

SELECTED LEGAL ASPECTS OF PROTECTING HONEY BEES FROM POISONING FROM POLISH AND EUROPEAN UNION PERSPECTIVE

VYBRANÉ PRÁVNE ASPEKTY OCHRANY VČIEL MEDONOSNÝCH PRED OTRAVOU Z POĽSKÉHO A EURÓPSKEHO POHLADU

Krzysztof RÓŻAŃSKI*

I Introduction

1.2 Introduction, Justification of the Article's Title and Research Methods

The concept of apicultural activity (the expression 'beekeeping' is used in the paper synonymously) is present in normative acts (e.g. in the Act on Social Insurance of Farmers⁽¹⁾), in judicial decisions⁽²⁾, as well as in the doctrine⁽³⁾. However, neither in legislation

nor in jurisprudence has it been defined. The lack of the legal definition of this concept does not support the postulates of clarity of the law and its terminological consistency, which, as a consequence, contributes to ambiguities in the interpretation of the basic conceptual categories related to beekeeping, thus hindering the development of a uniform concept of protection and support for this activity.

An attempt to formulate the concept of apicultural activity has been made by representatives of the doctrine. M. Czech proposed to define it as: 'a set of legal and factual actions that are undertaken by entities engaged in keeping and breeding honey bees (the expression '*Apis mellifera*' is used in the paper synonymously) in hives, in relation to honey bees, hives

- ¹ Polish Parliament – Act on Social Insurance of Farmers (1990).
² Polish Supreme Court (2019).
³ Łobos-Kotowska (2023).

Abstract (EN)

The purpose of this article is to present selected aspects of bee health protection against pesticide poisoning from the perspective of European Union and Polish law. In order to accomplish the research purpose defined in such a way, it was necessary first to address the concept of apicultural activity, which was not defined in Polish law, but its definition was proposed by the doctrine. Next, the harmfulness of pesticides to the health and life of honey bees was demonstrated, and the regulations in EU and Polish law concerning the protection of the health of *Apis mellifera* from pesticide poisoning were presented. Finally, conclusions were provided concerning, among other things, problems with the application and enforcement of legal norms in practice and the lack of a regulation dedicated to this issue in Polish law.

Abstrakt (SK)

Cieľom príspevku je predstaviť vybrané aspekty ochrany zdravia včiel pred otravou pesticídmi z pohľadu práva Európskej únie a poľského práva. Na dosiahnutie takto definovaného výskumného cieľa bolo potrebné sa najprv zaoberať pojmom včelárskej činnosti, ktorý nebol v poľskom práve definovaný, ale jeho definíciu navrhla doktrína. Následne bola demonštrovaná škodlivosť pesticídov pre zdravie a život včiel medonosných a boli prezentované predpisy v práve EÚ a poľskom práve týkajúce sa ochrany zdravia *Apis mellifera* pred otravou pesticídmi. Na záver boli uvedené závery týkajúce sa okrem iného problémov s uplatňovaním a presadzovaním právnych noriem v praxi a absencie predpisu venovaného tejto problematike v poľskom práve.

Keywords (EN)

honey bees, apicultural activity, pesticides, protection of bees from pesticide poisoning, European Union law and Polish law

Kľúčové slová (SK)

včely medonosné, včelárska činnosť, pesticídy, ochrana včiel pred otravou pesticídmi, právo Európskej únie a poľské právo

* Poznań University of Life Sciences, Poland

and bee products⁽⁴⁾. In another definition it is defined as: 'the activity of keeping and breeding honey bees, carried out by the beekeeper, using suitably organised instruments, the result of which is, on the one hand, the production of beekeeping products and, on the other hand, the pollination by honey bees of entomophilous plants'⁽⁵⁾.

What these definitions have in common is the presentation of apicultural activity as a set of diverse activities related to the breeding and rearing of honey bees. They make a valuable contribution to the development of a comprehensive concept of apicultural activity that takes into account its characteristics and also makes reference to the concept of agricultural activities by nature and related activities⁽⁶⁾.

Apiculture as one of the branches of agriculture is in fact characterised by natural and technical properties. They are linked to the nature (nature) of the goods involved in beekeeping, the specificity of the form in which the activity is carried out, the characteristics of the entity carrying out the activity and the effects of its activity (apicultural products as well as pollination of plants)⁽⁷⁾.

As far as the goods involved in apicultural activity are concerned, it should be pointed out that animals (honey bees) are involved. *Apis mellifera* is an essential attribute of beekeeping, without which apiary management would prove impossible. These insects are both means of work ('biological machines') and objects of human labour⁽⁸⁾. As animals, they are subject to development according to natural laws, with characteristic phases of development depending on their biological rhythm. They also play an important role in the economy, in the form of the possibility of using their activity to: obtain beekeeping products⁽⁹⁾, pollinate wild plants and crops⁽¹⁰⁾, and shape an appropriate level of biodiversity⁽¹¹⁾.

The specific nature of beekeeping, on the other hand, is expressed primarily in the production of goods (beekeeping products) and the provision of services to the environment and the economy, as a result of the human use of honeybee activity, in the form of stationary and migratory beekeeping. Thus, this activity cannot be reduced to a single activity; it consists of a series of different, mostly repetitive, factual, and legal actions, influenced by the natural conditions of agricultural production and the purpose of management.

It is also worth pointing out that apicultural activity is determined by the seasons, climatic conditions, and the state of the environment. Indeed, in organising one's apiary management, it has to be taken into account to undertake diverse activities which, in practice, must be carried out throughout the calendar year. These include activities relating to: preparation for the season, the season proper, and preparation for winter⁽¹²⁾.

In addition, the amount of bee production and the ability of these insects to pollinate entomophilous plants is also influenced by climate. For example, unfavourable weather conditions (e.g., hot summers, cold winters, floods) hinder the activity of *Apis mellifera*, which may lead to the production of fewer bee products and the pollination of a limited number of wild and cultivated plants, thus posing a certain risk to those carrying out this activity⁽¹³⁾. Consequently, beekeepers are faced with the need to consider taking out insurance in connection with their apiary management.

When setting up an apiary, the state of the local environment must also be taken into account. The development of agriculture and deforestation has changed the composition of the melliferous flora and made it more difficult for honey bees to access the forage⁽¹⁴⁾. The natural adaptation of the annual development rhythm of bee colonies no longer corresponds to the modified forage base and results in the need for beekeepers to apply special treatments to alter this rhythm to achieve an increase in honey production.

It is worth emphasizing that, in order to benefit from honeybee activity, it is also necessary for an operator (beekeeper) to have, on the one hand, specialised knowledge of beekeeping and, on the other, to be able to put that knowledge into practice by organising and preparing his own apiary management accordingly. In this context, knowledge of the apiary work to be carried out during the season, which, as already indicated, is carried out to a greater or lesser extent throughout the calendar year, will prove indispensable⁽¹⁵⁾.

As far as the effects of beekeeping are concerned, they include bee products such as honey, royal jelly, propolis, pollen, and beeswax, as well as the pollination of wild and cultivated plants. It is estimated that by pollinating crops, honey bees bring to the economy ten times, and according to some calculations, even a hundred times, the value of the products they produce⁽¹⁶⁾. Furthermore, the result of apiary management will also contribute to shaping the right level of biodiversity, which influences

⁴ Czech (2015).

⁵ Róžański (2021).

⁶ Magno (2002).

⁷ Budzinowski (2008).

⁸ *Ibidem*.

⁹ Bradbear (2009).

¹⁰ Majewski (2011).

¹¹ De la Rúa et al.(2011).

¹² Marcinkowski (1993).

¹³ Szentgyörgyi (2018).

¹⁴ Madras-Majewska, Ściegosz (2012).

¹⁵ Guderska (2018).

¹⁶ Majewski, *op. cit.*

the right balance between the animate and inanimate natural worlds, thus shaping the scale of agricultural production⁽¹⁷⁾.

In view of the above comments, as well as having into consideration of the complexity of the apicultural activity, it would be appropriate to define it as: ‘an activity of a complex nature, carried out by an operator with the knowledge and qualifications to do so, which consists of a set of factual and legal actions involving activities of an agricultural nature by nature, such as, for example, the rearing and keeping of honey bees, as well as related activities related to migratory management and enabling these insects to pollinate wild and cultivated plants, as well as the production of beekeeping products and their marketing’.

The analysis of the topic of the paper is justified by practical and theoretical reasons. The practical reasons relate to the enactment of the law and law enforcement. In terms of practical reasons regarding the enactment of law, it is essential to mention that no legal act systematically regulating apicultural activity has been adopted either in EU law or in Polish law. Practical issues related to law enforcement mainly concern: resolving disputes regarding compensation for beekeepers in connection with the poisoning of bees with plant protection products, liability for improper pesticide spraying, financial compensation related to property insurance for apiaries, honey quality protection, and counteracting honey adulteration. It should be emphasised that fragmented and scattered legislation on beekeeping contributes to the occurrence of disputes in practice. As a result, these disputes are very often the subject of court proceedings.

There are also theoretical reasons for considering the topic of the paper. The legal status of beekeeping is linked to the fundamental concept of ‘agricultural activity’ in agricultural law. According to agrarians, this is a term with the broadest scope, which makes it possible to organise other basic conceptual categories of agricultural law, such as ‘agricultural holding’, ‘agricultural producer’, or ‘agricultural products’. These considerations will contribute to defining the relationship between agricultural activity and basic conceptual categories in the field of beekeeping, such as ‘beekeeping activity’, ‘beekeeping farm’, ‘beekeeping products’, or ‘beekeeping entrepreneur’.

In terms of research methods used in the paper, a dogmatic analysis of legal texts is applied. Reference is also made to statistical data. The comparative method was used in order to contrast the EU and Polish systems of law in terms of the regulation of apicultural activity.

¹⁷ Ślęzak (2004).

II Materials, Results and Discussion

2.1 Harmfulness of Pesticides to Honey Bees

Honey bees are poisoned due to exposure to numerous toxic substances, such as heavy metals, other toxic elements such as nitrogen and selenium, various volatile organic compounds and plant protection products⁽¹⁸⁾. The latter are one of the main factors contributing to the decline and health of pollinating insects⁽¹⁹⁾. Bee poisoning by pesticides occurs from early spring, during the flowering of fruit trees in orchards and the dandelions that grow there – readily used by honey bees as a source of food, but destroyed by farmers with herbicides⁽²⁰⁾.

Regardless of the route of penetration, the source of the forage or the bee species, the main cause of poisoning by plant protection products is the mistakes made by users of these products. These include incorrect selection of plant protection products, doses, as well as treatment dates and techniques. In addition, non-compliance with the label should be mentioned, including the use of plant protection products not authorised for the crop in question or not recommended mixtures of these products⁽²¹⁾. It is worth pointing out that pesticides have such a toxic effect on *Apis mellifera* that they get into the beekeeping products derived from their activity, including above all honey⁽²²⁾. Plant protection products, are divided according to what they are intended to control, among others: insecticides (insecticides), fungicides (fungicides) and herbicides (herbicides)⁽²³⁾.

The first group includes neonicotinoids, which adversely affect the central nervous system of honeybees and have been widely used in agriculture for more than two decades, now posing one of the greatest threats to honeybee life⁽²⁴⁾. Scientists link their use and that of other pesticides to the phenomenon of bee mass die-off – CCD (Colony Collapse Disorder)⁽²⁵⁾. It is primarily for these reasons that various species of honey bees and other pollinating insects have been included on the European Red List of endangered species maintained by the International Union for the Conservation of Nature⁽²⁶⁾.

¹⁸ Szentgyörgyi (2017).

¹⁹ Zych et al. (2020).

²⁰ Witkowski (2018).

²¹ Skubida (2007).

²² Posyniak (2023).

²³ Adriaanse et al. (2023).

²⁴ Król (2020).

²⁵ Bednarek, Nicewicz (2018).

²⁶ IUCN Red List of Threatened Species (2023).

2.2 Selected Legal Aspects of Protecting Honey Bees from Poisoning in the European Union Law and Polish Law

Therefore, the legal protection of bee life against poisoning mainly involves taking prescriptive measures to limit the use of plant protection products in agriculture (including neonicotinoids in particular), as well as applying sanctions to the use of banned toxic substances or their misuse, which cause poisoning to honey bees. It is all the more important to take regulatory action in this area, given that this phenomenon has been occurring in Poland since the 1970s, with bee colony poisoning rates ranging from 50 to 70% nationwide, while in the first decade of the 21st century, bee mortality was estimated at between 5 and 20%⁽²⁷⁾. In recent years, as a result of an increase in awareness of the importance of honey bees, as well as an amendment to legislation in this area, poisoning is no longer as common as it once was, but it is still a significant problem throughout the national beekeeping sector.

As far as EU law is concerned, these topics are regulated, first and foremost, by Regulation EU No 1107/2009 concerning the placing of plant protection products on the market⁽²⁸⁾, Regulation EU No 283/2013 laying down data requirements for active substances⁽²⁹⁾ and Regulation EU No 284/2013 laying down data requirements for plant protection products⁽³⁰⁾. It is worth noting that these issues have also been the subject of the Court of Justice of the European Union (hereinafter referred to as 'CJEU') jurisprudence, inter alia with regard to the prohibition of selected bee-killing neonicotinoids⁽³¹⁾, the non-authorisation of periodic exemptions from the EU ban on this group of pesticides⁽³²⁾, and the renewal by the EC of the approval of one neonicotinoid, cypermethrin⁽³³⁾.

As the issue of the impact of plant protection products on *Apis mellifera* and other pollinating insects is of interest to the EU legislator and the legislators of its Member States, various companies, institutions, organisations and citizens, the EC has decided to keep all interested parties informed of legislative actions taken in this regard, on one of its official websites. This body has also decided to register a citizens' initiative calling

for the phasing out of synthetic pesticides in European agriculture and to support farmers in their transition to sustainable farming practices⁽³⁴⁾, and to respond to the actions taken in this regard in a communication⁽³⁵⁾.

As regards the legislation on the protection of bee life in the context of pesticides, it should be stressed that EU Regulation 1107/2009, in its provisions, indicates criteria for the approval of active substances and for the authorisation by Member States of any plant protection product containing such substances. These criteria include consideration of their effects on the health and life of *Apis mellifera*. Moreover, those substances may only be approved if it is shown, on the basis of a comprehensive and scientifically based risk assessment, that their use under strict conditions will result in a negligible exposure of honey bees or that there will be no unacceptable and lasting effects on the life and development of bee colonies.

In national law, in turn, these issues are regulated by the Act on plant protection products⁽³⁶⁾ and its implementing ordinances, as well as the Act on chemical substances and their mixtures⁽³⁷⁾. Provisions for the protection against mass poisoning of honey bees with plant protection products can be divided into two groups, i.e., those concerning the prevention of poisoning and those relating to its effects.

At this point, it should be noted that EU and national legislation related to the protection of honey bees with regard to the use of plant protection products indicates different problems at the EU and national levels. The EU legislator has an inconsistent policy of authorising certain pesticides and banning others at the same time. Indeed, despite the numerous existing bans on neonicotinoids, the provisions of EU Regulation 1107/2009 concerning the placing of plant protection products on the market state that it is possible to approve the use of selected pesticides from this group (active substances – safeners or synergists) if, following a positive risk assessment, they do not significantly jeopardise the life of honey bees or have unacceptable acute or chronic effects on the development or survival of honey bee colonies.

The EC gave such approvals despite protests from environmental organisations and representatives of the public in the context of disagreement over the approval of neonicotinoids⁽³⁸⁾. Representatives of the former challenged EC regulations approving

²⁷ Pruszyński (2007).

²⁸ European Parliament and Council Regulation No.1107/2009 (2009).

²⁹ European Parliament and Council Regulation No. 283/2013 (2013).

³⁰ European Parliament and Council Regulation No. 284/2013 (2013).

³¹ The Court of Justice of the European Union (2021).

³² The Court of Justice of the European Union (2023).

³³ The Court of Justice of the European Union (2024).

³⁴ European Commission Decision (2019).

³⁵ European Commission Communication (2023).

³⁶ Polish Parliament – Act on plant protection products (2003).

³⁷ Polish Parliament – Act on chemical substances and their mixtures (2011).

³⁸ European Commission Implementing Regulation No. 2021/2049 (2021).

the possibility to use cypermethrin⁽³⁹⁾, or sulfoxaflor⁽⁴⁰⁾; nevertheless, by virtue of the judgments of the CJEU in these cases, they remained in force. On the other hand, as far as social organisations are concerned, in the registered citizens' initiative 'Save the bees and the farmers', its authors called on the European Commission (hereinafter referred to as 'EC') to phase out synthetic pesticides in the EU agriculture, starting with the most dangerous, with the aim of reducing their use by 80% by 2030 and eliminating them completely by 2035⁽⁴¹⁾.

Significant changes in the protection of honey bees were brought about by the deliberations of the Agriculture and Fisheries Council (AGRIFISH) on 28 June 2021, after which the EC announced that it had reached an agreement with Member States to set a maximum permitted level of 10% reduction in honeybee colony size as a result of pesticide use⁽⁴²⁾. According to the environmental and social organisation Pesticide Action Network Europe (PAN Europe), such a threshold should be set at a maximum of 5 per cent in order to ensure that as few bee colonies as possible are poisoned in the first place⁽⁴³⁾. Ultimately, the 10 per cent threshold was retained and was also included in the European Food Safety Authority's (EFSA) updated guidance on the risk assessment of plant protection products on *Apis mellifera*⁽⁴⁴⁾.

As is evident, EU policy in relation to the protection of honey bees from pesticide poisoning is meandering and selective, with some neonicotinoids approved for use in the EU and others not. What is clearly lacking is a more unified approach in this regard, as well as the adoption of repressive sanctions at the EU level to induce countries to comply with existing legislation in this regard more effectively than hitherto. So far, one effective tool in these matters are the judgments of the CJEU. However, it must be borne in mind that they are the result of a lengthy judicial procedure. There is therefore a lack of adequate instruments of a preventive nature to enforce Member States to comply with EU prohibitions and orders in the context of preventing bee poisoning by plant protection products.

The national legislation regulating these issues, on the other hand, is quite comprehensive. The legislator has regulated the issues in the Act on Plant Protection Products and its implementing ordinances, as well as in the Act on Chemical Substances and their Mixtures. Particularly in the former, the legislator has standardised

the use of plant protection products in such a way that they do not pose a threat to the health of honey bees, as well as the collection of information on poisoning of *Apis mellifera* by these products and the conduct of research in this regard.

III Conclusions

In the light of this, it is argued in the doctrine that the problem is not the lack of legislation on the prevention of plant protection products on honey bees, but the mistakes made by the spraying contractors or farmers, their inadequate professional training and lack of awareness and knowledge, especially since the Polish Ministry of Agriculture and Rural Development has indicated precisely how to use these substances within the framework of the Regulation on conditions for the use of plant protection products⁽⁴⁵⁾. Moreover, those carrying out the spraying do not respect the information contained on the label of such a product, including that relating to its non-authorised use for a given plant crop or the non-recommended mixtures of such products⁽⁴⁶⁾. According to G. Pruszyński, the current legislation regulating plant protection, when observed by users, very much reduces the possible negative impact of the applied plant protection products on beneficial entomofauna⁽⁴⁷⁾.

It is worth pointing out that the situation is gradually improving, due to the dissemination of the principles of Good Agricultural Practice⁽⁴⁸⁾ and Good Plant Protection Practice⁽⁴⁹⁾, the guidelines of the Polish State Plant Protection and Seed Inspection Service (hereinafter referred to as 'PIORiN')⁽⁵⁰⁾, as well as the conduct of training courses and the development of materials by, for example, district beekeeping associations and agricultural advisory bodies⁽⁵¹⁾. A sometimes problematic issue in the application of plant protection legislation is the control of pesticide use. The literature points out that there have been cases of negligent supervision by the PiORiN, where the inspectorate has failed to respond to reports of bee poisoning⁽⁵²⁾.

A separate issue is the appointment of committees on bee poisoning and the compensation to which the beekeeper is entitled in this respect. In this context, first of all, it is possible to point out some

³⁹ The Court of Justice of the European Union (2024).

⁴⁰ The Court of Justice of the European Union (2024).

⁴¹ European Commission Communication (2023).

⁴² European Commission (2021).

⁴³ Pesticide Action Network Europe (2021).

⁴⁴ Adriaanse, *op. cit.*

⁴⁵ Pruszyński, *op. cit.*

⁴⁶ Skubida, *op. cit.*

⁴⁷ S. Pruszyński, G. Pruszyński (2006).

⁴⁸ Duer et al. (2010).

⁴⁹ Kierzek et al. (2015).

⁵⁰ Polish State Plant Protection and Seed Inspection Service (2023).

⁵¹ Agricultural Advisory Body in Lublin (2024).

⁵² Ożóg (2022).

shortcomings in terms of legislation. Well, as pointed out in the literature, there is a lack of legislation on the appointment of the commission and the actions taken by it. At present, the only document concerning the appointment of a commission on the circumstances of bee poisoning is the 'Instruction on the procedure for taking samples for laboratory tests, carried out by the Polish National Veterinary Institute – National Research Institute (PIWet-PIB), in the case of suspicion of acute poisoning of honey bees with plant protection products', which does not indicate the legal basis for its functioning, nor the manner of estimating the amount of damage to the apiary incurred by the beekeeper⁽⁵³⁾. The doctrine indicates that the normative basis for the functioning of the commission can be found in Articles 6 and 7(1)(1) of the Act on Municipal Self-Government⁽⁵⁴⁾.

Another issue related to the legislation is the lack of provisions on the estimation of damages related to the poisoning of honey bees. As a result, its amount is determined on the basis of fulfillment of the prerequisites of tort liability, under civil law (on the basis of Article 415 of the Civil Code (hereinafter referred to as "CC") in connection with Article 361 § 1 and 2 of the CC)⁽⁵⁵⁾. Deficiencies in the regulation of the legal status and principles of operation of bee poisoning commissions, as well as in the estimation of compensation in this respect, undoubtedly constitute certain gaps in the scope of prevention instruments concerning the legal protection of these insects.

Secondly, it should be noted that the unlawful killing of honey bees (whether or not carried out through the use of pesticides) is subject to liability under civil and penal law. As regards the former, it is based on the general principles of the CC. The latter is based on the penalization of the act, which may be classified as an offence against property, in the case of an accident of minor gravity (Art. 124 § 1 of the Code of Petty Offences⁽⁵⁶⁾), or as a crime against property under Art. 288 § 1 Penal Code⁽⁵⁷⁾.

As can be seen from the review, so far, no specific legal instruments of a repressive nature dedicated to apicultural activity have been introduced into the legislation regulating the consequences of killing honey bees, apart from liability for damages and sanctions under civil and penal law.

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⁵³ Szela (2020).

⁵⁴ Polish Parliament – Act on Municipal Self-Government (1990).

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Contact address/Kontaktná adresa

assist. professor Krzysztof Różański, PhD.

Poznań University of Life Sciences

Faculty of Economics

Department of Law and Management of Enterprises
in Agribusiness

Wojska Polskiego 28 street, 60-637 Poznań, Poland

✉ krzysztof.rozanski@up.poznan.pl