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ECONOMIC SITUATION OF THE POLISH FRUIT GROWERS IN THE PERIOD 1999–2009

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Abstract. The paper presented the contemporary situation of the Polish fruit growers. There was displayed an increasing area of fruit production, reaching 331 thousand of hectares in 2009. The attention was paid to domination of apple trees in a structure of varieties, especially such varieties as: Idared, Lobo, Cortland. Moreover, there was presented an income situation of farms with permanent crops (including fruit growers) on the base of the aggregated data of Farm Accountancy Data Network – FADN. There was noticed decrease in average farm income in these group of farms, from 37 thousand zlotys in 2007 to 16 thousand zlotys in 2009 resulting from a smaller value of production and increase in total costs. There was also indicated that income of farmers conducting permanent crops was lower than gained in farms of mixed type of farming.

Key words: horticulture, farm income, orchards, Poland

INTRODUCTION

Fruit growing is one of the most dynamically developing branches of agriculture. It provides fruits, which are a necessary element of a human diet. Increase in fruit production is a feature of world fruit growing, which has been taking place since the Second World War. The largest rise of production took place in China (from 57 million tons in 1995 to 80 million tones in 2005). In Poland, rural areas take 93.2% of the country (29 139.8 thousand ha), inhabited by 38.6% of people (14.7 million people), whereas permanent crops take 329 thousand ha (1.05% of agricultural land in 2009). According to the Agricultural Census in 2002, agricultural activity in Poland was run by 2933 farms, including 1956 thousand with more than 1 ha (in this group there is only 745 thousand of farms of economic size larger than 2 ESU), which constitutes 25.4% of all farms [Pozarolnicza działalność gospodarstw... 2003]. The size of 2 ESU is achieved by more than 90% of fruit growing farms. The forthcoming years will force fruit growers to facing increasing

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competitiveness both on domestic as well as foreign markets, where majority of fruit is sold. Fruit production faces in a perspective of rising work and investment costs from one side and decreasing fruit prices [Makosz 2005]. Increase of production efficiency per 1 ha and improvement of fruit quality is one of possible strategies of fruit growers.

AIM, DATA RESOURCES AND METHODOLOGY

A documenting method was used in the paper; it consists of use of information gathered previously for aims of agrarian, social and economic policy [Stacha 1997]. Information on economic facts came from documents prepared by suitable institutions of central administration, as the Central Statistical Office as well as prepared for scientific objectives, as reports, analyses and dissertations of scientific entities and institutions for example the Research Institute of Pomology and Floriculture in Skierniewice (Instytut Sadownictwa i Kwiaciarstwa w Skierniewicach referred to as ISiK in the text) and the Institute of Agricultural and Food Economics – National Research Institute referred to as IERiGŻ-PIB in the text.

There was used published data of the Farm Accountancy Data Network – FADN. FADN is the European system of gathering of accountancy data from farms. Information on farms is gathered in order to determine income value of farms achieved in the EU countries and to analyze activities of particular types of farms as well as effects, which can take place after implementation new or modification of old instruments of the Common Agricultural Policy. Agricultural farms participating in FADN are classified according to criteria: economic size expressed in ESU and an agricultural type. Each Member State accepts a different threshold of economic size determining minimal size of farms participating in FADN. These differences result from a various agrarian structure of particular countries. FADN monitoring is one of possible sources of evaluation of fruit growers' economic situation both in Poland as well as in selected EU countries [Wyniki standardowe uzyskane... 2008].

An analysis of data coming from interviewed population of farms of all European countries is a subject of a permanent FADN analysis, for example 753 thousand of commercial farms were interviewed in Poland [Goraj, Mańko, Osuch, Płonka 2010]. FADN is focused on commercial farms significantly contributed to proportion of added value in agriculture. There are observed farms generating at least 90% of Standard Gross Margin (SGM) [Poziom i struktura dochodów rodzin rolniczych... 2010]. Researched farms are classified according to economic criteria – Standard Gross Margin (SGM), European Size Unit (ESU), and the agricultural type [Poziom i struktura dochodów rodzin rolniczych... 2010]. The last criterion concerns to proportion of particular activities taken up within a farm in establishing SGM. In the researched population there is determined the Annual Work Unit (AWU), which is defined as a conversion unit of work input as an equivalent of time worked by one full-time person in a farm during one year. One AWU is an equivalent of 2200 hours of work performed during a year by: a farmer, his family members as well as hired workers. There are determined eight general types and one non-classified group of farms, 17 basic types, and 50 detailed types within FADN. Data presented below consists of an analysis performed for farms

according to the farm type and classes of economic size supplemented by a distribution of farms in selected regions and European Size Unit (ESU). In FADN classification, orchards [Wyniki standardowe uzyskane przez indywidualne gospodarstwa rolne... Warszawa 2006], consisting of fruit tress and berry bushes (including tropical and subtropical orchards) were classified as permanent crops along with olive groves and rest of permanent crops, consisting of perennial crops under shelter, nurseries (including grapevine nurseries) and other perennial crops (osier, bulrush, and bamboo).

The aim of the paper is to determine an economic situation of family farms growing fruit in Poland on the base of self-aggregated data coming from the FADN system. The period of analysis of an orchard structure on the base of data from the Central Statistical Office (CSO) consists of the period 1999–2009, whereas data gained from the FADN system – the period 2004–2009.

ROLE OF FRUIT GROWING IN POLAND

Poland is one of the main fruit producers in Europe. A number of fruit growers in Poland is determined on a level of 319 thousand, whereas 90% of them constitutes small farms of fruit crops smaller than 1 ha. According to estimation of ISiK in Skierniewice, there are about 40 thousand of farms producing for market (commercial fruit production). On the other hand only about 10% of them produce on a very high European level – estimations from 2005 [Makosz 2005]. An area of orchards in Poland constituted 1.08% of agricultural land in 2007 [Rocznik Statystyczny Rolnictwa i Obszarów Wiejskich... 2007] and it has been systematically growing for a dozen or so years. In the analyzed period 1995–2008 there can be seen two fundamental periods: the first one 1996–2001 when very slow increase of orchard area took place (for example comparing year-to-year increase it was on a level of 0.28% for a change in 1997 compared to 1996 and 0.55% in 2001 compared to 2000). The second period since 2002 (except from 2003 and 2007 when fruit production suffered from weather conditions) is a period of dynamical increase of orchard crops area – annual average increase of the area was on a level of 3.81%.

It should be stressed that both intensive increase of the orchard area in Poland as well as technological innovations including mainly establishing of new or transformation of existing orchards into intensive orchards result in increase in volume of fruit production in Poland. In the period 2006–2009 the orchard area was in a range 292.4––336.8 thousand ha (Figure 1). Contemporary intensive technologies used in fruit production [Mika 2002] accompanied by rising an area of crops allow to achieve increase in fruit production.

Increasing competitiveness on fresh fruit market causes that much more fruit is exported on Central-European markets (mainly to Russia, Ukraine, Belarus as well as the Baltic States). There is increase in requirements in wholesale and retail trade, especially in case of volume of one fruit batch and fruit quality. Increase in competiveness on market contributes to a necessity of performing marketing operations by large producers and professional organizations with self-governmental authorities promoting both a region as well as products from a particular area of fruit production. A group of main regions of

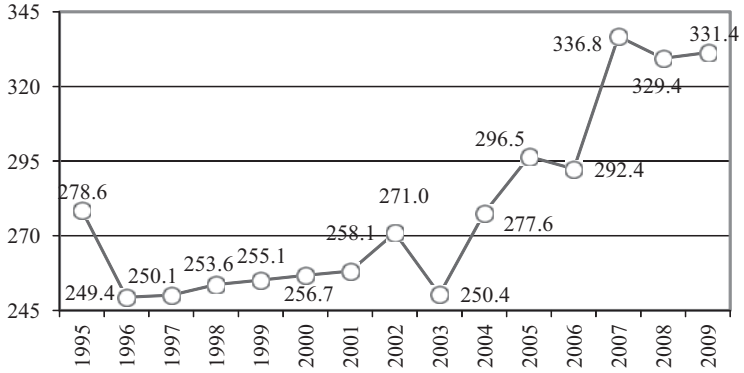

Fig. 1. Area of orchards in Poland in the period 1995–2009 [thousand ha]
Rys. 1. Powierzchnia sadów w Polsce w latach 1995–2009 [w tys. ha]

Source: Rocznik Statystyczny Rolnictwa i Obszarów Wiejskich, GUS, Warszawa 2007, Rocznik Statystyczny Rolnictwa, wyd. GUS [2009–2010].
Źródło: Rocznik Statystyczny Rolnictwa i Obszarów Wiejskich, GUS, Warszawa 2007, Rocznik Statystyczny Rolnictwa, wyd. GUS [2009–2010].

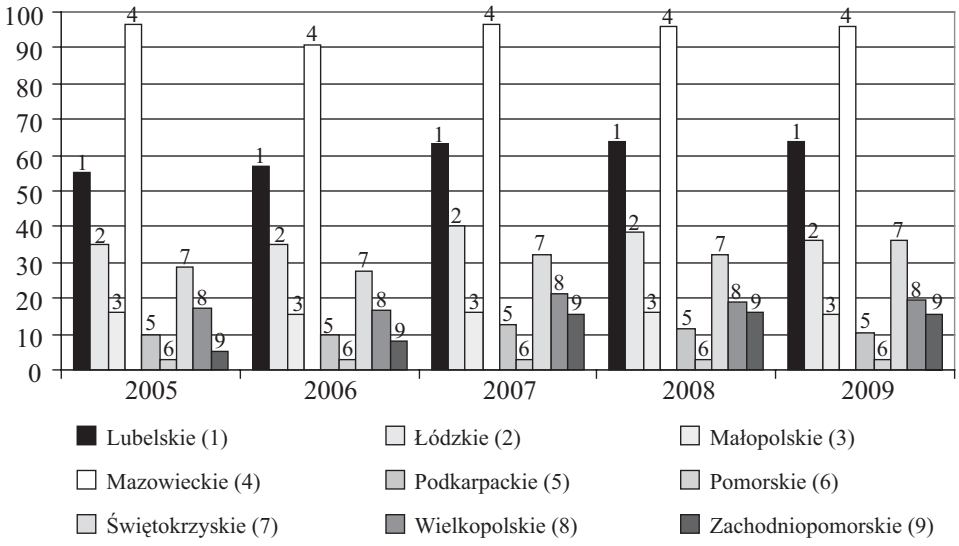

Fig. 2. Orchard area in Poland in selected regions in 2005–2009 in thousand hectares (according to administrative borders)
Rys. 2. Powierzchnia sadów w Polsce w wybranych regionach w latach 2005–2009 w tys. ha (według granic administracyjnych)

Source: Own elaboration on the base of CSO: Rocznik Statystyczny Rolnictwa i Obszarów wiejskich, Warszawa 2007, p. 206, Rocznik Statystyczny Rolnictwa i obszarów wiejskich, Warszawa 2008, s. 212, Rocznik Statystyczny Rolnictwa i obszarów wiejskich, Warszawa 2009, p. 79.
Źródło: Opracowanie własne na podstawie GUS: Rocznik Statystyczny Rolnictwa i Obszarów wiejskich, Warszawa 2007, p. 206, Rocznik Statystyczny Rolnictwa i obszarów wiejskich, Warszawa 2008, s. 212, Rocznik Statystyczny Rolnictwa i obszarów wiejskich, Warszawa 2009, s. 79.

fruit production in Poland consists of: mazowieckie, lubelskie, and łódzkie. An area of orchards in mazowieckie region was at a level of 98 thousand ha (except from 2006). The second and third region were respectively lubelskie and łódzkie (Figure 2). Comparing rate of growth, there can be indicated three regions, where increase of orchard area was on the highest level: zachodniopomorskie (growth by 312.5% comparing 2009 to 2005), lubuskie (173.8%) and warmińsko-mazurskie (162.8%). However, increase in crops area in these regions did not have significant influence for fruit production in Poland, besides zachodniopomorskie region, where significant rise of walnut crop took place.

Taking into account the area structure of orchards it should be indicated that in 2002 27.5% of farms grew fruit on an area larger than 1 ha. In next years this structure changed; there was decrease in proportion of farms with orchards from 27.5% in 2002 to 5.2% in 2005, and continuously to 4.4% in 2006 and 3.9% in 2007 [Gospodarstwa rolne... 2005 oraz Rocznik Statystyczny Rolnictwa i Obszarów Wiejskich... 2008]. The highest growth rate was noticed in the group of farms with area of 100 hectares and more; in this group orchard area raised more than 25 times, in farms from 20 to 50 hectares – respectively 8 times.

STRUCTURE OF VARIETIES IN HORTICULTURAL FARMS IN POLAND IN THE PERIOD 1999–2009

One of significant determinants of success of farms growing fruits is selection of fruit trees' varieties. Value of income gained from 1 ha of orchard is conditioned by sensitivity of selected varieties to cold, scab, mildew, spring frost on the one hand, and regularity of yielding and demand on the other hand* [Golimowska 2002]. Authors [Makosz 2005] indicate a necessity of adjustment of varieties' structure of fruits in order to decrease proportion of fruits directed for industrial processing and increase proportion of dessert apples. Improvement of fruit quality and a distribution system (connection of a transport, warehouse system with a structure of entities on fresh fruit market) can open and reinforce a position of the Polish fruit producers in international markets. However, lack of enough investments can contribute to, as E. Makosz claims, to significant decrease in demand for fruits (till 300 thousand tones), which can be caused by lack of acceptation of offered fruits. Specialization in fruit production should be indicated as a factor of success of fruit growers. Apple tree crops are the main species. An average apple tree crop occupied an area of about 160–175 thousand ha (Figure 3). Sour cherry is the second popular species; its area ranges about 35.5 thousand ha and plum on an area about 21 thousand ha (Figure 3). At the same time it should be stressed that the highest growth rate took place in cultivation of walnut, which increased from 3.5 thousand ha in 2002 to 20.1 thousand ha in 2009. It was probably connected with high subsides of the European Union for this kind of permanent crops.

* One of possible ways of decreasing costs is to switch from fruit growing to integrated fruit production. However, it requires larger involvement, knowledge and capabilities of conducting marketing activities in farms.

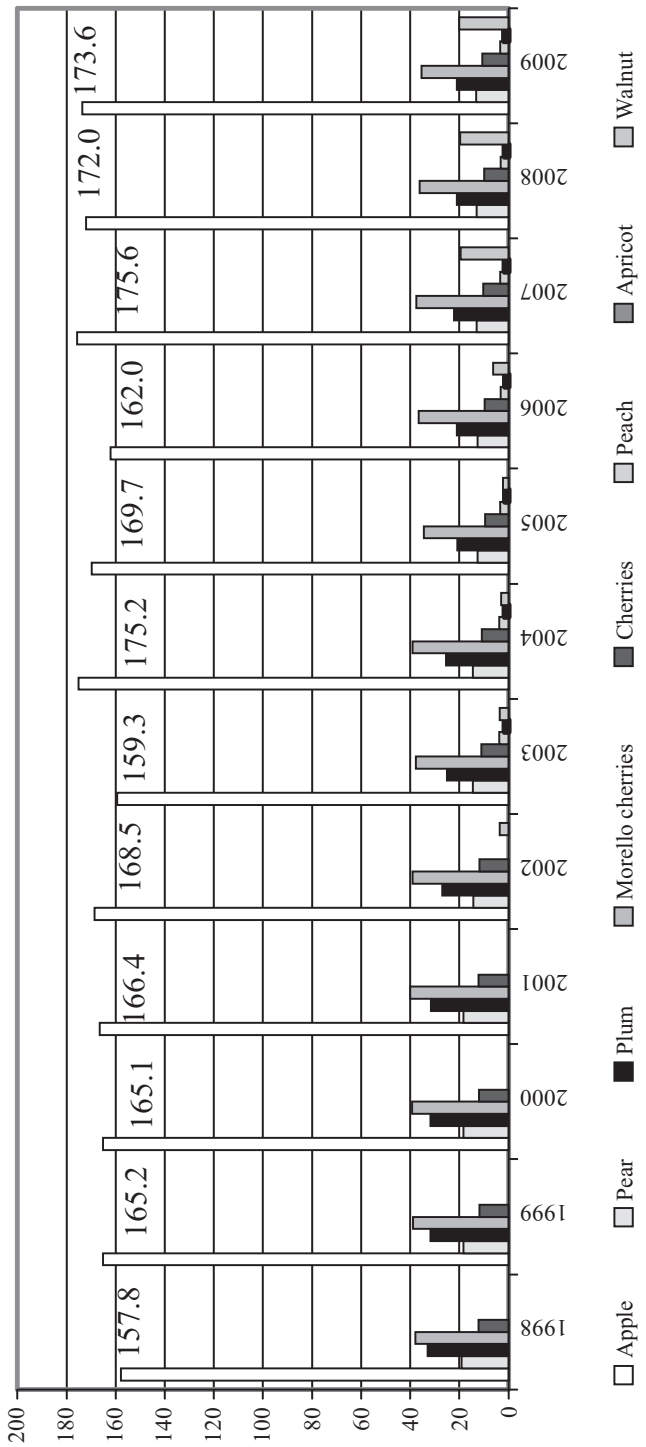

Fig. 3. Area of fruit tree crops in the period 1998–2009 (thousand ha)
Rys. 3. Obszar upraw drzewek owocowych w latach 1998–2009 (w tys. ha)

Source: Own elaboration on the base of data of the CSO, included in the publication: Wyniki produkcji roślinnej from the period 1999–2010.
Źródło: Opracowanie własne na podstawie GUS, uwzględniając publikację: Wyniki produkcji roślinnej z lat 1999–2010.

In the case of apples, there should be indicated increasing competitiveness of varieties from producers outside the EU on international markets (outside of domestic market). Also observation of consumers' preferences, especially on international markets, can contribute to increase in competitiveness of domestic producers. Competitiveness of fruit growers is also improved by selection of attractive fruit varieties with simultaneous maintaining their diversity. Permanent exchange of old varieties in Polish orchards contributes to improvement of assortment structure on domestic market and adjustment to foreign requirements. A dominating position in a variety structure of apples was occupied in 2009 by: Idared (27 948 ha), Jonagold (19884 ha), Szampion (17 650 ha), Gloster (10 346 ha), and Cortland (15 005 ha). High changeability of apple harvests is a characteristic feature of the Polish fruit production (Table 1). Harvest volume of particular apple varieties was not equal in the analyzed period 1999–2009. In the case of Idaret, harvests were achieved at a level from 128 thousand tons to 443 thousand tones, for Lobo from 78 to 236 thousand tones, and for Cortland from 76 to 245 thousand tones (minimal values and medians for the rest of apple varieties are presented in the Table 1).

Table 1. Maximal, minimal values and median of crops volume of selected main apple varieties in Poland in the period 1999–2009 (expressed in dt)

Tabela 1. Wartości maksymalne, minimalne oraz mediana wielkości zbiorów wybranych podstawowych odmian jabłek w Polsce w okresie 1999–2009 (wyrażone w dt)

Varieties of fruits	maximal harvest volume	median	minimal harvest volume
Idaret	4 428 929	3 438 208.5	1 277 314
Lobo	2 363 978	2 014 224.5	787 927
Cortland	2 445 574	2 020 215	758 848
Jonagold	3 356 975	2 189 487.5	988 575
Szampion	3 078 771	2 075 103	858 272
Gloster	2 105 846	1 462 135.5	503 734
Ligol	1 519 899	828 491.5	161 329

Source: Own elaboration on the base of data of the CSO included in the publication: Wyniki produkcji roślinnej… from the period 1999–2010.

Źródło: Opracowanie własne na podstawie GUS, uwzględniając publikację: Wyniki produkcji roślinnej z lat 1999–2010.

Yielding changeability of particular varieties is important because of income stability and as a result because of profits of horticultural farms. At the same time, selection of varieties requiring less nursing treatments is important from a perspective of costs. There can be indicated new verities, which are characterized by highest resistance to apples scab, which decreases costs of plant protection substances in farms. For example Freedom, Floriana, Sawa, and Odra are the varieties resistant to apple scab. At the same time sensory assessment of majority of varieties indicates that their taste is not significantly different from apples cultivated as dessert ones [Kruczyńska, Rutkowski 2003]. More considerable yielding changeability of particular apple varieties can be seen during analyses of crop volume per 1 ha of fruit crops. Yields of Idaret ranged from 46.1 dt in 2007 to 162.7 dt in 2003. The highest crops per 1 ha were achieved for majority of apple varieties in 2008.

ECONOMIC SITUATION OF FARMS WITH PERMANENT CROPS – FADN PERSPECTIVE

According to the FADN methodology farm income consists of: gross added value calculated as total output reduced by intermediate consumption and increased by balance of subsidies and taxes of operational activity. Gross added value reduced by deprecation of production factors allows calculating farm net value added, which reduced by total external costs as wages, rent, and interest paid and increased by subsidies gained as a result of investment activity gives family farm income (Figure 4). Assessment of total output (plant crops and products) indicates significant increase in fruit production value

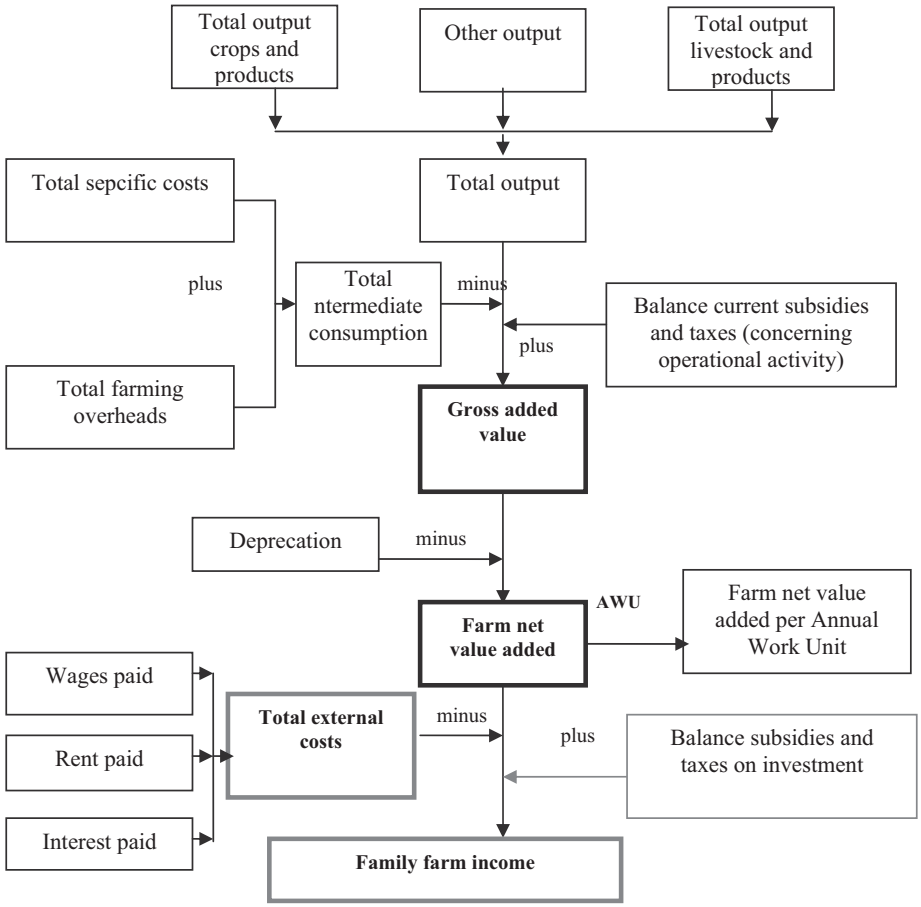

Fig. 4. Scheme of family farm income calculation according to FADN
Rys. 4. Schemat obliczania dochodu rolniczego rodziny według FADN

Source: Wyniki standardowe uzyskane przez indywidualne gospodarstwa rolne uczestniczące w Polskim FADN w 2004 roku, cześć I. Wyniki standardowe, Polski FADN, Warszawa 2006.
Źródło: Wyniki standardowe uzyskane przez indywidualne gospodarstwa rolne uczestniczące w Polskim FADN w 2004 roku, cześć I. Wyniki standardowe, Polski FADN, Warszawa 2006.

only in specialist farm conducting permanent crops. Fruit value in this group constituted 79–87% of total production in the analysed period. At the same time only in farms of arable farming, value of sold fruit ranged from 4 to 5%. Analysis of production from farms with permanent crops displays that there was significant decrease in income in 2008 and 2009 compared to the pervious years.

A level of total family farm income depends on a selected direction (type) of agricultural production. The lowest income was achieved every year by farms of diversified type. A level of income in these farms was 21.39 thousand zlotys in 2006 and it has been systematically decreasing since 2006 [Orłowska 2010] till 16.78 thousand zlotys (decrease by 21.55% compared to the level in 2006). Decline of family farm income was noticed almost in all groups, including also farms with permanent crops, except from horticultural farms and farms with *grain* eating livestock. Fruit growers noticed the largest decrease in income in the analyzed period – from 37.30 thousand zlotys in 2007 to 17.66 thousand zlotys and 16.47 thousand zlotys respectively in 2008 and 2009. The main reason of decline of income in farms with permanent crops results from increase in direct costs and simultaneous decline of total production value from 94 thousand zlotys in 2007 to 79 thousand zlotys in 2009. This decrease was the largest one within all types of farms. Income from farms with permanent crops was lower than income gained by farms of diversified type. An observation of structure of income of farms allows to stating that after increase in income in specialist farms with animal production and fruit production lasting a few years, there was a breakdown in income in these agricultural types (Figure 5). The economic situation of farms aiming at permanent crops suffered significant worsening in the analyzed period.

The highest input of work was put in farms specializing in horticultural production and permanent crops (including orchards). In these types of farms hired workforce constituted for example in 2008 the highest proportion, respectively 34% and 35% for perma-

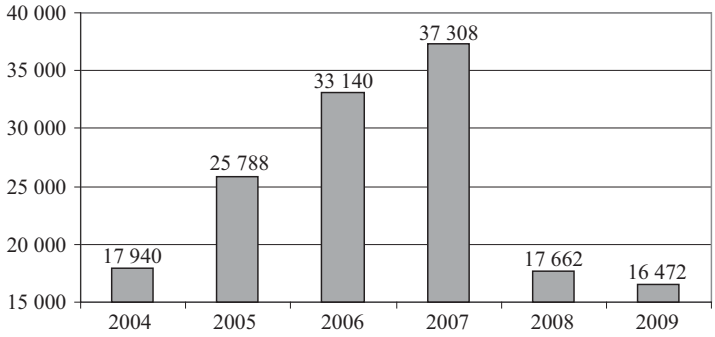

Fig. 5. Family farm income from a farm with permanent crops (zloty)
Rys. 5. Dochód rolniczy rodziny z gospodarstwa z uprawami trwałymi

Source: Own elaboration on the base of data from FADN, for example: L. Goraj, S. Mańko, D. Osuch, R. Płonka, Wyniki standardowe uzyskane przez gospodarstwa rolne uczestniczące w Polskim FADN [years 2004–2010], wyd. IERiGŻ, Warszawa.

Źródło: Opracowanie własne na podstawie danych FADN, np. L. Goraj, S. Mańko, D. Osuch, R. Płonka, Wyniki standardowe uzyskane przez gospodarstwa rolne uczestniczące w Polskim FADN [lata 2004–2010], wyd. IERiGŻ, Warszawa.

nent crops [Wyniki standardowe uzyskane przez gospodarstwa rolne... 2009]. Income per one full-time person increased in the analyzed period (since 2004 to 2007) but after that it broke down to a level of 15 thousand zlotys. Decline of income was more significant in a case of family farm income per one full-time person – to a level of 12.5–13 thousand zlotys (Figure 6).

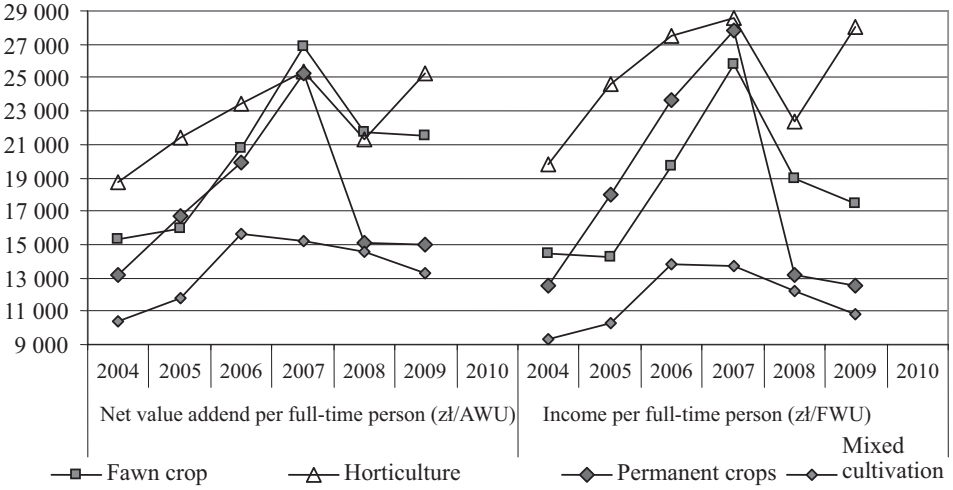

Fig. 6. Income per person in farms with permanent crops on the background of other types of farms with plant production in the period 2004–2010 (data from FADN expressed in zloty/AWU and zloty/FWU)

Rys. 6. Dochód na osobę w gospodarstwach z uprawami trwałymi na podstawie innych typów gospodarstw z produkcją roślinną w latach 2004–2010 (dane z FADN wyrażone w złotych/AWU I złotych/FWU)

Source: Own elaboration on the base of data from FADN, for example: L. Goraj, S. Mańko, D. Osuch, R. Płonka, Wyniki standardowe uzyskane przez gospodarstwa rolne uczestniczące w Polskim FADN [years 2004–2010], wyd. IERiGŻ, Warszawa.

Źródło: Opracowanie własne na podstawie danych FADN, np. L. Goraj, S. Mańko, D. Osuch, R. Płonka, Wyniki standardowe uzyskane przez gospodarstwa rolne uczestniczące w Polskim FADN [lata 2004–2010], wyd. IERiGŻ, Warszawa.

CONCLUSIONS

Despite of decline connected with considerable decrease of income, fruit growing is one of the most dynamically growing branches of agriculture, which is proved by increase in area of orchards. Specialization resulting from concentration of fruit selling on foreign markets, mainly on the Eastern markets, but also on markets in countries accepting the highest level of fruit quality in wealthy Arab and Asian countries, is one of possible change directions. An observation of consumers' preferences, especially on international markets, can contribute to increase in competitiveness of domestic producers. Undoubtedly, rise of orchard area takes place in Poland, which on the one hand can be interpreted as a positive signal for market because it concerns investments in farms but on the other

hand it can be an attempt of saving income of households through increase in cultivation area. Some producers, especially possessing a small area and diversified varieties of fruit production as well as paying high costs of orchards running for example because of selection of cost-consuming varieties, can be eliminated from market in the closest future. It is in compliance with conclusions formulated by other researchers that there is increasing specialization and a rising number of fruit producers operating on a high European level taking into account both quantity as well as quality. The main areas of fruit production concentration seem to be such regions as: mazowieckie, lubelskie and łódzkie.

It should be stressed that in the situation of decrease in income of fruit producers there is for example a necessity of adjustment of varieties structure of fruit tress, which are less sensitive for different kinds of pathogens. According to the FADN data, decline of income took place in the case of permanent crops, especially in the period 2008–2009 and it is possible that this tendency will also occur in the next years. There was the largest decrease of income in farms with permanent crops from 37.3 thousand zlotys in 2007 to 16.5 thousand zlotys in 2009. This decrease was the most significant in a group of all types of farms. It is worth stressing that income from farms with permanent crops was lowest that income from farms of diversified type. Decline of income was also noticed in the case of assessment of workforce input in farms specializing in horticultural cultivation and permanent crops. Income per one full-time person was on the level of 15 thousand zlotys and family farm income per one full-time-person was on the level of 12.5–13 thousand zlotys. It is a very low value taking into account a level of minimal income in the economy.

REFERENCES

Golinowska M., 2002. Ekonomiczno-organizacyjne problemy ochrony roślin w sadach o integrowanej produkcji owoców, Acta Scientarum Polonorum – Oeconomia, nr 1 (1–2).

Goraj L., Mańko S., Osuch D., Płonka R., 2010. Plan wyboru próby gospodarstw rolnych Polskiego FADN od roku obrachunkowego 2009, wyd. IERiGŻ-PIB, Warszawa.

GUS, 2003. Pozarolnicza działalność gospodarstw rolnych 2002, Wyd., Warszawa 2003.

GUS, 2005. Gospodarstwa rolne grupy obszarowe a kierunki produkcji 2002, Warszawa.

GUS, 2007. Rocznik Statystyczny Rolnictwa i Obszarów Wiejskich, Warszawa 2007.

GUS, 2008. Rocznik Statystyczny Rolnictwa i Obszarów Wiejskich, Warszawa.

Kruczyńska D., Rutkowski K., 2003. Nowe polskie odmiany jabłoni odporne na parcha, Hasło Ogrodnicze, nr 8, [www. ho.haslo.pl].

Makosz E., 2005. Wizja rynku owocowego w Polsce, [in:]: XLIV Zjazd Sadowników, wyd. Instytut Sadownictwa i Kwiaciarstwa w Skierniewicach, Skierniewice.

Mika A., 2002. Nowoczesna uprawa grusz, w: VII Ogólnopolskie Spotkanie Sadowników w Grójcu „Sadownictwo polskie konkurencyjne dla Unii Europejskiej", Grójec.

Orłowska M.J., 2010. Sytuacja dochodowa gospodarstw o różnym kierunku produkcji [w:] Acta Sci. Pol. – Oeconomia, 9 (2).

Pizło W., 2000. Dystrybucja owoców i warzyw w Polsce, Marketing i Rynek, nr 8–9.

Pizło W., 2001. Rynek owoców w Polsce i wybranych krajach Unii Europejskiej – ujęcie teoretyczne i empiryczne, Wyd. SGGW, Warszawa.

Pizło W., 1999. Specyfika marketingu owoców i warzyw, Marketing i Rynek nr 4.

Poziom i struktura dochodów rodzin rolniczych z gospodarstw prowadzących rachunkowość w 2009 r., oprac. L. Goraj, S. Mańko, P. Michalak, wyd. IERiGŻ-PIB, Warszawa 2010.

Stachak S., 1999. Wstęp do metodologii nauk ekonomicznych, Wyd. Książka i Wiedza, Warszawa.
Wyniki standardowe uzyskane przez indywidualne gospodarstwa rolne uczestniczące w Polskim FADN w 2006 roku, cześć I. Wyniki standardowe, Polski FADN, Warszawa 2006.
Wyniki standardowe uzyskane przez gospodarstwa rolne uczestniczące w Polskim FADN w 2008 roku, wyd. IERiGŻ-PIB, Warszawa 2008.
Wyniki standardowe uzyskane przez gospodarstwa rolne uczestniczące w Polskim FADN w 2008 r. część II. Analiza wyników standardowych, Polski FADN, Warszawa 2009.
Wyniki standardowe uzyskane przez indywidualne gospodarstwa rolne uczestniczące w Polskim FADN w 2008 roku, częśc I. Wyniki standardowe, Polski FADN, Warszawa 2010.

SYTUACJA EKONOMICZNA POLSKICH GOSPODARSTW SADOWNICZYCH W LATACH 1999–2009

Streszczenie. W artykule przedstawiono ocenę sytuacji w polskich gospodarstwach sadowniczych. Wskazano na wzrastającą powierzchnię upraw owoców, sięgającą w 2009 r. 331 tys. ha. Zwrócono uwagę na dominację upraw jabłoni w strukturze odmianowej, a szczególnie takich odmian jak: Idared, Lobo, Cortland. W dalszej części artykułu przedstawiono, na podstawie zagregowanych danych FADN sytuację dochodową gospodarstw dysponujących uprawami trwałymi (w tym gospodarstw sadowniczych). Zwrócono uwagę na spadek przeciętnych dochodów rolniczych w tych gospodarstwach z 37 tys. zł w 2007 do 16 tys. zł w 2009 r. z uwagi na mniejszą wartość produkcji oraz wzrost kosztów ogółem. Wskazano ponad to, ze średnio dochody rolników posiadających uprawy trwałe były niższe niż dochody uzyskiwane w grupie gospodarstwo typie mieszanym.

Słowa kluczowe: ogrodnictwo, dochód rolniczy, sady, Polska

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