

# AGRICULTURAL EXTENSION SYSTEM IN HUNGARY

Krisztián KIS, József GÁL UNIVERSITY OF SZEGED

#### 4.1 INTRODUCTION

It can be experienced that a certain emphasis had been put on the importance of the role of the productive man even in the early stage of economic thinking. Adam Smith examined the man's economical role in his influential work "Wealth of Nations" published in 1776. Smith thoroughly analyses the capital types in his work and lists the economically useful knowledge and ability of the population or that of each member of the society. Being one of the most complex branches of the national economies, in the agriculture, which is connected to bigger systems both vertically (agribusiness) and horizontally (multifunctional agriculture) due to its input and output and both its productive and service activities, the knowledge, experience and specialised knowledge of the producers, as parts of the human capital, are the determinative factors of the many-sided effective activity of enterprises. According to Coleman (1998) the material capital is formed by making it the tool to support raw material production. He thinks that a similar process characterises the formation of human capital: it is created by a kind of transformation (investment into the human capital: education, training, consulting etc.) which attributes people skills and abilities to carry out new ways of actions. Nowadays, in the era of information or in the period of knowledge-based economy, these skills are required since only the enterprises can be prosperous which are able to adapt, react to the new challenges, or which are able to manage the changes in the socio-economical and natural environments. The importance of adaptation is rooted in biology. As Charles Darwin's theory of evolution sees only the species having the best adaptability can survive in the process of natural selection. Evolution means the adaptation to the constantly changing natural conditions which can be reached by modifying the genome and thus the features of a given population. These modifications can be observed in the new or altered features which are left for the subsequent generation. This process leads to adaptation to the given environment which finally can result in formation of new species. According to Bakacsi et al. (1996) organisations can survive until they can give responses to the stimuli coming from outside. Also, they can survive until they are able to adapt to the changes in the environment, or are able to gain the necessary resources. These organisations assure their continuance with decisions and with constant communication with their environment.

Success of agricultural enterprises in adaptation greatly depends on the competence of economic leaders, producers and the agricultural labour force. Regarding this fact it is important to highlight the presence or the absence of the necessary knowledge and information. In the era of the knowledge-based economy, the modern, practical and convertible knowledge is of high value. It implies that the qualitative features of human resources (qualification, competence, work style and ethic, motivation etc.) have come into prominence as compared to the quantitative ones. It results that knowledge, skills and abilities influence the development of enterprises much more now than earlier. This point of view is supported by Berde (2003), too, who thinks that the success of any producing or service activities greatly depends on adaptability which is primarily determined by the quality and quantity of the producers' knowledge. This view is placed in the environment of knowledge-based economy characterised by scientific, technical and informatics development. It is also due to a sharp market competition resulted from the continuous changes of economic and market processes.

Nowadays information is of great importance. On the present level of socio-economic development information is both the resource of crucial importance and productive factor of organisations (Eaton and Bawden, 1991; Pfau, 2004; Roóz, 2007). Information can be considered as knowledge which diminishes uncertainty, an input of decisions which is cardinal to activate and co-ordinate the other resources (Chikán, 2008). From this respect the presence of information and its availability have become indispensable to raise adaptability to a higher level (Galó, 2008), and to maintain the many-sided effective work of organisations (Bergeron, 1996; Roóz, 2007). The information which is available affects decisions and actions of both individuals and organisations, and thus it has a certain effect on their effectiveness, as well. As a consequence, the information, its presence or absence (being under-informed) is a significant differentiating factor between enterprises. Being well-informed has the benefit that we can make our decisions utilizing the knowledge which can improve their effectiveness, so we can give better responses to the challenges. The flow of information, communication, takes a very important part in the improvement of farmers' competence, in better adaptation to the changing environmental conditions, in the long run.

One way to give the necessary information to the farmers is participation at trainings, while the other is to employ the advisory system (Székely, 2011). The international literature on this specialised subject (see Kozári, 2000) points out that the essence of consultancy is to transmit information and thus to help, assist farmers. Cser (2001) says "by agricultural advising transmission of knowledge and information and assistance in making decisions should be meant." As a result, "agricultural extension in Hungary is supposed to be a service which helps farmers gain the new adaptable knowledge by applying efficient ways of communication" (Kozári, 2000).

## 4.2 AGRICULTURAL EXTENSION SYSTEM

The agricultural extension system in Hungary has significant traditions in history. The first official state consulting organisation was established in the 19th century and its operation was based on the institutions of agricultural vocational education (Székely and Halász, 2010).

Foundation of the present system goes back to the time after the political changes in 1989-90, to 1993 when the government's aim was to establish consultancy based on market demands and subsidised by the state. Experts agreed that only a consulting system subsidised by the state can make farmers prepared to the market economy in the years of the formation of the system. Recognizing it, a free network (network of village agronomists) subsidised by the state appeared in the system as a new element, from 1994 (Székely and Halász, 2010). The Network of Village Agronomists started to work on 1 March, 1994 on the basis of the Government Decision No 2003/1994 (17 of January). Since then the institutional structure of extension has been modified several time which primarily meant modification in the number of participants and their supervision.

The concept of agricultural consulting is determined by a FVM decree of 73/2007. According to the decree a service can be regarded as agricultural consultancy which is operated within the framework of the so-called Mezőgazdasági Szaktanácsadó Rendszer (MSZR) (Farm Advisory System<sup>34</sup>). In this respect the decree excludes from the agricultural extension the other

<sup>&</sup>lt;sup>34</sup> By 1 January 2007, Member States had to set up a system of advising farmers on land and farm management, the so-called farm advisory system operated by one or more designated authorities or by private bodies. (Council Regulation (EC) No 1782/2003 of 29 September 2003).

agricultural advising services accomplished in different forms<sup>35</sup>. It means that the farm advisory system (MSZR) is considered to be an advising service in a restricted sense. However, as Székely and Halász (2010) pointed out besides MSZR, there are more organisations accomplishing agricultural consultancy which are excluded from the advisory system determined by the state because of their form. Still, they transmit important information for the farmers. As it is shown by Figure 1 the present Hungarian extension system includes more institutions and organisations. Consequently, agricultural advising is accomplished by a system of institutions which operate in different forms, and which are financed in different ways.

Figure 4.1 shows that farmers are provided either with free consultancy - entirely financed at public expense – or with commercial consultancy.

Free consultancy or customer consultancy - in other words - includes two organisational forms separately supervised: (1) the network of village agronomists with approximately 600 members and (2) Farm Information Service (GISZ) with about 200 members. This consultancy is free for the customers. The two organisations are financed by both national and EU sources. Operation of the network of village agronomists is co-ordinated by NÉBIH subordinated to the Ministry of Rural Development (VM). Village agronomists perform administrative and official tasks besides advising and assistant functions. Nevertheless, as Laikó (2009) states. "the most important task of a village agronomist is to give assistance to solve the farmers' problems". However, the network of village agronomists is often criticised because their original task – giving advice – is being pushed into the background, and they spend most of their time with official and administrative tasks. Székely (2011) addresses another criticism according to which the information-giving activity and administrative authority of village agronomists can hardly be accommodated with the fact that while they help present the application, they also supervise it. In another respect the administrative authority questions the quality of customer service, the advising activity. However, Székely and Halász (2010) state, on the basis of an empiric research, that farmers put their faith mostly in this network and their connection to this network is the most extended one, so village agronomists are determinant factors of the national agricultural extension.

The network of Farm Information Service (GISZ) was established in 2007. GISZ is managed by the Hungarian Chamber of Agriculture in the framework of New Hungary Rural Development Programme (ÚMVP) axis 1. Thus, in the programming period between 2007 and 2013 chambers advisers provide free consultancy for the farmers in connection with the Common Agricultural Policy, the rural development and direct subsidies.

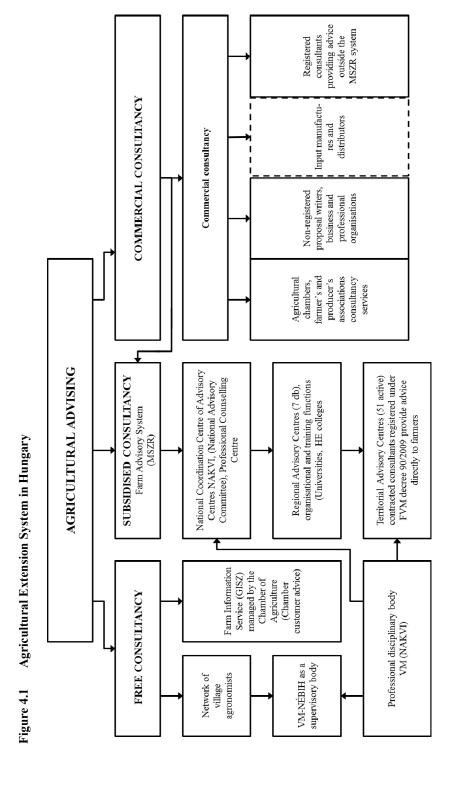
Assessing these two previous forms of customer advice service: network of village agronomists and chamber customer advice service (see Tóth, 2005), it can be concluded that distribution of the tasks between them did not improve the efficiency of the extension structure. This situation may have taken a part in that the network of village agronomists fully or partly will be attached to the chamber, said the temporary president of the Hungarian Chamber of Agriculture in an interview given to Napi Gazdaság<sup>36</sup> (Kiss, 2012). This significant structural change has been made possible by a law regarding the chamber of agriculture passed in the summer of 2012.

As it is shown in Figure 1 besides or instead of free consultancy the farmers have the opportunity to ask for commercial consultancy, as well. Commercial consultancy can be divided into two groups: (1) not subsidised from EU sources and (2) subsidised from EU sources.

Krisztián KIS, József GÁL

<sup>35</sup> In connection with it the under-secretary of the Ministry of Rural Development (VM) stated on the formation of National Advisory Committee (OSZB) on 7 December, 2011 that village agronomists, agricultural chambers customer advisers and registered consultants should be meant by advisors (VM, 2011). As a result, agricultural extension implies a service which is realised within the framework of the network of village agronomists and Farm Information Service GISZ), besides MSZR (Farm Advisory System).

Napi Gazdaság - Business Daily economic and financial newspaper



Székely (2011), Fieldsend and Székely (2012)

Source

Krisztián KIS, József GÁL

Participants of full-cost (not subsidised) consultancy are (Székely and Halász, 2010; Székely, 2011):

- Agricultural chambers, farmer's and producer's associations, who give information, advice for fee-paying members;
- Non-registered proposal writers, business and professional organisations who provide their clients with their service for a determined compensation;
- Advisers of input manufacturers and distributors who provide consultancy, besides commercial activity. Reacting to the market competition these advisers (product managers/regional representatives) accomplish not only sales but advising, as well, which is of professional and business type and for which the customer do not have to pay a separate fee;
- Consultancy performed by registered consultants outside the MSZR system without a demand for subsidy.

Table 4.1 History of subsidised agricultural extension

	1990-2005	2005-2006	2007-2009	2009-től
Number of consultants/advisers	557 agricultural adviser	650 agricultural adviser, 890 NVT consultants	650 agricultural adviser, 890 NVT consultants	675 agricultural adviser
State-paid consultants	0	400 people in 7 organisations (The Federation of Technical and Scientific Societies – MTESZ; Association of Transdanubian Agricultural Consultants – DMSZSZ; National Federation of Agricultural Co-operatives and Producers – MOSZ; Hungarian Chamber of Agriculture – MAK; National Association of Hungarian Farmers Societies and Co-operatives – MAGOSZ; Federation of Bioculture Associations – BESZ; Hungarian Chamber of Plant Protection Professionals and Doctors of Plant Medicine – MNMNK)	ranisations Technical and	
Sources	National	NVT (European)	ÚMVP (European)	
The sum paid for consultants employed by the state	0 HUF	1,5 billion HUF/year	2,427 billion HUF/year	
Financial support (subsidy)	2 billion HUF/year	0 HUF	In 2007 1 billion HUF; HUF/year	, in the second second
Subsidised activities	- Indirect subsidy of advisers contracts - Group consultancy - Subsidy to promote publications and programmes - Programmes representing the firms - Trainings which give qualification - Trainings which do not give qualification - Farm apprentice programme	Giving information for the potential costumers on the current subsidies of NVT, on the conditions, title conditions, deadline and way of proposals	Indirect subsidy of advisers contracts     Trainings which give qualification     Trainings which do not give qualification     Compulsory trainings	
Legal background (laws)	95/1990 FVM decree (consultants registry)	95/1990 FVM decree (consultants registry), 65/2005 FVM decree (NVT registry)	52/2007 FVM decree (contracts), 73/2007 FV system), 90/2009. FVM of the agri-consultancy (ÚMVP trainings)	M decree (advisory

Mezőszentgyörgyi, 2011 Source

Defining the concept of advising we have mentioned the following participant of the agricultural extension: Farm Advisory System (MSZR). The subsidised advisory system was formed after the political changes, at the beginning of the 1990s. The aim was to establish a system financed by both the producers and the state which follows the farmers' demands. Table 4.1 gives a short survey on the history of subsidised agricultural extension in Hungary, from the 1990s up today.

The MSZR corresponds to the Farm Advisory System (FAS) which can be subsidised from the European Agricultural Fund for Rural Development (EAFRD) which has to be operated by each member state from 2007. In the period between 2007 and 2013 No 1782/2003 Council Regulation gives the basis of the advising services subsidised from EAFRD sources. In the period determined by ÚMVP the system of institutions which operates the advising service subsidised by the state (MSZR) is circumscribed by the 73/2007 (27 of July) FVM decree.

Tasks of the Farm Advisory System are performed by different organisations which are positioned on each other (National Coordination Centre of Advisory Centres, Regional Advisory Centres, Territorial Advisory Centres and the National Advisory Committee). The farm advisory system is managed by the minister of rural development as the managing authority (Table 4.2).

Table 4.2 Structure and tasks of the MSZR

Task (short)	Organisation	Number of person/unit
Management	VM (minister)	1 person
Supervision and assistance (regulated by 73/2007 FVM decree)	VM NAKVI, as National Coordination Centre of Advisory Centres	5 person
Consultant training, information service for consultants (regulated by 73/2007 FVM decree)	Regional Advisory Centres (RSZKs)	7 unit
Subsidised advisory contracts with the farmers according to the 52/2007 FVM decree (regulated by 73/2007 FVM decree)	Territorial Advisory Centres (TSZKs)	80 unit
Service for the farmers (regulated by 90/2009 FVM decree)	Consultant, adviser	about 700 person

Source: Mezőszentgyörgyi, 2011

Within the MSZR it is the National Advisory Committee (OSZB) which is in the highest position – an interest reconciliation forum which involves the representatives of organisations inside the advisory system. The organisation was established on 7 December, 2011 thus making end of a four-year lack in the Hungarian advisory system. The OSZB is the advisory board of the minister of rural development which has the authority to give proposals, to express opinions and to co-ordinate the tasks of the national farm advisory activity. In the committee of 15 members seven persons represent the regional and territorial advisory centres; one person is delegated by each of the following institutions: the Ministry of Rural Development (VM), the Agricultural and Rural Development Agency (MVH), the National Food Chain Safety Office (NÉBIH) and the Hungarian Chamber of Agriculture. The remaining positions are occupied by farmers who employed consultancy thus assuring representation of the users' side.

Special tasks of the agricultural advising are performed by the National Agricultural Advisory, Educational and Rural Development Institute (NAKVI). As the National Coordination Centre of Advisory Centres it takes part in management, quality assurance, and co-ordinates the work of consultancy and information service.

It should be mentioned here that there are some Professional Advisory Centres, too, which have national authorities and which are established in agri-research institutions. They give assistance to solve special problems within their own specialised fields for the customer service and organisations of agricultural advising (Székely, 2011).

The Regional Advisory Centres (RSZKs) (there are seven of them, according to the number of regions in Hungary; they operate within the borders of the regions) take a prominent

part in co-ordination and task organisation. They are built on the higher education of agriculture (6 universities and 1 college). Their basic task is to give up-to-date, special information to the Territorial Advisory Centres on the next level, to assist in mediation between consultants and their clients (FVM VKSZI, 2008).

The Territorial Advisory Centres (TSZKs) take a very important part in agricultural advising since these organisations are the closest relation with the farmers. Basically, they have a double role: on one hand, they mediate between farmers and advisers; on the other hand, they provide current information for the advisers. The network of TSZKs operates with the contribution of registered consultants. The professional basis is formed by about 700 contracted consultants who are registered in 26 different fields of agriculture and rural development.

The No 90/2009 (24 of July) FVM decree which regulates the authorization of the agriconsultancy came into force on 1 September, 2009. It ordains the following conditions for the consultants:

- Qualification certified with a university/college degree, either on MSc or BSc level which is connected to the chosen specialised field; The necessary professional experience:
- at least three-year-long professional experience in the chosen specialised field obtained after graduation and five years before the date of application, or
- a certificate of consultancy obtained either in the agricultural BSc or MSc training or in a specialised consultant training and at least two-year-long professional experience performed five years before the date of the application, or
- at least three-year-long experience as a consultant assistant obtained five years before the date of the application.

The farmer enters into a service contract with the TSZK, then the TSZK concludes an agreement with the registered adviser about the actual realisation of the service (Székely, 2011). In the period between 2007 and 2013 the farmers have the right to apply for the subsidised consultancy three times. The annual subsidy of the service cannot exceed the sum of 700 euro in HUF, or for the full period of ÚMVP the amount of 1500 euro in HUF per customer. Moreover, the amount of subsidy cannot exceed 80% of the total expenditure charged to consultancy services per customer (Füsi, 2009).

Table 4.3 Results of TSZKs on the basis of positive contracts

Denomination	2007	2008	2009	2010	2011*
Number of TSZK	84	83	82	80	80
Number of contracts	9 193	3 362	4 081	2 418	2 553
The sum of the subsidy, HUF	952 199 686	427 048 644	541 117 301	333 220 327	367 441 102
Net contracted sum, HUF	1 176 370 291	506 040 650	634 179 788	389 085 771	425 298 705
Min. contracted sum, HUF	25 000	25 000	42 000	25 000	63 400
Max. contracted sum, HUF	650 000	1 000 000	1 500 000	1 788 500	950 000
Average contracted sum, HUF	127 964	150 832	155 474	160 912	322 950

\*preliminary data

Mezőszentgyörgyi, 2011 Source:

Table 4.3 summarises the important data of the service contracts provided with subsidising resolution which the farmers entered into with TSZKs between 2007 and 2011. It can be clearly seen that the number of contracts significantly decreased after the first two years. This disadvantageous tendency, as Székely and Halász (2010) pointed out, can be explained with the slowness of the procedures and with the lengthy delays in payments. It can be said that within the given period 16 015 farmers applied for the subsidised consultancy service in the framework of 21 607 contracts through the TSZKs. The total sum of the contracts was 3 130 975 205 HUF and the subsidy which the farmers applied for was 2 621 027 060 HUF.

In 2011 the most frequently claimed services were the following according to the fields of specialization (Mezőszentgyörgyi, 2011):

- Arable farming (Natural conservation 23.1 (cross compliance 1. and 5. requirements); Soil and water protection 23.2 (cross compliance 2., 3. and 4. requirements); Plant protection 23.4 (cross compliance 9. requirement); good agricultural and environmental condition, good farming practice 23.7; Arable farming work security; Assistance in keeping field/parcel register (with complex analysis), Advising on keeping farm management diary; Making nutrient management plan);
- Animal husbandry (Animal health protection 23.6 (cross compliance 12., 13., 14. and 15, requirements); Animal husbandry- work security);
- Horticulture (Growing of vegetables, fruits, grapes, ornamentals, herbs) (Horticulture (Growing of vegetables, fruits, grapes, ornamentals, herbs)- work security);
- Farm management (General service of giving information about agrarian regulations, knowledge on strategy, current subjects, new laws in the subjects chosen by the farmer; Applications and tenders);
- Preparing the direct payment form/request (in connection with arable farming, animal husbandry and horticulture).

### 4.3 EXPERIENCES ON THE EXTENSION SYSTEM

Turning back to what has been written in the introduction, it is important to emphasise again that information and knowledge take prominent parts in the maintenance of the effective operation of farmers, in the improvement of their adaptability to a higher level. The essence of consultancy comes from this fact: to help farmers gain adaptable and relevant knowledge and information. The efficient and effective agricultural extension system has a significant role in this process of giving knowledge and information.

It is obviously necessary to eliminate mistakes, failures and to protect the strong points in the system in order to help consultancy fulfil this above-mentioned role, in relation to the demand and necessity to be able to adapt to the changing environmental conditions. We are intending to summarise the most important experiences about the operation of the Hungarian extension system.

The president of the National Advisory Committee (OSZB) said in an interview made in September 2011 (see Szeredi, 2011) that today's fragmented, many-pillared system is futile, it gives mostly administrative assistance to the farmer. The biggest problem of the advisory system has been exactly this state of fragmentation for years: different advisory organisations work beside each other, interlapping with each other, with different professional messages. In regional level the bigger universities of agriculture are diminished in this system lacking both the task and the sources. Although the Territorial Advisory Centres carry out consultancy, the farmers have started to abandon their advising services because of the slow procedures, the lengthy delays in payments and the hiccups in the administrations. Advisory work of chambers is available for a wider range of farmers due to their ample resources but lacking the suitable professional knowledge. One of the elements of the system owns knowledge, the other the infrastructure and the third the financial resources.

The previous experiences are supported and completed with a number of interesting and valuable pieces of information by the analysis of the Research Institute of Agricultural Economics published in 2010 (see Székely and Halász, 2010). It analysed the operation of the

system on the basis of documentary review and empirical examinations (interview and survey) the summary of which can be seen in the following SWOT matrix (Table 4.4).

Table 4.4 The SWOT matrix of Hungarian agricultural extension

Strengths	Weaknesses
- Territorially expanded, functioning institutional and	- The institutional network of both free and commercial
informatical background.	extension is complicated, difficult to overview; Their
- The free consultancy is available by a significant	tasks often overlap.
percentage (80%) of the farmers.	- There is no task-specific co-ordination in the activity of
- Farmers' intention to ask for help is gradually	service-providers, there are too many participants; Co-
(moderately) improving.	operation is either formal or lacked.
- Institution of trainings and education, research centres	- Farmers' inclination to ask for help is still low in spite
mean a reliable professional basis for both farmers and	of the increasing tendency.
consultants.	- The number of application is decreasing, so is the
- The sharpening competition on market has a	demand for subsidy of those who claim the service of
stimulating effect on both sides.	registered consultants.
	- Professional competence of farmers who are the
	potential clients of agricultural extension is low.
	- Trainings of advisers is not profession-specific enough,
	sometimes it is of low level, and it is not about ,,the real
	life".
	- There is no common interest which could be measured
	with the production results.
	- Most of the consultants do this work as a
	complementary activity Evaluation of the consultants' work, checking of
	incompatibility are not solved (lack of resources).
	- There is no dissemination of the positive examples.
Opportunities	Threats
- The task-based free and full-cost consultancy built up	- Users lose their trust.
on each other can improve the efficiency of the system.	- Demands for the service continue to lessen.
- The market of full-cost consultancy can significantly	- Decrease in demand diminishes the low competence of
be amplified with the customers of the free consultancy.	users.
- The lower competence of the user side strengthens the	- The farmers' chances in the market competition are
role of consultancy and extension.	worsening.
- Professional trainings of the consultants can contribute	- Exploitation of the possibilities of closing up declines.
to improve the trust in them- on behalf of the farmers.	- Loss of EU-sources.
- The demand for the service can be increased with a	- Increase in corrupt practice to avoid paying tax.
wider range of advising methods.	(Consultancy services are performed without written
- Dissemination of positive experiences can raise the	contracts avoiding the official process.)
intention to ask for assistance.	
- The problem of incompatibility can be diminished	
with an annual statement.	

Székely and Halász, 2010 Source:

It can be concluded that requirements of an efficient extension system are fulfilled only partially in Hungary. The present structure and operation need intervention in several fields. We agree with Székely's findings (2011) according to which it is essential to eliminate the errors in the system as soon as possible in order to assure the efficient and effective operation of consultancy. Thus it is very urgent to determine precisely the range of free and commercial services, to diminish the number of service-providers, to eliminate the concurrency between service-providers within consultancy, to strengthen the relation between the participants of the system and finally, to provide services which better meet the users' demands.

## 4.4 LIST OF ACRONYMS

- FVM Földművelésügyi és Vidékfejlesztési Minisztérium (Ministry of Agriculture and Rural Development); currently VM
- GISZ Gazdálkodói Információs Szolgálat (Farm Information Services)
- MSZR Mezőgazdasági Szaktanácsadó Rendszer (Farm Advisory System)
- *MVH* Mezőgazdasági és Vidékfejlesztési Hivatal (Agricultural and Rural Development Agency)
- NAKVI Nemzeti Agrárszaktanácsadási, Képzési és Vidékfejlesztési Intézet (National Agricultural Advisory, Educational and Rural Development Institute)
- NÉBIH Nemzeti Élelmiszerlánc-biztonsági Hivatal (National Food Chain Safety Office)
- NVT Nemzeti Vidékfejlesztési Terv az Európai Mezőgazdasági Orientációs és Garancia Alap (EMOGA) Garanciarészleg Intézkedéseire c. dokumentum 2004-2006 közötti időszakra szóló program (National Rural Development Plan for the EAGGF Guarantee Section Measures 2004-2006)
- *OSZB* Országos Szaktanácsadási Bizottság (National Advisory Committee)
- OSZK Országos Szaktanácsadási Központ (National Coordination Centre of Advisory Centres)
- RSZK Regionális Szaktanácsadási Központ (Regional Advisory Centre)
- TSZK Területi Szaktanácsadási Központ (Territorial Advisory Centre)
- ÚMVP Új Magyarország Vidékfejlesztési Program (New Hungary Rural Development Programme; Magyarország 2007-2013 közötti vidékfejlesztési programja – rural evelopment program of Hungary for the period 2007-2013)
- *VM* Vidékfejlesztési Minisztérium (Ministry of Rural Development)

## 4.5 REFERENCES

- [1] Bakacsi, Gyula; Balaton, Károly; Dobák, Miklós; Máriás, Antal (1996): Vezetésszervezés I-II (Management I-II.). Aula Kiadó, Budapest
- [2] Berde, Csaba (2003): Menedzsment a mezőgazdaságban. Vezetési módszerek és sajátosságok (Management in agriculture. Management methods and specialities). Szaktudás Kiadó Ház, Budapest
- [3] Bergeron, Pierrette (1996): Information Resources Management. Annual Review of Information Science and Technology, Volume 31. pp. 263-300.
- [4] Chikán, Attila (2008): Vállalatgazdaságtan (Business Economics). Aula Kiadó, Budapest
- [5] Coleman, James S. (1998): Gazdasági tőke, kulturális tőke, társadalmi tőke (Economic capital, cultural capital, social capital). In: Tőkefajták: A társadalmi és kulturális erőforrások szociológiája (Types of capital: The sociology of social and cultural resources) (Eds.: Lengyel, György and Szántó, Zoltán). Aula Kiadó, Budapest. pp. 11-43
- [6] Cser, János (2001): Regionális agrárszaktanácsadó hálózat modelljének kialakítása és működésének tapasztalatai az észak-nyugat-magyarországi régióban (Modelling a regional agricultural extension network and its operational experiences int he West Hungarian Region). PhD értekezés. Veszprémi Egyetem, Georgikon Mezőgazdaságtudományi Kar, Keszthely
- [7] Eaton, Jonathan J. and Bawden, David (1991): What kind of resource is information? International Journal of Information Management, Vol. 11, No. 2. pp. 156-165.

 Krisztián KIS, József GÁL	
Krisztian Kis, Jozsef GAL	

- Fieldsend, Andrew and Székely, Erika (2012) The Agricultural Knowledge and [8] Innovation System in Hungary. Poster presentation at "The future of Agricultural Knowledge and Innovation Systems in Europe" SCAR and Solinsa joint conference. Brussels, 2012. http://www.solinsa.org/fileadmin/Files/Int diss seminar 1/Akis in Hungary.pdf
- [9] Füsi, Erzsébet (2009): Mezőgazdasági szaktanácsadás Magyarországon (Agricultural extension in Hungary). A falu, Vol. 24, No. 3. pp. 83-87.
- [10] FVM VKSZI (2008): Szaktanácsadásról mindenkinek (About agricultural extension for evervone). http://www.mnvh.eu/sites/default/files/A szaktanacsadasrol mindenkinek.pdf
- [11] Galó, Miklós (2008): A vállalkozások tervezése (Businesses Planning). In: Üzemtan I. (Farm Management) (Eds.: Nábrádi, András; Pupos, Tibor; Takácsné György, Katalin). Szaktudás Kiadó Ház, Budapest. pp. 111-125.
- [12] Kiss, Melinda (2012): Kamarát kapnak a falugazdászok? (Do village agronomists get a chamber?). Napi Gazdaság. 2012.09.17. p. 2.
- Kozári, József (ed.) (2000): Szaktanácsadás a mezőgazdaságban (Consultancy in [13] agriculture). Dinasztia Kiadó, Budapest
- [14] Lajkó, Ákos (2009): A falugazdász hálózat története (The history of the Network of village agronomists). Országos Falugazdász Emlékülés, SZIE, Gödöllő. 2009. február 27. http://www.nebih.gov.hu/data/cms/273/27/A falugazdasz halozat sajtoanyag.pdf
- [15] Mezőszentgyörgyi, Dávid (2011): A szaktanácsadási rendszer hazai tapasztalatai (The experiences of domestic farm advisory system). Szaktanácsadók Országos Értekezlete, Budapest, 2011. szeptember 30. http://www.vkszi.hu/cikk/1731 1.pdf
- Pfau, Ernő (2004): Termelési tényezők, erőforrások (Factors of production and [16] resources). In: A mezőgazdasági vállalkozások termelési tényezői, erőforrásai (The factors of production and resources of agricultural enterprises,)(Eds.: Pfau, Ernő and Nábrádi, András). Debreceni Egyetem, ATC AVK, Debrecen. pp. 23-50.
- Roóz, József (2007): A menedzsment alapjai (Management Basics). Perfekt Kiadó, [17] **Budapest**
- Székely, Erika (2011): A magyarországi mezőgazdasági szaktanácsadás intézményi [18] jellemzői (Features of the extension institutional system in Hungary). Gazdálkodás, Vol. 55, No. 5. pp. 502-511.
- Székely, Erika and Halász, Péter (2010): A mezőgazdasági tanácsadás intézményi [19] feltételei és működési tapasztalatai (Institutional Conditions and Operational Experiences of Agricultural Advising). Agrárgazdasági Kutató Intézet, Budapest
- Szeredi, Helga (2011): Profi szaktanácsadás elmélet és gyakorlat egy helyen [20] (Professional advising – theory and practice in one place). Magyar Vidéki Mozaik, Vol. 1, No. 5. p. 21.
- Tóth, Krisztina (2005): Az agrár-szaktanácsadás helye a mezőgazdasági ismereti [21] rendszerben, fejlesztési lehetőségeinek magalapozása Magyarországon (The role of agricultural extension in the agricultural knowledge system, the groundwork of possibilities for development in Hungary). PhD értekezés. Szent István Egyetem, Gödöllő
- [22] VM – Vidékfejlesztési Minisztérium (2011): Országos Szaktanácsadási Bizottság segíti az agrár-szaktanácsadási rendszer megújítását (National Advisory Committee helps to renew agricultural advisory system). Hírek (News), 2011. december http://www.kormany.hu/hu/videkfejlesztesi-miniszterium/videkfejlesztesert-felelosallamtitkarsag/hirek/orszagos-szaktanacsadasi-bizottsag-segiti-az-agrarszaktanacsadasi-rendszer-megujitasat