

CONDITIONINGS OF ORGANIC AGRICULTURAL PRODUCTION SUBSIDIZING DURING THE ACCESSION PERIOD 2007-2013*

Anna Szeląg-Sikora

Institute of Agricultural Engineering and Informatics, University of Agriculture in Krakow

Abstract. The aim of the paper was to characterize the rules of subsidizing organic farming in the framework of agri-environmental programme during the accession period 2007-2013. It was estimated right to include the initial research results obtained during the realization of development grant, whose main issues are connected directly with organic farming, including subsidizing the farming activity. The studies covered 100 farms located in the southern Poland which were divided into 7 area groups. Among the studied farms as many as 75 declared using the variant of Organic farming package, i.e. agricultural crops (with certificate, while the second in popularity was the variant: Permanent grasslands (with certificate), which was registered on 55 farms. Farmers were most active in acquisition of these EU funds, which evidenced itself in using several available variants within the “Organic farming” package.

Key words: organic farming, EU funds, variants, degressivity

Introduction

“Organic farming” denotes a farming system with sustainable plant and livestock production. Organic production should combine environment-friendly farming practices, sustain a high level of biodiversity and use natural processes ensuring proper animal welfare. Tillage should contribute to maintaining or increasing organic matter content in soil, improving its stability and biodiversity and preventing soil compaction and erosion. All applied techniques of crop production should prevent environmental pollution or reduce it to a minimum. Organic agriculture has been developing dynamically all over the world. At the same time a considerable diversification in the area of organic crops may be noticed in individual countries. It depends among others on the state area, current state of organic agriculture development, potential market for products and social, political and economic situation. Over the years 2004-2005 organic agricultural area increased most, over 400 thousand ha, in the United States of America, in Argentina – by about 300 thousand ha, in Italy by over 110 thousand ha, in Canada – by 90 thousand ha and in Poland – by 77 thousand ha [Raport o Stanie rolnictwa ekologicznego... 2007 (on-line)]. The available data [Ministerstwo Rolnictwa i Rozwoju Wsi 2011 (on line)] indicate that organic farming in Poland is developing constantly, which is evidenced by regularly increasing number of

* The work has been accomplished as part of development grant NR 12016510

organic farms. As of 31 December 2010, there were over 20 thousand organic holdings covered by the inspection of certifying bodies, which was 20% more in comparison with 2009. During the period between 2003 and 2010, organic area increased 8.5-fold and currently constitutes c.a. 2.8% of the total agricultural area in Poland. At present, an average organic farm area exceeds 25ha, at national average c.a. 10ha for traditional farms [Ministerstwo Rolnictwa i Rozwoju Wsi 2011 (on-line)].

Subsidizing organic agricultural production

Poland's accession into the European Union structures activated a number of mechanisms supporting development of organic farming. The state support for organic production has been evidenced as payments for farms meeting the requirements obligatory for organic farming, i.e. in compliance with the rules stated by the Decree of the Council (WE) No. 2092/91 and 1804/99 [Akty prawne dotyczące rolnictwa ekologicznego (on-line)].

A payment resulting from implementing organic agriculture realized on the basis of agri-environmental programme of the Ministry of Agriculture and Rural Development, i.e. Rural Development Programme is a payment per area (one hectare) of organic crops. The agri-environmental payments may cover two years of the transition of traditional production to organic. There are 11 bodies in Poland authorized to issue certificates confirming running organic production [Jednostki certyfikujące (on-line) 2011]. The payment is made for a farmer who runs organic agricultural production on a farm of at least 1 ha of arable area and will commit himself to realize the package in compliance with agri-environmental plan, and will observe the rules of food agricultural practice on the whole farm.

The rates of payments for organic agriculture were diversified depending on the kind of cultivated crops (Tab.1) [Pakiety wdrażane na obszarze całego... (on-line) 2011]. It is an agri-environmental measure which relies on application of organic agriculture methods, as stated in The Council Regulation (EEC) No. 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs and Regulation of the Council of Ministers RP 1804/99/WE of 24 August 1999 complementing regulation 2092/91/EEC.

Table 1. Variants of Organic Agriculture package realization

Specification	Rate [PLN·ha ⁻¹]
Agricultural crops (without certificate)	680
Agricultural crops (with certificate)	600
Permanent grasslands (without certificate)	330
Permanent grasslands (with certificate)	260
Vegetable crops (without certificate)	980
Vegetable crops (with certificate)	940
Fruit crops including berries (without certificate)	1800
Fruit crops including berries (with certificate)	1540

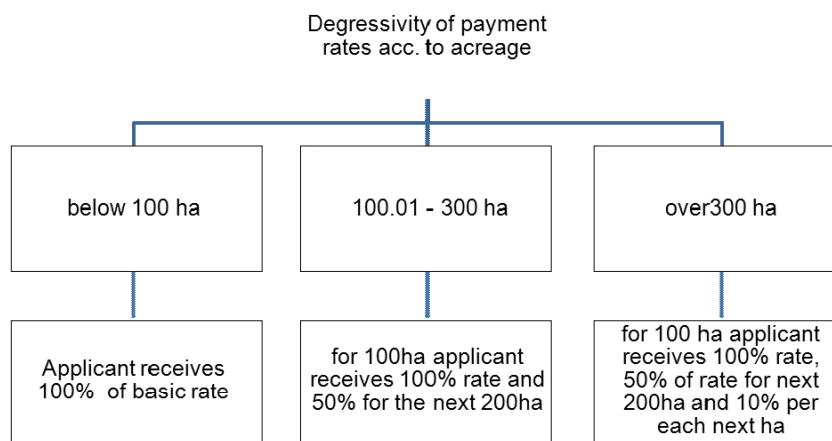
Source: author's own studies based on : Pakiety wdrażane ... (on-line) 2011

No artificial fertilizers or chemicals for plant protection are used in organic agriculture. Organic farming package cannot be combined with either *sustainable agriculture* or *protection of soil and waters* package. Organic methods of production may be applied for agricultural crops (e.g. cereals, potatoes or oil plants), on permanent grasslands or vegetable crops (e.g. cabbages, onions, carrots, red beets, cucumbers, tomatoes, cauliflowers or herbs) and in fruit crops including berry plantations. Two variants for the package realization have been assumed for each of these trends in production: with the certificate of conformity and without the certificate of conformity.

The term “without the certificate of conformity” applies to farms in transition to organic production, on which traditional farming methods will be replaced with organic methods within two years. The term “with certificate” applies to farms which already have the certificate for production using organic methods.

Degressivity of organic farming subsidizing

The principle of area payment obligatory for organic farming is determined by the amount of possessed land resources. According to the binding rules agricultural holdings are divided into three groups diversifying the amount of allocated payments. These comprise: farms of under 100 ha, 100.01-300.00 ha and over 300 ha area. Within the above mentioned groups area payments are calculated taking into consideration percent decrease in the basic rate. Application of this rule is called degressivity of payment rates acc. to the acreage.



Source: author's own studies on the basis of: *Pakiety wdrażane...* (on-line) 2011

Fig. 1. Principle of payment rate degressivity acc. to acreage

Payment for realization of “Organic farming” package may be increased to 120% if the livestock production on farm is balanced with crop production or the farm is situated in the NATURA 2000 area, determined by regulations on natural environment protection. Information may be found on the Internet page of the Ministry of the Natural Environment, i.e. www.mos.gov.pl [Europejska Sieć Ekologiczna Natura 2000 (on-line)]. Livestock production is balanced with crop production if the livestock density constitutes at least 30% of the maximum livestock density per 1 ha of arable lands. The maximum livestock density was stated in the attachment VII to the Council Regulation [EEC]2092/91 [Dopłata do powierzchni (hektara) upraw ekologicznych (on-line) 2011].

Results

The studies presented in the paper were conducted within a research project entitled “Innovative effect of technique and technology and IT support of management on the effectiveness of production on organic farms” and presented results are the outcome of initial studies verification. The project mentioned above targets the existing organic farms and those whose production is in transition to organic and which in fact contribute to preserve the natural environment values. Innovative solution suggested as the final effect of the project will aim at increasing farming efficiency in view of utilization of technical means of production (machinery and equipment). Ultimately it has been assumed that obtained EU subsidies are one of the intermediate factors affecting the progress of organic farms modernisation process and are a determinant of the profitability of production.

The data characterizing the farms covered by the initial studies were presented in Table 2. These were 100 objects located in Southern Poland. The studies were conducted in 2011. Due to a considerable variability of land resources possessed, 7 area groups were identified among the studied objects. An average farm area of the studied holdings was 11.90 ha. Farms below 10 ha constituted over 50% of the investigated sample. Ploughlands and grasslands prevailed in the cropping structure. The proportion of grasslands was growing with increasing arable land acreage. The area under orchard and crop plantings was on a similar low level of only c.a. 0.67 ha in each of the identified groups.

The principles of organic farming state precisely the intensity of livestock production. According to these principles, animal feed and fertilizer self-sufficiency is ensured at the livestock density of $0.5-1.5 \text{ LSU} \cdot \text{ha}^{-1}$, whereas a permissible density is $2 \text{ LSU} \cdot \text{ha}^{-1}$ [Rolnictwo ekologiczne ... Agro Bio Test (on-line) 2011]. In case of the studied farms the minimum livestock density requirement was fulfilled for each group. At the same time cattle was the most numerous animal group. According to the methodology of calculations assumed for the project, the information presented in Table 1 will be a starting point for further calculating the EU subsidy. However, for precise determining the value of obtained subsidies it was necessary to gather information about the variants which the individual farms used (Tab.3).

In the framework of Organic farming package, 81 farms declared using “Agricultural crops” (with certificate) variant, also “Permanent grasslands” (with certificate) variant was very popular, since it was noted for 75 farms. For “without certificate” option, i.e. during transition period and “with certificate” the option of full organic farming option, i.e. with certificate, prevailed in each variant.

Conditionings of organic...

Table 2. Characteristics of farms under study

Specification	Mean	Area interval [ha]							
		< 3,0	3,1-5,0	5,1-7,0	7,1-10,0	10,1-15,0	15,1-20,0	20,1-40,0	> 40
Number of farms	-	17	14	16	16	14	8	9	6
Area AL [ha]	11.90	2.12	3.84	5.69	8.50	12.57	18.01	25.90	53.29
In which: arable lands [ha]	5.02	1.27	2.35	3.89	3.45	5.83	7.44	6.38	22.17
grasslands [ha]	6.19	0.36	0.49	1.34	4.24	6.16	10.54	18.06	30.68
Orchards and plantations [ha]	0.67	0.49	1.00	0.46	0.81	0.58	0.03	1.46	0.44
Livestock density [LSU·ha ⁻¹]	0.66	0.67	0.53	0.80	0.72	0.73	0.60	0.72	0.56
In which: horses [LSU·ha ⁻¹]	0.11	0.12	0.02	0.19	0.15	0.11	0.13	0.10	0.09
Cattle [LSU·ha ⁻¹]	0.52	0.44	0.46	0.52	0.55	0.60	0.46	0.59	0.45
Pigs [LSU·ha ⁻¹]	0.01	0.01	0.01	0.05	0.01	0.01	0.00	0.01	0.01
Poultry and other [LSU·ha ⁻¹]	0.02	0.10	0.04	0.04	0.01	0.01	0.01	0.02	0.01

Table 3. Number of variants realized on studied farms

Variants of Organic Farming package realization	Farm area interval [ha]							
	< 3.0	3.1-5.0	5.1-7.0	7.1-10.0	10.1-15.0	15.1-20.0	20.1-40.0	> 40
Agricultural crops (with certificate)	13	10	12	12	13	7	9	5
Agricultural crops (without certificate)	2	3	-	-	1	-	-	1
Permanent grasslands (with certificate)	12	8	9	15	11	7	8	5
Permanent grasslands (without certificate)	-	2	1	-	2	-	3	3
Vegetable crops (with certificate)	5	-	4	4	2	2	-	1
Vegetable crops (without certificate)	-	2	2	-	-	-	-	-
Fruit crops including berries (with certificate)	11	8	5	8	7	1	2	1
Fruit crops including berries (without certificate)	1	3	-	-	-	-	-	-
Herbs (with certificate)*	1	2	-	-	-	2	-	-
Non-fruited walnut trees (without certificate)*	-	-	1	1	1	-	-	1

* variants continued from 2004-2006 accession period

Source: author's own studies

Farmers revealed great activeness in acquiring the EU funding of this type, which in most cases was evidenced as using several available variants within the “Organic agriculture” package. Information about the other forms of farm activeness in the area of other packages of agri-environmental programmes or other available forms of activity diversification, e.g agri-tourism or providing mechanization services will be gathered during the subsequent, detailed studies.

Conclusion

Presentation of the principles concerning the available EU subsidies from European Agriculture Guidance and Guarantee Funds aimed at illustrating the possibilities of subsidizing agricultural production which became available to organic agricultural producers.

Even the analysis of the rates allows to submit that acquired funds are a crucial factor contributing to the profitability of the production conducted by organic methods, which as it is commonly known, in most cases is connected with lower production efficiency. Therefore, the payments recompense the costs born. At the same time they are meant to decrease the distance between the profitability of traditional and organic production. The rules in force consider various levels of payments depending on the kind of production and to some extent also on possessed land resources. The group of studied farms is diversified in view of possessed land resources. Cattle prevails in the livestock density structure. Irrespective of possessed land resources, the studied farms most frequently chose the “agricultural crops (with certificate)” variant of organic farming subsidizing. Grasslands and the resulting implemented variants played an important role in the cropping structure. Presented results apply to initial studies. Further proceedings will involve an analysis of the subsidizing level in the aspect of farming efficiency. An attempt will be made to determine the optimal subsidizing level ensuring profitability of agricultural production.

References

- Legal acts on organic farming available on the websites
 Dopłata do powierzchni (hektara) upraw ekologicznych (on-line) [dostęp: 11.12.2011]. Dostępny w internecie: http://www.rolnictwoekologiczne.org.pl/13_211.html.
 Europejska Sieć Ekologiczna Natura 2000 (on-line) [dostęp: 11.12.2011]. Dostępny w internecie: http://natura2000.gdos.gov.pl/natura2000/pl/o_obszarach.php.
 Jednostki certyfikujące (on-line) [dostęp: 03.12.2011]. Dostępny w internecie: http://www.rolnictwoekologiczne.org.pl/13_150.html.
 Raport O Stanie rolnictwa ekologicznego w Polsce w latach 2005-2006. Warszawa 2007. (on-line) [dostęp: 09.12.2011]. Dostępny w internecie: <http://zasoby.ekologia.pl/artykuly/46/1491/6693/doc/raport-ekol.pdf>.
 [Rolnictwo ekologiczne, założenie, cele, zasady (on-line) [dostęp: 05.12.2011]. Dostępny w internecie: http://www.agrobiotest.pl/strona/index.php?page=rolnictwo_wpigulce.

Pakiety wdrażane na obszarze całego kraju - rolnictwo ekologiczne (S02) (on-line) [dostęp: 11.12.2011]. Dostępny w internecie: <http://www.arimr.gov.pl/pomoc-unijna-i-krajowa/inne-formy-pomocy/plan-rozwoju-obszarow-wiejskich-2004-2006/wspieranie-przedswiezec-rolno-srodowiskowych-i-poprawy-dobrostanu-zwierzat/pakiety-wdrazane-na-obszarze-calogo-kraju-rolnictwo-ekologiczne-s02.html>.

UWARUNKOWANIA SUBWENCJONOWANIA ROLNICZEJ PRODUKCJI EKOLOGICZNEJ W OKRESIE AKCESYJNYM 2007-2013

Streszczenie. Celem pracy było scharakteryzowanie zasad subwencjonowania rolnictwa ekologicznego w ramach programu rolnośrodowiskowego w okresie akcesyjnym 2007-2013. Za celowe uznano również zamieszczenie wstępnych wyników badań uzyskanych w ramach realizacji grantu rozwojowego, którego problematyka badawcza związana jest bezpośrednio z ekologiczną produkcją rolniczą, w tym również z dofinansowaniem prowadzonej działalności. Zakresem badań objęto 100 gospodarstw zlokalizowanych w Polsce Południowej, które podzielono na 7 grup obszarowych. Wśród badanych gospodarstw, aż 75 zadeklarowało korzystanie z wariantu realizacji pakietu Rolnictwo ekologiczne: Uprawy rolnicze (z certyfikatem), w drugiej kolejności dużym zainteresowaniem cieszył się wariant: Trwałe użytki zielone (z certyfikatem), który odnotowano w 55 gospodarstwach. Rolnicy wykazywali dużą aktywność w pozyskiwaniu tego rodzaju funduszy unijnych, co przejawiało się w większości przypadków korzystaniem z kilku dostępnych wariantów w ramach pakietu „Rolnictwo ekologiczne”.

Słowa kluczowe: rolnictwo ekologiczne, fundusze unijne, warianty, degresywność

Correspondence address:

Anna Szeląg-Sikora; e-mail: anna.szelag-sikora@ur.krakow.pl
Instytut Inżynierii Rolniczej i Informatyki
Uniwersytet Rolniczy w Krakowie
ul. Balicka 116B
30-149 Krakow, Poland