

Krzysztof Róžański

Poznań University of Life Sciences

e-mail: krzysztof.rozanski@up.poznan.pl

ORCID: 0000-0003-2467-6403

CURRENT PROBLEMS FACING APICULTURAL ACTIVITY: ECONOMIC AND LEGAL PERSPECTIVE

Abstract

Scientific surveys, reports, and publications identify current threats to beekeeping, which include biological, chemical, environmental, economic, and legal factors. The last two, in particular, involve challenging circumstances that significantly undermine the national beekeeping sector. The aim of this article is to identify main problems of an economic and legal nature that pose threat to contemporary apicultural activity, and to offer some suggestions to solve them. The research results reveal main shortcomings of the beekeeping sector in Poland, among them lack of appropriate use of the pollinating activity of bees, which could contribute to a significant increase of the profitability and efficiency of apicultural activity. In the author's opinion, both Polish agricultural entrepreneurs and beekeeping producers fail to take advantage of nomadic beekeeping and the so-called "pollination contracts", which are successfully implemented e.g. in the United States. Furthermore, enhancing performance of the domestic beekeeping sector is possible – investments should be made to improve the resilience and competitiveness of the beekeeping industry, including the development of human capital by encouraging the younger generation of farmers to take up employment in the beekeeping sector. Consideration should also be given to a system of support for beekeeping and its taxation, so that amateur beekeepers can also benefit from the aid, while all beekeepers would be taxed in proportion to their income.

KEYWORDS

beekeeping, apicultural activity, economic perspective, legal aspects,

SŁOWA KLUCZOWE

pszczelarstwo, działalność pszczelarska, perspektywa ekonomiczna, aspekty prawne

1. INTRODUCTION

Scientific surveys, reports and publications identify current threats to beekeeping, which include biological, chemical, environmental, economic and legal factors¹. The last two, in particular, involve challenging circumstances that significantly undermine the national beekeeping sector. The aim of this article is to identify main problems of an economic and legal nature that pose threat to contemporary apicultural activity, and to offer suggestions to solve them.

Economic factors endangering the apicultural activity are remarkably diverse. To start with, the occurrence of the syndrome known as Collony Collapse Disorder will be highlighted². It refers to the gradual but dynamic decline in number of bee colonies in Eastern Europe, which began in the 1990s and resulted in abandoning by beekeepers their activity in face of the lack of state support in order to remedy this condition³. An overwinter colony loss rate of 10 per cent is usually considered as normal in bee production systems⁴. Higher rates of loss occurring in some areas are causing important economic losses and its unpredictable nature is a source of uncertainty which could limit recruitment of a new generation of

¹ See Deloitte, Evaluation of the CAP measures related to apiculture: Agriculture and rural Development. DG Final Report 2013, pp. 37–43; P. de la Rúa, R. Jaffé, R. Dall’Olio, I. Muñoz, J. Serrano, *Biodiversity, conservation and current threats to European honeybees*, "Apidologie" 2009, Vol. 40, No. 3, pp. 163–184; J. Majewski, *Pszczelarstwo w Polsce – wybrane problemy ekonomiczne*, "Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu" 2012, No. 450, pp. 369–377; M. Kucharczyk *et al.*, *Problemy pszczelarstwa w Polsce*, "Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu" 2017, No. 494, pp. 123–131.

² Deloitte, *op. cit.*, pp. 37–38.

³ Many reports and scientific articles have been published on this subject, such as the following: E. Capri, A. Marchis, *Bee health in Europe: Facts & Figures 2013*, Report of Opera Research Center 2013, pp. 1–64; P. Hristov, R. Shumkova, N. Palova, B. Neov, *Honey bee colony losses: Why are honey bees disappearing?*, "Sociobiology" 2021, Vol. 68, issue 1, pp. 1–13.

⁴ Deloitte, *op. cit.*, pp. 37–38.

beekeepers. The decline in the number of bee colonies can consequently be considered both a cause and an effect of the decline in the number of beekeepers.

Another element reducing the profitability of the beekeeping sector is the price of treating bee diseases. It has increased to the extent that the treatment cost may equal or exceed the income from a colony for an entire year⁵. The fact that the relative profitability of beekeeping operations is likely to exert major influence on the number of managed colonies has been reported in several reports⁶. However, interviews with stakeholders have confirmed that little or no systematic information can be found on the economic aspects and challenges of beekeeping in Europe. While some national evaluations might be available, there is no comprehensive EU-wide study publicly available to evaluate the economic situation of the beekeeping sector. It is therefore difficult to go further in this economic analysis.

Apart from economic threats related to production, several reports mention the existence of marketing difficulties faced by European beekeepers⁷. Among other difficulties, some stakeholders have mentioned the difficulties to compete with the low prices of imported honey. Additionally, the professional European agricultural association COPA COGECA⁸ pointed out that the marketing problems that beekeeping is facing in Europe are related to the lack of market information, such as market statistics and forecasts, and to the difficulties in placing the products on the market. The last one is exacerbated by the heterogeneous marketing standards for certain hive products, by unfair practices of adulteration of honey, and by residues in hive products.

In addition, attention should be drawn to other economic aspects, such as the role of pollination and its importance for agriculture and rural development, as well as the impact it has on food security and the environment, both in the European Union and in Poland alone. Bees of the *Apis mellifera* species pollinate over 80 per cent of the world's arable crops⁹. It is estimated that the contribution of

⁵ S.G. Potts *et al.*, *Declines of managed honey bees and beekeepers in Europe*, "Journal of Apicultural Research" 2010, Vol. 49, issue 1, pp. 15–22.

⁶ *Ibidem*.

⁷ Working Party on Honey of Committee of Professional Agricultural Organisations – General Confederation of Agricultural Cooperatives, *European Beekeeping at a crossroads. Strategic plan proposed by European beekeepers*. Survey prepared by: COPA COGECA 2009, <<http://www.biodlarna.se/website/1/10.0.1.0/158/Strategisk%20plan%20Copa%20091118.pdf>> (accessed 2.01.2022).

⁸ This acronym stands for: Committee of Professional Agricultural Organisations – General Confederation of Agricultural Cooperatives.

⁹ B. Madras-Majewska, J. Majewski, *Zmiany w światowym pszczelarstwie z uwzględnieniem miejsca Polski*, "Problemy Rolnictwa Światowego" 2008, Vol. 4 (XIX), p. 281.

honeybees to EU agriculture amounts to about 22 billion euro¹⁰, of which about 1.5 billion euro in Poland¹¹.

2. ECONOMIC FACTORS INFLUENCING CARRYING OUT APICULTURAL ACTIVITY

In the Polish beekeeping sector, the harvest of numerous crops depend on pollination by these insects and, according to various estimates, the value of the crops obtained through pollination is several to one hundred times greater than the value of the products generated by these insects¹². In Poland, pollination is required for fruit crops, fruit bushes, permanent crops, oilseed rape, and buckwheat, among others¹³. The annual agricultural benefits from such pollination for oilseed rape amount to some 600–700 million zlotys, while for fruit crops it is even more than 3 billion zlotys¹⁴. It is claimed in the literature that the current number of bee colonies is approximately twice as insufficient to pollinate arable crops in Poland¹⁵. This contributes to lower yields and poorer quality harvests for farmers. It is worth mentioning, however, that the number of bee colonies in Poland is steadily increasing. According to data made available by the Veterinary Inspection, there were approximately 1.77 million bee colonies in Poland in 2020¹⁶. Compared to 2019, an increase in the number of bee colonies of 5.2 per cent has been reported¹⁷.

So far, the use of bees for the purpose of intentional pollination of agricultural fields has not been, and still is not, exploited in Poland¹⁸. As part of such

¹⁰ Official website of the European Commission – Food Security, https://ec.europa.eu/food/animals/live-animals-trade-imports/honey-bees_en (accessed 11.05.2021).

¹¹ See J. Majewski, *Pszczoły w biogospodarce – znaczenie i wartość ekonomiczna*, "Roczniki Naukowe SERiA" 2016, Vol. 18, issue 4, pp. 172–177.

¹² J. Majewski, *Pszczelarstwo w Polsce...*, p. 209.

¹³ J. Majewski, *Pszczelarstwo i jego rola dla rolnictwa polskiego*, "Roczniki Nauk Rolniczych". Seria G 2010, Vol. 97, issue 4, p. 127.

¹⁴ P. Semkiw, *Pszczelarstwo w Unii Europejskiej*, "Pszczelarstwo" 2007, No. 8, p. 10; A. Borowska, *Stan i perspektywy rozwoju pszczelarstwa w Polsce ze szczególnym uwzględnieniem miódów regionalnych*, "Zeszyty Naukowe Szkoły Głównej Gospodarstwa Wiejskiego w Warszawie. Problemy Rolnictwa Światowego" 2011, No.11(26), issue 4, p. 37.

¹⁵ J. Majewski, *Pszczelarstwo jako czynnik wpływający na konkurencyjność w rolnictwie*, "Stowarzyszenie Ekonomistów Rolnictwa i Agrobiznesu. Roczniki Naukowe" 2008, Vol. X, issue 4, p. 256.

¹⁶ P. Semkiw, *Raport. Sektor pszczelarski w Polsce w 2020 roku*, Puławy 2020, p. 2.

¹⁷ *Ibidem*.

¹⁸ In contrast, as Z. Kołtowski demonstrates in highly developed countries, a significant proportion of beekeepers' income comes from renting out bee colonies to pollinate crops: Z. Kołtowski, *Znaczenie pszczoły miodnej w zapylaniu roślin entomofilnych*, "Pasięka" 2007, No. 2, pp. 36–40.

a solution, agricultural entrepreneurs would be able to obtain higher harvests, while beekeeping producers would gain the opportunity to diversify their sources of income related to the operation of beekeeping, i.e. income related to making bees available for the pollination of crops. Such a form of cooperation between agricultural producers and beekeepers is successfully implemented, e.g. in the United States, in the form of so-called pollination contracts¹⁹. In Poland, due, *inter alia*, to the relatively poorly developed structure of transhumance beekeeping (as compared with other countries of the European Union, e.g. Italy and Spain) such a solution has not yet been adopted²⁰. As a result, beekeepers most often do not receive any income from it, and often pay for the possibility to set up hives next to plantations²¹.

It is worth noting that the primary source of revenue from domestic beekeeping activities is therefore the sale of products generated by *Apis mellifera*, mainly honey. Due to the COVID-19 pandemic, domestic apiaries produced only 12.7 thousand tonnes of honey in 2020, which means that its production was lower by 5.4 thousand tonnes than in 2019 and by about 9.6 thousand tonnes compared to 2018²². As Majewski points out, the profitability of production activities in this area is fundamentally influenced by factors such as the volume of honey production, the cost of its production, and the selling prices, while in turn, the selling prices of honey are influenced by factors such as its quality and variety²³. The conducted research shows that the annual net income from an apiary, assuming that a beekeeper owns 200 bee colonies, would amount, in the case of selling honey to buying companies, from about 1 000 zlotys to 18 000 zlotys, while in the case of direct sales, from 21 000 zlotys to over 50 000 zlotys²⁴. As far as production efficiency is concerned, in the domestic beekeeping sector one bee colony produces on average 20 kg of honey per year, while in the case of mass production of honey in industrial apiaries, one bee colony can produce up to 40 kg of honey per year²⁵.

¹⁹ For more see E. Mader, M. Spivak, E. Evans, *Managing alternative pollinators: A handbook for beekeepers, growers and conservationists*, Ithaca 2010, pp. 9–14.

²⁰ Cf. L. Costato, *La disciplina dell'apicoltura*, "Rivista di Diritto Agrario" 2015, Vol. LXXIV Fasc., No.1, p. 116 *et seq.*; J.C. Salvachua Gallego, *La transhumancia en apicultura*, "Hojas Divulgadas" 1989, No. 15, p. 37.

²¹ B. Madras-Majewska, J. Majewski, *Produkcja i ceny miodu w badanych pasiekach w Polsce*, "Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu" 2007, Vol. IX, issue 1, p. 210.

²² P. Semkiw, *Raport...*, p. 7.

²³ Prices of varietal honeydew or heather honey, for example, can be more than 100 per cent higher than multiflower or rapeseed honey. See J. Majewski, *Ekonomiczne aspekty produkcji pszczelarskiej w Polsce i UE*, (in:) J. Pawłowska-Tyszko, A. Oler (eds.), *III Ogólnopolska Konferencja "Szanse i wyzwania pszczelarstwa w Polsce"*, Dobrcz 2017, pp. 27–32.

²⁴ J. Majewski, *Pszczelarstwo w Polsce...*, p. 217.

²⁵ A. Borowska, *Production, consumption and foreign trade of honey in Poland in the years 2004 to 2015*, "Roczniki Naukowe Ekonomii Rolnictwa i Rozwoju Obszarów Wiejskich" 2016, Vol. 103, issue 4, p. 101.

In addition, domestic beekeeping is characterised by the fragmentation of production (approximately 97 per cent of beekeeping holdings in Poland are small- or medium-sized apiaries with fewer than 80 bee colonies) and the advanced demographic structure of the beekeeping sector (beekeepers under the age of 35 account for 1/10th of all those registered with the Polish Beekeeping Federation)²⁶. The development of the domestic beekeeping sector is also hindered by the fact that beekeeping tends to be an activity “passed on from generation to generation”²⁷, which hinders the process of generational change in agriculture in terms of the inflow of “new” labour. Furthermore, statistical data indicate that the number of beekeeping operators is falling year on year, both in Poland and in Europe²⁸.

This structure of Polish beekeeping does not have a positive impact on the profitability of beekeeping. As Majewski states, obtaining a satisfactory income from beekeeping activities requires the beekeeper, among other things, to have an appropriate scale of production, to run an itinerant apiary, as well as to preserve and sell bee products directly²⁹. According to Majewski and Madras-Majewska, in order to make a living from beekeeping it would be necessary to run a large apiary, with more than 100 bee families on several apiaries, preferably using the aforementioned nomadic apiary and, in addition, selling bee products directly³⁰.

In this context, it is worth pointing out the advantages of carrying out beekeeping activities in the form of transhumance beekeeping. This is because running a transhumant apiary allows more forage to be used, which in turn results in an increase in the honey production of the bees³¹. Studies show that honey production from nomadic apiaries is 100 per cent or more higher than from stationary apiaries³². Furthermore, an additional benefit is the possibility of obtaining varietal honeys, which generally fetch higher prices on the market than multi-flower honeys.

It is evident from the above considerations and statistical data that higher profits from beekeeping activities are usually achieved by medium and large beekeeping entrepreneurs, who have a wide scale of production of beekeeping products, as well as an appropriate infrastructure in the form of modern apiary farms. However, it should be borne in mind that, as studies show, while production in larger apiaries is profitable, the net agricultural income generated is generally lower than the average wage in other sectors of the national economy³³. The

²⁶ A. Borowska, *Stan i perspektywy...*, p. 41.

²⁷ *Ibidem*, p. 42.

²⁸ S.G. Potts *et al.*, *op. cit.*, pp. 15–22.

²⁹ J. Majewski, *Ekonomiczne aspekty...*, p. 29.

³⁰ B. Madras-Majewska, J. Majewski, *Oplacalność i perspektywy produkcji miodu w Polsce*, (in:) H. Szoegge Manteuffel, W.E. Tyner (eds.): *Rolnictwo i gospodarka żywnościowa Polski w ramach Unii Europejskiej. Problemy Rolnictwa Światowego*, Warszawa 2006, p. 67.

³¹ J. Majewski, *Ekonomiczne aspekty...*, p. 30.

³² *Ibidem*.

³³ J. Majewski, *Pszczelarstwo w Polsce...*, p. 217.

domestic beekeeping sector, on the other hand, consists mainly of small apiary farms, with apiaries numbering up to 20 bee stems (they account for 60 per cent of all apiaries in Poland)³⁴. The statistical Polish beekeeper is most often an older person, who is involved in beekeeping as an amateur and hobbyist³⁵.

It should be noted, however, that profits from beekeeping activities are also influenced by external factors. There is a strong link between the level of honey production, the location of the apiary, and the weather conditions prevailing in Poland in a given year³⁶. In addition to internal factors that depend on the beekeeper, other external factors that are beyond the beekeeper's control, or have only limited influence, also have an impact on the economic situation of beekeepers. In addition to the weather phenomena mentioned above, these include bee diseases, legal acts regulating the status of beekeeping in Poland, as well as the emergence of damage such as theft of bee colonies or destruction of beehives³⁷.

As far as factors encouraging beekeeping are concerned, the literature points to the relatively low costs of setting up an apiary³⁸. These are limited to the costs of purchasing beehives and colonies, and also involve the purchase of tools and equipment for working with bees and extracting honey. These expenses can be reduced by constructing the hives oneself or by buying second-hand equipment³⁹.

Beekeeping, understood as "the activity of keeping and breeding honey bees"⁴⁰ (*Apis mellifera*), has been the subject of numerous publications in various scientific disciplines⁴¹. This subject has also become the focus of economics and finance, as well as law⁴². Carrying out research within the framework of both these sciences is justified, *inter alia*, because it makes possible to carry out a precise assessment of the Polish beekeeping sector and to indicate the directions of its

³⁴ *Ibidem*.

³⁵ *Ibidem*.

³⁶ M. Kobylińska, *Regionalne zróżnicowanie pszczelarstwa w Polsce*, "Wiadomości Statystyczne. The Polish Statistician" 2021, Vol. 66, No. 2, pp. 25–38.

³⁷ J. Majewski, *Ekonomiczne aspekty produkcji ...*, p. 30.

³⁸ B. Madras-Majewska, J. Majewski, *Oplacalność i perspektywy ...*, p. 63.

³⁹ *Ibidem*.

⁴⁰ A definition of beekeeping and definitions of other basic conceptual categories related to beekeeping were proposed by R. Tomaszewski, *O bibliografii pszczelnictwa polskiego*, "Biblioteka" 2008, No. 12(21), p. 29 *et seq.*

⁴¹ The subject of beekeeping is dealt with in publications from, *inter alia*, the humanities (within disciplines such as archaeology and history), agricultural sciences (within disciplines such as forest sciences, agriculture, and horticulture, veterinary science, animal and fishery sciences, or science and natural sciences (within disciplines such as biological, earth, and environmental sciences). Listing examples of all the representatives of the above-mentioned sciences and disciplines is beyond the scope of this study, nevertheless, worth noting in this context are the accomplishments of J. Banaszak, K. Pohorecka, J. Prabucki, P. Semkiw, and J. Wilde.

⁴² Within the field of social sciences, in the scientific discipline of economics and finance, one can point to the works of, among others, A. Borkowska, B. Majewska-Madras or J. Majewski, while in the context of legal sciences the subject of beekeeping in their publications is addressed, among others, by Z. Witkowski and K. Różański.

further economic development, as well as to formulate postulates concerning possible legislative changes in the regulation of beekeeping in the Polish legal system.

The characterization of the economic determinants, as well as the legal aspects of beekeeping in Poland, may contribute to the preparation of solutions aimed at attempting to address the numerous threats to its continued operation which have arisen in the 21st century⁴³. The latter include factors of an economic nature (decreasing profitability of beekeeping products, insufficient forms of support for entities conducting beekeeping activities), of a biological nature (threats in the form of various diseases and parasites of honey bees, migration to Europe of invasive species threatening *Apis mellifera*), chemical (use of plant protection products in agriculture), environmental (disappearance of natural bee habitats due to industrial development, climate change, reduction in the degree of biodiversity), and socio-demographic ones (advanced age structure of beekeepers, lack of inflow of the so-called “young farmers”, migration of the “young generation of farmers”, migration of beekeepers to the industrial and service sectors)⁴⁴.

3. LEGAL FACTORS INFLUENCING CARRYING OUT APICULTURAL ACTIVITY

The regulation of various aspects of carrying out this activity is scattered. For this reason, the normative area of study is very diverse. When it comes to national law, it should be emphasised that beekeeping activity has not been standardised in the form of a separate act. The legal provisions regulating its exercise are found in numerous normative acts.

Practical considerations, on the other hand, relate to the law-making and application process. Although, as was already said, beekeeping activities have not been standardised in a separate legal act, legislative proceedings to support beekeeping have been underway in the Parliament of the Republic of Poland for several years. In this context, it should be emphasised that the eighth term Sejm established the Parliamentary Group for the Support of Beekeeping⁴⁵. Its work is continued by the team appointed for the ninth term, however, it has not yet

⁴³ Deloitte, *op. cit.*, pp. 37–43.

⁴⁴ *Ibidem*; M.P. Chauzaut *et al.*, *Demographics of the European apicultural industry*, “Plos ONE” 2013, No. 8, p. 1 *et seqq.*

⁴⁵ The presidium of the Parliamentary Team for the Support of Beekeeping was elected by the Sejm on 26 January 2017. More on this topic: http://www.sejm.gov.pl/sejm8.nsf/agent.xsp?symbol=POSIEDZ_ENIA_ZESP&Zesp=453 (accessed 25.01.2022).

presented any legislative proposals⁴⁶. So far, no bill concerning the regulation of beekeeping activities as such has been submitted to the Marshal's staff either.

On the other hand, practical considerations relating to the application of the law concern the resolution of doubts, in particular with regard to the provision of aid to the beekeeping sector, neighbourhood disputes concerning the keeping and rearing of bees (especially in the context of the location of apiaries), or the commercial quality of honey. At this point, it should be stressed that the fragmented and scattered legislation on beekeeping contributes to the existence of numerous disputed situations in practice. Consequently, disagreements on this background are the subject of lawsuits in which so-called neighbourhood law proceedings are brought against beekeepers⁴⁷.

In further analysing the economic and legal aspects of beekeeping, certain assumptions have to be made. The first assumption is that beekeeping activity is a form of agricultural activity and, if only for that reason, should be treated favourably by the legislator. Indeed, this activity is of a specific nature, as its conduct contributes to increasing the efficiency of agricultural production, and above all, of plant production. According to data made available by the European Parliament, 84 per cent of plant species and 76 per cent of food production in Europe depend on pollination by wild and honey bee⁴⁸. Furthermore, beekeeping also contributes to the preservation of the environment as well as biodiversity. Despite this, both EU and national regulations do not provide for legal solutions that favour beekeepers.

Another assumption is expressed in the observation that, due to the specific nature of beekeeping activities and the functions they perform for agriculture and the environment, these activities should be specifically protected and supported by the legislator. The introduction of appropriate legal instruments for the protection of beekeeping is necessary given the numerous threats to its continued existence⁴⁹. It is worth emphasising that Polish legislation does not provide for the possibility of concluding so-called pollination contracts⁵⁰, under which beekeepers could receive remuneration in exchange for making bees available to farmers in order to increase the quantity and quality of crops. Currently, support for bee-

⁴⁶ See <https://www.sejm.gov.pl/Sejm9.nsf/agent.xsp?symbol=POSIEDZENIAZESP&Z-esp=610> (accessed 2.03.2022).

⁴⁷ See e.g. Judgment of the Regional Court in Krakow of 30 June 2015, II Ca 797/15, LEX No. 3052808.

⁴⁸ European Parliament Resolution of 1 March 2018 on prospects and challenges for the EU apiculture sector (2017/2115(INI)), "Official Journal UE" 2019, C 129/25.

⁴⁹ M.P. Chauzaut, *op.cit.*, p. 1 *et seqq.*; Deloitte, *op. cit.*, pp. 37–43.

⁵⁰ Beekeeping contracts operate successfully in the US legal system. For more on this, see e.g. C.J. Ritten, D. Peck, M. Ehmke, M.A. Buddhika Patalee, *Firm efficiency and returns-to-scale in the honey bee pollination services industry*, "Journal of Economic Entomology" 2018, Vol. 111, No. 3, p. 1014 *et seqq.*

keeping depends on the production capacity of the apiary, including the number of hives it has.

Some pressing issues can also be formulated in this context. The first pressing issue is to define the legal nature of beekeeping activities. The starting point is a closer consideration of the concept of beekeeping activity as an agricultural activity. It is then necessary to point out the legal consequences of its qualification as an agricultural activity. At this point, it should be stressed that no uniform concept of agricultural activity has been adopted in the Polish legal system, and the legislation regulating this activity is scattered. It should also be noted that beekeeping is sometimes classified as one of the economic activities.

The second pressing issue relates to the question of whether the legislator sufficiently protects beekeeping activities. In this context, it should be noted that there is no legislation in both EU and national law that protects beekeeping activities as such. Only the individual elements that make up beekeeping, such as honeybees or beekeeping products, are protected. However, neither apiary farms nor beekeepers are covered. In turn, the Supreme Audit Office's audit report for the Ministry of Agriculture and Rural Development indicated that "there is a lack of coordinated action to combat bee diseases and to use plant protection products in such a way that they do not endanger bees"⁵¹.

The third pressing issue concerns answering the question of whether the legislator sufficiently supports beekeeping activities. Currently, financial support for beekeeping can be obtained, *inter alia*, from the implementation of the Rural Development Programme 2014–2020 and the National Beekeeping Programme 2020–2022. Receiving one of the mentioned forms of support excludes the use of the other. In addition, due to the dispersion of regulations, entities conducting beekeeping activities in Poland have, in practice, problems related to obtaining comprehensive knowledge on the possibilities of support for their activities. Financial aid also depends on the size of the apiary, thus favouring the owners of larger apiary holdings at the expense of medium-sized and smaller ones⁵².

4. CONCLUSIONS

The research carried out into selected economic and legal aspects of beekeeping indicates the main shortcomings of the beekeeping sector in Poland. Well, both Polish agricultural entrepreneurs and beekeeping producers are failing to

⁵¹ Information on the results of the audit. Support for beekeeping in Poland, Najwyższa Izba Kontroli 2017, reg. No. 27/2017/P/16/044/KRR, p. 17, <https://www.nik.gov.pl/kontrole/P/16/044/> (accessed 22.01.2020).

⁵² *Ibidem*.

take advantage of the opportunity which could be presented by nomadic beekeeping and the so-called “pollination contracts”, which are successfully implemented e.g. in the United States. Furthermore, an improvement in the performance of the domestic beekeeping sector is possible and, in the author’s opinion, investments should be made to improve the resilience and competitiveness of the beekeeping industry and to develop human capital, *inter alia*, by activating the so-called “younger generation” of farmers to take up employment in the beekeeping sector. Consideration should also be given to a system of support for beekeeping and its taxation, so that amateur beekeepers can also benefit from the aid, while all beekeepers would be taxed in proportion to their income.

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