FUNCTIONING OF SMALL AGRICULTURE FARMS IN FARMERS OPINION
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Abstract. In the article the authors consider the functioning of small farms. The paper focuses on crucial problems connected with the definition of small farms and with their traditional and modern functions. The paper presents farmers’ opinions about small agricultural operations, as information was collected from 100 farmers from Kozienicki county, Poland. The farmers had from 1 to 5 ha of agricultural land. Respondents’ declarations indicate that small farms perform mainly social functions. They expressed their definition of a small farm as one having from 1 to 10 ha of agricultural land. The majority of respondents were dissatisfied with their agriculture income. Their main reason for continuing activity in agriculture was the fact that they were the only successors in the family.

Keywords: small agriculture farms, functions, farmers’ opinion

INTRODUCTION

The operations and financial standing of small farms are frequently and extensively discussed by agricultural economists in their research and publications concerning broadly understood rural studies. Quantitative domination of these entities found in many EU countries (Matuszczak, 2013) results in a situation when the consequences of their continued existence – even despite the frequently stressed problem of their low economic efficiency and productivity (Musiał, 2013b) – affects the situation of rural areas. Small farms are most typically discussed in view of their productivity, economic results, changes in their number and area, as well as the functions they serve. They are usually considerations based on empirical data concerning economic results reported by agricultural producers. An important aspect seems to be connected with a survey of opinions presented by those most interested, i.e. agricultural producers, on their perception of the situation of farms defined as small farms. The term “small farm” as presented by agricultural economists differs from the definition of such farms given by farmers. Also functions or productivity and economic results are perceived differently by these two groups, vitally interested in that problem. Moreover, farmers perceive certain aspects of farms, which are neglected by theoreticians.

METHODOLOGICAL REMARKS

In this study it was decided to determine how the situation of small farms in the Kozienice county is perceived by their owners. It is thus an attempt to present the results of self-evaluation by that professional group. The share of the entities of the smallest area operating in Poland (defined as entities of 1 to 5 ha UAA) in all farms in 2013 amounted to over 52.5% (www.stat.gov.pl, 2014). These farms predominate in south-eastern Poland; however, also other provinces have high numbers of farms of the smallest area (Żmija and Szafrańska, 2015). A considerable number of farms of max. 5 ha utilised agricultural area (UAA) also operate in the Mazowieckie province. This paper presents opinions concerning operations of small farms collected from farmers from the Kozienice
county, the Mazowieckie province. Analyses were conducted using an interview questionnaire among a group of 100 farmers with farms of 1 to 5 ha UAA. The other criteria (discussed in the further part of this paper) for the classification of small farms were not adopted when selecting objects for analyses due to the fact that farmers did not have data for the classification of their farms to the group of small economic entities at the time of the study. Meetings with farmers were organised in the period of February – March 2015, while the collected information concerned past situations of the year 2014. At the stage of data collection two farmers refused to participate in the study. Farms were selected based on a predetermined criterion – apart from the area and location it was assumed that they have to be operating farms, i.e. involved in agricultural operations. As a result the selected experimental population of farms does not meet the condition of being representative for the whole country or province; however, collected information may be used to formulate certain generalizations concerning the operations of small farms in Poland and in that province. Data from the National Agricultural Census of 2010 indicate that a total of 2942 privately owned farms of 1–5 ha UAA were operating in the Kozienice county. This means that the experimental sample accounted for 3.4% general population of farms. Materials used in this study were also derived from literature on the subject and data provided by the Central Statistical Office of Poland (GUS). In this paper the descriptive, graphic and table forms were used to present the results.

SMALL FARMS IN POLAND AND IN THE EU

A large number of used definitions suggests considerable ambiguity and arbitrariness of classifications of entities to the group of small farms and the numbers of such farms in Poland and in the EU. The diversity of applied criteria also results in discrepancies in the determination, to what degree they use selected factors of production. Assuming the criterion of area of max. 5 ha UAA as an identifying criterion for small farms it is estimated that in 2010 in the EU there were 8.3 million of such farms, i.e. over 2/3 total number of farms in the EU (Drygas, 2014). They owned 7% utilized agricultural area, employed 44% total labour force in the EU agriculture (Table 1). We need to stress here considerable disproportions in the utilization of resources of production factors by these farms in the EU-15 and UE-12. Small farms in the EU-15 countries account for as little as 4% total UAA, while in the EU-12 this percentage is almost 4-fold greater. In the UE-15 countries 31% labour force employed in agriculture work in small farms, while in the EU-12 the number is almost 2-times greater. One of the problems faced by those economic entities is the low efficiency of utilized factors of factors of production, primarily labour. This is closely related with the effect of scale or rather its non-existence in those entities. Small farms are also in a less advantageous position in comparison to larger farms in terms of transaction prices, e.g. purchase of means of production, use of loans and credits or sale of production. However, when analysing data from Table 1 it is obvious that these farms are important components of rural areas in the EU, since even among the EU-12 countries they account for over 50% total number of farms.

Table 1. The share of small farms in selected resources (%) in the EU (27-15-12)*

<table>
<thead>
<tr>
<th>Share in:</th>
<th>EU-27*</th>
<th>EU-15*</th>
<th>EU-12*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of farms</td>
<td>69</td>
<td>53</td>
<td>81</td>
</tr>
<tr>
<td>Owned utilised agricultural area</td>
<td>7</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Livestock</td>
<td>18</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>Employment</td>
<td>44</td>
<td>31</td>
<td>57</td>
</tr>
<tr>
<td>In SO**</td>
<td>18</td>
<td>16</td>
<td>28</td>
</tr>
</tbody>
</table>

The above-mentioned area criterion for the classification of farm size has many drawbacks, as it does not include e.g. soil quality, farm location or intensity of production. Frequently small farms are distinguished based on the economic values they generate (e.g. SO – Standard Outputs); however, in practice this measure is rather problematic due to barriers in the collection of data concerning economic results and their low quality (Musiał and Drygas, 2013; Dzun, 2013; Zegar, 2012; Wilkin, 2013; Ziętara, 2009; Żmija, 2016). Still another method of farm classification is based on the share of sold products in the value of agricultural production or labour outlays.

Farms are an indispensable element of the countryside. Rural areas are obviously associated with farms, although practice indicates that they may also successfully operate in metropolitan areas (Sroka, 2014). Their role is often perceived based on functions they serve in relation both to local communities and on the national scale. Their primary functions include production – fulfilled by all operating farms, irrespective of their size, location or profile of production. It needs to be stressed here that at least 50% of farms in Poland generate production of less than 4 thousand Euro (Żmija and Szafrańska, 2015), which classifies them as small entities.

Another traditional function of farms is their environmental and spatial function, i.e. modification of rural landscape. At present it is of particular importance when we perceive non-urban areas as a place of work, but also leisure, active recreation, contact with nature or even as a location of dormitory settlements. Faced with the hectic everyday life many people working in cities choose the countryside as a safe haven, which obvious attributes are connected with farms, particularly those smallest in area. Most frequently such entities are involved in multi-faceted production, often running plant and animal production, thus contributing to the maintenance of biodiversity.

Farms and the potential employment of farmers and other family members frequently constitute a buffer against poverty in a situation when even a limited income either in the monetary form or as generated production makes it possible to decrease or rationalise expenses of the family.

The function served by farms in the past, which is currently again gaining in importance, is connected with the creation and development of social capital. Particularly the smallest farms make it possible to establish and maintain human relations and as such they enhance the human capital of rural areas. The social capital of a traditional Polish village is characterized by commitment of its inhabitants, their ability to self-organise, cooperate with neighbours and other members of the local community. The social capital of small farms is the driving force of rural development in areas, in which they are operating (Raczkowska, 2009). An example for actions undertaken within this function is connected with the development and continuation of various social initiatives in rural areas, e.g. the farmers’ wives’ association, social cooperatives or volunteer fire departments.

In the past traditional peasant farms replicated the model of multi-generation families. Caring for the oldest family members was an obvious practice when successors took over the farm, as those individuals were not included in the old-age insurance system. The social security system covered farmers in Poland as late as the year 1982, while the Agricultural Social Insurance Fund (KRUS), as an institution dedicated only to the purpose of social security for farmers, was established on 1 January 1991 (Podstawka, 2010). As a result, before 1982 new farm owners were traditionally obliged to care for the oldest family members. At present after reaching the retirement age and the decision to cease agricultural activity, former agricultural producers are entitled to benefits from the Agricultural Social Insurance Fund KRUS. However, frequently these financial means are insufficient to cover living expenses within a one-person household2, thus these individuals have to rely on farm production. Since, as it was already mentioned the necessary condition to receive benefits from KRUS is to cease running the farm, thus often farms – particularly the smallest ones – are officially transferred to successors (Wojewodzic, 2013), while in reality they continue to be run and managed by the “retired” farmer. The circumstances which may aggravate these problems, are related with low values of the Social Insurance Institution (ZUS) retirement benefits forecasted for the following years (Prognoza…, 2013). In such a situation some individuals owning agricultural plots may undertake production activity on small farms as a method to reduce food expenses.

Also changes in consumption patterns among food buyers lead to changes in the production of foodstuffs.

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2 The basic gross agricultural pension is currently PLN 880.45 (www.krus.gov.pl).
Increasingly often consumers search for food meeting specific requirements concerning the method and location of their production, as well as its health effects. This is manifested in fashion for organic, convenience (Makała, 2013), diet or functional food. Agricultural producers are not able to satisfy all requirements indicated by consumers (e.g. sometimes they are unable to provide food with characteristics classifying it as convenience products), but they may also be the only suppliers of specific groups of foodstuffs. This is manifested in the large number of organic farms (duly certified), following principles of organic agriculture. In the future production of food meeting specific consumer requirements may become a major function of small farms, particularly focusing on ethnocentrism in relation to the origin of consumed food. As it results from the collected observations, the range of functions served by small farms is extensive and it may not be perceived only in relation to agriculture (the production function).

The presented scope of functions served by family farms does not comprise all fulfilled tasks, since in literature on the subject we may find also other functions and different systems of their classification, e.g. FAO in one of its reports indicated that farms serve economic, environmental, social and cultural functions (FAO, 2013).

**SMALL FARMS IN THE OPINION OF FARMERS**

As it was already mentioned, literature on the subject presents abundant information on the operation of small farms; however, this problem is rarely presented from the point of view of agricultural producers. Studies conducted among owners of small farms in the Kozienice county offer at least an approximate picture of the problem. Men predominate among respondents (83%).

Only 2 individuals were less than 31 years old, while respondents aged 41–50 years constituted the most numerous group (46%). The share of farms aged from 51 to 60 and from 61 to 70 years was also relatively high (31% and 13%, respectively). Individuals with vocational education predominated (58%), while only 4 respondents declared that they have higher education. All respondents used farms with an area of 1 to 5 ha UAA, while every tenth respondent declared agricultural production run on an area of max. 2 ha UAA and every fifth declared having 2.1–3.0 ha UAA. The most numerous group comprised individuals owning 4.1 to 5.0 ha UAA (46% all respondents). The owner was the only person working on every fifth farm, while the owner and only one other person were working in 47% surveyed entities. One respondent indicated that overall 7 people work on his farm, while another respondent declared the number to be 5 (such a high demand for labour was in these two cases connected with the profile of production on those farms).

In the course of the interviews the respondents were asked to indicate what size area in their opinion classified a farm to the group of small farms. The predominant opinion was that an area of 1 to 10 ha UAA (47% respondents), while only 2 individuals indicated that a small farm is that of 1 to 20 ha UAA (Fig. 1). It needs to be mentioned here that according to the data of the Agency for Restructuring and Modernisation of Agriculture (2013) the area of farms classified as small is 1 to 10 ha UAA (47% respondents), while only 2 individuals indicated that a small farm is that of 1 to 20 ha UAA (Fig. 1)
Agriculture (ARiMR) in 2015 only in 3 provinces the mean area of farms was min. 20 ha UAA (the Lubuskie, Warmińsko-mazurskie and Zachodniopomorskie) (www.arimr.gov.pl). Moreover, some proposals for area classification of farms indicate that entities of 5 to 30 ha UAA are small farms – semi-subsistence farms (Musiał, 2013a). If such an assumption was adopted for Polish conditions with the mean farm area of 10.49 ha UAA (www.arimr.gov.pl), this would mean that a vast majority of farms should be classified as small – semi-subsistence farms. The situation would be similar in some EU countries. In 2010 the mean area of farms on the national scale below 30 ha UAA was recorded e.g. in Belgium, Holland, Spain, Austria, Portugal or Slovenia, Bulgaria and Greece (Poczta, 2013).

During the survey respondents were asked to indicate the main function served by small farms in the Koziennie county and such a function served on the national scale. The question was to show whether there are differences in the perception of the role of small farms in Poland and those operating in a given region. The respondents were presented with 3 main functions, while they were also free to formulate another function outside the pre-specified set. The respondents most frequently declared that small farms in the Koziennie county serve a social function (72% declarations), since they make it possible to take advantage of a preferential social security system in comparison to ZUS, provide employment, while also make it possible to provide care for the most needy family members. The lowest percentage of respondents (5%) stated that small farms in their region serve the natural and landscape functions (Fig. 2).

None of the respondents indicated another function apart from those already mentioned in the questionnaire, thus forgetting that small farms are places for the creation and preservation of significant material and non-material value of folk culture. Creation and preservation of non-material historical value is this function of small farms, which residents of rural areas are rarely aware of. Moreover, the respondents also declared that in Poland these entities are in a better economic situation than those located in the study area, as a greater percentage of the respondents indicated that they serve a production and economic function. The latter result needs to be confronted with the answers concerning declared income.

Almost 2/3 respondents in relation to the question on the subjective evaluation of the income obtained from the farm stated that it is unsatisfactory and the amount makes it possibly only to cover costs generated by the farm (Fig. 3). Only 1 person – out of 100 farmers – declared that the obtained income provides it with considerable development potential for the farm. Disputes over profitability of farms in Poland indicate that they are in a worse condition than those operating in the EU-15 countries; however, an analysis of this category conducted in the successive years, particularly since Poland’s accession to the EU, indicates a continuous improvement of profitability.
In view of such a high level of dissatisfaction with the level of income generated on farms, the next question which needs to be asked is connected with reasons, for which these entities are still operating. When answering this question the respondents most frequently indicated that they run a farm, because they took it over as successors (83% declarations). Half of the respondents ran economic activity due to their commitment to land and to work, while 1/3 did it, because it provided them with an opportunity to use the KRUS social insurance system (Fig. 4). The smallest number of respondents (7%) indicated that there is no employment opportunity for them outside agriculture. It needs to be stressed here that the vicinity of the capital provides much greater opportunities to undertake non-agricultural employment also to inhabitants of rural areas, while the impossibility to find employment by respondents either results from their

**Fig. 3.** Income generated by small farms – opinions of respondents (%)
Source: own elaboration based on research.

**Rys. 3.** Wysokość dochodów osiąganych przez drobne gospodarstwa rolne w opinii ich właścicieli (%)
Źródło: opracowanie własne na podstawie badań.

**Fig. 4.** Reasons to run a farm by respondents. Percentages of responses do not total up to 100, as multiple answers could be given
Source: own elaboration based on research.

**Rys. 4.** Przyczyny prowadzenia gospodarstwa rolnego przez respondentów. Odpowiedzi nie sumują się do 100, ponieważ możliwe było udzielenie więcej niż 1 odpowiedzi na pytanie
Źródło: opracowanie własne na podstawie badań.
Fig. 5. Share of agricultural income in total family income in analysed farms
Source: own elaboration based on research.

Table 2. Reasons for limitations in agricultural production in Poland and in the Kozienice county – opinions of respondents (%)*

<table>
<thead>
<tr>
<th>Specification</th>
<th>Soil quality</th>
<th>Price of land</th>
<th>Weather conditions</th>
<th>Problems with sale of products</th>
<th>Production costs</th>
<th>Health problems</th>
<th>Profitability of production</th>
<th>Lack of successors</th>
<th>Profitability of production</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wyszczególnienie</td>
<td>jakość gleby</td>
<td>cena ziemi</td>
<td>warunki atmosferyczne</td>
<td>trudności w sprzedaży produkcji</td>
<td>koszty produkcji</td>
<td>problemy zdrowotne</td>
<td>opłacalność produkcji</td>
<td>brak następcy</td>
<td>brak środków finansowych</td>
<td>inne</td>
</tr>
<tr>
<td>Reasons for limitations in agricultural production in Poland</td>
<td>37</td>
<td>17</td>
<td>36</td>
<td>40</td>
<td>27</td>
<td>3</td>
<td>20</td>
<td>86</td>
<td>45</td>
<td>8</td>
</tr>
<tr>
<td>Przyczyny ograniczeń produkcji rolnej w kraju</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasons for limitations in agricultural production in the Kozienice county</td>
<td>9</td>
<td>35</td>
<td>5</td>
<td>29</td>
<td>33</td>
<td>1</td>
<td>20</td>
<td>81</td>
<td>34</td>
<td>20</td>
</tr>
<tr>
<td>Przyczyny ograniczeń produkcji rolnej w powiecie kozienickim</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</table>

*Percentages do not total up to 100, as multiple answers could be given.
Source: own elaboration based on research.
*Odpowiedzi nie sumują się do 100, ponieważ możliwe było udzielenie więcej niż 1 odpowiedzi na pytanie.
źródło: opracowanie własne na podstawie badań.
old age or from a lack of adequate qualifications and experience.

Farms were not the only source of income for respondents, as only every fifth of them declared that almost all the income obtained was generated by the farm (Fig. 5). The most numerous group of respondents (29%) indicated that income from agriculture account from 40 to 60% income of the farmer’s family.

One of the last questions asked was to indicate limitations which delay or make it impossible to run a farm. Among limitations affecting the Kozienice county low profitability of production was declared most frequently, with 86% respondents stating this cause (Table 2). Moreover, the respondents mentioned a lack of access to funds (45% responses) and problems with selling their produce (40%). When comparing answers of the respondents concerning Poland and the analyzed county it turns out that in their opinion on the national scale the most important limitation is low profitability of production (81% responses), followed by high price of farmland (35%).

CONCLUDING REMARKS

The frequently adopted area criterion, limiting the area of small farms to 5 ha UAA, is not fully confirmed in the declarations of farmers. Among respondents the predominant opinion was that a small farm is an entity of 1 to 10 ha UAA in area, with such an opinion declared by 47% respondents. Moreover, among the indicated responses there were opinions that they are farms of up to 20 ha UAA. The respondents declared that small farms serve first of all a social function. Among the respondents 44% were aged min. 51 years, which partly explains the predominance of this function. Demography and data on social insurance suggest that this function in the nearest years will remain crucial for the existence of the smallest farms.

Analyses showed that owners of small farms in the Kozienice county were involved in agricultural activity mainly because they were predestined to do so as successors of their parents. A motivation for becoming a farmer was also defined by respondents as the possibility to obtain the KRUS insurance. Such a sinecure provided benefits connected with access to the health service and in the future the assurance of receiving pension or health benefits.

Profitability of small farms is not satisfactory. In the opinion of the farmers participating in this study the obtained income provides no potential for development, while in some cases it was not sufficient to cover the costs of agricultural activity, with the latter costs frequently being financed from employment outside the farm. The surveyed farmers indicated various limitations preventing profitable production on the farm. They confirmed conclusions resulting from a review of literature, which showed that high transaction costs are a major limitation for development potential of small farms in the Kozienice county. Conclusions provided by the analyses of owners of small farms in the Kozienice county confirm the conclusion derived from similar investigations conducted in Poland in regions with the fragmented agrarian structure (south-eastern provinces).

In view of these observations it seems that these farms will remain an indispensable component of the countryside in Poland.

REFERENCES

FUNKCJONOWANIE DROBNYCH GOSPODARSTWROLNYCH
W OPINII ROLNIKÓW


Słowa kluczowe: drobne gospodarstwa rolne, funkcje, opinie rolników

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