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**IMPACT OF THE “BONUSES FOR YOUNG FARMERS”
MEASURE UNDER RURAL DEVELOPMENT PROGRAM 2014-2020
ON THE EFFICIENCY AND COMPETITIVENESS OF FARMS**

Key words: farm, young farmer, potential, productivity, competitiveness

ABSTRACT. The aim of the article is to assess the effects of the implementation of the sub-measure “Support for young farmers to start their business”, type of measure “Bonuses for Young Farmers” under the Rural Development Program 2014-2020 on the results of farms and their competitiveness. In 2017, the group of farms that joined the implementation of the “Bonuses for Young Farmers” measure included 84 farms. It was a research sample and a panel at the same time. The control group consisted of farms of young farmers who did not benefit from support under the Rural Development Program 2014-2020 in the research years, i.e. in 2017 and 2021 (latest FADN results). The research of this collective of farms was made on the basis of FADN data in 2017 and 2021. The subject of the farm panel research was: production potential, production organization, production and economic results, efficiency of use of production factors. During the analysis, it was found that the production potential of young farmers’ farms in both samples in 2017 was similar. The effect of the support was to increase the production potential in 2021 in the research sample by an average of 35%. Farm income in 2017 was similar in both farm samples. In 2021, differences in farm income levels were even greater. Income in the research sample increased by 211% and was by 149 percentage points higher than in the control sample. Land productivity in the research sample increased by 75.5% and labor productivity by 102.7% and was higher than in the control group by 44.6 and 53.4 percentage points, respectively. Labor profitability in the analyzed years increased in the research group by 220%, and in the control group by 71.7%. Evaluation of the support for young farmers’ farms in the “Bonuses for Young Farmers” measure indicated that thanks to the support, their production potential increased and their production and economic results improved and, as a result, their competitiveness increased.

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INTRODUCTION

In agriculture, the dominant organizational and legal form of production entities is family farms. Their share in the total number of farms on individual continents ranged from 78% (Oceania) to 99% (Asia). In Europe it was 97%. The significance of the numbers is weakened by the lower share of farms in the use of agricultural land, which ranged from 2% (Oceania) to 85% (Asia). In Europe, family farms used 69% of agricultural land [Ziętara and Mirkowska 2019]. In Poland, in 2020, the share of family farms in the total number was 99.4%, and in land use it was 91.3% [GUS 2023]. Regardless of the dominant role of family farms, there are processes in the group, especially in Europe, which result in a decrease in the number of farms caused by a decline in the unit profitability of agricultural production². In the situation, the farmer wants to obtain income from the farm at a parity level³, they must increase the scale of production, mainly by increasing the area of farms⁴ [Hervieu 2019, Zegar 2019]. The intention can be achieved thanks to technical progress enabling an increase in work efficiency. Regardless of the decline in the number of farms, there is the phenomenon of aging of farmers and problems related to succession [Mongiało and Świtłyk 2013, Czekaj 2016]. The main reason is the reluctance of young farmers to take over farms, caused by social reasons, such as the burdensomeness of work in agriculture, its continuity and lack of holidays [Agropolska 2016, Czekaj 2016]. The European Union, appreciating the importance of agriculture, has launched several measures under the Common Agricultural Policy, such as: structural pensions, bonuses for young farmers and support for farmers transferring their farms to other farmers. The aim of the activities was to improve the structure of farms, understood as increasing the share of larger farms ensuring that farmers obtain a satisfactory level of income. In Poland, activities have been being implemented under the Rural Development Program 2004-2006, the Rural Development Program 2007-2013 and the Rural Development Program 2014-2020. Currently, the most important measure contributing to the improvement of the structure of farms is the “Bonuses for Young Farmers” measure. As part of the measure, young farmers receive financial support. In the situation, there is a need to examine its effects under the Rural Development Program 2014-2020.

² The reason for the decline in the unit profitability of agricultural production is the faster increase in labor costs (mainly wages) in the national economy than the prices of means of production purchased by farmers, and especially the sales prices of agricultural products [Ziętara and Mirkowska 2019].

³ Parity income – income from work obtained by those working in the national economy.

⁴ Increasing the area of farms, given the limited area of agricultural land, may occur due to the resignation of some farmers from continuing to run their farms.

MATERIAL AND RESEARCH METHODS

The aim of the research was to assess the impact of support for the operation “Bonuses for Young Farmers” under the Rural Development Program 2014-2020, on the efficiency and competitiveness of farms.

In implementing the research goal, it was assumed that the subject of the research would be a group of farms participating in this sub-measure (panel), they were covered by FADN monitoring in 2014 and 2021. Even though the Rural Development Program 2014-2020 could be implemented since 2014, the first farms that took part in the measure was reported in 2016. There were only 11 farms and the group could not constitute the basis for research. In 2017, the group of farms that joined the implementation of the “Bonuses for Young Farmers” measure included 84 farms. It was a research sample and a panel at the same time. Research on the group of farms was carried out in 2017 and 2021 (latest FADN results). The subject of the farm panel research was:

- production potential, determined by the following indicators: economic size of the farm (thousand euro SO⁵), utility agricultural area (UAA) (ha), soil quality index, total labor input (AWU⁶/farm), total assets (PLN thousand/farm), total liabilities (PLN thousand/farm), investments (PLN thousand/farm),
- production organization: share of grains in the sown area (%), share of oilseeds, legumes and fodder in the sown area (%), total animal density (LU/100 ha of UAA), including cattle and pigs,
- production and economic results: total production (PLN thousand/farm), total subsidies (PLN thousand/farm), income from a family farm (PLN thousand/farm), management and risk income⁷ (PLN thousand/farm), competitiveness index (CI) (points)⁸,

⁵ SO (Standard Output) – the 5-year average production value of a specific production activity (plant or animal) expressed in thousands of euros.

⁶ awU (Annual Work Unit) – unit of labor input equivalent to 2,120 hours work.

⁷ Management and risk income is the difference between the farm income and the opportunity costs of own production factors: land, labor and capital. The cost of using one’s own land was assumed at the level of the lease rent according to FADN in given years, the cost of one’s own labor was assumed at the level of the average salary in the national economy according to Statistics Poland, and the cost of equity was assumed at the interest rate of 10-year bonds.

⁸ The competitiveness index CI was determined by the ratio of farm income to the alternative costs of own production factors. It indicates the extent to which farm income covers the costs of using one’s own production factors. The following competitiveness index classes were assumed: CI – in the case of negative farm income (CI1), $0 < CI < 1$ – partial coverage of own costs of production factors (CI2), $1 = CI < 2$ – full coverage of own costs of production factors (CI3), $CI \geq 2$ – twice or more coverage of own costs of production factors (CI4). CI1 and CI2 – farms unable to compete, CI3 – farms able to compete, CI4 – fully competitive farms [Kleinhanss 2015].

– efficiency of use of production factors: land productivity (total production in PLN thousand/ha of UAA), labor efficiency (total production in PLN thousand/AWU), asset profitability index (%)⁹, profitability of own work (PLN thousand/FWU)¹⁰.

In order to demonstrate the effects of the measure "Bonuses for Young Farmers", the results of farms from 2021 were compared to those obtained in 2017. In order to demonstrate the "net" impact of support on farm effects, the results obtained from the farms of the research group were compared with the results of the analogous control group. The control group consisted of farms of young farmers who did not benefit from support under the Rural Development Program 2014-2020 in the research years, i.e. in 2017 and 2021. The method of selecting farms for the control group met the condition of comparability. It means similarity of features characterizing production potential, mainly agricultural land area and economic size, as well as agricultural type. In order to determine the relationship between operations and economic results, the studied population was divided into two subgroups according to economic size: smaller and larger than the average.

The basic method used in the study was the descriptive method using tabular summaries. A comparative method was used to evaluate the obtained results. Measures and indicators characterizing the production potential, production organization and production and economic results were calculated as averages for the analyzed groups of farms, per farm, per 1 ha of UAA, as well as per unit of total labor input (AWU) and own labor input farmer and his family members (FWU).

ACTIVITIES UNDERTAKEN SO FAR TO IMPROVE THE AGRICULTURE STRUCTURE IN POLAND

Polish agriculture is characterized by an unfavorable agrarian structure. It is evidenced by the large share of small farms in the total number of farms and the low average farm area. In 2020, the share of small farms (up to 5 ha of UAA) was 52.0%, and their share in UAA was 11.6%. The corresponding numbers regarding the share of farms with up to 10 ha of UAA were 73.9% and 27.7%. The average area of farms this year was 11.35 ha of UAA and was by 15.3% larger than in 2010 [GUS 2022].

Appropriate legislative actions were taken to improve the unfavorable structure. The most important ones include "Structural Annuities" [Journal of Laws, no. 52, item 539], supporting farms belonging to young farmers and payments to farmers eligible for the small farmer system who have definitively transferred their farm to another farmer.

⁹ Asset profitability index – the ratio of income from the farm less the cost of the farmer's own work and his family members to the value of assets expressed in %.

¹⁰ FWU (Family Work Unit) – unit of own labor input – equivalent to 2,120 hours of work.

The scope of the last action was small. Under the Rural Development Program 2014-2020, as at the end of 2022, 887 applications were submitted, of which 571 contracts were concluded (64.4%) for an average amount of PLN 17.7 thousand/beneficiary [ARiMR 2023]. Farmers retire at the age of 65 for men and 60 for women.

The main objective of “Structural pensions” was to provide income to farmers resigning from agricultural activity at pre-retirement age, to reduce the average age of people taking over agricultural activity and to improve the agrarian structure [Kowalski 2015]. Structural pensions preceded by 5 years pensions received from the National Agricultural Insurance Fund, which farmers were entitled to from the age of 60 for men and 55 for women. The “Structural pensions” measure was implemented under the Rural Development Program 2004-2006 and 2007-2013 [ARiMR 2015, 2016].

An additional goal of the action was to enlarge existing farms, because in practice, agricultural land acquired as a result of early retirement was partially transferred to successors, and the remaining part to neighboring farms. Transferring farms to heirs did not improve the agrarian structure because they passed into the hands of young farmers unchanged. The driving force behind the changes was the human factor, which, thanks to youth, could be a source of modernization and restructuring changes. Another part of the transferred agricultural land was intended for the expansion of other farms and probably caused positive agrarian changes. The first group of factors accelerated the process of generation replacement, the second group contributed to land concentration [Prus and Wawrzyniak 2010]. Maria Halamska also points to the weak impact of structural rents on the transformation of the area structure of farms [Halamska 2006]. The measure “Facilitating the start of young farmers” implemented under the Rural Development Program (RDP) 2007-2013 enjoyed great interest from beneficiaries. Its aim was to make it easier for young people to start running agricultural activities on their own on the farms they took over [Zieliński and Sobierajewska 2012]. The support provided was also intended – on a macro scale – to facilitate generational exchange in agriculture [Żok 2015]. The group of development farms run by young farmers deserves special attention, because they will dictate the pace of changes in the agricultural sector. They will also be a showcase of Polish agriculture on European markets. Young farmers are a generation completely different from the previous one, and at the same time they play an important role in formulating and implementing a modern model of rural development.

The profile of a young farmer should be considered in the context of many new, often unknown contemporary challenges facing agriculture, related to maintaining the integrity of the climate and protecting soil and water resources [Ghib and Berriet-Sollicec 2010, Zieliński 2022, Zieliński and Jadczyński 2022].

As at the end of 2022, young farmers submitted 35,642 applications for the amount of PLN 4,485 billion. 26,947 contracts were concluded (75.6% in relation to the submitted

applications) for the amount of PLN 3.44 billion (76.8% in relation to the amount requested). Payments were made to 25,190 beneficiaries (70.7% of applications) for the amount of PLN 2.82 billion (62.9% of the requested amount) [ARiMR 2023].

Bonuses for young farmers are of great importance for the proper succession of generations [Wawrzyniak 2021]. Determining the age of young farmers at 40 in times of rapid social change is a traditional approach that does not reflect the actual situation of young people in rural areas. The Agency for Restructuring and Modernization of Agriculture reporting data shows that on the day of submitting the application for aid, approximately 57% of young farmers were under 25 years of age. The majority of people taking over the farm were household members (38.1%) or students (26.1%) who decided to combine farm work with studies. The age difference between a person starting to manage a farm and a person resigning from the function was 25 years. The above phenomenon concerned 72% of beneficiaries (successors).

IMPACT OF THE MEASURE “BONUSES FOR YOUNG FARMERS” ON THE COMPETITIVENESS AND EFFICIENCY OF THEIR FARMS

The numbers characterizing the production potential of farms in the research and control samples under the “Bonuses for Young Farmers” measure are presented in Table 1. The data in table 1 show that in 2017, the economic size of farms from the research and control samples was similar. However, in 2021, the SO value in the research sample was 42.7% higher. It means that the economic power of these farms increased significantly and amounted to 51.9 thousand euro SO, against 36.4 thousand euro SO in the control sample.

Table 1. Production potential of the surveyed farms, type of measure “Bonuses for Young Farmers” in 2017 and 2021

Specification	Farm sample			
	research	control	research	control
	2017		2021	
Economic size [thousand euro SO]	36.9	36.9	51.9	36.4
Area of agricultural land [ha]	22.6	30.8	28.9	27.4
Own soil quality index	0.8	0.8	0.8	0.8
Labor inputs [AWU/farm]	1.8	1.8	1.8	1.7
Total assets [PLN thousand/household]	974.1	1,047.9	1,229.3	1,133.1
Total liabilities [PLN thousand/household]	16.4	47.6	75.0	56.8
Investments [PLN thousand/household]	92.2	29.0	51.1	37.0

Source: own calculations based on FADN data

In terms of utility agricultural area, the direction of changes in the samples was different. In 2017, the utility agricultural area on farms from the research group – as compared to the control group – was by 10.5% smaller, while in 2021 it was by 7.7% greater. The area in the research sample increased by 30.3%, and in the control sample only by 8.2%. Differences in soil quality were insignificant.

Total labor input (AWU/farm) in farm groups was similar in both analyzed years. In 2017, the value of assets in the research sample was by 7.0% lower, and in 2021 it was by 8.5% higher than in the control group. It was the result of a greater increase in the value of assets in the research group, which amounted to 26.2%, while in the control group – 8.1%. In 2017, the value of liabilities in the research group was PLN 16.40 thousand and was by 65.5% lower than in the control group. In 2021, the value of liabilities in both groups increased. In the research group it was more than threefold, and in the control group by 19.3%. The level of investment in the research group in 2017 was PLN 92.2 thousand and was 3.2 times higher than in the control one. However, in 2021 it amounted to PLN 51 thousand and was only 1.4 times higher.

To determine changes in the organization of plant and animal production on the studied farms, several indicators were selected for its assessment, the indicators are presented in Table 2. The numbers in Table 2 show that the share of grains in plant production was dominant in both samples. It was over 50%. In the control sample it was by 3 percentage points (p.p.) higher greater. In the years analyzed, it decreased slightly by 2 p.p. The share of oil plants in both samples was small. In the research sample it was 4.2% in the analyzed years. It was slightly larger in the control sample. It was 5.8 and 6.8%, respectively.

Table 2. Organization of farm production, type of measure “Bonuses for Young Farmers” in 2017 and 2021

Specification	Farm sample			
	research	control	research	control
	2017		2021	
Share of crops in the sown area [%]:				
– grains	55.40	58.50	52.70	56.60
– oilseeds	4.20	5.80	4.30	6.80
– legumes	8.40	3.80	8.40	2.30
– fodder	15.70	13.30	17.60	15.70
Animal density [LU/100 ha of UAA], including:	79.44	73.93	105.40	66.05
– total cattle	50.42	54.47	62.86	54.79
– total pigs	28.65	18.13	42.26	9.91

Source: own calculations based on FADN data

In the case of legumes and fodder plants, a larger share in the sown area was recorded on farms from the research sample. The share of legumes in the sample in both years was 8.4%. However, in the control sample it was lower and amounted to 3.8% and 2.3%, respectively. The share of fodder plants in the sown area was higher in both samples. In the research sample in the analyzed years it was 15.7% and 17.6%, respectively, while in the control sample 13.3% and 15.7%, respectively.

The total animal density on the analyzed farms, i.e. in the research and control samples in 2017, was similar and amounted to: 79.44 and 73.93 LU/100 ha of UAA, respectively. However, in 2021, in the research sample, it increased by 32.%, and in the control sample, it decreased by 10.7%. In both samples, the total cattle density was much higher. In the years examined, there was an increase in the stocking rate of pigs in the research sample by 47.5%, while in the control group there was a decrease by 50.3%.

Table 3 presents the production and economic results of farms. They indicate that the total production value in 2017 in both samples was similar, amounting to approximately PLN 136 thousand/farm. In 2021, as compared to 2017, it increased by 104% in the research sample, and by 38.9% in the control sample. Total subsidies in the research sample in 2017 amounted to PLN 121 thousand and were by 205% higher than in the control sample. In 2021, the level of subsidies in the research sample was 33% lower (however, it was by 63.7% higher than in the control sample).

The income from a family farm in the research sample in 2017 was PLN 51.6 thousand and was by 14.2% lower than in the control sample. In 2021, it more than doubled, while in the control sample it increased only by 62.4%. Income from management and risk in 2017 was negative in both samples, lower in the research sample in which it amounted to PLN -18.74 thousand. The difference was PLN 9.12 thousand (88.9%). In 2021,

Table 3. Production and economic results of farms, type of measure “Bonuses for Young Farmers” in 2017 and 2021

Specification	Farm sample			
	research	control	research	control
	2017		2021	
Total production [PLN thousand/farm]	133.28	139.20	271.93	193.32
Total subsidies [PLN thousand/farm]	121.29	39.74	81.23	49.67
Income from the family farm [PLN thousand/farm]	51.65	60.24	160.28	97.86
Income from management and risk [PLN thousand/farm]	-18.74	-9.22	71.22	13.51
Competitiveness index (CI)	0.73	0.86	1.80	1.16

Source: own calculations based on FADN data

the type of income was positive in both samples. In the research sample it was PLN 71.22 thousand and was more than five times higher than in the control sample.

The competitiveness index in 2017 was lower than 1 in both samples, clearly indicating the farms' inability to compete. However, in 2021, farms from both samples achieved competitive ability, much higher in the research sample, in which the competitiveness index was 1.80, while in the control sample it was 1.16.

Table 4 includes selected production and economic indicators. The average land productivity in 2017 in both the research and control samples was similar and amounted to PLN 6.49 and 6.42 thousand/ha, respectively. In 2021, land productivity in the research sample increased by 75.5%, while in the control sample it increased by 31.3%.

Labor productivity in 2017 in both samples was similar, amounting to approximately PLN 79 thousand. However, in 2021 it increased by 102.7% in the research sample and by 49.3% in the control sample. The return on assets ratio in 2017 was negative in both samples, lower in the research sample where it was -1.80%, and in the control sample -0.21%. In 2021, asset returns were positive in both samples. However, in the research sample it was higher, amounting to 5.22%, while in the control sample it was only 0.14%.

In 2017, the profitability of work in the research group was PLN 30.56 thousand/FWU and was by 10.7% lower than the parity income, which this year amounted to PLN 34.22 thousand/FWU [Skarżyńska 2022]. However, in the control group it was by 5.4% higher than parity income. In 2021, labor profitability was higher, in the research sample of farms there was PLN 97.73 thousand per 1 FWU, it was 3.2 times more than in 2017. However, in the control sample, labor profitability increased by 71.7% (PLN 61.94 thousand per 1 FWU, while in 2017 – PLN 36.07 thousand). In both groups it was higher than parity income by 115.5 and 36.6%, respectively.

In order to deepen the assessment of the impact of the “Bonuses for Young Farmers” support on the production and economic results of farms, the research group of young farmers was divided into two subgroups differing in economic size. Smaller farms (below

Table 4. Production and economic indicators of farms, type of measure “Bonuses for Young Farmers” in 2017 and 2021

Specification	Farm sample			
	research	control	research	control
	2017		2021	
Land productivity [PLN thousand/ha of UAA]	6.49	6.42	11.40	8.43
Work efficiency [PLN thousand/AWU]	78.15	80.00	158.38	119.46
Asset return ratio [%]	-1.80	-0.21	5.22	0.14
Profitability of own work [PLN thousand/FWU]	30.56	36.07	97.33	61.94

Source: own calculations based on FADN data

average) and larger farms (above average) were distinguished. The division should answer the question: whether the effectiveness of support is related to the economic size of the farm. The relevant numbers are given in Table 5. The data presented in Table 5 presents the change not only in the relationship between larger and smaller farms in 2021-2017, but refers to a comparison of the rate of change in these farms during this period. Analysis of the

Table 5. Farms of young farmers differing in economic size in 2017 and 2021

Specification	Research group of farms			
	smaller	bigger	smaller	bigger
	2017		2021	
Number of farms	42	42	42	42
Economic size [thousand euro SO]	21.24	52.62	26.79	76.97
Area of agricultural land [ha of UAA]	14.61	30.67	16.66	42.32
Total assets [PLN thousand]	777.74	1,170.51	775.80	1,682.82
Investments [PLN thousand/farm]	80.66	103.66	33.15	68.94
Share of grains in the sown area [%]	59.67	51.18	58.09	47.21
Total animal density [LU/100 ha of UAA]	64.46	94.43	74.58	136.22
Total production [PLN thousand/farm]	71.66	194.89	136.88	406.99
Income from a family farm [PLN thousand]	16.86	86.43	83.36	237.21
Total labor productivity [PLN thousand/AWU]	46.29	98.42	87.37	203.23
Profitability of own work [PLN thousand/FWU]	11.10	46.32	55.24	133.33
Competitiveness index (CI)	0.27	1.09	1.07	2.36

Source: own calculations based on FADN data

numbers given in table 5 enables statements indicating higher effectiveness of the “Bonuses for Young Farmers” measure in relation to larger farms:

- 1) they increased their production potential to a greater extent: economic size by 20.2 p.p., area by 24 p.p., assets by 44 p.p., animal density by 28.6 p.p.,
- 2) showed a more favorable organization of plant production, the share of grains in the sown area was lower, in 2021 it was 47%, while in smaller ones it was 58%,
- 3) total production increased to a greater extent by 18 p.p., labor productivity by 18.3 p.p.,
- 4) farm income increased to a lesser extent than in smaller farms, but in both years it was higher by 4 times and 2.8 times, respectively, similar relationships occurred in relation to labor profitability,

- 5) the competitiveness index in 2017 on smaller farms was 0.27, thus indicating a significant lack of ability to compete; larger farms demonstrated the ability this year; in 2021, smaller farms gained the ability to compete at a minimum level (CI = 1.07), while larger farms were fully competitive (CI = 2.36).

SUMMARY

To summarize the presented analysis, it should be stated that the production potential of young farmers' farms in both samples in 2017 was similar. The effect of the support was to increase the production potential in 2021 in the research sample by an average of 35%. It was the result of an increase in the economic size by 49.5%, the agricultural area by 30% and the value of assets by 26%. However, in the control group, the production potential did not change significantly.

The support obtained by young farmers' farms did not result in changes in the organization of plant production in the research sample. There have been changes in the organization of animal production. In the research group, the number of animals increased by 32.7%, including pigs by 47.5%, while in the control group it decreased by 10.6%, including pigs by 45.3%.

The production level and farm income in 2017 were similar in both farm samples. In 2021, the production level in the research sample increased by 104% and was 65.1 p.p. greater than in the control sample. Differences in the level of farm income were even greater. Income in the research sample increased by 211% and was 149 p.p. higher than in the control sample. In 2017, farms in both samples were uncompetitive. The competitiveness index (CI) was 0.73 and 0.86, respectively. In 2021, they achieved the ability to compete, but the CI in the research group was higher and amounted to 1.80, while in the control group it was 1.16.

The effect of supporting the farms of young farmers was a diversified increase in the productivity of production factors in 2021 in the research sample. Land productivity in the research group increased by 75.5%, and labor productivity by 102.7% and was higher than in the control group by: 44.6 and 53.4 p.p., respectively. Labor profitability in the analyzed years increased in the research group by 220%, and in the control group by 71.7%. The difference was 148.3 p.p.

The analysis of the effects of support for young farmers' farms depending on their size showed that the effectiveness of support was higher in larger farms.

Generalizing the assessment of the support for young farmers' farms in the “Bonuses for Young Farmers” measure, it should be stated that thanks to the support, their production potential increased and their production and economic results improved and, as a result, their competitiveness increased.

BIBLIOGRAPHY

- Agropolska. 2016. *Młodzi uciekają ze wsi. Kto przejmie gospodarstwa?* (Young people run away from the countryside. Who will take over the farms?), www.agropolska.pl/aktualności/polska/młodzi-uciekają-ze-wsi-kto-przejmie-gospodarstwa.2714.html, access: 18.01.2024.
- ARiMR (Agency for Restructuring and Modernization of Agriculture, ARMA). 2015. *Sprawozdanie z działalności ARiMR za 2014 r.* (Agency for Restructuring and Modernization of Agriculture activity report for 2014). Agency for Restructuring and Modernization of Agriculture.
- ARiMR (Agency for Restructuring and Modernization of Agriculture, ARMA). 2016. *Sprawozdanie z działalności ARiMR za 2015 r.* (Agency for Restructuring and Modernization of Agriculture activity report for 2015). Agency for Restructuring and Modernization of Agriculture.
- ARiMR (Agency for Restructuring and Modernization of Agriculture, ARMA). 2023. *Sprawozdanie z działalności ARiMR za 2022 r.* (Agency for Restructuring and Modernization of Agriculture activity report for 2022). Agency for Restructuring and Modernization of Agriculture.
- Czekaj Marta. 2016. Wybrane problemy sukcesji gospodarstw rolnych w Polsce (Selected problems of succession of farms in Poland). *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu* 439: 77-89. DOI: 10.15611/pn.2016.439.07.
- Ghib Marie-Luce, Marielle Berriet-Sollic. 2010. From small farming to rural, non-agricultural work in Romania: An evaluation on 3 measures of the rural development programme. *Working Paper CESAER* 7: 1-23.
- GUS (Główny Urząd Statystyczny, Statistics Poland). 2022-2023. *Rocznik statystyczny rolnictwa 2022, 2023* (Statistical Yearbook of Agriculture, year 2022, 2023). Warszawa: GUS.
- Halamska Maria. 2006. Renty strukturalne a przemiany polskiej wsi. Uwagi socjologa (Structural pensions and the transformation of the Polish countryside. A sociologist's remarks). *Więś i Rolnictwo* 2: 58-67.
- Hervieu Bertrand. 2019. Ewolucja gospodarstw rolnych: Rozpad wzorców (modeli) (The evolution of farms: The breakdown of patterns). *Zagadnienia Ekonomiki Rolnej* 3 (360): 5-12.
- Kleinhanss Werner. 2015. Konkurencyjność głównych typów gospodarstw rolniczych w Niemczech (Competitiveness of the main types of farms in Germany). *Zagadnienia Ekonomiki Rolnej* 1: 25-41. DOI: 10.5604/00441600.1146869.
- Kowalski Sławomir. 2015. Oddziaływanie mechanizmów wspólnej polityki Rolnej UE na przekształcenia strukturalne w polskim rolnictwie na przykładzie działania renty strukturalnej (The impact of the mechanisms of the EU Common Agricultural Policy on structural transformations in Polish agriculture on the example of early retirement). *Zarządzanie Finansami i Rachunkowość* 3 (3): 31-44.
- Mongiało Zbigniew, Michał Świtłyk. 2013. Wymiana pokoleń w zarządzaniu gospodarstwami (Replacement of generations in farm management). *Roczniki Naukowe SERiA* XV (1): 159-164.

- Prus Piotr, Bogdan M. Wawrzyniak. 2010. Zmiany zasad przyznawania rent strukturalnych oraz ich skutki (Changes in the rules for granting structural pensions and their effects). *Zeszyty Naukowe Polityki Europejskiej, Finanse i Marketing* (4) 53: 181-195.
- Skarżyńska Aldona. 2022. *Obliczanie stawek dochodu parytetowego* (Calculating parity income rates). Typescript at the Department of Agricultural and Horticultural Economics. Warszawa: IERiGŻ-PIB.
- Ustawa z dnia 26 kwietnia 2001 r. o rentach strukturalnych w rolnictwie. Dz.U. nr 52, poz. 539 (Act of April 26, 2001 on structural pensions in agriculture). *Journal of Laws*, no. 52, item 539.
- Wawrzyniak Bogdan M. 2021. Stopień wykorzystania instrumentów wsparcia w ramach działania rozwój gospodarstw i działalności rolniczej PROW 2014-2020 (The degree of use of support instruments under the measure development of farms and agricultural activities of Rural Development Program 2014-2020). *Zagadnienia Doradztwa Rolniczego* 1 (103): 40-57.
- Zegar Józef Stanisław. 2019. Perspektywy gospodarstw rodzinnych w Polsce (The perspectives of family farms in Poland). *Zagadnienia Ekonomiki Rolnej* 3 (360): 31-53. DOI: 10.30858/zer/111997.
- Zieliński Marek. 2022. Rolnictwo ekologiczne w Polsce jako źródło dóbr publicznych na obszarach szczególnie predestynowanych do jego rozwoju (Organic farming in Poland as a source of public goods in areas particularly predestined for its development). *Wies i Rolnictwo* 4 193: 77-106. DOI: 10.53098/wir042021/04.
- Zieliński Marek, Jan Jadczyzyn. 2022. Importance and challenges for agriculture from High Nature Value Farmlands (HNVf) in Poland in the context of the provision of public goods under the European Green Deal. *Economics and Environment* 3 (82): 194-219. DOI: 10.34659/eis.2022.82.3.494.
- Zieliński Marek, Jolanta Sobierajewska. 2012. Efekty gospodarstw rolnych korzystających z pomocy w ramach PROW 2007-2013. *Zagadnienia wybrane* (Effects of farms benefiting from assistance under Rural Development Program 2007-2013. Selected issues). *Zagadnienia Ekonomiki Rolnej* 331 (2): 81-96.
- Ziętara Wojciech, Zofia Mirkowska. 2019. Kierunki zmian form organizacyjnych i prawnych gospodarstw rolniczych w Polsce na tle wybranych krajów (Directions of changing of the organizational and legal forms of farms in Poland at the background of selected countries). *Problems of Agricultural Economics* 3 (360): 13-30. DOI: 10.30858/zer/111994.
- Ziętara Wojciech, Aldona Skarżyńska, Agata Żak. 2023. *Wpływ interwencji PROW 2014-2020 na poprawę wyników gospodarczych, restrukturyzacji i modernizacji wspieranych gospodarstw, w szczególności przez zwiększenie ich udziału w rynku i zróżnicowania produkcji rolnej* (The impact of the RDP 2014-2020 intervention on improving economic results, restructuring and modernization of supported farms, in particular by increasing their market share and diversification of agricultural production). Typescript at the Department of Agricultural and Horticultural Economics. Warszawa: IERiGŻ-PIB.
- Żok Krzysztof. 2015. Premie dla młodych rolników w ramach PROW 2014-2020 (Bonuses for young farmers under RDP 2014-2020). *E-biuletyn Centrum Doradztwa Rolniczego w Brwinowie* 6.

WPLYW OPERACJI „PREMIE DLA MŁODYCH ROLNIKÓW”
W RAMACH PROW 2014-2020 NA EFEKTYWNOŚĆ
I KONKURENCYJNOŚĆ GOSPODARSTW

Słowa kluczowe: gospodarstwo, młody rolnik, potencjał, produktywność,
konkurencyjność

ABSTRAKT. Celem artykułu jest ocena skutków realizacji poddziałania „Wsparcie dla młodych rolników na rozpoczęcie działalności”, typ operacji „Premie dla Młodych Rolników”, w ramach PROW 2014-2020 na wyniki gospodarstw i ich konkurencyjność. W 2017 roku do realizacji operacji „Premie dla Młodych Rolników” przystąpiły 84 gospodarstwa, które stanowiły próbę badawczą i jednocześnie panel. Grupę kontrolną stanowiły gospodarstwa młodych rolników, które nie korzystały ze wsparcia w ramach PROW 2014-2020 w latach badań, tj. 2017 i 2021 (ostatnie wyniki FADN). Przedmiotem badań w ramach panelu gospodarstw były: potencjał produkcyjny, organizacja produkcji, wyniki produkcyjno-ekonomiczne oraz efektywność wykorzystania czynników produkcji. W wyniku analizy stwierdzono, że potencjał produkcyjny gospodarstw młodych rolników w obydwu próbach w 2017 roku był zbliżony. Efektem wsparcia było zwiększenie potencjału produkcyjnego w 2021 roku w próbie badawczej średnio o 35%. Dochód z gospodarstwa w 2017 roku w obydwu próbach gospodarstw był zbliżony. W 2021 roku różnice w poziomie dochodu z gospodarstwa były jeszcze większe. Dochód w próbie badawczej zwiększył się o 211% i był o 149 p.p. wyższy niż w próbie kontrolnej. Produktywność ziemi w próbie badawczej zwiększyła się o 75,5%, a wydajności pracy o 102,7% i była wyższa niż w grupie kontrolnej, odpowiednio o 44,6 i 53,4 p.p. Dochodowość pracy w analizowanych latach zwiększyła się w grupie badawczej o 220%, natomiast w grupie kontrolnej o 71,7%. Ocena wsparcia gospodarstw młodych rolników w operacji „Premie dla Młodych Rolników” wskazała, że dzięki wsparciu zwiększył się ich potencjał produkcyjny i nastąpiła poprawa wyników produkcyjnych i ekonomicznych oraz w efekcie wzrost ich konkurencyjności.

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