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**ПРОЦЕСИТЕ НА ХОРИЗОНТАЛНО ИНТЕГРИРАНЕ В СЕЛСКОТО
СТОПАНСТВО И ПОЛЗИТЕ ОТ СТОПАНИСВАНЕТО В РАМКИТЕ НА ГРУПИ
СЕЛСКОСТОПАНСКИ ПРОИЗВОДИТЕЛИ
HORIZONTAL INTEGRATION PROCESSES IN AGRICULTURE AND THE
BENEFITS OF MANAGEMENT WITHIN A GROUP OF AGRICULTURAL
PRODUCERS**

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Abstract

One of the weaknesses of Polish agriculture is its highly fragmented structure, which determines the distribution large supply of agricultural raw materials. Creating producer groups is a substitute of the production concentration. The study, based on the IAFE-NRI field research, outlines the economic benefits associated with the creation of producer groups in Poland as well as socio-economic characteristics of their members. The work (surveys) carried out shows that co-operation was undertaken mostly by young and well-educated farmers who treated their job professionally. However, the advancement of this process is minimal with limited influence on the situation of farmers in the agricultural market. In the case of single farm households, undertaking joint activities has contributed to a number of positive developments, i.e. growth of sales and incomes.

Key words: characteristics of agricultural producers, economic situation, producer group

INTRODUCTION

Market mechanisms stimulate the concentration of agricultural production in an increasingly smaller number of entities¹, while the increase in sales scale is usually accompanied by larger economic strength of agricultural holdings [Zegar, 2003]. This is a desirable process, since economic strength determines not only the possibility of keeping the current economic condition of production and the market position of individual holdings, but also their ability to fund further development and maintaining (improving) the competitive position [Woś, 2000]. However, despite the

¹ In the text the words to determine: farm, individual, entity, are used interchangeably.

ongoing concentration of agricultural production, the Polish market of agricultural raw materials is still characterized by a relatively high dispersion of supply. This situation is the result of fragmented agrarian structure of agricultural holdings [Sikorska, Karwat-Woźniak, 2012] and relatively little advancement of simplification and specialization of production [Karwat-Woźniak in 2006]. The weak competitive position is mainly caused by the inadequate quality of the goods and the high cost of production, which are mainly due to small-scale of the agricultural production, the extent of which does not make capable of obtaining a satisfactory income from agriculture. In this situation, it becomes particularly appropriate to seek any possible ways to increase the volume of agricultural production and to improve the efficiency of the farm's operation. Such opportunities are provided by, inter alia, the farmers' projects for joint management, which enables them to achieve many benefits connected with the building of the competitive advantages of farms by increasing the concentration and specialization of agricultural production [Knoblauch, Kisiel, 2005], as well as facilitating the adjustment to the effective demand. In addition, the horizontal integration processes cause the long-term effects that are not only the rationalization of the production process of agricultural products [Małyśz, 2002], but also it can have a positive impact on the extent of vertical integration in the primary wholesale area [Lemanowicz, 2004]. This means that horizontal integration in the area of agricultural production is the way to reduce the imbalance between agricultural producers and other links in the distribution [Chlebicka, Falkowski, Wołek, 2008]. In this context, the agricultural producer groups can be a tool to stabilize the situation in the agricultural sector and form the basis of well-functioning agricultural markets. For this reason, for many years the European Union has supported the creation and the work of producer groups in agriculture, since they are an important part of restructuring of the agricultural sector. In the Western European countries the joint cooperation of farmers has a long history and proven track record [Krzyżanowska, 2003] and it is an essential element of the organized agricultural market [Borecka, 2004]. The creation of the producer groups has also been propagated for many years in Poland. The generated financial and organizational specific support, especially in the framework of the Common Agricultural Policy (CAP) began to produce results². Still, the number of members of producer groups is small in relation to the total number of farmers³, and the products produced by them have a small share in our market of agricultural products⁴. The reasons for this should be sought in a number of factors, among which the most frequently mentioned is the reluctance of farmers towards joint management, which has its origin back in the socialist period, when collective agriculture was the preferred model [Bondyra, 2003].

² As of 7 February 2013, in the registers of marshals of individual voivodeships in Poland there was entered more than one thousand agricultural producer groups, bringing together more than 25.2 thousand members, while in 2005 was 17.7 thousand members of producer groups, operating in 120 groups.

³ Members of producer groups represent about 1.8% of Polish farmers engaged in agricultural activities.

⁴ Agricultural grains and oilseeds producer groups provide 2% of the national production of goods, pigs and poultry - in approximately 1%. Degree of organization of the market in fruit and vegetables is also low at around 4%, while the EU average over 33% [Ławniczak, 2009].

The aim of this study is to diagnose the motives for undertaking collaborative forms of management and socio-demographic characteristics of members of producer groups, as well as to determine the benefits that the farmers have achieved together.

MATERIALS AND METHODS

The basic empirical material, which was used in the realization of the research, was the results of field studies of IAFE-NRI. These are the long-term studies carried out periodically (5-6 years) in the same 76 villages, in all farms located there with an area exceeding 1 ha of arable land utilized by individuals which are de facto family farms [Zegar, 2003]. The villages were chosen on purpose so that the area structure of the units would reflect the actual size of the total number of individual farms⁵. However, in private farms, and such dominate in Poland, the farm acreage is closely linked to the level of production assets, socio-demographic characteristics of farmers and the main objectives of the pursued agricultural activities. For this reason, it can be concluded that the tested community reflects the socio-economic structure of Polish agriculture [Sikorska, 2007].

The surveyed units accounted each time for about 0.2% of the actual number of individual farms and its number in 2011 amounted to 3.3 thousand entities. In that group the agricultural producers held 1.9% of the share and it was slightly higher than in 2005, while the corresponding rate accounted for 1.5%.

The main instrument for the preparation of this paperwork is the descriptive analysis using the comparative and quantitative methods. The indicators of the structure and intensity of the phenomena examined were used as well as the vertical and horizontal dynamics.

THE CHARACTERISTICS OF THE MEMBERS OF AGRICULTURAL PRODUCER GROUPS AND THEIR FARMS

The analysis of the demographic characteristics of members of producer groups shows that the cooperation was usually undertaken by relatively young people. In 2011, the average age of a member of a producer group was 40 years (in the entire study population it was 47 years). In addition, 37% of them were so called "young farmers", which means the persons under the age of 35 years, and a further 23% were aged 36-44 years. No farmer in the producer group⁶ was in the retirement age, while among the total sample in the retirement age there was over 12% of farmers. These individuals were characterized by a relatively high level of general education (over 13% have higher education, and nearly 32% finished secondary school or college), and a relatively good preparation for work in farming (53% had the agricultural school education). Among the total sample the respective ratios were approximately 7.28 and 24%.

An analysis of available data on the location of economic activity and the importance of farming as a source of income shows that between the farmers who declared a membership in producer groups, most (88%) were persons who worked

⁵ Despite some conceptual differences this study uses interchangeably the term of family agriculture (farm) for personal (family) agriculture (farm).

⁶ In the text the terms of farmer, manager, user, host, management are used interchangeably.

continuously full-time on the farm, so they treated that as professional occupation [Sikorska, 1999]. The rest of these farmers worked on a farm on a part-time basis, but the carried farming activity was their only place of professional activity. In any case, the conducted agricultural activities were the dominant source of income of the farmers and their families, and for a quarter of them it was the only source of income. The share of household income from the total income of families, in this group has averaged about 91%.

MOTIVES OF THE UNDERTAKEN “GROUP ACTION”

In the conducted studies, the main reasons why farmers undertook the collaborative activities was also diagnosed, among which the economic implications continuously dominated (Figure 1).

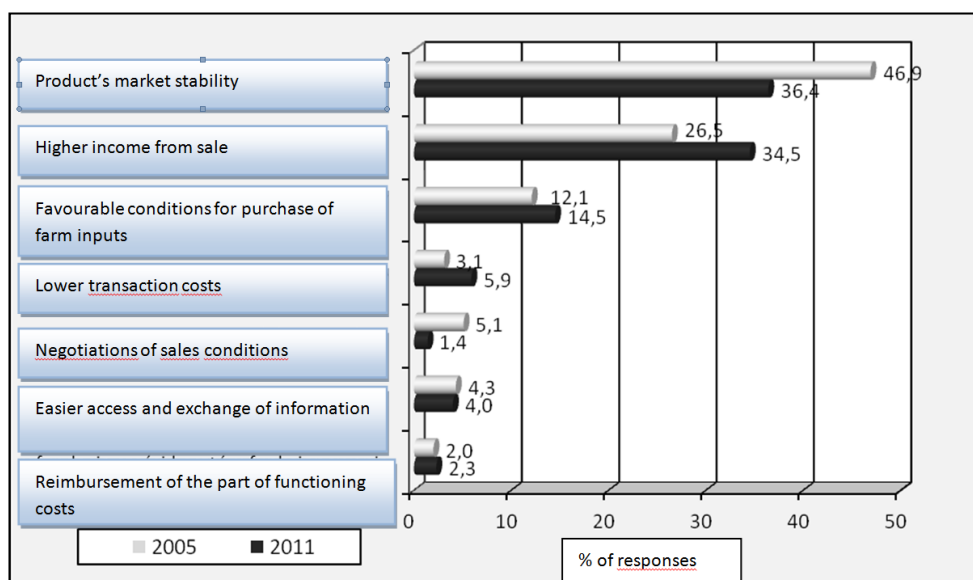


Figure 1. Farmers' opinions about the motives of the operation of the producer group

Source: Based on data from the field studies in 2005 and 2011.

In 2011, the most important factor, which was experienced by 36% (47% - in 2005) of producer group members included the stability of the market conditions. Nearly 35% (27% - in 2005) of respondents declared that a positive consequence of belonging to the producer group was the higher income from the agricultural activities, and nearly 15% (12% - in 2005) indicated the possibility of negotiating the terms and conditions of the purchase prices of production means. Moreover functioning within a group of agricultural producers also gave an opportunity to negotiate more favourable conditions for the sale of agricultural raw materials and the reduction of transaction costs (6%, while in 2005 it was 3%), and the possibility of a better exchange of information and the production and market experiences (in

both periods - 4% of responses). Only a few respondents, as a benefit from a common management mentioned the perspective of receiving the financial support (2%), although a significant part of producer groups, to which the surveyed farmers belonged, were subsidized from EU funds (about 47%) and it was the same range as in 2005. It should also be noted that in 2011, another 10% of groups were waiting for the first instalment of the payment.

THE CHANGES IN THE ECONOMIC SITUATION OF HOUSHOLDS DURING ITS OPERATION WITHIN THE PRODUCR GROUPS

The practice of the countries with well-developed agricultural producer groups shows that by undertaking such projects, the farmers can meet the increasing, sophisticated demands of consumers and increasing competition, and ultimately obtain the satisfactory income [Boguta, 2000]. These findings are also confirmed by the results of the study, both in the opinions of farmers about the benefits gained from the operation within the producer groups (Figure 1) and in the changes in the economic and productive situation of farms that have occurred as a result of actions taken within the group, especially the evidence of concentration of commercial production⁷ (tab. 1).

One of the conditions conducive to the growth of sales scale is enlarging the holdings area [Paszkowski, 2005]. The study shows that since the accession to the group of agricultural producers, i.e. in years 2005-2011, in nearly 48% of households there was an increase in acreage, an average of 10.5 ha of agricultural land⁸. As a result, the average size of farms after joining the group increased from 21.1 to 28.8 ha, which means for about 36%. This trend was accompanied by an even more dynamic process of concentration of livestock on the livestock producing farms. In each of the surveyed farms producing the products of animal origin on the market (mainly livestock: pork, beef and milk) the level of livestock increased by 75% (from 71.1 to 124.4 for 100 ha of arable land). A growth of animal stocking after joining the producer group is one of the factors indicating an increase in the intensity of management.

After joining the producer groups by farmers there were also changes in the distribution channels (Table 1). Following the changes in the frequency of use of the particular forms of distribution of agricultural raw materials, after the commencement of the group management there was also a modified production percentage being sold in a certain way. It was expressed in more than 5-times increase in the share of agricultural goods produced in the farms of the producer groups members sold on the stock market and the wholesale markets (from 7 to 38%) and a significant increase in the percentage of production being sold under contracts (from 45 to 52%). At the same time the permanent, non-formal co-operation lost its importance, which was evidenced by more than 3-times (from 26 to 8%) decrease in the share of the cell distribution of agricultural products for farmers after accession to the group. Even more the importance of the street markets turnover was lost. The share of the markets in sales before joining the

► 5. ⁷ Analysed units operated within producer groups already in 2005. They accounted for about 40% of all farms operating as a team in 2011.

⁸ Only in about 5% of the units the area of agricultural land was reduced, an average of 0.6 ha.

producer group was 22%, and after the integration activities decreased 10-times, up to 2%.

Table 1. Chosen economical and production features of the farms before and after joining the agricultural producer groups

Specification	Individual farms		
	Before joining	After joining	
		in 2005	in 2011
functioning within producer groups			
The average area of the farm (ha of arable land)	21.1	25.2	28.8
The value of commodity production (in PLN thousand) in calculation per			
- 1 farm	67.8	95.2	230.4
- 1 ha of arable land	3.2	3.8	8.0
- 1 FWU (annual work unit)*	36.9	61.6	111.5
Percentage of sales of agricultural production:			
- within the contracting agreements	60.0	72.5	82.5
- on commodity markets and wholesale markets	5.0	25.0	46.2
- for permanent recipients	50.0	40.0	35.0
- in the market place and neighbours	47.5	27.5	18.8
The value of agricultural income (in thousand PLN) in terms of:			
- 1 farm	28.2	42.7 **	47.7**
- 1 FWU*(annual work unit)	15.3	27.5**	32.8**

* The labour input of the farming family members, expressed in the full-time employment equivalent, so called full-time employed, which is identical to the situation where one person is working on the farm 2120 hours per year, which is equivalent to one annual work unit (FWU).

** without any direct payments.

Source: Compiled on the basis of survey data IAFE-NRI 2000, 2005 and 2011.

The changes in the marketing methods, and in particular in the development of organized formal markets, indicate that after the start of farmers group forms of management there increased their bargaining position in relation to consumers of agricultural goods, stabilized the supply-demand relationship and the reduction of the transaction costs.

A comparison of data on the scale of production in the surveyed households shows that the group management resulted in enlargement of the sales volumes across all business units. In the years 2000-2011 the average increase in the value of production of goods were more than three times (from PLN 67.8 to 230.4 thousand). These positive changes resulted not only from the increase of the

production potential, but also were associated with the improved performance of the management⁹.

During this period, in the group of households members of producer organizations, the value of sales of agricultural goods per 1 ha compared to the period prior to the group management increased on average by 150% (from PLN 3.2 to 8.0 thousand per 1 ha). The value of commodity production for one full employee increased by an average of 200% (from PLN 36.9 to 111.5 thousand for 1 FWU). This phenomenon is also associated with intensification of the processes of rationalization of employment on the farms of members of producer organizations¹⁰. Thus, on the basis of those relationships, it can be concluded that, as a result of collaborative forms of management the use of land have improved, and a significant increase in labour productivity was observed.

Analysis of the data leads to the conclusion that the group collaboration of farmers gave them a real advantage, which is a significant increase in revenue from its agricultural activities that occurred on each farm. In the years 2000-2011 the average growth of the agricultural income for the period prior to joining the group was based: on the one holding - 69% (from PLN 28.2 to 47.7 thousand), and for one full-time employee for nearly 80% (from PLN 15.3 to 32.8 thousand). It should also be noted that these values were higher than those of producers who were not joining the producer groups. In 2005, the associated agricultural producers received an average of almost 2.6 times more than the average income received by all respondents.

CONCLUSIONS

In the Polish agriculture, despite many years spent to promote and support the creation of producer groups and a number of arguments in favour of the organization of such groups, still a scope of their creation is small. Members of the producer groups are mainly young people, with a relatively high level of education. They accounted for less than 2% of the total number of farmers engaged in agricultural activities and, therefore, their activities do not have a significant impact on the overall situation on the market of agricultural products. According to data from field studies, in 2011, the holdings of members of producer groups produced slightly more than 4% of the total value of agricultural production of goods of all surveyed units and they possessed a little more than 3% of the total area of agricultural land being owned by the entire surveyed population. Thus it can be concluded that a small group of producers contribute to the integration of distributed agricultural production and strengthen the position of farmers in agribusiness.

However, in the case of a single household, taking the horizontal integration activities of a functional nature has contributed to a number of positive changes in

⁹ Due to the nature of the survey data only a partial analysis of changes in the efficiency of the use of factors of production was possible, and only by reference to the value of sales resources of land and labour resources. The adopted measures do not fully reflect the efficiency of management and efficiency of the factors of production, especially economic performance. But they allow for illustrating the trend and assessing the scale of change.

¹⁰ In that community, the number of jobs per 100 hectares of arable land, compared to the period before joining the group was reduced by half.

production capacity, in terms of expertise and market connections. As a result, there has been a widespread, but very varied increase in sales volume of agricultural production and income from its agricultural activities. In almost two-thirds of subjects these changes were so great that the farms reached a commercial production scale allowing an income from work on the farm in terms of one full-time employee at least equal to average earnings in non-agricultural activities.

The progress in organizing farmers into groups of producers in a situation of great fragmentation of Polish agriculture as well as agrarian intensifying globalization and competition in the agricultural market, is particularly important because it is one of the most effective methods to adapt to the tough market conditions. For this reason, the animation development of horizontal integration in agricultural activity should be an important point in the development of activities, not only within the framework of the CAP, but also Polish national politics.

At this stage, the dynamics of producer groups depends more on personal characteristics and the level of farmers' knowledge and motives of their actions than from other external factors. However, in the development of collaborative activities in private farms, the impact of proximal and distal environment is also important. In this context, not only the financial support seems to be particularly important, but also the business advisory organizations, which in their endeavours for the advancement of horizontal integration among farmers should use the experience of other countries where producer organizations of farmers have a rich and long tradition.

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