowments. The priorities that farmers considered to be the most important ones well reflect the fact that apricot production in the production area is governed by the market. Based on the results of the correlation analyses, the answers given are proportionate among the educational levels of the respondents, therefore, the educational level does not determine the variety use of farms among the interviewees (Figure 4).

The combination of information source is construed as a function of education level (Figure 5.). The advisory system is represented by very low value. This fact call the attention to the lack of advisory system in the horticultural sector.

The answers are well proportioned in the group of professional higher education. It’s very important that between the educational level of growers and the useful of information were not correlation (p=0.33). In the case of information utilization was the results of correlation analyses same (p= 0.57).

### Conclusion

Our results pointed out that the hungarian scientific establishment Alvincz, J. and Varga, T. (2000).: Situation of family farms and the improvement of their productiveness; Kaproncai I. (ed.) (2005): Characterisation of farmers’ adaptability – The answers of farmers to actual questions; Alvincz, J. (ed.) (2003): The income-situation of agriculture and the affecting factors: The taxing of the incomes of individual agricultural producers[,] as the spread of marketable technologies are hindered by the low educational level and agronomic knowledge of farmers is false. We found that production experience is the strength of Hungarian growers to compensate their incomplete information. Only 2.9 percent of growers answered that the information source was satisfactory and suitable. Nearly 30 percent of growers gave the answer that the information sources were not useful and suitable. From this, they had several problems at planting and production of a new apricot variety.

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