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**DISSEMINATION OF AGRICULTURAL PROGRESS BY EMPLOYEES
OF MAZOWIECKI AGRICULTURAL ADVISORY CENTRE
IN THE OPINIONS OF FARMERS FROM ŁOSICE DISTRICT**

*UPOWSZECHNIANIE POSTĘPU ROLNICZEGO PRZEZ PRACOWNIKÓW
MAZOWIECKIEGO OŚRODKA DORADZTWA ROLNICZEGO
W OPINII ROLNIKÓW POWIATU ŁOSICKIEGO*

Key words: advisory, agricultural farm, dissemination, progress

Słowa kluczowe: doradztwo, gospodarstwo rolne, upowszechnianie, postęp

Abstract. The aim of the research was to show the issue of introducing advance on individual farms by employees of Mazowiecki Agricultural Advisory Centre. Based on the results of a survey conducted in Łosice county it was noticed that cooperation with advisers declares 25.8% of the farmers. The respondents claimed that 31.7% of advisers have an appropriate knowledge and skills to introduce the advance in rural areas. More than 82% of respondents are interested in receiving detailed information about the benefits associated with Polish accession to the European Union. A lot of farmers' attention is also focused on new technologies and technical equipment provided for farms (50.9% of responses). In the opinion of more than 93% of the respondents crucial features deciding about dissemination of progress in agriculture by advisers is the effectiveness of their advice and practical knowledge (more than 80% of responses).

Introduction

Progress in agriculture makes all that is introduced into agricultural production and social life of the country, as new in a particular place and time, as rational, in order to achieve higher production and economic effects and skills development [Kujawiński 2012, Maziarz 1984]. We can distinguish the following types of progress:

- production progress – quantitative and qualitative increase of agricultural production capacity and achieving higher quality, the measure of which is the amount of a product per unit of area used for agricultural purpose,
- technical progress – means an increase in labour productivity by replacing human labour with the work of machines and technical equipment,
- biological progress – is done by improving varieties and animal breeds with the rational application of science,
- economic progress – is expressed by the proportion of production costs to its value. This ratio determines most of the income of the population, and thus decides on prosperity.

The factors of agricultural progress can be material. Regarding the productive factors and the socio – economic conditions of production, e.g. natural conditions (soil, climate, water relations), technology and means of production (energy, machinery, tools, seed and breeding material), economic policy (agrarian structure, capital expenditures, prices, loans, taxes, insurance, law). They can also be non-material factors e.g. science, agricultural education, popularising activity of state and social agricultural organizations and institutions, the human (its knowledge, skills, activity, perseverance, moral qualities) [Maziarz 1984].

In Poland, there used to be an institutional mechanism of introducing the progress into agriculture. It consisted of appointing the relevant institutions, such as agricultural advisory centres, which sought to create and introduce the progress. This mechanism was not effective enough

though, due to insufficient material carriers of that progress as well as poor motivation of farmers towards its absorption. It resulted from a lack of economic bases prevailing on a farmer to the use of new solutions [Woś 1998, Wawrzyniak 2000].

In the area of Mazowieckie province institution that has in its tasks, provision of advisory services to farmers is Mazowiecki Agricultural Advisory Centre, based in Warsaw (MODR). MODR is a self-government provincial legal entity, acting pursuant to the *Act dated. October 22, 2004 on agricultural advisory units* [J. L no. 251, item. 2507, as amended] and the statute vested by the Mazowiecki Regional Assembly under which it comes from 1 August 2009.

MODR advisory activity is mainly aimed at improving the competitiveness of Polish farming sector, improving working and living conditions in Polish country, and improving professional skills of rural people of Mazowieckie province. The lines of action of Mazowiecki Agricultural Advisory Centre spring from Mazovia development strategies, programs for agricultural and rural areas development and current needs and expectations of rural community. While carry out the tasks Mazowiecki Agricultural Advisory Centre cooperates among others with the institutions of central and local government, farmers' organizations, research institutions, schools and educational institutions.

The dynamic changes associated with the transformation of the political system and the socio-economic transformation, affecting the level of agricultural development necessitate an adjustment of agricultural advisory services to current needs. These changes result in the evolution of needs of advice centres customers. It entails transformation of the organization, the scope of activity and financing of agricultural advisory services. In view of the dynamic changes in the food economy, centres specialized in agricultural advisory are inspired to adjust the scope of their activities to the changing needs of farmers.

The aim of this study was to analyse the state of implementation of agricultural progress in individual farms controlled by the state advisory services. Simultaneously, the attention was drawn to determine the preferences and expectations in terms of theme area of consultancy on farms.

Material and methods

The aim of the study was achieved on the basis of surveys conducted in 2014, which included agricultural producers in Łosice county, located in the eastern part of Mazowieckie province. The study included a sample of 120 people, fixed by simple random sampling. The analysed farms are located on a typical agricultural area with farms of small, medium and large farming area. On this area, services to farmers are provided by MODR in Warsaw, Siedlce Branch and private operators.

The studies included foregoing expectations in terms of agricultural advisory services and its evaluation. Attention was paid to the tasks the consultancy has been challenged and pointed to the expected forms of aid from the agricultural advisory. The method of face-to-face interview used in the study was conducted on the basis of a questionnaire including closed questions, with the possibility of choice of one or more proposed responses, which it was marked in the question.

Results of the research and analysis

Social and political changes of the late twentieth century and Polish integration with the European Union contributed significantly to progress in the agricultural sector, resulting in the need for modern knowledge. According to the research conducted on farms of Łosice county, the most common sources of professional information sought by the farmers are specialist press, the Internet and television – 81.7%, 46.7% of farmers searched for assistance within this scope in counselling centres (public and private). Further they pointed neighbours – 32.5% and knowledge obtained at school (secondary school, higher education) – 15%. Relatively large share of the responses received also information passed on from generation to generation – 19.2%. However, this result in terms of obtaining new knowledge and information can be hard unequivocally interpreted. Many respondents indicated that information obtained in the press, television and the Internet have inspired them to seek detailed information on a particular topic in other places.

Among all the studied population over 93% of respondents (112 people) declared any contact with the state agricultural advisory. But the continued cooperation and the use of professional help declares only 25.8% (31 people). Small farms up to 3ha and large over 30ha, basically, do not use the state advisory services. The small farms, producing for their own needs rarely or never use the services, and the large ones cooperate primarily with the counselling offered by commercial companies, providing the farmer with products or technologies he needs for the farming. The services of private consulting firms were used by more than 29% of all respondents. The main receiver of advisory services provided by MODR are medium-sized farms.

Table 1. The need for agricultural advisory provided by the state advisory on the example of Łosice county

Tabela 1. Potrzeby w zakresie doradztwa rolniczego świadczonego przez doradztwo państwowe na przykładzie powiatu łosickiego

The needs/ <i>Potrzeby</i>	Number of responses/ <i>Liczba odpowiedzi</i>	Odsetek odpowiedzi/ <i>Share of answers [%]</i> <i>n= 112</i>
Related to the accession to the EU/ <i>Związane z przystąpieniem do UE</i>	92	82.1
Technological and technical/ <i>Technologiczna i techniczna</i>	57	50.9
Economic and organisational/ <i>Ekonomiczno-organizacyjna</i>	21	18.8
Non-agricultural activity/ <i>Przedsiębiorczość pozarolnicza</i>	14	12.5
Marketing/ <i>Marketingowa</i>	6	4.5
Total/ <i>Razem</i>	189	-

Source: own calculations based on the survey

Źródło: obliczenia własne na podstawie badań ankietowych

Table 2. Forms of assistance expected by agricultural producers on the example of Łosice county

Tabela 2. Oczekiwane przez producentów rolnych formy pomocy na przykładzie powiatu łosickiego

Forms of assistance/ <i>Formy pomocy</i>	Number of responses/ <i>Liczba odpowiedzi</i>	Odsetek odpowiedzi/ <i>Share of answers [%]</i> <i>n= 120</i>
Individual advice/ <i>Porady indywidualne</i>	107	89.2
Training/ <i>Kursy i szkolenia</i>	99	82.5
Brochures and leaflets/ <i>Broszury i ulotki</i>	32	26.7
Agricultural fairs/ <i>Targi rolnicze</i>	53	44.2
Professional exhibitions/ <i>Wystawy specjalistyczne</i>	46	38.3
Professional press/ <i>Literatura fachowa</i>	16	13.3
Total/ <i>Razem</i>	353	-

Source: own calculations based on the survey

Źródło: obliczenia własne na podstawie badań ankietowych

Among the whole group using the state advisory services (112 people), the farmers mostly use the advice associated with Polish accession to the EU – more than 82%, and the technological and technical one – 51%. Other needs amounted a total of – 35.8% (Tab. 1). The greatest interest in information related to Polish accession to the European Union is due to the potential benefits for farmers connected with raising money from EU funds. Among the needs the respondents point only the tangible factors of progress. On the other hand they do not show any interest in factors other than the material ones like agricultural science or education.

Assessing the education of the state advisory centres' employees in order to introduce progress in rural areas, respondents found that more than 31% of advisors have the appropriate knowledge and skills for this purpose. More than 53% – provide the services in a satisfactory level and the other 15% do not have sufficient knowledge for this task. Such a weak assessment of the work of advisors is affected by many factors. One of them is definitely the salary. Low salary paid in the state advisory business make the best

advisors go to other institutions or commercial companies such as fertilizer, feed or genetic companies that search for people with the knowledge of agricultural industry to distribute their products and technologies to farmers.

As the most expected forms of assistance the respondents found individual counselling and training. Such forms of aid are expected by the majority of farmers (Tab. 2). Strong interest from the respondents is pointed to agricultural fairs – 44.2% and professional exhibitions – 38.3%. This is probably due to the fair under the name of International Days of Agricultural Consultancy organised in Siedlce by Mazowiecki Agricultural Advisory Centre that every year gathers hundreds of exhibitors from the agricultural sector. That exhibition is very popular and attracts great interest not only among farmers from the region of Siedlce, but also from Mazowieckie, Lublin and Podlasie province. It is the largest agricultural exhibition on the eastern wall of Poland, which gathers 40-50 thousand of visitors every year. The other forms of the aid accounted for a smaller percentage of answers.

Table 4. What advances in agriculture are the respondents of Łosice county most interested in
Tabela 4. Jakim postępowaniem w rolnictwie najbardziej zainteresowani są ankietowani powiatu łosickiego

Progress/ <i>Postęp</i>	Number of responses/ <i>Liczba odpowiedzi</i>	Odsetek odpowiedzi/ <i>Share of answers [%]</i>
Technical/ <i>Techniczny</i>	61	50,8
Biological/ <i>Biologiczny</i>	33	27,5
Production/ <i>Produkcyjny</i>	20	16,7
Economic/ <i>Ekonomiczny</i>	6	5,0
Total/ <i>Razem</i>	120	100

Source: own calculations based on the survey
Źródło: obliczenia własne na podstawie badań ankietowych

Table 3. The traits of an adviser affecting the possibility of dissemination of decisive progress in agriculture on the example of Łosice county

Tabela 3. Cechy doradcy decydujące o możliwości upowszechniania postępu w rolnictwie na przykładzie powiatu łosickiego

The adviser traits/ <i>Cechy doradcy</i>	Number of responses/ <i>Liczba odpowiedzi</i>	Odsetek odpowiedzi/ <i>Share of answers [%]</i> n= 120
Efficiency of an advisor (his advice)/ <i>Skuteczność doradcy (jego porady)</i>	109	93,8
Practical knowledge of an advisor/ <i>Praktyczna wiedza doradcy</i>	97	80,8
Openness of an advisor to the cooperation/ <i>Otwartość doradcy na współpracę</i>	53	44,2
Availability of an advisor/ <i>Dyspozycyjność doradcy</i>	38	31,7
Theoretical knowledge of an advisor/ <i>Teoretyczna wiedza doradcy</i>	12	10,0
Total/ <i>Razem</i>	309	-

Source: own calculations based on the survey

Źródło: obliczenia własne na podstawie badań ankietowych

Dissemination of a progress in agriculture takes place thanks to organized activity aimed to provide aid to farmers in applying the achievements of science, technology and experience on their farms as well as in the sphere of social life of the country. Bringing this progress largely depends on the characteristics of people who are supposed to disseminate it (Tab. 3).

Bringing progress to agricultural producers, in the opinion of respondents, requires from the advisors first of all efficiency – 93.8%, and having practical knowledge – 80.8% (Tab. 3). At the same time, farmers notice the need for openness of the advisors to their problems – 44.2% and availability of the advisors – 31.7%. It creates a huge opportunity to the private counselling, which is more flexible and can respond quickly to the changes taking place in the background.

Among the advice given by consultants, advice on technical and biological progress have a dominant position, less interest is paid to the economic and production issues (Tab. 4).

The fact sheet of the answers in Table 4 is compatible with the aforementioned needs for services provided (Tab. 1). The structure of the given answers is related to the fact that the development of the farm in terms of technical and biological ones – new plant varieties and animal breeds, will have a positive effect on its production and economic results.

Another issue mentioned in the polls was payment for services. Respondents said they are willing to pay only for such services that bring them tangible financial benefits (89.2% of responses) e.g. gaining funds from the EU. More than 32% farmers is also willing to pay for professional technology consulting. This piece of advice is free in MODR, unfortunately the respondents claim that there is no or very few relevant professionals to provide such services. That's why they pay private operators for such advice. In that point the respondents mention also the services of commercial companies, which often include them as deductible expenses of products purchased by farmers for farming. The amount of payment for rendered services is generally similar between private business units and ODR. However, as the respondents notice, the state counselling centre slowly and not flexibility enough reacts while pricing, comparing to the commercial consultancy. Therefore, some respondents, especially not strongly associated with the Centre makes use of the services of private competition. It is easier to negotiate a better price there, there is less bureaucracy and greater efficiency and they adapt better to the needs of a farmer. Slow reaction of MODR to the changes in the price list stems from the necessity of its acceptance by the Social Council of MODR and the supervisory authority i.e. Parliament of the Mazowieckie province. This procedure results in significant prolongation of the time, up to several weeks. Paid consultancy definitely will not be used by 17.5% of the surveyed farmers (21 people).

As an asset of the state-owned consultancy, the respondents primarily list the security of its functioning. For 69 farmers (57.5%) it is the fact of permanent existence of counselling which matters most. At the same time, respondents claim that the rapid changes in the commercial consultancy, where, for example entities are set up on the needs of the moment (e.g. the periods of applications) and are closed down immediately. They do not give the assurance that you will be able to use their services in the future and this is the biggest flaw of the commercial counselling (73 people – 60.8%).

Summary

The conducted survey indicate that technic and production technology are perceived by the farmers as the sources of the progress on their farms. The realization of this task is supposed to be possible due to adequate knowledge in this field and financial means received from financial actions coming from EU funds. The need for professional guidance with regard to choosing technical equipment for farms, springs from a very wide range of machines and tractors offered to the market for, diversified in terms of modernity, specialized equipment, operational and technical parameters, price, and other characteristics. Making a rational decision about equipping the farm with new technology is not easy and provides opportunities especially to private companies to provide services which are often associated with the sale of suitable equipment.

The issue of improving agricultural production on farms including counselling extends over a very wide range. Increasing concentration and specialization of production on farms is a factor favourable for strengthening the role of counselling especially commercial one in the process of biological progress implementation associated with new plant varieties and animal breeds. Results of production depend on its improvement.

Current situation of Polish agriculture is favourable for functioning the government advisory entities. This stems primarily from the low level of agricultural development, insufficient state funding, as well as still too low farm incomes. However, the state advisory increasingly will be completed by the private counselling sector. Since the recipients of the services increasingly pay attention to flexibility of agricultural advisory and to openness of the counsellors on cooperation, which gives undoubted advantage to the commercial consulting services.

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Streszczenie

Celem badań było przedstawienie zagadnienia wprowadzania postępu w indywidualnych gospodarstwach rolnych przez pracowników Mazowieckiego Ośrodka Doradztwa Rolniczego. Na podstawie wyników ankiety przeprowadzonej w powiecie losickim stwierdzono, że współpracę z doradcami deklarowało 25,8% rolników. Ankietowani stwierdzili, że 31,7% doradców ma odpowiednią wiedzę i kwalifikacje do wprowadzania postępu na obszarach wiejskich. Ponad 82% ankietowanych była zainteresowanych uzyskaniem szczegółowych informacji o korzyściach towarzyszących akcesji Polski do Unii Europejskiej. Bardzo dużo uwagi rolnicy skupiają też na nowych technologiach oraz na wyposażeniu technicznym gospodarstw (50,9% odpowiedzi). W opinii ponad 93% badanych cechami decydującymi o upowszechnianiu postępu w rolnictwie przez doradców jest skuteczność ich porad oraz praktyczna wiedza (ponad 80% odpowiedzi).

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