

## Problems in agricultural extension improvement in consideration of technical aspects

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**Abstract:** *Problems in agricultural extension improvement in consideration of technical aspects.*

This work aimed at analysis of agricultural extension problems in the selected country region. There was found a demand for extension services within the shorter distance from agricultural producers' residences than previously. There was found a high demand for extension personnel preparation for realization of new tasks connected with financing agriculture with EU programs. The investigations pointed out at necessity of improvement and expansion of the advisors' knowledge, competence and reliability, as well as their participation in inspiring farmers' activity, including application of modern technical solutions in agricultural production on the farms.

*Key words:* agricultural extension, improvement, agricultural engineering, knowledge

### INTRODUCTION

Problems in agricultural extension have been for a long time an object of interests of many experts. Agricultural extension is the aid consisting in transferring to farmers the appropriate information and instructions on natural, technical and economic problems in agricultural production, as well as persuading farmers into rational activity towards continuous improvement of farm organization and production technology [Maziarz 1984].

The essence of agricultural extension is the organized assisting farmers through a joint analyzing of the problem

and searching for appropriate solutions. Under continuously changeable conditions, the main aim of agricultural extension is to assist farmers, who are in difficult situation and wait for this help. Practically, agricultural extension aims at stimulating farmers to use “modern” and “scientific” production technologies that have been developed as a result of scientific investigations, as well as informing them that in this way the higher production and incomes can be achieved; it is a main aim of agricultural policy [van den Ban and Hawkins 1996]. The extension tasks change as a result of challenges and reforms that occur with development of agriculture, in consideration of European integration processes and the resulted needs for adaptation to the requirement of modern cooperation between advisor – agricultural producer. Challenges in extension activity are connected also with wider and wider knowledge on agricultural production technologies and the used technical equipment in plant production [Waszkiewicz et al. 2009] and animal production [Gaworski et al. 2011], as well as the management methods for farm technical potential [Gaworski and Boćkowski 2012].

This work aimed at analysis of problems in agricultural extension improvement in the selected country region, in

consideration of technical aspects that could be solved in cooperation of an advisor with agricultural producers.

### MATERIAL AND METHODS

The investigations were carried out on the basis of surveys as a valuable source for formulation of practical recommendations based on opinions of agricultural producers [Waszkiewicz et al. 2011]. Research tools consisted in the prepared questionnaires addressed to agricultural producers that inhabited in the investigated region (Otwock district). Research procedure involved the agricultural producers that took advantage of personnel service of Agricultural Extension Center (ODR).

The prepared questionnaire consisted of 20 questions, including 4 questions on personal details (demographics). They aimed at making characteristics of the population that participated in the survey. Part of questions involved a multiple choice. The survey investigations were carried out for the group of 50 agricultural producers and the responders answered the questions in ODR abode. Questionnaires were filled out in ODR on the occasion of preparation of

application forms for “Modernization of agricultural farms” program.

### RESULTS AND DISCUSSION

In the investigated group of 50 agricultural producers, the share of male participants amounted to 68% and the share of female participants to 32%; age of most of persons (30%) varied from 31 to 40 years.

Considering territorial arrangement of communes in Otwock district it was found that as far as 42% of investigated responders originated from a place more than 20 km away from the nearest extension service office, while every fifth person reported a distance range from 5 to 20 km. The advisor availability is regarded as one of decisive factors in the case of service selection.

Availability of extension services is connected with frequency of their utilization. Only 4% of investigated persons determined their contacts as frequent (once a month), less often contacts (once a half-year) were reported by 10% of responders, occasional contacts (once a year) were reported by 24% of persons, and disorderly use of extension services was pointed out by 62% of responders (Fig. 1).

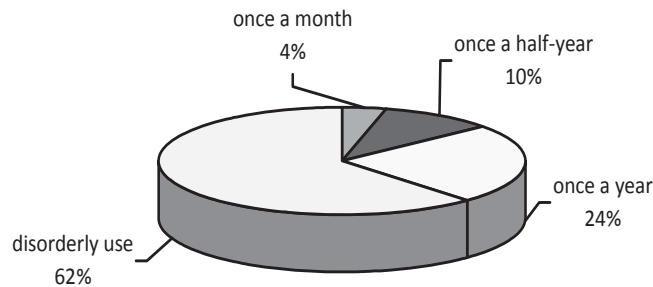


FIGURE 1. Frequency of agricultural extension service utilization (based on own investigations)

The essential level of information transferred by advisors was determined variously. A medium level was pointed out by 54% of responders, high level by 30%, and very high level by only 12%. A low level of advisor knowledge was found by 4% of investigated persons (Fig. 2). Various opinions were found on practical approach and advisor activity. About 48% of responders associated the advisor with a clerk executing his duties in an office, but not directly on the farm, where agricultural production problems are solved, including those connected with selection and application of technical equipment in the plant and animal production.

One of the most important factors that determine successful activity of an agricultural advisor is working out of his proper picture and gaining confidence among customers. As it is evident from carried out investigations (Fig. 3), the farmers respect such features as: scrupulosity (24%), easiness of intercommunication (21%), enthusiasm for realization of the consigned tasks (17%), care of customer good (16%), flexibility of thinking (15%). There was found a surprisingly low share of the answers con-

nected with advisors' competence in the conveyed knowledge (7%). Meanwhile, the competence is a key factor for efficiency of carried out agricultural extension and the obtained results. A special example of competence importance is giving advice in the field of selection and utilization of technical equipment on the farm. At present, fitting out the farm with agricultural machines, implements and tractors generates the high investment costs; thus, the faults made at the stage of planning and giving advice on equipment purchase can result in the risk of financial losses. Searching for solution in this situation one can point out at an option of assisting the farm owners by direct access to information on the equipment and opinion about it in such sources as Internet.

Almost half of responders reported that they would expect more frequent visits of ODR personnel on their farms (Fig. 4). The responders felt discomfort about that, therefore, 20% of them expected that advisory staff in the investigated ODR would be expanded. Part of responders (32%) maintained that the excessive procedures and increased bureaucracy could negatively affect the

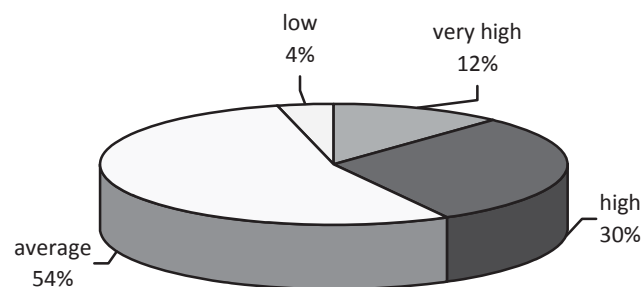


FIGURE 2. Evaluation of essential level of information conveyed by agricultural advisors (based on own investigations)

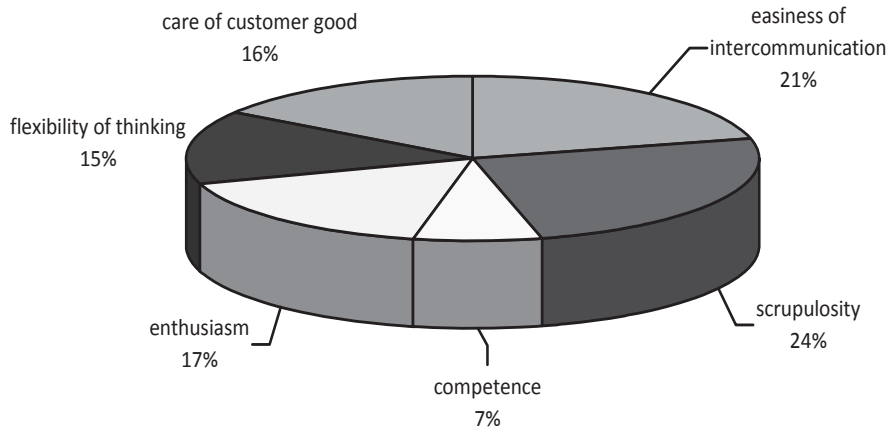


FIGURE 3. Features of advisors that are most preferred by agricultural producers (based on own investigations)

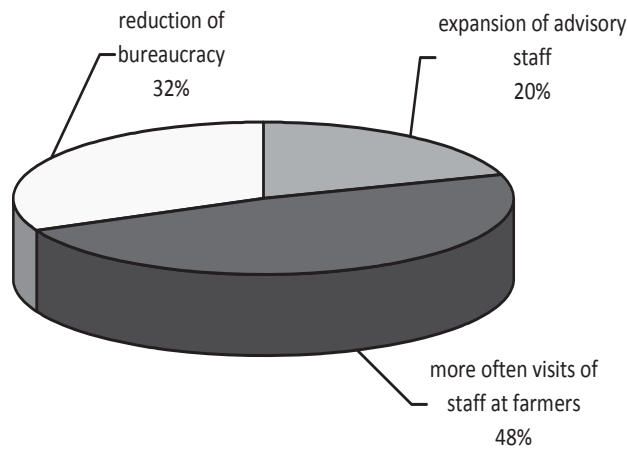


FIGURE 4. Expectations of agricultural producers connected with advisors' activity (based on own investigations)

advisor's activity and result in reduction of time devoted to agricultural producers on their farms.

The highest expectations of the forms of agricultural advisors' work are connected with trainings, courses and discussions on agricultural extension (Fig. 5). The lowest interest of responders was found for the option of workshops. The need of participation in special fair

and exhibitions was reported by 15% responders only, although this would be an excellent opportunity to get acquainted with current trends in the access to high quality sowable material, mineral fertilizers and plant pesticides, and – first of all – modern technical equipment for plant and animal production. Fairs and exhibitions accompanied by specialis- tic scientific and popularized scientific

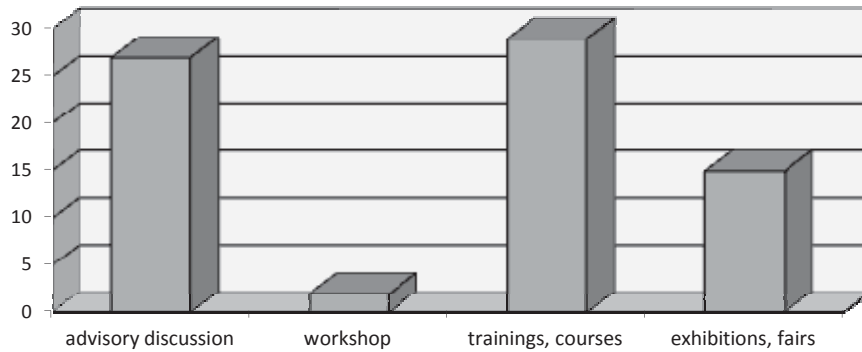


FIGURE 5. Expectations regarding forms of agricultural advisors' work (based on own investigations)

seminars create the places for knowledge supplementation in the field of modern agricultural production; it can assist in advisory activity.

Considering the survey results one can pay the attention to distribution of answers regarding dissemination of rural meetings with an advisor. An approval of such meetings is quite evident; it is an opportunity for exchange of experiences and solving doubts as to agricultural producers' problems. Generally accessible meetings can offer an opportunity for taking advantage of the expert advices on the spot, without visiting the ODR.

Only 20% of responders used a private advisory service, 70% of them did not use it, while 10% of investigated persons did not answer the relevant question (Fig. 6).

Agricultural knowledge acquired during school education does not determine the level of achieved qualifications. Every human being acquires knowledge in individual way that is adapted to the needs. The knowledge can be developed and supplemented through various sources. According to responders, television and radio take the biggest share in acquiring a general agricultural knowledge

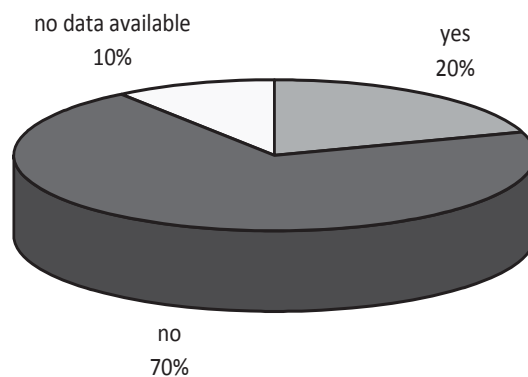


FIGURE 6. Utilization of private agricultural extension service (based on own investigations)

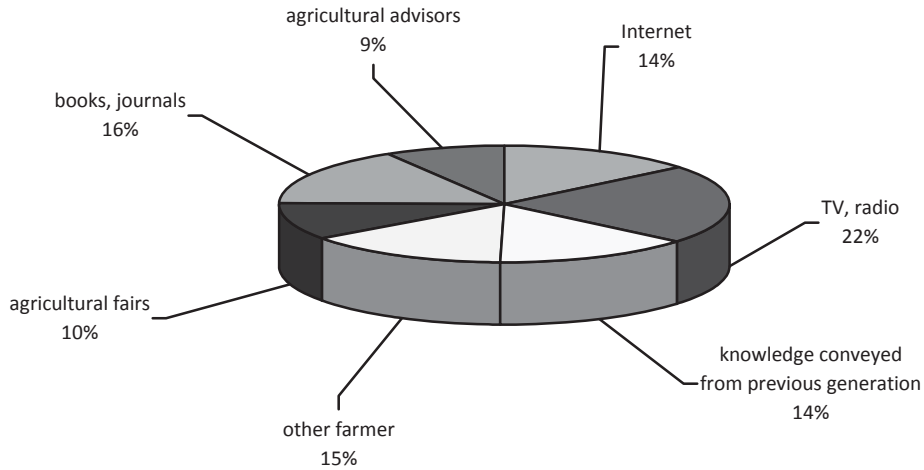


FIGURE 7. Sources of agricultural knowledge (based on own investigations)

(22%). The second place (16%) is taken by the access to journals and books; an important source of knowledge is also Internet (14%). The practical experience is particularly important in acquiring agricultural knowledge. According to 15% of responders, good source of knowledge and experience is made by other farmers, while for 14% of investigated persons the knowledge is conveyed from previous generation. Agricultural advisors are a source of practical information according to only 9% of investigated persons.

Considering the access of agricultural producers to information on getting money from EU funds one can find, that the first place is taken by participation of the local Agency for Restructuring and Modernization of Agriculture – according to 27% of responders. It suggests that farmers regard this institution as responsible for implementation and managing of EU programs. The second highly evaluated institution providing knowledge on EU funds is ODR (14%). Besides, the farmers searched informa-

tion in the chamber of agriculture (7%). The media were also an important source of information: TV programs, radio and Internet were pointed out. In total 42% of agricultural producers used these information channels (Fig. 8).

Among problems that agricultural producers struggle with during applying for financial support from the EU funds, the responders specified a fear of financial fines, unsatisfactory level of financial support and difficulties in proper filling out the application forms. A greatest problem reported by agricultural producers was unsatisfactory level of financial support (the biggest number of answers that pointed out at very high dissatisfaction level), and then difficulties in filling out the application forms (the biggest number of responders that pointed out at high dissatisfaction level).

Majority of responders (64%) considered the possibility of farm modernization as a key inspiration for advisory service utilization in order to acquire the structural funds. About 1/4 of responders pointed out at possibility of getting

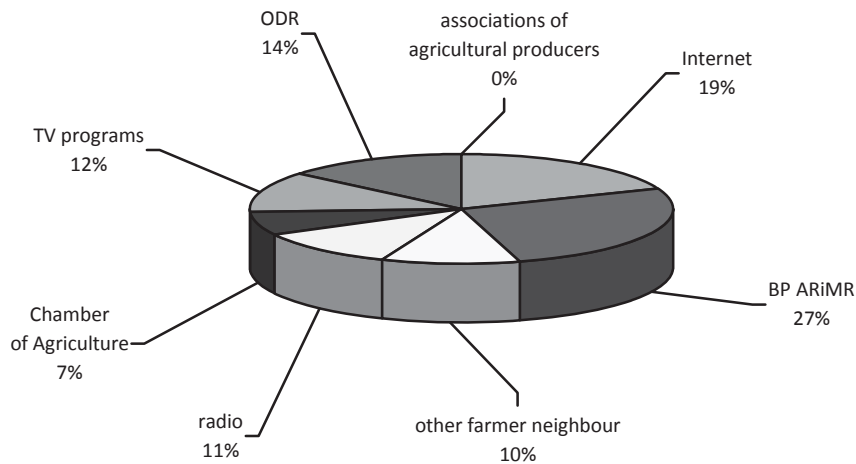


FIGURE 8. Sources of knowledge of EU funds (based on own investigations)

partial repayment of the investment costs as a significant motivation to use the advisory service. The short time of waiting for the investment repayment as a result of advisory service was regarded as significant by the least number of investigated persons.

## RECAPITULATION

A ratio of more than 2000 farms per one advisor amounts at present employment level in the local advisory team in Otwock. Thus, individual utilization of advisory service by all farmers is impossible. Therefore, wider introduction of group or mass advisory with participation of the advisors in agricultural meetings organized in the district could be attempted to solve this difficult situation.

There was found a demand for utilization of advisory service staff within a shorter distance from agricultural producers' residences than today. Both the agricultural producers and the advisors postulated that at least one advisor should

be more often present in the commune; he could assist the farmers instantly and he could be, additionally, a connecting link between the self-government and Agricultural Extension Center.

There was found a high demand for preparation of advisory staff for realization of new tasks connected with financing agriculture through the EU programs.

Function of advisor is connected with constant need of improvement, expanding of knowledge and following the dynamic changes in the country. The advisors should be the highly specialized, competent and reliable inspirers in farmers activity. Therefore, the constant process of advisory staff improvement is necessary.

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- Streszczenie:** *Problemy doskonalenia doradztwa rolniczego z uwzględnieniem aspektów technicznych.* Celem pracy była analiza zagadnień doskonalenia doradztwa rolniczego w wybranym regionie kraju. Stwierdzono zapotrzebowanie na korzystanie z usług służb doradczych w bliższej niż dotychczas odległości od miejsca zamieszkania producentów rolnych. Stwierdzono bardzo duże zapotrzebowanie na przygotowanie kadr doradczych do realizacji nowych zadań związanych z finansowaniem rolnictwa poprzez programy UE. Badania wskazały na konieczność doskonalenia i poszerzenia wiedzy doradców, ich kompetencje, rzetelność w pracy, a także rolę w inspirowaniu działań rolników, uwzględniających sięganie po nowoczesne rozwiązania techniczne do produkcji rolniczej w gospodarstwach.

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