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## EXPERIENCE OF THE COORDINATION OF FRUIT AND VEGETABLE PRODUCTION AND MARKETING IN HUNGARY

Dr. TENK, ANTAL – KALMÁRNÉ HOLLÓSI, ERIKA – KÁLDI, JUDIT

### SUMMARY

In order to meet the requirements to the quality and quantity of horticultural products, both production and marketing must be timed accurately and continually, and a high organisational level of the producers and their groups is required as well. Economic cooperation in the fresh fruit and vegetable product channel is imperative for the efforts to reveal the reserves of efficiency, the security of the producers and the market, and the reduction of both costs and risks. A close and coordinated collaboration of the market operators is needed in both raw material production and marketing. The successful operation of the Hungarian Producers' Organisations is hindered by the lack of self-organisation and capital, in consequence of which the possibility to ensure appropriate product manipulation conditions is also limited.

### INTRODUCTION

The distribution of fresh fruit and vegetable has undergone considerable changes during the past decade in Hungary. These changes have constituted a great challenge to petty farmers, who are

dominant in the fruit and vegetable production, in respect of planning and performing their marketing activities. Horticultural production is primarily performed in small family farms (Table 1).

Table 1.

Average size of fruit and vegetable growing farms in 2000, by regions (ha)

Region	Vegetable			Fruit	
	All farms	Family farms	Farming companies	Family farm	Farming companies
Central Hungary	0,10	0,08	34,64	0,48	51,27
Central Transdanubia	0,04	0,02	35,04	0,24	30,01
Western Transdanubia	0,09	0,05	36,47	0,16	28,08
Southern Transdanubia	0,09	0,04	143,08	0,24	45,64
Northern Hungary	0,07	0,05	59,40	0,24	16,89
Northern Great Plain	0,28	0,17	61,49	0,50	33,53
Southern Great Plain	0,25	0,14	93,25	0,60	15,59
<b>Total</b>	<b>0,16</b>	<b>0,10</b>	<b>68,07</b>	<b>0,36</b>	<b>31,25</b>

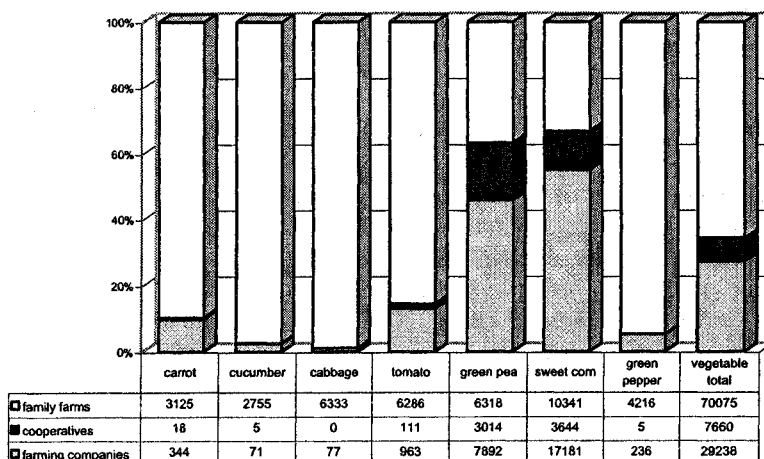
Source: Central Statistical Office 2000

Till June 2002, 66 % of the total vegetable area was cultivated by family farms, 27 % by farming companies, and 7 % by cooperatives (Figure 1). According to *Takácsné (2001)* the situation is similar to that of fruit production, of which 81,3 % is produced by petty farmers, among whom, however, a considerable polarisation can be observed in respect of return from sales. *Fehér (2001)*

also emphasises the low percentage of farming companies (14-16 %), asserting that the coming of an economic farm size into being is hindered by the lack of capital and the non-existence of PMOs, which results in a disorganised form of marketing. Horticultural production mainly has an income-supplementary function in petty farms, which is likely to remain also the near future.

Figure 1.

Sowing area by forms of farming (31 May 2002, ha)



Source: Central Statistical Office 2002

One of the major problems of vegetable marketing in Hungary is the unfavourable market position of the farmers, but the weak bargaining power and the lack of trade organisations owned by the producers could also be referred to (*Papp and Nyéki, 2000, Fehér 2001*). Marketing ought to be organised in order to obtain higher prices, since the producers' groups have a greater bargaining power and are capable of meeting the special requirements of their goodwill, trying to establish long-term direct con-

tacts with the latter (*Poole et al. 1998*). Producers are trying to leave the mediators out and to step forward in the distribution chain, which is only possible if marketing is well organised and planned (*Fruit and Vegetable Market 1998*).

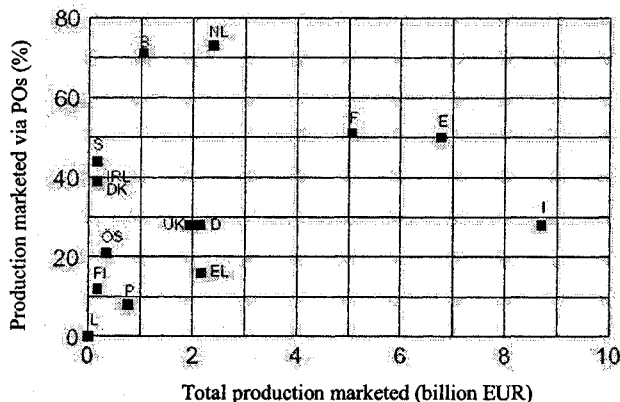
In most countries the agricultural policy focuses on the protection of farmers. The establishment and operation of producers' marketing organisations (PMOs) is regulated by the EC Regulation 2200/96, most elements of which are included in the Regulation 25/1999

(III. 5.) on fruit and vegetable producing and marketing organisations of the Hungarian Ministry of Agriculture and Rural Development (MARD). Whereas the EU regulation is comprehensive and covers the entire fresh fruit and vegetable market, in Hungary its elements are regulated separately. The Hungarian Regulation on the establishment and operation of PMOs is completely brought into line with the analogous EC Regulation, with only some minor differences (*Kalmárné & Lukács 2000*). The EC Regulation came into force in January 1997 and has been ever since continually changing, with several proposals of modification still being on the agenda. The share of fruit and vegetable marketing by PMOs in the total production varies significantly among the EU member states (Figure 2). Approximately 80 % of all fruits and vegetables is sold by PMOs in Belgium and in the Netherlands, amounting not even to 20 % in the Mediterranean countries (Greece, Spain) (Eurostat 2000). In countries where there are only a few but large PMOs with a consider-

able bargaining power the share of PMOs in the total fruit and vegetable marketing is much higher, while in member states with more but small PMOs the share of the latter is less than 50 %. The main objective of the POs in the European Union is to ensure a reasonable income for the farmers by providing product manipulation services (cooling facilities, store rooms, packing, etc.), so that they need not have recourse to the services of other marketing channels (Table 2). It is very important that the increasing supply has to coordinate the members' interest instead of the buy-up or liquidation of farms. This is an interesting element of the EU rural development policy, since more and more horticultural farms stop to exist and the average size of horticultural farms, excepting Denmark and Holland, is decreasing (in 1998 the average horticultural farm size amounted to 4,1 ha in the EU 15). The financial support of the PMOs and the operation of the common market organisation put an increasing pressure on the EU common budget (Table 2).

Figure 2.

**Comparison of production marketed through PMOs and total marketed production in the 15 member states of EU**



Source: European Commission 2001.

Table 2.

## EAGGF budget spendings on fresh fruit and vegetable CMO (million EUR)

	1999	2000	2001*
Fruit and vegetable market regulation	1 454	1 654	1 714
Intervention (fresh market produce)	658	853	960
Export refund	23,2	40,0	45,0

\*: estimate

Source: Eurostat 2001.

On the basis of the minimal sales volume and size of PMOs laid down in the MARD Regulation 25/1999 (III. 5.), and the production data of the counties with remarkable horticultural production, the Hungarian Fruit and Vegetable Product Council thinks that in Hungary the establishment and operation of max. 50-60 PMOs is reasonable. PMO membership requires high commitment, since the members give up a part of their acting and decision-making rights when they accept the principles of cooperation. The establishment of formal organisations is sometimes hindered by the registration and data-providing obligation of the PMOs, in consequence of which formerly 'hidden' incomes come to the light (Horváth, 2003). The hazard of loosing the domestic market is referred to by Lakner (1997), some causes of which are that the international trade companies are continuously growing, and after Hungary's EU accession the country will be a participant of the single market. The concentration of farmers and thus the increase of their bargaining power could have a favourable affect to eliminate this hazard.

#### THE PRESENT SITUATION IN HUNGARY

Since the adoption of the Regulation on PMOs in March 1999 till the spring

of 2003 the Ministry of Agriculture and Rural Development had registered 26 pre-recognized PMOs and one recognized PMO, of which 9 were included in the authors' investigations carried out between January 2001 and March 2003. The following data and information have been provided by the investigated PMOs, the Fruit and Vegetable Product Council, and the Ministry of Agriculture and Rural Development. Most of the investigated PMOs had chosen the *cooperative form as the basic organisation*, and only a few of them operate as limited liability companies. Most of the 9 PMOs investigated in 2002 and 2003 coordinate the marketing of both fruits and vegetables. Two organisations, NATÉSZ (plum, apple) and PANNONIAFRUCT, are specialised for the sales of fruits, whereas the BOTÉSZ Elderberry Production and Marketing Cooperative is specialised for the sale of a single product (elderberry).

Prior to the registration of the pre-recognized PMOs they were asked to complete their previously submitted registration applications by filling them out more carefully and including more precise data. The PMOs said they had some administrative difficulties in the field of the collection of data from the members, and the elaboration of the five-year operational programme of the newly established marketing organisations raised several problems too.

PMOs established earliest do not plan to *increase the number of their members*. During the past 6-7 years since their establishment there has been enough time to form their present membership on the basis of marketing possibilities and regional production. Most PMOs were established in the last two years (2002-2003); they forecast a considerable increase in membership, primarily by integrating producers who already market their produce through the PMOs without being their members so far. The storing and marketing conditions are expected to improve and, as a result, to attract more producers. The prospective EU support system was also referred to as a reason for the increase in membership.

The *average distance* from the central premises is very different, most producers having to transport their produce to the market from a distance of 30-40 kilometres. The situation is very favourable in case of the PMOs NATESZ, SZATMÁR-TIBER, and DALMO, where the average distance is only 5-8 km. The largest geographical area is covered by BOTÉSZ, as this organisation coordinates the processing and marketing of elderberry on 75 % of the territory of the country.

The quantity and volume of the produce marketed by the investigated PMOs, and their *annual turnover* shows a very heterogeneous picture. The highest turnover is reached by the MÓRAKERT Cooperative (HUF 3,0 billion in 2002). The investigated PMOs are capable of marketing the total produce of their members, and the majority indicated the possibility (need) of even increasing their supply by means of integrating more members or increasing the production of the present ones. In order to offer more produce, the PMOs occasionally sell also the produce of non-member farmers. Most PMOs oblige

their members to bring *all of their produce* in, whereas some organisations allow the members to sell 20 % of their produce directly to consumers or through other distribution channels. This possibility is regulated and included in the bye-law, but in practice it is not strictly applied and controlled. On the one hand, it is difficult to control and follow all the production of the members (the produce sold on wholesale markets does not appear in the statistics); on the other hand, a strict control could result in many producers' leaving the PMO, thus making its operation impossible.

The PMOs sell their members' produce through different *marketing channels*. The importance of certain distribution chain levels is very different. In case of the MÓRAKERT, NATÉSZ and KVALIKÓ PMOs, supermarket chains are their dominant buyers, but they export a high percentage of their produce through trading companies. In case of the BOTÉSZ and SZATMÁR-TIBER PMOs the processing industry is the main buyer. It can be stated that direct sales on wholesale markets or to retailers is not characteristic of the PMOs. They rather apply the focus strategy in planning of their marketing activities: they primarily sell seasonal fruits and vegetables focusing on geographically close markets at relatively low transportation costs, along with domestic and foreign markets where their produce is preferred. The PMOs are endeavouring to increase their sales on export markets and to the processing industry in the near future.

At the moment the *collaboration* among PMOs, both registered and pre-recognized, is minimal, since each organisation has only limited information of the rest. At the same time all of the investigated PMOs would require a continuous flow of information on diverse professional issues, and cooperation was

also referred to as a must in order to represent their interests to the government bodies. Half the investigated PMOs positively answered the question whether the merge of certain PMOs would be necessary in the future in order to increase their turnover C sales volume and strengthen their bargaining power. On the one hand, the managers of the PMOs are convinced that the bigger the organisation the more effectively it operates, and, on the other hand, in order to exploit the continually expanding infrastructure (cooling stores, produce manipulation facilities) a yearly turnover of at least HUF 1,5-2 billion has to be reached.

The *experience of the operation* of the Hungarian PMOs acquired so far can be summed up as follows:

- the PMOs are not capable of making a profit because of the non-profit character of their operation, wherefore it is difficult for them to obtain bank credits and loans for the financing of their investments and developments;
- the supermarket chains work with long-term payment conditions (payments are made 40-60 days after delivery), wherefore the PMOs prefer wholesalers and trading companies. Long-term payments often cause a temporary lack of current assets;
- at present the level of produce manipulating technology is not adequate for the production of high-quality products;
- greater and more effective governmental support is required for the financing of the operational costs and investments.

A considerable lesson of personal meetings with the managers of the PMOs is that the personality of the chairman is determining in respect of both the establishment and the operation of the organisation. Only persons accepted by the lo-

cal and neighbouring farmers due to their professional skills and personal characteristics are capable of initiating the establishment of such organisations.

According to *Szabó (2001)* the organisations pre-recognized in 1999-2000 did not sell their products on wholesale markets but organised their marketing activities through other sales channels. During his investigations only two managers said that they had occasionally delivered their produce to the Budapest wholesale market. At the same time, however, the PMOs are continually monitoring the *wholesale market prices* (information is primarily received from the Budapest and Szeged wholesale markets) and consider these data in price formation.

#### CONCLUSIONS, RECOMMENDATIONS

1. *Only the establishment and stabile operation of PMOs can solve the problems of domestic fruit and vegetable production & marketing and ensure transparent market conditions.* At the present moment the possibility and chances of vertical coordination are very limited in consequence of the atomic nature of fruit & vegetable production & marketing and the existence of grey economy, which jeopardises the imminent entry of Hungary into the European Union. *The competitiveness of domestic farmers, the maintenance and improvement of their present markets is unimaginable without common marketing activities.* Fruit and vegetable production can be a success story of Hungary's EU accession if the present PMOs become stronger, and if produce manipulation backed by the government, along with the possibility of own processing in addition to common marketing, improves their income position and acceptance by the market chains

and wholesalers. The lack of financial and moral support may result in the further existence of the atomic nature of production and marketing, and after the country's EU accession foreign organisations will distribute Hungarian fruits and vegetables on the domestic market. *It should be emphasised that the possible governmental and EU supports should not be the basic reason for the establishment of such organisations; only the understanding and acceptance of economic advantages of common marketing can ensure the success of cooperation among the farmers and the success of the horticultural sector.*

2. The *fresh fruit and vegetable common market organisation (CMO)*, the regulations concerning the PMOs *are continually changing* in the EU. Farmers in the Union do not welcome these changes either, since sometimes it is difficult to follow and understand them. The Hungarian farmers have not only to understand these changes but also to be capable of following and applying the modifications. In spite of the intensive propaganda and distribution of information in the domestic and local media Hungarian farmers have only limited information of the fruit and vegetable CMO. Education and extension play an important role, and the support of courses is accepted by the GATT/WTO and included in the "green box" possibilities of subsidisation.

3. After 1999 when the Hungarian regulation on the establishment and operation of PMOs came into force, not many PMOs were established for three years. The currently registered and pre-recognized organisations cover the most important production regions. *From an economic point of view it is advantageous, if the farm and the product ma-*

*nipulating facility are located close to each other.* However, in some cases the optimal solution is if the produce is manipulated on a distribution channel level close to the consumers (e.g. produce is delivered in bulk, graded and packed by supermarket chains).

4. *As for the number of members of the PMOs and their yearly turnover, a considerably increase is still needed.* The PMOs already existing ought to provide production advice to non-member suppliers (*coordination of production*) and buy up their produce (*cooperation*); if they guarantee safe marketing, the latter will prefer to become PMO members as well (*integration*). However, the creation of the necessary prerequisites, i. e. the construction of cooling, storing and processing facilities is required. A major problem for the new organisations was the elaboration of their five-year operational programme. The marketing conditions are changing rapidly, the demand and the investment support possibilities are difficult to plan. Therefore the elaborated operational programmes are mostly considered administrative obligations, and not plans to be fulfilled stepwise. *Operational programme that may actually be considered mid-term strategies can be elaborated after the strengthening of the PMOs and the stabilisation of their market relations.*

5. In case of overproduction the fresh fruit and vegetable CMO gives a way to intervention. For the sake of an optimal operation of the product channel it is not the central intervention but own processing and the establishment of such cooperatives should be supported as are involved not only in marketing but also in processing (Table 3).



Table 3.

**Sales channels of fresh fruits and vegetables in the investigated PMOs  
(in % of turnover)**

	KVALIKÓ	MÓRAKERT	DALMO	MEZŐ-KER- TÉSZ	NATÉSZ	PANNONIA- FRUCT	BOTÉSZ	CIBA-KERT	SZATMÁR- TIBER
Export	15	20	-	40	10	-	-	-	20
Supermarket chains	50	80	-	35	55	10	-	-	-
Processing industry	15	-	50	20	15	40	10*	100	70
Wholesalers	15	-	20	-	20	30	90	-	-
Retailers	5	-	30	5	-	15	-	-	-
Wholesale market	-	-	-	-	-	5	-	-	10

\*self-processed

Source: own investigations 2000-2002.

6. More attention should be paid to the already existing PMOs. These new organisations are still "weak", only a few of them having a real bargaining power. *A governmental credit guarantee* could help PMOs to apply for bank credits. The credit guarantee should be provided on the basis of the number of PMO members, their professional background, and the quality of production. At present most PMOs do not have the necessary manipulating and processing facilities and machinery, and in lack of capital (banc credit) they will not be able to become strong enough. If their position on the market is not ensured these PMOs may lose it after the entry of Hungary into the European Union.

7. The origin of the products ought to be indicated also on products marketed in Hungary: it ought to be *emphasised that the product was produced in Hungary, and also the indication of the region of*

*production* may contribute to the successful marketing of the product. PMOs have to pay increased attention to the *design of easily identifiable logos and attractive packing* and spend more money for this purpose.

8. The Hungarian PMOs established only a few years ago do not collaborate and are not aware of the distribution channels used by their fellow organisations. In the future the *cooperation of the PMOs should be initiated in the field of exchange of information, good marketing practices and experience*. The Hungarian PMOs still compete with each other on the market, but on the long term they may become competitors of the already strengthened European PMOs if they coordinate their marketing strategy. Their collaboration is also needed for the sake of the common protection of their interests.

## REFERENCES

- (1) Anon. (1998b): Tendenciák a világ zöldség- és gyümölcs piacán /Trends on the fruit and vegetable market of the world/, Zöldség- és gyümölcs piac, II. évfolyam 8. szám, p. 6.
- (2) Fehér, K. (2001): Növénytermesztésünk és az Európai Unió /Hungarian plant production and the EU/, Veszprémi Egyetem Georgikon Mezőgazdaságtudományi Kar, Keszthely p. 92-125.
- (3) Horváth, Z. (2003): A zöldségtermelő kisgazdaságok és az EU /Vegetable producing petty farms and the EU/, Gazdálkodás, XLVII. évfolyam 5. szám, p. 80 – (4) Kalmárné Hollósi E. – Lukács G. (2000): Kertészeti termékek piacsabályozása az Európai Unióban és Magyarországon /CMO of fruits and vegetables in the EU and in Hungary/, Óvári Tudományos Napok Mosonmagyaróvár, 2000. október 5-6. p. 40-45.
- (5) Kalmárné Hollósi E. (2003): A nagybani piacok, értékesítő szervezetek szerepe és jelentősége a friss zöldség-gyümölcsforgalmazásban /Role and importance of wholesale markets and PMOs in fresh fruit and vegetable distribution/, PhD értekezés Veszprémi Egyetem Georgikon Mezőgazdaságtudományi Kar, Keszthely p. 1-129.
- (6) Lakner, Z. (1997): Élelmiszer-gazdaság és modernizáció /Agrobusiness and modernisation/, Statisztikai Szemle, 1997/2. szám p. 923.
- (7) Pap, J. – Nyéki, J. (2000): A kertészeti termelés fejlesztésének stratégiája /Strategy of the improvement of horticultural production/, International Journal of Horticultural Sciences, Vol. 6. Number 2, p. 11-22.
- (8) Poole, N.D. – Del Campo Gomis, F.J. – Igual, J.F. – Giménez, F.V. (1998): Formal contracts in fresh produce markets, Food Policy, Vol. 23. No. 2. p. 131-142.
- (9) Szabó, M. (2001): TЭСz-tapasztalatok /PMO experiences/ Zöldség- és gyümölcs piac, V. évfolyam 10. szám, p. 10-12.
- (10) Takácsné György, K. (2001): Characteristics of fruit producing enterprises according to the data of farms taking part in the test farm system, International Journal of Horticultural Sciences, Vol. 7. Number 3-4, p.41-45.

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## A ZÖLDSÉG-GYÜMÖLCSTERMELÉS ÉS ÉRTÉKESÍTÉS KOORDINÁLÁSÁ- NAK TAPASZTALATAI MAGYARORSZÁGON

Dr. TENK ANTAL – KALMÁRNÉ HOLLÓSI ERIKA – KÁLDI JUDIT

A kertészeti termékekkel szemben jelentkező minőségi és mennyiségi követelmények kielégítése megköveteli a termelés és szállítás pontos és folyamatos ütemezését, ami nagyfokú szervezettséget igényel a termelőktől és termelői csoportoktól. A hatékonyságnövelés tartalékainak feltárására irányuló törekvések, a termelők és a piac biztonsága, a költségek és veszteségek csökkentése nem nélkülözheti a gazdasági együttműködéseket a friss zöldség-gyümölcs termékpályán belül, és mind az alapanyag-termelésben, mind pedig az értékesítésben a vevők szoros és koordinált együttműködésére van szükség. A hazai termelői értékesítő szervezetek sikeres működését gátolja az önszerveződés hiányán kívül a tőkehiány, ami miatt a termékmanipulálási feltételek megteremtésének lehetősége is korlátozott.