

RESEARCH REGARDING THE EVOLUTION OF HORTICULTURAL PRODUCTS IN ROMANIA

Venig Aurora*

*University of Oradea, Faculty of Environmental Protection, 26 Gen. Magheru St., 410048,
Oradea, Romania, e-mail: venig_aurora@yahoo.com

Abstract

Horticulture is a traditional occupation, at least it remains vital for the period of transition economy. In the approach to development it has priority both to ensure food for the population and to support rural areas and farmers in access to high living standards.

Horticulture is a decisive branch of the national economy whose permanence is indisputable, vital to any human society. Durability results from its natural resources in sustaining all living systems, and completeness of the special relationship between the environment, particular soil conditions and climate. The history and evolution of horticulture is intimately connected to the history and development of agriculture. As such, horticulture is part of the story of humanity's desire to gain control over nature. This story encompasses exploration, conquest, experimentation, innovation and globalization. This paper will mainly resemble the significance that horticulture has over the humanity, its evolution concerning the products, surfaces in Romania but also includes some steps in order to improve the horticultural system in Romania.

Key words: horticulture, production, orchards, vegetables, evolution

INTRODUCTION

Horticulture is the science that deals with the study agronomic cultivation of fruit, vegetables, vines, flowers and the methods and procedures for obtaining wines. Capitalizing effective climatic conditions, soil and relief well demarcated areas defined for each area of production of horticulture. (Anghelache, 2012). Thus, growing vegetables is practiced on land fertile meadows because vegetables are water-loving species. Formed initially as a practical occupation, grow vegetables, trees and vines had a progressive evolution moving from accumulation of knowledge and experience to generalizations, principles and laws becoming an applied science. Horticulture as a science is dealing with the study of the biology of horticultural species, their relationships with environmental conditions in order to capitalize larger extent of their potential biological purpose of obtaining competitive productions. Increased share of horticulture in the world economy, agricultural production is due to the importance that fruits and vegetables have in the diets of rational man. And this share is also due to the fact that the national income growing countries a particularly important role they have these cultures. (Alexandri, 2010). Natural fertility of soils, climate diversity and understanding growers were the main factors that have helped to raise horticultural production potential of Romania.

Over the last 60 years, agriculture, including horticulture, has become increasingly reliant on science and technology to maintain profitable production. The scientific study of horticulture is divided into various sub-disciplines. Pomology is defined as that branch of horticulture dealing with fruit and tree nut production. Fruit production includes the so called tree fruits; such as apple, peach, and small fruits; such as strawberry, blueberry, and raspberry. Olericulture is defined as that branch of horticulture dealing with the production of vegetables and herbs. Floriculture is that branch of horticulture dealing with the production of field-grown or greenhouse-grown plants for their flowers or showy leaves. Environmental horticulture is that branch of horticulture that deals with the production of plants for ornamental use in constructed environments, both indoors and outdoors. (Craciun, 2012)

MATERIAL AND METHOD

Horticulture has great importance in European economic development, being supported by a number of policies and specific strategies and by allocating the highest amount of the EU budget. (Lewis, 1955). Given Romania's horticultural potential and the need to eliminate the existing gaps in relation to agricultural development in the European Union, Romania should pay particular attention to measures that support this area. Horticulture is an important area that may be developed to the advantage of the qualitative transformation of the Romanian economy. (Dobrotă, 2003). This means restructuring the inefficient sectors in horticulture as well as making structural investments in order to achieve the quantitative level, and especially the one required by EU policy. Romanian rural areas hold two advantages: wealth of natural and human resources, but economic performance of the sector is very low. The potential of our country remains unexploited because of poor organization of the land, of cadastral measurements that are not generalized, of reduced concerns for value-added for horticultural products and the dependence of horticultural production on the climatic conditions. (Stringer, 2001)

There was made an analyze of the Romanian horticulture system. In Romania, over time, they were organized vegetable and fruit-growing areas of culture well-defined population that can provide sufficient amounts of fresh or industrialized throughout the year.

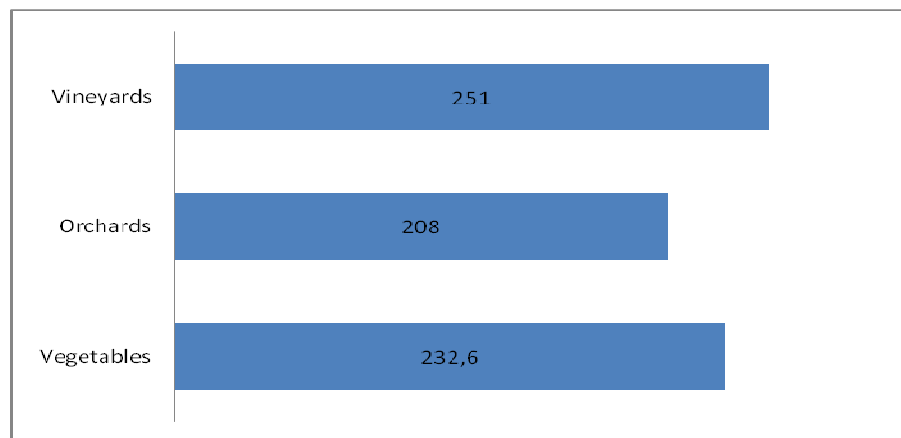


Fig.1. Surfaces in Romania 2010-2016 (thousand hectares)

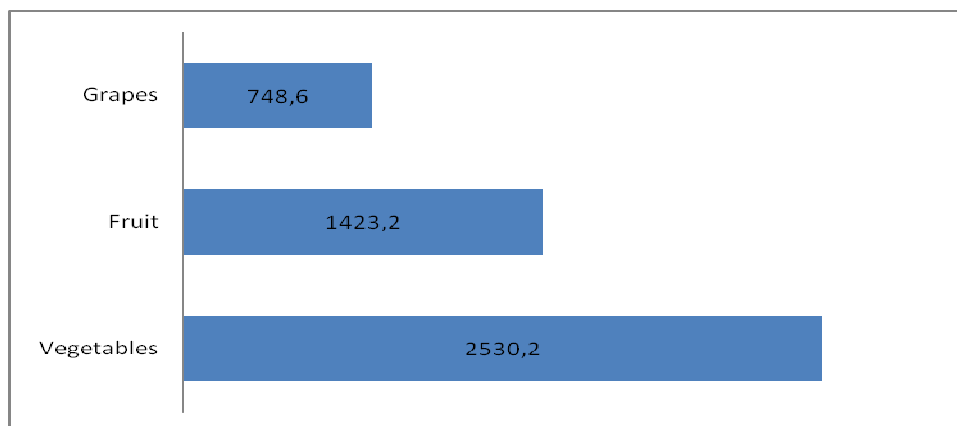


Fig.2. Production in Romania 2010-2016 (thousand tonnes)

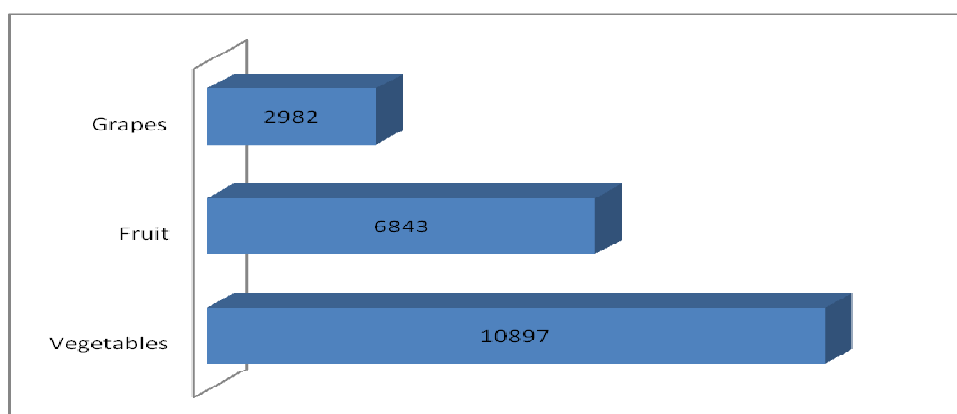


Fig.3. Medium production/ ha in Romania 2010-2016 (kg/ha)

It is important to note that massive destruction took place in orchards and vineyards, which have brought considerable damages, some can no longer be recovered. They were cleared thousands of hectares with trees and vines with great economic value for a long time to be sowed with grain or to be left fallow and under the action of wind and water erosion.

Horticultural crops have a special meaning for the population and economy, due to quality products which are obtained, they are requested by consumers and industry in a much wider range compared to other products of plant and animal origin.

So if the cereals produce 10 to 12 varieties of technical basis, the market steadily recovered, of fresh horticultural crops are obtained from 35 kinds of vegetables, 25 fruits, 4 grapes, plus wine and other products of industrialization dozens of vegetables and fruit. Regarding economic and social importance, it should be noted that trees and vines can capitalize on superior way sloping land, unsuitable for other crops, causing economic circuit attracting these surfaces in agriculture. Horticultural crops are characterized by a high level of intensification of production. A feature of the production process in horticulture is the volume of expenditure and consumption of relatively high labor.

Romanian horticulture rehabilitation, its development on an ascending path is a priority of a coherent and effective agricultural policy.

The entry into the European Union forced Romania to a concrete organizational, technological and financial program.

The current state horticulture requires an evolution based on reconstruction, such as:

- current restructuring horticultural holdings on market economy principles
- further increasing production at all horticultural crops through the full application of modern technologies
- intensive culture systems
- expansion deficient species and varieties and the high production
- increasing mechanization works

For an evolution of fruit growing in Romania, it is recommended controlling the soil erosion, creating varieties genetically resistant to diseases.

Special attention should be paid to the seedling production, selected and authentic in promoting Romanian nurseries of valuable varieties with genetic resistance to diseases and viruses.

Romanian heritage orchards currently occupy an area of 134.616 ha. Of this area, properly maintained only 77 883 ha. The rest is in decline and disrepair. The total fruit production nationwide in the last 2-3 decades, oscillated around 1 million tones of fruit, with an average per hectare of plantation about 6.5 to 7.0 tones. This represents approx. 30 -35% of fruit production in the main countries of U.E.

In 2016 they produced 365 000 t apples; 345 000 t plums; 65 000 t pears; 76 000 t cherries; 23 000 t of peaches; 23 000 t nuts; 27 000 tons apricots; 6500 t quince; 15 600 t strawberries; 3900 fruit shrubs.

Romanian fruit growing is far removed from European standards under the following aspects:

- the number of viable farms, specialized farms, approx. 10-20 ha is practically insignificant;
- extensive culture systems are still
- M9 rootstock, generalized in apple orchards, is virtually nonexistent in many Romanian orchards;
- in plum culture is still using local varieties
- export of fresh fruit is low, approx. 800-12000 tones per year and the dehydrated form is virtually nonexistent.

The most popular fruit tree areas in Romania are located in the Sub-Carpathian foothills, Southern and South-Eastern regions. Here are quartered most plantations of plum, apple and cherry. In Western Romania, Bihor - Arad, conditions are favorable for the cultivation of apricot and peach, the area continues along the Danube in Southern counties of Mehedinți, Dolj, Olt, Teleorman to Dobrogea, Constanta respectively - Tulcea. Strawberry also can be successful, there beginning in Argeș, Valcea, Dolj, Giurgiu. Climatic conditions have noticed that Romanian hills favor specific accumulation in fruit flavors and a variety of minerals and vitamins. Unlike livestock, it should be remarked, that foreign investments are very minor.

There is an actual fruit-growing area of 77 883 ha, out of which 34 899 ha plum; 2953 ha cherry; 2172 ha apricot; 2052 ha cherry; 1795 ha hazelnut; 1339 ha peach; 1129 ha walnut; 51 ha hazel; 31 ha almond; 1.3 ha chestnut. To this we should add 1668 ha and 136 ha strawberry fruit trees.

RESULTS AND DISCUSSION

Some steps to encourage the evolution of Romanian horticulture are:

- a) Programmes, even strategies to stop the involution of the Romanian horticulture were adopted before the EU accession and after the accession. Nevertheless, results were insufficient or insignificant. (Oțiman, 2010) Not just because of the adopted programmes and strategies, but rather because of the lack of measures to be put into practice. At the same time banking and financial legislation does not connect granting loans for farmers to their skill level (similar to the green certificate of EU farmers), but only according to the system of collaterals. Human capital is crucial for the economic development potential of a region. Diversification of the rural economy also depends on the level of education, skills and qualifications of the rural

employment. The modern vision on European horticulture gives an important role to the modern farmer. Romanian horticulture development depends on the development of a new type of village economy which involves not only the development of agriculture, but also the development of non-agricultural activities, development of industry, services and infrastructure in rural areas. (Winters, De Janvry, Sadoulet, and Stamoulis, 1997)

c) Infrastructure development. Creating and maintaining adequate infrastructure is essential for the economic and social development of rural areas and for achieving a balanced regional development. Romania presents discrepancies between urban and rural both in terms of physical infrastructure, as well as socially speaking. Infrastructure for transport services, telecommunications, electricity, water and waste management is essential for business development and attracting investment in rural areas. The development of public infrastructure could support the creation of new economic activities and could generate new jobs. (Șerbănescu, 2009)

d) Overcoming the low performance of the horticultural sector, caused, firstly, by the weather-dependent horticultural production. Therefore, investment in the rehabilitation of irrigation systems and equipment should be a priority investment in Romania's horticulture. Feasibility studies are needed for newly landscaped areas, that can establish technical solutions for pumping water, the cost of work, profitable investment for farmers and sources of funds needed.

e) Consolidating small and medium land holdings in modern horticultural holdings of optimum size. Competitiveness of Romanian horticulture is closely linked to the quality of horticultural space. Therefore, the Romanian village must be removed from closed natural economy and placed in business. The rural economy should gradually be transformed from subsistence economy to commercial economy. (Tudose, G., Enache, E. and Culiță., 2011)

f) Another strategic objective of high economic significance refers to improving the cost structure of horticultural production. The current cost structure and their multiannual fluctuations generate largely poor performance of the Romanian horticulture.

All these measures can contribute to the development of the Romanian horticulture and can also reduce the disparities compared to the European countries and support a competitive and efficient horticulture.

CONCLUSIONS

The problems facing horticulture producers are serious and complex, with long-term implications. That is why, solutions and measures to be taken must be well grounded and organically integrated into a national transpartinic, comprehensive and long perspective strategy. The whole creative - productive capacity and all forces of this country should participate in developing this strategy, but mostly in transposing it into real life. Romania - postulate some specialists - has a historic opportunity to exit the periphery where is located and enter the process of the second modernity, represented by the EU integration, only if it applies the strategy of burning some development stages, especially in the development of agriculture and rural economy. But for the tough application of such a strategy it requires a different management to address the problems facing Romanian agriculture and especially, a concerted effort of all active forces of the country to transform agriculture into a basic branch of the Romanian economy - modern, prosperous, competitive. (Oțiman, P.I., coord., 2011). Hence, a balanced conclusion of all considerations mentioned above is that among the measures promoted in the scientific literature, for the development of the Romanian horticulture and for improving employment and labour efficiency in horticulture, we should also include new measures. Any development strategy in the medium or long run, aimed at increasing competitiveness and regional convergence of the Romanian economy, can not ignore the presence and future of the horticultural sector, as an important subsystem of the national economy. Any strategy targeting rural economic development must also take into account all economic and social aspects that characterize the rural areas and should take into account the macroeconomic and European strategies.

REFERENCES

1. Alexandri, C., 2010. The evolution of prices on food production chains in Romania during post accession period, pp.45-48
2. Anghelache, C., 2012. Romania 2012. Economic status in perpetual crisis. Economic Publishing House. Bucharest, pp.121-127
3. Craciun, L., Aceleanu, M.I., Molanescu, A.G. and Moroianu, N., 2012, Current demands and perspective on the social and economic development of Romania. Printech Publishing House Bucharest, pp.52-60
4. Dobrotă, N., 2003. Government social and economic policies and prices of agricultural products in foreign economic trade liberalization. Economic Publishing House, pp.57-60
5. Lewis, A., 1955. The Theory of Economic Growth. R.D. Irwin. Homewood. Illinois, pp.12-15

6. Otiman, P.I., coord., 2011. Alternatives to rural economy in Romania. Development of agriculture or rural food insecurity and severe desertification. Romanian Academy Publishing. Bucharest, pp.89-95
7. Otiman, P.I., 2010. The contributions of the Institute of Agricultural Economics on the European convergence of the agro-food sector and Romanian rural area, pp. 36-39
8. Stringer, R., 2001. How important are the 'non-traditional' economic roles of agriculture in development?.Centre for International Economic Studies.Adelaide University. Australia, pp.70-73
9. Șerbănescu, I., 2009. Saving Romanian agriculture will not come from the EU. National Journal. March 15. Bucharest, pp.86-90
10. Tudose, G., Enache, E. and Culiță, G., 2011. Agriculture - a Chance for the Economy in Crisis of Romania. Annals of the "Ovidius" University. Economic Sciences Series. Vol, XI. Issue 1.
11. Winters, P., De Janvry, A., Sadoulet, E. and Stamoulis, K., 1997. The role of agriculture in economic development: visible and invisible transfers. Department of Agricultural and Resource Economics. University of California, pp.90-96