

BIBLIOGRAFIE

1. Anuarul statistic al Republicii Moldova, 2010. Biroul Național de Statistică al Republicii Moldova, Chișinău, 2010.
2. Moldova în cifre. Breviar statistic. Chișinău, 2011.
3. Matei, C. et al. Cartea Verde a Populației Republicii Moldova. Chișinău: Statistica, 2009, 56 p. ISBN 978-9975-4034-9-8.
4. Piața muncii din Moldova: tendințe și pronosticuri. *Vocea poporului*, nr. 5, 27 mai 2011.
5. Populația Republicii Moldova pe vârste și sexe, în profil teritorial la 1 ianuarie 2011. Culegere statistică, Chișinău, 2011.

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POLICY OF BEEKEEPING DEVELOPMENT IN POLAND

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Abstract. Apicultura este o parte importantă a agriculturii din Polonia, datorită importanței albinelor în polenizarea culturilor agricole. În 2008, valoarea de polenizare a livezilor a fost estimată de la 1,7 până la aproape 3 miliarde zloți polonezi (PLN). Cu toate acestea, pierderile de recoltă care rezultă din numărul redus de insecte polenizatoare a variat de la 1,1 la 2 miliarde PLN, în acest an. Scopul studiului a fost de a arăta modul de sprijinire a apiculturii în Polonia înainte și după aderarea acesteia la Uniunea Europeană și pentru a determina nevoia de a produce schimbări în acest domeniu. Polonia, de la aderarea sa la UE, participă la toate activitățile din cadrul programului de susținere a apiculturii. Ponderea resurselor utilizate a crescut de la 54% în 2005/06, la peste 90% în ultima perioadă. Cea mai mare parte de fonduri a fost alocată pentru a sprijini lupta împotriva virurilor (40%) și repopulării cu albine (36%). Este rezonabil să se corecteze unele dintre direcțiile de sprijin, astfel încât să fie sprijinită pe deplin dezvoltarea apiculturii. Astfel ar trebui să fie introduse noi acțiuni, iar un exemplu de o astfel de acțiune poate fi promovarea tinerilor apicultori.

Cuvinte cheie: Apicultură, Polenizare, Polonia, Sprijin, Uniunea Europeană.

INTRODUCTION

Beekeeping is an important sector of Polish agriculture, mainly due to the role of insects in the pollination of plants. Due to insects' pollination we can obtain higher yields of many crops. The most important of them are rape, fruit crop and berry plantations. Pollination is also an important element in maintaining the biodiversity of the natural environment. The value of products, which are the result of crop pollination by bees, exceeds many times the value of products produced by these insects (Prabucki, 1998). This indicates the need to maintain the bees, especially since it is practically impossible to replace these insects in the pollination of plants by other animals, or by the mechanization of this operation. Bee products represent somehow an added benefit of bee culture, but even if insects do not provide any products it would be necessary to maintain the culture of bees for the pollination of plants.

The most important source of beekeepers' income in Poland is selling honey. Additional income from this activity can be obtained from the sale of other bee products, queens or bee families and relatively few beekeepers are paid for the rental of bees for plant pollination. In general, if the beekeeper wants to put the hives of bees near the plantations, this is done either without any charge or the beekeeper pays to the farmer (Madras-Majewska, Majewski, 2007). This fact discourages beekeepers to transport bees to crop plantations characterized by low yield of honey. At the same time it causes a decrease in yield of these crops. In 2009, the pollination value of fruit crops was estimated between 1,1 and almost 2 billion polish zloty (PLN)¹, and for rape crops from 0,6 to 0,9 billion PLN. By contrast, the

¹ PLN – Polish zloty. The exchange rate of PLN in the National Bank of Poland: 1 EURO = 4.316 PLN, 1 RON = 0.9717 PLN. Exchange rates – archive. Table No. 093/A/NBP/2012 of 2012-05-15. Available at: <http://www.nbp.pl/homen.aspx?navid=archen&c=/ascx/TabArchEn2.ascx&n=12a093en> [Accessed: 20.05.2012].

yield loss value, as a result of too small number of pollinators, was estimated between 0,7 – 1,3 billion PLN in the orchards and from 0,4 to 0,6 billion PLN in rape plantations (Majewski, 2010).

European Union's agricultural policy is based on the principles of sustainable rural development, which meet the needs of the present generation without compromising future generations. This fact increases the importance of bees for agriculture and environment development. But, it also requires external support for the activities of beekeepers.

The aim of the article is to indicate the direction and amount of beekeeping activity support in Poland and the need for change in this respect. A particular attention was paid to the period of Polish admittance to the EU.

MATERIAL AND METHOD

The study used data collected by the Agricultural Market Agency (AMA), Ministry of Agriculture and Rural Development (MARD), Polish Beekeeping Association, Research Institute of Horticulture, Apiculture Division in Pulawy, Central Statistical Office (CSO), as well as specialized beekeeping literature.

The paper presents the fundamental quantitative information on beekeeping in Poland, such as: the number of beekeepers, number of bee families, and structure of bee families by the number of hives in the apiary. It also shows the size and structure of support for the polish beekeeping sector.

RESULTS AND DISCUSSION

There are about 50 thousand beekeepers in Poland. The number of bee families increased from 1092 thousands in 2006 to 1125 thousands in 2011, i. e. an increase of 14% (Pszczelarstwo ... 2012). The structure of apiaries in Poland is dominated by small bee colonies – up to nine hives, representing more than 70% of the apiaries. The apiaries having from 10 to 49 hives represented almost 25%, while more than 5% of all apiaries had 50 or even more bee families (Zwierzęta... 2012).

Such a fragmented production is unfavorable for economic reasons, because it causes difficulties in obtaining a satisfying income. However, because of natural reasons, it is beneficial because it helps pollination of a large area of the country. The difficulties in obtaining a stable income from beekeeping and the role of bees as pollinators of plants, including many crops, require to support the beekeeping sector. Before the admittance of Poland into the structure of EU, beekeeping has been supported by such interventions as the purchase of honey from beekeepers or selling beekeepers sugar at a preferential price. Moreover, the Polish market was protected against imported honey by the entering duty. Another activity to support the beekeeping sector was the subsidy for advances in biological research on bee breeding.

The admittance of Poland to the European Union led to changes in the conduct of agricultural policy. Polish activities have to be compatible with the rules of the Common Agricultural Policy. Under this policy, which is also a support for the beekeeping sector, special programs are being prepared, which indicate the directions of activities for beekeeping support during the next three-year period. The value of subsequent budgets increased. The program implemented in the period 2004/05-2006/07 had a budget of EUR 11,7 million, another program - 13.3 million, and the last - 15,1 million (Pszczelarstwo... 2012). Currently, the use of subsidies in beekeeping activities was approved by the European Commission and National Beekeeping Support Programme in Poland for the years 2010/11, 2011/12, 2012/13. The European Union provides financial support for the following activities:

- I. Technical assistance for beekeepers and beekeeping organizations.
- II. Support for the activities of prevention and control of varroa.
- III. Rationalization of the transportation of bee families.
- IV. Measures to support laboratories carrying out analyses on the physico-chemical properties of honey.
- V. Actions to increase the number of hives in the EU.
- VI. Cooperation with specialized bodies for the implementation of applied research programs to improve the quality of honey.

Each year, the number of submitted projects for implementation under the support programs for beekeeping varied from 216 to 358 (Figure 1). The largest number of received applications was recorded in the last two periods. Interested beekeepers are attracted mainly by three areas of support: technical

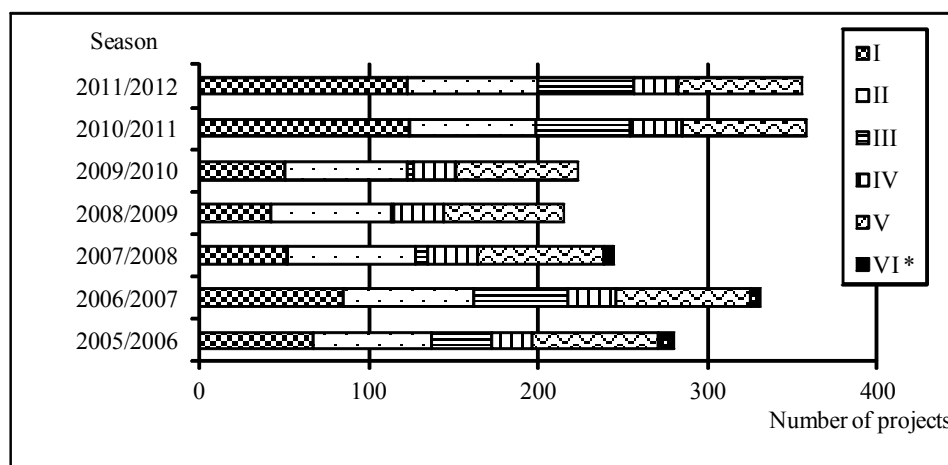


Figure 1. The number of projects proposed for implementation in various fields of activity in the period 2005-2012

Source: Sprawozdania Agencji Rynku Rolnego, passim 2006-2011, unpublished data of Agricultural Market Agency (AMA).

* - field of activity, character according to the sign directions of support given in the text of the article.

assistance (I), to combat viruses (II) and support the restocking of bees (V). The share of total applications to these destinations constituted between 73 and 88% of all applications. The lowest number of applications was recorded in connection to the activities concerning the cooperation of beekeepers with research institutions.

In certain years, the value required for the implementation of the accepted projects ranged from PLN 17,2 million in 2007/08 to over PLN 22,4 million in 2011/12. The increase in the amount of support was the result of greater amounts of support for beekeeping development and of the higher exchange rate of euro relative to Polish zloty, as the currency is determined by the amount of support. The rule is that the money allocated to support the beekeeping is not used. It results from the fact that some of projects accepted for implementation are not later settled. The difference between the value of the projects selected for implementation and those cleared fell from 5.15 million zł in 2005/06 to 1.72 million zł in 2010/11, respectively, representing 27.5% and 8.6% of the funds allocated for use. The systematic decrease of this value indicates that the beneficiary spent money for purposes consistent with the guidelines set by the AMA.

The value of projects settled in subsequent periods increased (Figure 2). The largest share of the amount settled in the following periods was for the activities II and V, and in the last years for the activity I. The presented values indicate increasingly better use of support by beekeepers. According

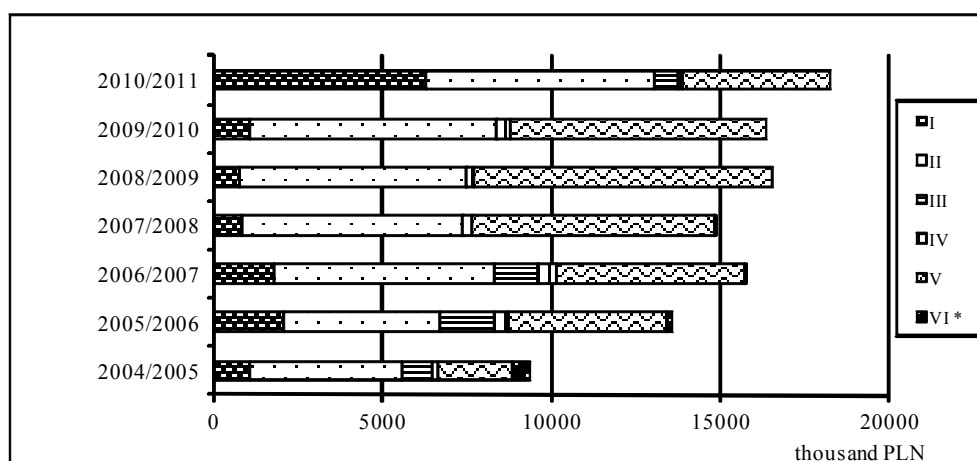


Figure 2. The value of projects accepted by AMA in various fields of activity in the period 2005-2011

Source: see figure 1.

to the AMA, the proportion of funds in the supporting mechanism increased steadily from 54% in 2004/05 to 76%, 82% and 87% in the next three seasons and up to 90-91% in the seasons 2008/09, 2009/10 and 2010/11. A similar situation occurred in other EU countries. In Romania, the use of EU funds has increased from 16,8% in 2008 to 99,8% in 2010 (Pocol, 2011). This fact indicates the validity of this mechanism and its adjustment to the needs of the beekeeping sector.

CONCLUSIONS

Beekeeping is an activity whose effects are being felt simultaneously by the beekeeper, the farmer and the environment. These effects are mainly due to the role of these insects in the pollination of plants. Taking into account the significant role of bees in the ecosystem development it is important to maintain an adequate number of these insects in the environment. For this purpose, the mentioned activities should be supported both directly and indirectly.

In Poland, the beekeeping was supported both before and after its admittance to the European Union. In the period before the admittance of Poland to the EU, the support for beekeeping development mainly concerned the purchase of honey from beekeepers and sales of sugar at a preferential price to feed the bees. But since Poland entered to EU, the support for beekeeping is governed by the EU. It consists in the financing activities in this sector under the "Support for bee products market". Ever since, in Poland, the implementation of this mechanism is achieved in all the six activities that concern technical assistance for beekeepers, supporting the activities of prevention and control of viruses, seasonal transportation of bees, supporting the laboratories analyzing the properties of honey, increasing the bee population and cooperation with the units implementing research programs in beekeeping.

The money used to support beekeeping in Poland is used increasingly. The proportion of funds increased from 54% in 2005/06 to over 90% in the last period. The increase in the proportion of measures points out to the increasingly better understanding of the mechanism by the beekeepers. The support is used primarily to prevent and control the viruses and reconstruct bee populations. For these purposes, it was spent on average about 40 and 36% respectively.

The presented results indicate the need to support the beekeeping sector. But not all the possible activities were as well implemented under the support mechanism. It is necessary to examine whether certain activities, such as cooperation with specialized research centers within research programs should be withdrawn and replaced by others, such as encouraging young people to become beekeepers.

REFERENCES

1. Madras-Majewska B., Majewski J. Produkcja i ceny miodu w badanych pasiekach w Polsce. *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu*, 2007, vol. 9, No. 1, p. 298-302.
2. Majewski J. Straty wynikające z niewystarczającej liczby zapylaczy – próba szacunku. *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu*, 2010, vol. 12, No. 1, p. 122-127.
3. Pszczelarstwo i rynek miodu w Polsce, 2012, materiały informacyjne MRiRW. Available at: [http://www.minrol.gov.pl/pol/Ministerstwo/Biuro-Prasowe/Informacje-Prasowe/ Pszczelarstwo-i-rynek-miodu](http://www.minrol.gov.pl/pol/Ministerstwo/Biuro-Prasowe/Informacje-Prasowe/Pszczelarstwo-i-rynek-miodu) [Accessed: 15.03.2012].
4. Prabucki J. *Pszczelnictwo*. Szczecin: Wydawnictwo Promocyjne „Albatros”, 1998. POCOL C.B. Sustainable policies for the development of beekeeping in Romania. *Scientific Journal Warsaw University of Life Sciences – SGGW Problems of World Agriculture*, 2011, vol. 11, No. 2, p. 107-114.
5. Sprawozdanie z działalności Agencji Rynku Rolnego. Warszawa: ARR, passim 2006-2011.
6. Zwierzęta gospodarskie i wybrane elementy produkcji zwierzęcej. Powszechny Spis Rolny 2010. Warszawa: GUS, 2012.

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