

## **THESIS**

For a Ph.D. dissertation titled

**Promoting an Effective Change of Generations in Agriculture**

**– Supporting Young Farmers –**

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The candidate has fulfilled and complied with all the conditions stipulated in the Ph.D. Regulations of Corvinus University of Budapest, and incorporated the observations and suggestions made in the workshop discussion of the dissertation in its reviewed version, hence the dissertation is hereby accepted for the defense process.

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## **1. INTRODUCTION**

The demographic patterns of the EU agriculture have been changing. The number of farmers is decreasing, while the dimension of the cultivated agricultural land is constant. The average age of the labor force employed in agriculture is increasing, and there are only few signs of diversification. Agriculture however continues to fulfill an important social, economic and environmental role, and remains to be a significant factor in employment and in the food industry. The sector has an annual turnover of approximately 900 billion euros, and provides jobs for 20 million people. Agriculture is still the most important means of land use, and its contribution to preserving the quality of life of the rural population is outstanding. The problems of the aging demographics of the rural agricultural population cannot be examined separately from the global tendencies of the agricultural market or from those of the European Union. It is necessary to analyze those demographic changes in a European and global context.

Agriculture has had to face new challenges in the last fifteen years. Although it remains one of the most important objectives within the sector to provide customers with food for a reasonable price, higher preference is given in the agricultural policy of the EU to such considerations as food safety, the growing customer expectations regarding healthy nutrition, environmental awareness in agricultural production and sustainable development. Of global phenomena, the growth of the global population is to be highlighted, since it has induced an increasing demand for agricultural products as well as intensifying efforts in welfare societies to reduce malnutrition.

For the farmers of the more and more aging European agricultural population, also shrinking in numbers, the issue of acquiring information besides up-to-date professional knowledge is becoming increasingly important. Farmers need information about global economic trends, technical developments and, last but not least, the changes of policy measures and support schemes of the Common Agricultural Policy. Accessing the information – or the lack thereof – may rearrange the agricultural society to a significant extent, determining the production structure, land concentration as well as opportunities for supplementary farm income in the long run.

Changes in the agricultural population – regarding its size, average age and its role in employment – have a long history; however, they have accelerated in the last 50 years. Due to the parallel appearance of the unfavorable demographic tendencies and the escalating global competition, it has become a more and more urgent task in the past decade to facilitate the entry of qualified young farmers with up-to-date professional knowledge. Like all over Europe, the question „Who is going to cultivate the agricultural land?“ arises more and more frequently in Hungary as well. Are there enough young farmers holding appropriate qualifications to live up to the challenges of the global market described above? What are the main factors and means to attract young people to stay in the countryside and work in agriculture?

## **2. OBJECTIVES OF THE RESEARCH**

The conceptual approach of the current dissertation is from the wider, general to the specific, more focused, starting from demographic tendencies towards analyzing economic problems in the European Union and its individual member states, including Hungary.

I had the objective to provide an overall picture of the role the agricultural sector plays in the European Union as well as in Hungary's national economy, as well as the demographic and employment policy situation of the European and American agricultural population. The dissertation deals in detail with financial support schemes promoting young farmers' launching their enterprise (national and EU supports and credits). A separate chapter discusses the means of facilitating access to information and of interest enforcement (village agronomist network, business federations).

I study the signs of ageing, as well as its consequences regarding employment and the labor force market, with a special emphasis on agriculture. I present the means currently used to tackle negative tendencies, more precisely the support mechanisms aimed at young people in the countryside. In the dissertation I touch upon the qualification of young farmers, and their opportunities to acquire farmland, which, beside the support mechanisms, also influence their success and the prosperity of their enterprises. Reckoning with the possible shifting of the balance between the bibliographical and methodological chapters of the dissertation, in my bibliographical research I describe the domestic support schemes (SAPARD, ARDOP, EAFRD) and analyze the reports published by the authorized offices (Closing Report of the Managing Authority of ARDOP, MARD). Complementing the characteristics of the Hungarian support mechanisms, I present, in the bibliographical chapters, the characteristics of the support systems of the USA and some of the member states of the EU.

Besides analyzing bibliographical data, the dissertation also aims to introduce the economic and social problems relating to young farmers in a truthful manner through practical experiences.

This is achieved by analyzing the answers collected from young agricultural entrepreneurs via questionnaires and in-depth interviews.

**My hypotheses:**

1. I presume the necessity of a change of generations, and that it can be solved by supporting the launching of the enterprises by young people.
2. I presume that the support measures by the European Union and the credit constructions of the financial market play a relevant role in the launching of new enterprises by the youth, and, learning about the international support schemes, positive examples can be adapted in order to increase the efficiency of the local system.
3. Of the essential conditions of launching a new enterprise, the most important is land. To this hypothesis, I wish to examine the opportunities of young farmers to acquire land.
4. I presume that the quality of intellectual input, ownership and management is of special importance in the agricultural, more specifically in the horticultural sector. I support this hypothesis with bibliographical references, qualitative and quantitative methods.

**My objective:**

- Defining the persons, platforms and institutions supporting agricultural enterprises. For the latter it is not necessary to build new bureaucratic channels, because in many cases we can think about the organizations already existing, but

occasionally not operating efficiently enough (village agronomist network, tender applicants, and business federations).

- Pointing out the necessity of collecting information acquired about the enterprises of young farmers, and creating a comprehensive database.

As far as I know there is no such database currently of farmers under the age of 40, based on which a realistic picture could be drawn of the geographical locations of the lands of young farmers, the efficiency of their production, the tendencies of production structure, any changes in the farmland cultivated by young farmers, or even the success rate of tender applications submitted by young farmers broken down by regions. Such a database could not only facilitate research activities, but it may also provide solid support for political and economic decision makers.

The potential of creating an agriculture conforming to Hungary's natural qualities and resources as well as living up to the challenges of the global market is in the hands of young agricultural entrepreneurs. It is essential to pay more attention to tackling the unfavorable demographic phenomena causing more and more severe consequences among agricultural employees. A solution must be found to arrange the income conditions of the elderly farmers handing over their lands, and an attractive vision must be created for the rural youth, providing incentives to launch new agricultural enterprises and develop those already in existence. The issue must be dealt with both on the level of research and decision making so that such practical measures as support schemes and credit constructions can serve the future of young agricultural entrepreneurs, and, through them, the future of Hungarian agriculture, as soon and as efficiently as possible.



### 3. MATERIALS AND METHODS

In my dissertation, the direct (support measures) and the indirect (professional training, regulating the ownership of land property, supporting business federations and persons) means promoting the launching of new enterprises by young people are **analyzed by studying the technical literature, and by quantitative and qualitative research methods.**

Via the quantitative method based on questionnaires I have primarily painted a comprehensive picture of the support schemes utilized by young farmers, the efficiency of credits, and the difficulties in connection with developing an enterprise, as well as their vision. Since the statistical databases (e.g. the reports by HCSO, EUROSTAT, ARDA) and information systems (e.g. FADN, EAA) usually examine only sub-areas, and the various sub-areas are often not compatible with each other due to the different calculation methods or the different base populations. Starting from this basic situation, I created my own sample. I considered Hungarian farmers between the ages of 18 and 40 who are legal entities of the EU support schemes as the base population. According to my plans, selecting the statistical sample should have taken place on the basis of the database of the Association of Young Farmers in Hungary (AGRYA).

When I contacted them, AGRYA had a positive reaction about sending out the written questionnaires to their members, and a promise was made. Unfortunately, however, nothing happened for half a year, following which I randomly selected my sample from the list of 1335 winning applicants published by MARD, somewhat deteriorating the representative level of the sample. Hence the selected sample cannot be considered fully representative of the total base population.

Nevertheless, it is still suitable to draw a picture of the typical characteristics of a partial sample, a narrower group within the base population.

Of the qualitative research methods, I applied individual, semi-structured interviews organized around a specific topic. When selecting the subjects for the interviews, I narrowed down, in comparison with the survey by the questionnaires, the base population to be examined to the young farmers of vine-growing and viticulture. My starting point was the presumption that the quality of intellectual input, ownership and management is of special importance in agriculture, and, more specifically, in the sectors of horticulture. Currently it is a widely acknowledged fact that, in the vine-growing and viticulture sector, among certain ecological limits, it is more or less the quality of the intellectual input that is decisive in the successfulness of a wine region, or a property.

#### **4. COMPREHENSIVE CONCLUSIONS**

**Based on the bibliographical research it can be concluded that** with decreasing demographics and the parallel ageing of society, several member states of the European Union are struggling with the problem of low employment and high unemployment rates, and the weaknesses of qualifications and human capital.

The accelerating global trading due to the free movement of capital and goods has transformed the urban – rural relations. The role of supplying domestic agricultural products for the cities is tapering off. Cities, especially those nearby with developed industries, drain labor force from the countryside, giving way to the migration of the rural population capable of work. The migration is typical primarily of the youth.

In the rural policies of the EU, more and more emphasis has been given in the past 5-10 years to those support measures that aim to make rural lifestyle attractive for young people. The support measures of rural development programs have meant to improve the unfavorable age composition of farmers as well as the lack of capital occurring when young farmers launch their enterprise. They have aimed to promote property concentration for the sake of the more efficient productivity and market success of the young farmers. Voluntary change of generations has also been promoted by supporting the transfer of farms so that inheriting should not be the sole option for young people launching an enterprise to acquire farmland free of all encumbrances. Within the rural development policies of the Union, means of supporting vocational training and cooperation appeared as well.

Studying the technical literature it can be concluded that the member states all apply the support measures stipulated by the rural development regulations 1257/1999 EC and 1698/2005 EC combined with certain national divergences, providing national subsidies to young farmers. Even greater differences can be found in support schemes financed purely from national sources. Germany grants tax allowances, and Italy provides subsidized credit schemes to facilitate young people to get straight.

Austrian young farmers may primarily make use of investment subsidies, while the Czech young farmers may apply for administrative support as well. In France, the state helps the youth to launch enterprises by providing financial, social and taxation mechanisms as well beyond the supporting measures of the union. Young French farmers may be partially exempted from having to pay social security contributions for up to five years after launching their new enterprise.

It can be established that not only in the form and to the extent of the national subventions, but also in their set of conditions there are differences between the member states. Along the frame conditions stipulated in Council Regulation 1698/2005 EC there is the possibility to tighten the rules on the national level.

It can be established that there is no support system similar to the “setting up of young farmers” known in the Union operating in the USA. The United States Department of Agriculture (USDA) provides primarily beneficial credit opportunities for young and beginner agricultural entrepreneurs via Farm Credit System (FCS). Besides providing loans, the organization is also occupied in insuring produce and counseling. Besides FCS, the credit program by the Farm Service Agency of USDA (FSA) also serves the support of young farmers.

Studying the domestic support system it can be established that the requirements of the state financed support for young farmers launched in 1998 did not include agricultural qualification. The amounts of the support could be spent on creating a family property, buying land or assets. The volume of the amount of the support fell behind the amounts of support following Hungary’s EU accession.

94% of the applicants for the “support for setting up young farmers” in the period 2004-2006 in Hungary (ARDOP 1.4) were micro-enterprises. Most of the young people submitting the applications worked in cultivation. Most agreements signed took place with farmers occupied in growing cereals. The interest of young people in ARDOP 1.4 kept intensifying in the years following the accession. The continuous availability of support was only curbed by the scarcity of funds.

The new rural development scheme (EAFRD) launched in 2007 brought an increase in the funding amounts.

The “support for the setting up of young farmers” grew to a maximum of 40 000 Euro<sup>1</sup>, 90% of which was paid out as an advance deposit. The application system was also somewhat simplified in comparison with the previous, and the invitations for applications appeared in a more predictable way, and were building on each other.

For the comprehensive conclusions of the questionnaire survey and individual interviews of the dissertation, see the next chapter titled “New scientific results”.

## 5. NEW SCIENTIFIC RESULTS

Based on the objectives defined and the hypotheses put forward in the chapter titled “Objectives of the research” of the dissertation, the following new scientific results can be drafted:

1. **Hypothesis:** I presume the necessity of a change of generations, and that it can be solved by supporting the launching of the enterprises by young people.

Reviewing the technical literature has presented that the agricultural population of Europe is continuously ageing. In several member states of the EU, the average age of farmers is over 55, and there is no sufficient replacement from the younger generations. Only in Poland, German, Finland and Austria does the number of farmers under age 35 exceed those over 65. The first half of the hypothesis proves true: a change of generations is justified.

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<sup>1</sup> Depending on the size of the farm 20000 euro (4 ESU farm), 30000 euro (7 ESU farm), 40000 euro (10 ESU farm).

However, for the change of generations to be successful, supporting the young people to launch their enterprises is not enough. Further conditions for the new generation to succeed and remain venturesome are facilitating the acquisition of farmland, creating favorable credit constructions, providing practice-oriented vocational training for the young generation as well as opportunities for gaining international experience. Supporting the enterprises of young farmers is a possible but not sufficient means for developing their enterprises.

- 2. Hypothesis:** I presume that the support measures by the European Union and the credit constructions of the financial market play a relevant role in the launching of new enterprises by the youth, and, learning about the international support schemes, positive examples can be adapted in order to increase the efficiency of the local system.

Based on my research I have reached the conclusion that young farmers utilized the “support for setting up young farmers” (ARDOP 1.4) to the largest extent from all measures supporting rural development by the European Union in the last 6 years. The amounts of support were primarily spent on purchasing farmland and new technological equipments. My survey has proven that this supporting measure is considered the most effective from the perspective of developing their enterprises.

It can also be concluded about the ARDOP 1.4 support at the same time that it puts a lot of administrative burden on applicants. This is a cost increasing factor and it slackens the enterprising spirit. There are two solutions to avoid this: decreasing either the administrative burdens, or the accompanying costs. In the Czech Republic, young farmers may request support for their administrative costs. The Czech example could also be adapted in Hungary.

Only 3% of the respondents utilized the Farm transferring support. Reasons for that included the accompanying asset transferring fee, and the current unfavorable conditions for this support. In the Czech Republic this support is due up to the age of 69; in Hungary up to retirement age. After that, insofar as the pension is lower than the amount of the former support, the state supplements the pension up to the amount of the support. Young agricultural entrepreneurs may take a credit for purchasing such farms supported with state guarantee and preferential interest rate. The Hungarian system of providing the Farm transferring support can be amended on the basis of the Czech example.

With my research I have verified that young farmers do not possess a financial basis, and they are unable to provide the compulsory excess payment, hence they have to take credit. Taking the credit, and, parallel with it, launching the enterprise is difficult. It is a problem for the young farmers that the credibility review is a very slow process (minimum 6 months), and is very expensive due to the involvement of a notary and an appraiser, and there are a lot of specifications (credit warranty, collateral security, guarantor).

The starting capital often presents a problem for young Hungarian farmers when launching their enterprise. In the USA, a special program of FSA<sup>2</sup> provides help to beginner farmers and those from socially disadvantaged groups<sup>3</sup> for purchasing land. To access the credit, it is enough for the applicant to be in possession of only 5 per cent of the purchase price of the land.

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<sup>2</sup> FSA: Farm Service Agency

<sup>3</sup> According to FSA definition socially disadvantaged groups are minorities and women.

In Hungary, there were credit institutions in the market in 2009 requesting excess payments of 20 or 5 per cent as a condition for accessing the credit<sup>4</sup>, but their number is not significant for the time being. The American example can be adapted, with Hungarian characteristics also taken into account. In Hungary, land-mortgage could serve as the basis for a preferential credit construction. Since financial institutions cannot own land according to the Hungarian legislations relating to land properties, however, land-mortgages cannot work in the traditional sense. It is a possible solution that the National Land Fund sells land to young farmers on long-term hire-purchase. By creating a credit construction the deficit of the state budget would not increase, because the installments would result similar income to the currently collected rental fees.

- 3. Hypothesis:** For the setting up of young farmers several basic conditions must be met simultaneously. Of these basic conditions, the most important is land property.

My survey has proven that the acquisition of land is a fundamental objective of young farmers at the time of launching an enterprise, and increasing the land property also appears as a future development objective. Of the financial opportunities of the acquisition of land, only the “support for the setting up of young farmers” measure has proven to be an efficient solution.

Based on my research it can be concluded that there are not only financial difficulties in the acquisition of land. The Hungarian inheritance regulations also hinder the creation of viable farms necessary for launching enterprises, since they prescribe, for lack of a last will and testament, that the inheritance be partitioned in equal proportions among the successors, regardless which child would like to become a full time farmer.

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<sup>4</sup> Szabolcs Savings Point, Szabolcs land purchase loan, First Agro Credit Zrt.



My surveys have supported that the land market and supply has tapered in certain areas, which brings up the need of land purchases coordinated by the state.

4. **Hypothesis:** The quality of intellectual input, ownership and management is of special importance in the agricultural, more specifically in the horticultural sector, and contributes to the successfulness of the enterprises.

Based on my bibliographical research it can be concluded that the educational background of agricultural employees in Hungary still falls behind the other sectors of the national economy. The young viticulturists participating in the in-depth interviews had a higher educational degree with one exception, all their parents, however, had only completed secondary education. It proves my hypothesis that the qualification level of the young entrepreneurs participating in the currently ongoing change of generations in the vine-growing, viticulture sector has improved in comparison with the previous generation, and it also shows higher qualification on the sectoral level. It proves the significance of the quality of the intellectual input that the viticulturists participating in my qualitative research all emphasized the importance of their further professional development, and the problems of the Hungarian professional education being too theory-oriented. They all had participated in practical trainings (internships) either in Hungary or abroad.

## 6. SUGGESTIONS

After studying the technical literature, and on the basis of the results of the quantitative and qualitative research, I can summarize my suggestions as follows:

1. It is deemed advisable to **maintain the “support for the setting up of young farmers” and the “Farm transferring support” measures.** Possibly as a constant element among measures of rural development, and not optionally.
2. In order to facilitate the acquisition of land for young people, I recommend that, in the course of **land sales by the National Land Fund**, the **right of preemption** for young farmers be ensured. It would be expedient to link this right to cultivating obligation, the ban of resale, and perhaps prescribing quality production.
3. In order to **accelerate administration and making it more transparent and simple** I recommend the simplification of the application system as well as the financial, business plan. The swift modification of legal regulations is to be avoided. In the vine-growing and viticulture sector I recommend that **the product fee and the vine-growing community contribution be reduced.** These are not significant from the perspective of the state budget, but the associated reporting and administrative obligations of the individuals take up time and money, and it slackens the enterprising spirit of young people.

4. I suggest that it **be an obligatory component of the professional training to participate in internships abroad**, which could then be acknowledged via extra scores when judging applications for support measures. Through this, the theory-oriented education in Hungary could be reinforced from the practical side.
5. I recommend that, in the vocational education or the counseling system, more attention be paid to the **teaching of how to prepare business plans and financial plans** necessary for applications.
6. I consider it expedient to work out a **youth support program and a loan for young people between 14 and 20 years of age who are interested in agricultural professions**, which could be used for their education and realizing their agricultural projects of modest dimensions. The plans financed and realized by this youth support can later serve as the bases of agricultural enterprises. Similarly to the USA, where the youth agriculture program is a great success.
7. Although I did not go into details about the role and tasks of supporting family in my dissertation, it has turned out from my questionnaire survey that young farmers count on the help of their family for the most part. It would be important to ensure the possibility of **placements in social and public educational institutions for the children** of young farmers. By solving the placement of children during the daytime the **labor force of spouses could be integrated** in the enterprises.

8. One of the means of creating viable farms and avoiding the frittering away of properties is amending the regulations relating to the inheritance of land property. Instead of following the Austrian inheritance regulations pattern, (for lack of a last will and testament) partitioning the inheritance among the successors in equal proportions, I recommend that the **consensus obligation of the successors be prescribed** regarding who is going to be the young farmer to cultivate the land alone.
  
9. **Supporting the land purchases of young farmers, I suggest the creation of credit constructions similar to the American system**, making them available for beginner enterprises. Adopting the American pattern to Hungary can take place via the land sales by the National Land Fund.
  
10. I recommend that a representative database be set up in the future, presenting the situation of young farmers in Hungary, with regards to land ownership structures, financial and demographic characteristics, which should be made available to the entire sector. Relying on this database as well as the information of a new internet website demanded by the young generation, I recommend that a **research project of national level be worked out, which would serve to realistically present and provide efficient solutions for the unfavorable demographic and economic trends effecting the agricultural population.**