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Chemisation of Agriculture in Selected Legal Acts

Chemizacja rolnictwa w wybranych aktach prawnych

ABSTRACT

The article attempts to present an analysis of the status of the concept of chemisation in selected legal acts at the international, EU and national level, and to outline the legal problems related to chemisation in agriculture. The concept of agricultural chemisation belongs to a conceptual framework of other than law branches of empirical sciences, primarily chemistry, natural sciences and agrotechnics. There is no legal definition and it is dispersed in various legal acts, significantly affecting such areas as environmental protection, food safety, food security, protection of the interests of consumers and agricultural entrepreneurs. Due to the specifics of the study, a dogmatic method was used, which analyzed the research material consisting of selected, key provisions of international and EU law and acts of national law. In order to extend the issues and emphasize the issues that are the subject of the study, the method of content analysis and analysis of documents was used, thanks to which the topicality of the discussed issue and its significant importance from the social point of view were shown. The conducted analysis was aimed at showing and emphasizing the multifaceted and complex nature of the issue.

Keywords: chemisation of agriculture; environmental protection; food safety; food security; consumer; agricultural entrepreneur

INTRODUCTION

Globalization processes in the agricultural sector and growing competition in agricultural markets impose the introduction and use of such production methods that intensify the speed and volume of production, regardless of the social and environmental effects they exert. One of the important factors determining the

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achievement of quick production effects is the widespread use of chemicals known as agriculture chemisation. The concept of agricultural chemisation most often appears in areas other than law, primarily in the area of chemistry, natural sciences and agrotechnics. It was transferred to the legal language due to the necessity to regulate the principles of safe use of agrotechnical treatments, allowing for the implementation of the principle of sustainable development, protection of ecosystems, ensuring food safety and consumer protection. This concept is still new and requires operationalization for the purposes of legislation and jurisprudence, as well as shaping the standards of responsible production and safe circulation of food by agricultural producers and consumer awareness.

The problems of admissibility and the extent to which chemistry can be used in practice require consideration in the process of both law-making and application. An important issue here is to balance the conflicting interests that may arise at the interface between the needs of environmental protection, biodiversity, climate and food security, aimed at quantitatively securing food supply and food safety, emphasizing the quality aspect of products. There is also a conflict between the protection of consumer interests, by providing the highest quality food at a reasonable price, and the interest of an agricultural entrepreneur focused on profitability.

So far, the problem of agricultural chemisation has not been the subject of legal analysis. Theoretical reasons focus on the answer to the question whether there are regulations in national, EU and international law that allow the separation of a coherent system creating a framework for formal management and monitoring of agricultural chemisation processes and determining the institutions established to perform such tasks. An important aspect is also the issue of a coherent system in this regard is still in the stage in *statu nascendi* or it is not yet possible to talk about such a system, and legal regulations regarding chemisation are created *ad hoc*, according to the emerging needs or the need to resolve conflicts.

Practical considerations consist mainly in reviewing and indicating the provisions regulating the chemisation of agriculture, as their dispersion constitutes a significant obstacle in their application by both agricultural producers and agricultural administration authorities. Moreover, the issues of implementing legal instruments to reduce the risk or the effects of excessive chemical treatment in agricultural activities are subject to continuous legislative work, which may be reflected in the recent changes in EU law, in particular, the adoption of new strategies: the European Biodiversity Strategy[1] and the Farm to Fork Strategy,[2]

[1] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions EU – Biodiversity Strategy for 2030 "Bringing nature back into our lives", COM/2020/380 final.

[2] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system, COM/2020/381 final.

which additionally emphasizes the practical dimension of this study. The article is an attempt to initially define the normative area of research on the chemisation of agriculture.

THE CONCEPT OF CHEMISATION

Determining the scope of chemisation in legal terms is not easy. No legal act contains a legal definition of this term. Therefore, one should refer to dictionary meanings. According to the definition of the *Dictionary of the Polish Language*, chemisation is "the application of the achievements of chemistry in technology, industry and agriculture", and chemical treatment of agriculture is "a method of intensifying production, mainly of plants, by increasing the use of mineral fertilisers, plant protection products, etc.".[3] The cited definition is very general. For the purposes of legal analysis, it is necessary to further specify the concept, using the achievements of other fields of science, to systematize them, adopt selected, specific meanings, precisely indicate semantics and attempt a uniform interpretation of technical concepts, to the extent necessary for further analysis. The concept of chemisation has not been unequivocally operationalized in the language of law and legal language and is not used consistently.[4]

It is not necessary to mention all the meanings of chemisation used here, because – despite some differences resulting mainly from the specificity of different fields of science – it is possible to indicate the determining features common to all definitions. Hence, for the purposes of further considerations, the concept of chemisation is adopted as a method of agricultural production intensification by increasing the consumption of agricultural chemicals. The general concept of agricultural chemisation covers two different issues: the use of artificial fertilisers and the use of plant and crop protection products, i.e. fungicides against fungi, insecticides against insects and herbicides against weeds.[5]

[3] *Chemizacja*, https://sjp.pwn.pl/sjp/chemizacja;2447960.html [access: 23.09.2020].

[4] Due to the limited scope of this study, it is neither justified nor purposeful to quote and interpret the concepts indicated. Such an analysis, in the scope much wider than the concepts presented above, will be presented in the monograph.

[5] C.A. Kwiatkowski, E. Harasim, *Produkcja rolnicza a bezpieczna żywność. Wybrane aspekty*, Radom 2019, pp. 46–48.

THE GENESIS AND EVOLUTION OF CHEMISATION

The changing systems of the organization of agricultural production as a special sector of the economy determined the role of chemicalisation in agriculture in diametrically different ways. In Poland, both in the interwar period and throughout the entire period of the centralized economy, the policy in the field of agriculture focused on ensuring food security in terms of quantity.[6] Thus, the regulations on the efficiency of agricultural production in agricultural legislation dominated, which included, i.a., the obligation to perform certain agrotechnical operations, the order of pesticide application and the order of fertiliser application referred to as agrominimum.[7] After 1945, productivity growth was to be achieved by increasing the use of artificial fertilisers and pesticides.

Legal acts, starting with the Decree of the Polish Committee of National Liberation of 6 September 1944 on the implementation of the land reform[8] and the Decree of the Polish Committee of National Liberation of 30 March 1945 on compulsory management of agricultural land,[9] assumed the obligation to use productively areas that could potentially serve agricultural production. In the Act of 16 February 1961 on the protection of cultivated plants against diseases, pests and weeds,[10] measures were introduced in individual areas of plant protection. According to Article 10 of this Act, the concept of chemical plant protection products was defined as "all articles of synthetic and natural origin used to control diseases, pests and weeds or to prevent their appearance, as well as articles and preparations used simultaneously for these purposes and sanitary purposes". Resolution no. 347 of the Council of Ministers of 22 October 1963 on agrominimum, which recommended the introduction of specific agrotechnical and zootechnical measures in all individual farms,[11] entered into force. In the Act of 13 June 1967 on the obligation to use mineral fertilisers on farms,[12]

[6] S. Straszak-Chandoha, A. Merta-Straszak, *Chemizacja rolnictwa a ochrona zasobów naturalnych w okresie PRL ze szczególnym uwzględnieniem Dolnego Śląska*, [in:] *Od systemu żarowego do ekorozwoju. Ochrona i wykorzystanie zasobów środowiska naturalnego na ziemiach polskich – aspekt historyczny*, eds. T. Głowiński, M. Zawadka, Wrocław 2016, pp. 274 ff.

[7] M.A.Król, *Legal Framework of Environmental Law for Agricultural Production in Poland*, "Polityki Europejskie, Finanse i Marketing" 2015, vol. 13(63), p. 87; eadem, *Legal Instruments to Protect the Environment from the Effects of Excessive Chemistry in Agriculture on the Example of Plant Protection Products Regulation*, "Studia Iuridica Lublinensia" 2020, vol. 29(2).

[8] Consolidated text, Journal of Laws 1945, no. 3, item 13.

[9] Journal of Laws 1945, no. 11, item 59.

[10] Journal of Laws 1961, no. 10, items 54, 55.

[11] Polish Monitor 1963, no. 85, item 408.

[12] Journal of Laws 1967, no. 23, item 109.

a statutory obligation was introduced to use mineral fertilisation under penalty of a fine of 80% of unused fertilisers.[13]

In addition to fertilisers, plant protection products were used. Initially, highly toxic agents were used, having a lethal effect on all microorganisms, in an uncontrolled manner and regardless of the resulting damage to the natural environment, the protection of which was reduced to a minimum level, subordinated to production considerations.[14] The government, by Resolution no. 64/70 of 18 May 1970 on the organization of research in the field of toxicology and safe use of pesticides and the control of their residues in food and human environment created the basis for the organization and commencement of systematic studies of pesticide residues throughout the country, organization of the system research for the registration of plant protection products and the development of new plant protection programs that are effective and safer for humans and the environment.

The impact of the excessive use of chemicals in the economy on the degradation of the natural environment was noticed only in the 1980s. Under the first Polish Act of 31 January 1980 on environmental protection and shaping the environment,[15] in Articles 13 to 15, the obligation of rational soil management, protection of the production value and other conditions necessary to maintain the natural balance was formulated.[16]

In another legal act, i.e. the Act of 12 July 1995 on the protection of arable crops,[17] the legislator introduced rules concerning the method, scope and conditions of pesticide use. The Act regulated issues in the field of protection of crops against harmful organisms, prevention of the penetration of harmful organisms across the state border and the spread of these organisms in the country, prevention of threats to human and animal health and the environment that may arise as a result of trading and using plant protection products. Under this Act, the State Plant Protection Inspection was established.

In the Act of 3 February 1995 on the protection of agricultural and forest land[18] (Article 4 (16), Article 15 (5)), agricultural activity causing inappropriate use of pesticides was identified as one of the causes of land degradation and devastation. Another legal solution was the introduction of regulation of consumption fertilisers,

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[13] This obligation applied to all farmers running an individual farm with an area exceeding 2 hectares of arable land or 2 hectares of physical permanent drained grassland. See K. Bańkowska, *Przyroda jako dobro produkcyjne, dobro publiczne i wartość społeczna*, www.irwirpan.waw.pl/dir_upload/site/files/Monografia/27_Bankowska.pdf [access: 28.08.2021].

[14] S. Straszak-Chandoha, A. Merta-Straszak, *op. cit.*, pp. 276 ff.

[15] Journal of Laws 1994, no. 49, item 196, as amended.

[16] However, these provisions remained in the postulative sphere due to the lack of executive regulations relating to the issues related to the use of fertilisers or pesticides.

[17] Journal of Laws 2002, no. 171, item 2020.

[18] Journal of Laws 2017, item 1161, as amended.

in the Act of 26 July 2000 on fertilisers and fertilisation,[19] which was subject to many restrictions, both due to the risk it posed to human health and life and the need to protect the environment. As far as the scope of the subject matter of the Act is concerned, it regulated the grounds for placing fertilisers on the market in the unregulated scope in the regulations of the European Union, the tasks and properties of bodies and organizational units in the field of placing fertilisers on the market on the basis of the EU regulations on fertilisers, the use of fertilisers, preventing threats to humans and animals and the environment that may arise as a result of transport, storage and use fertilisers, agrochemical agriculture service.

Restrictions on the use of chemical agents were also included in the Act of 16 March 2001 on organic farming.[20] Under the aforementioned Act, the conditions for conducting agricultural production and agri-food processing with ecological methods as well as the control and certification system for this production and processing, as well as the marketing of organic farming products and their labeling were regulated. Basically, the admissibility of the use of artificial fertilisers and plant protection products was limited, and ecological production was to be carried out with the use of organic fertilisers, plant protection products and animal nutrition products obtained otherwise than by industrial chemical synthesis. The Act on organic farming has also adjusted the national law to the regulations that are in force in the European Union in this respect, i.e. Council Regulation (EEC) no. 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs,[21] and Council Regulation (EC) no. 1804/1999 of 19 July 1999 supplementing Regulation (EEC) no. 2092/91 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs to include livestock production,[22] to include organic livestock production. Another Act of 18 December 2003 on the protection of plants implemented EU Directives into Polish legislation, but also transferred the supervision of integrated production technologies to the State Plant Health and Seed Inspection Service.[23] Further changes have already been made taking into account the requirements of EU law and international obligations.

[19] Journal of Laws 2000, no. 89.
[20] Journal of Laws 2001, no. 38, item 2220.
[21] OJ L 198/1, 22.07.1991.
[22] OJ L 222/1, 24.08.1999.
[23] Journal of Laws 2004, no. 11, item 94.

CHEMISATION OF AGRICULTURE IN THE PROVISIONS OF INTERNATIONAL LAW

There are indirect references to the concept of chemisation in international law, especially in the context of sustainable development. The result of the 1972 UN Stockholm Conference was the Declaration of the United Nations Conference on the Natural Environment of Man, the so-called "Stockholm Declaration".[24]

In 1987, a strategic document of the United Nations World Commission for Environment and Development "Our Common Future" was created.[25] As the Commission was chaired by the former Prime Minister of Norway, Gro Harlem Brundtland, this document is known as the "Brundtland Report". The report defined sustainable development as being in line with the needs of the present generations and not diminishing the ability of future generations to meet their potential needs. From the point of view of issues related to the shaping of the principles of chemisation, the Earth Summit organized by the United Nations in Rio de Janerio in 1992 was of significant importance. The Rio Declaration[26] contains 27 principles concerning development and environmental policy, in which, i.a., the anthropocentric nature of the concept of sustainable development was emphasized. During this Summit, the principles contained in the "Global Program of Action – Agenda 21" were adopted. These principles focus on the necessity of limited use of natural resources and the optimization of economic and social development in the context of respect for the natural environment. In Chapter 19 of Agenda 21 on "Environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products",[27] measures aimed at reducing chemicals in agriculture were indicated. As part of the Convention on Biological Diversity, drawn up in Rio de Janeiro on 5 June 1992,[28] the principles of protection, multiplication and use of biological diversity resources in the context of chemisation were defined.

References to the issues of agricultural chemistry can be found in the Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, drawn up in Rotterdam on 10 September 1998.[29]

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[24] Report of the United Nations Conference on the Human Environment 1972, doc. A/Conf. 48/14 rev. 1.

[25] *Nasza wspólna przyszłość. Raport Światowej Komisji do spraw Środowiska Rozwoju*, Warszawa 1991.

[26] The content of the Rio de Janeiro Declaration in: *Dokumenty końcowe Konferencji Narodów Zjednoczonych „Środowisko i Rozwój"*, Szczyt Ziemi, Rio de Janeiro, 3–14 czerwca 1992 r., Warszawa 1993, p. 13 ff.

[27] United Nations Conference on Environment & Development, Rio de Janerio, Brazil, 3 to 14 June 1992, Agenda 21, https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf [access: 7.12.2020].

[28] Journal of Laws 2002, no. 184, item 1532.

[29] Journal of Laws 2008, no. 158, item 990, 29.08.2008.

The purpose of the Convention is to promote efforts for mutual accountability and cooperation in the field of international trade in certain hazardous chemicals, aimed at protecting human health and the environment from potential hazards, and promoting their use in an environmentally safe manner, by facilitating the exchange of information on their properties, assistance in making national decisions about their import and export, and providing relevant information on the decisions made.

As part of Goal 15 of the Resolution adopted by the General Assembly on 25 September 2015 "We transform our world", the importance of sustainable development was emphasized. The priority was the protection and promotion of the sustainable use of terrestrial ecosystems, sustainable management of forests, stopping and reversing the process of soil degradation and halting the loss of biodiversity. In terms of creating guidelines and recommendations relating to agricultural chemisation, the role of specialized international organizations, such as the International Plant Protection Convention functioning at the Food and Agriculture Organization of the United Nations (FAO) in Rome, the International Trade Organization and the European and Mediterranean Plant Protection Organization (EPPO) should also be emphasized, and in terms of the maximum residues of plant protection products, the joint FAO and World Health Organization Commission. The initiative of EPPO was to develop the principles of Good Plant Protection Practice, while a group of experts appointed by the International Organization for Biological Control has developed guides and recommendations for Integrated Agricultural Production Technologies.

CHEMISATION IN EUROPEAN UNION LAW

In the context of the provisions of EU law, some of the first legal acts clearly raised the need to protect the natural environment and limit the spontaneous use of agricultural chemicals.[30] The Council Directive 91/414/EEC of 15 July 1991 concerning the placing of plant protection products on the market[31] indicated as the main objective the registration of all active substances used in the territory of EU countries in accordance with the new, more restrictive requirements concerning, i.a., the protection of the agricultural environment. In the Preamble, it was stated that "protection of human, animal and environmental health takes priority over improvement of the level of agricultural production".

[30] Council Directive 76/895/EEC of 23 November 1976 relating to the fixing of maximum levels for pesticide residues in and on fruit and vegetables (OJ L 340, 9.12.1976, pp. 26–31); Directive 79/117/EEC of 21 December 1978 prohibiting the placing on the market of products containing certain active substances (OJ L 33, 8.02.1979); Council Directive 90/642/EEC of 27 November 1990 on the fixing of maximum levels for pesticide residues in and on certain products of plant origin, including fruit and vegetables (OJ L 350, 14.12.1990, pp. 71–79).

[31] OJ L 230, 19.08.1991, pp. 1–32.

The above-mentioned directives relating to the level of pesticide content were repeatedly amended in a significant way, until finally, for the sake of clarity, they were repealed and replaced by a single legal act – Regulation (EC) no. 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC.[32] Harmonized Community rules have been established in accordance with the general principles set out in Regulation (EC) no. 178/2002, in particular the need to ensure a high level of consumer protection, harmonized Community rules on maximum pesticide residue levels in and on food and feed of plant and animal origin.

Another legal act was Regulation (EC) no. 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers,[33] which will be repealed under Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) no. 1069/2009 and (EC) no. 1107/2009 and repealing Regulation (EC) no. 2003/2003.[34] It applies to products marketed as fertilisers labeled "EC fertiliser". This regulation is highly technical. It provides for the need to introduce and standardize procedures for placing fertilisers on the market.

Then, Regulation (EC) no. 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC,[35] which is the applicable act, indicates the need to ensure a high level of protection of human and animal health and the environment, while maintaining the competitiveness of Community agriculture. It lays down rules for the authorization of plant protection products to be placed on the market in commercial form and for their placing on the market, use and control within the Community.

Reference should also be made to Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides.[36] The Directive establishes a framework for achieving the sustainable use of pesticides by reducing the risks and impacts of pesticide use on human health and the environment, and by encouraging the use of IPM and alternative approaches and techniques such as non-chemical alternatives to pesticides. Regulation (EC) no. 1185/2009 of the European Parliament and of the Council of 25 November 2009 concerning statistics on pesticides[37] indicates

[32] OJ L 70/1, 16.03.2005.
[33] OJ L 304/1, 21.11.2003.
[34] OJ L 170/1, 25.06.2019.
[35] OJ L 309/1, 24.11.2009.
[36] OJ L 309/71, 24.11.2009.
[37] OJ L 324/1, 10.12.2009.

that further efforts should be made to reduce the impact of pesticides, and in particular agricultural pesticides, on human health and the environment. The Commission has recognized the need for detailed, harmonized and up-to-date statistics on sales and use of pesticides at the Community level. Such statistics are necessary for the evaluation of the European Union's policy on sustainable development and for the calculation of relevant indicators of the health and environmental risk of pesticide use. Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) no. 1069/2009 and (EC) no. 1107/2009 and repealing Regulation (EC) no. 2003/2003[38] will enter into force on 16 July 2022 and will govern national regulations. It will apply to fertilising products in the EU, indicating the obligations of economic operators in this regard, compliance of fertilising products, characterizing the legal status of notification bodies and control procedures.

The deliberations on the European regulations on agricultural chemisation should be supplemented with the issues of integrated pest management, which is one of the newest methods of monitoring biological threats and the use of agrochemistry. Integrated pest management is implemented under the common agricultural policy and comes down to weighing up all available plant protection methods, and then taking appropriate measures to stop the development of the population of harmful organisms and maintain the use of plant protection products and other forms of intervention at an economically and ecologically justified level, and the reduction or minimization of risks to human health and the environment.[39] Integrated protection recommends using biological, physical and other non-chemical methods in the first place, but they must provide satisfactory protection of the crop. The user should limit the use of pesticides and other forms of intervention to the necessary level, e.g., by reducing the doses, limiting the number of treatments or using divided doses. Integrated protection should prevent the development of resistance through the use of plant protection products from various chemical groups. From 1 January 2014, all professional users of plant protection products apply the principles of integrated pest management. Compliance with the general principles of integrated pest management results directly from the provisions of Article 14 of Directive 2009/128/EC on the sustainable use of pesticides[40] in conjunction with Article 55 of Regulation 1107/2009/EC concerning the placing of plant protection products on the market.[41]

[38] OJ L 170/1, 25.06.2019.

[39] E. Matyjaszczyk, *Ekonomiczne aspekty integrowanej ochrony roślin*, [in:] *Metody ochrony w integrowanej ochronie roślin*, ed. S. Pruszyński, Poznań 2016, p. 127.

[40] Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309/71, 24.11.2009).

[41] Regulation (EC) no. 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Di-

CHEMISATION IN POLISH LAW

Currently, the basic regulations relating to the chemisation of agriculture are included in the Act of 10 July 2007 on fertilisers and fertilisation[42] and in the Act of 8 March 2013 on plant protection products.[43] Under the Fertilisers and Fertilisation Act, there are defined the procedures for placing fertilisers on the market in areas not regulated by the European Union regulations, tasks and properties of organs and organizational units, the use of fertilisers, the prevention of threats to humans and animals and the environment that may arise as a result of transport, storage and application of fertilisers. Article 2 (1) to (5) of the Fertilisers and Fertilisation Act defined the concept of fertiliser and its specific types. In addition, it includes, i.a., issues related to the approval of fertilisers, the upper limits of the doses of natural fertiliser used during the year, the need to apply evenly over the entire field surface, in a way that excludes fertilisation of fields and crops not intended for this, periods and methods of their use, prohibitions and exceptions.[44]

rectives 79/117/EEC and 91/414/EEC (OJ L 309/1, 24.11.2009). Complementarily, it should also be indicated that the provisions of EU law also have a protective significance for the prohibition on the sale and use of products containing, i.a., neonicotinoids. The use of winter oilseed rape seeds treated with neonicotinoids creates, i.a., high danger to pollinating insects, including bees. See Commission Implementing Regulation (EU) no. 485/2013 of 24 May 2013 amending Implementing Regulation (EU) no. 540/2011, as regards the conditions of approval of the active substances clothianidin, thiamethoxam and imidacloprid, and prohibiting the use and sale of seeds treated with plant protection products containing those active substances (OJ L 139/12, 25.05.2013); Commission Implementing Regulation (EU) 2018/783 of 29 May 2018 amending Implementing Regulation (EU) no. 540/2011 as regards the conditions of approval of the active substance imidacloprid (OJ L 132/31, 30.05.2018).

[42] Act of 10 July 2007 on fertilisers and fertilisation (Journal of Laws 2020, items 796, 1069).

[43] Act of 8 March 2013 on plant protection products (Journal of Laws 2020, item 425).

[44] In addition, the provisions in this area were included, i.a., in Regulation of the Minister of Economy of 8 September 2010 on the method of packing mineral fertilisers, placing information on fertiliser ingredients on these packages, methods of testing mineral fertilisers and types of fertiliser lime (Journal of Laws 2010, no. 183, item 1229); Regulation of the Minister of Agriculture and Food Economy of 12 January 1998 on occupational health and safety when operating tractors, machines, tools and technical devices used in agriculture (Journal of Laws 1998, no. 12, item 51), Regulation of the Minister of Agriculture and Rural Development of 24 June 2002 on occupational health and safety in the use and storage of plant protection products as well as mineral and organic-mineral fertilisers (Journal of Laws 2002, no. 99, item 896), Regulation of the Minister of Agriculture and Rural Development of 18 June 2008 on the implementation of certain provisions of the Act on fertilisers and fertilisation (Journal of Laws 2008, no. 119, item 765), Regulation of the Minister of Agriculture and Rural Development of 16 April 2008 on the detailed method of using fertilisers and conducting training in the field of their use (Journal of Laws 2008, no. 80, item 479), Regulation of the Minister of Agriculture and Rural Development of 18 April 2013 on the requirements of integrated pest management (Journal of Laws 2013, item 505), Announcement of the Minister of Agriculture and Rural Development of 11 July 2018 on the national action plan to reduce the risk associated with the use of plant protection products for 2018–2022 (Polish Monitor 2018, item 723).

The Act of 8 March 2013 on plant protection products regulates the tasks and competence of public administration bodies and organizational units in the implementation of EU regulations. In addition, it indicates the rules for placing plant protection products on the market, using, confirming the technical efficiency of the equipment intended for their use, conducting integrated plant production, conducting training in the field of plant protection products, collecting information on poisoning with plant protection products in the scope not specified in the provisions of Regulation no. 1107/2009 or in EU regulations issued on the basis of the provisions of this regulation. In terms of defining the concept of plant protection products and others, such as active substances, plants, the environment, the manufacturer refers to EU regulations, in particular Regulation no. 1107/2009.

In addition, exemplary references related to issues related to the concept of chemisation are included in the Act of 2001 – Environmental Protection Law.[45] As part of this legal act, there are references to broadly understood issues relating to chemisation, e.g. in terms of defining the concept of environmental protection as taking or omitting actions, enabling the preservation or restoration of natural balance; this protection is to be based, in particular, on counteracting pollution (it should also be understood as those resulting from the use of agricultural chemicals). In Article 8 it was emphasized that policies, strategies, plans or programs concerning, in particular, agriculture should take into account the principles of environmental protection and sustainable development. For example, Article 101 indicates that the protection of the earth's surface should consist of rational management, which should also be translated into rational use of fertilisers and plant protection products. Article 127, referring to the protection of animals and plants, emphasizes the importance of preserving valuable ecosystems, biodiversity and maintaining natural balance, while maintaining the conditions for proper development and optimal performance by animals and vegetation of biological functions in the environment and preventing or limiting negative environmental impacts that could adversely affect the resources and condition of animals and plants. There are more such references in the aforementioned Act.

In the provisions of the Act of 20 July 2017 – Water Law,[46] the reference to the return of fertiliser/fertilisers occurs 118 times, defining, i.a., the term and indicating the types of fertilisers, methods of their use and storage. The Act also applies to the nitrogen fertilisation plan or the calculation of the maximum nitrogen doses, records of agrotechnical treatments related to it, as well as the requirements for fertilisation documentation. In the Act of 25 June 2009 on organic agriculture,[47] the use of synthetic plant protection products was generally prohibited, and protection

[45] Journal of Laws 2001, no. 62, item 627.
[46] Journal of Laws 2017, item 1566.
[47] Journal of Laws 2009, no. 116, item 975.

is based on the selection of varieties, crop rotation, creating opportunities for the development of beneficial organisms and the use of biopreparations and natural agents. In Article 15 of the Act of 25 August 2006 on food safety and nutrition,[48] the maximum permissible levels of pesticide residues are indicated. Article 43 of the Act of 13 June 2013 on the management of packaging and packaging waste[49] contains an obligation for an entrepreneur selling plant protection products to receive packaging waste from users of these products, and Article 61 provides for criminal sanctions in the form of a fine for failure to return packaging waste to funds.

CONCLUSIONS

Chemisation is referenced in numerous legal acts and has a significant impact on a number of branches of law. Therefore, it seems so important to try to analyze the meaning of this concept and its references to, i.a., environmental issues, food and nutrition safety, consumer and agricultural producer.

There is a need for in-depth operationalization of the concept of chemisation itself and related terms in the legal field. Currently, the legal provisions relating to the concept of chemisation remain scattered in numerous legal acts and do not create a coherent system of protection against excessive chemisation, a system for monitoring agrochemical activities or a complete catalog of sanctions. Being aware of how many issues were beyond the conducted pilot analysis, it should be considered that the issues presented only as an example show the complexity, topicality and multifaceted nature of agricultural chemisation in legal terms.

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ABSTRAKT

W artykule podjęto próbę analizy statusu pojęcia chemizacji w wybranych aktach prawnych, zarówno międzynarodowych, unijnych, jak i krajowych, oraz wskazania w zarysie problemów prawnych wiążących się z chemizacją w rolnictwie. Przeprowadzona analiza miała na celu wykazanie i zaakcentowanie wieloaspektowości i złożoności zagadnienia. Pojęcie chemizacji rolnictwa należy do siatki pojęciowej innych niż prawo działów, przede wszystkim chemii, nauk przyrodniczych i nauk agrotechnicznych. Nie ma ono definicji legalnej i jest rozproszone w różnych aktach prawnych, istotnie rzutując na takie obszary jak: ochrona środowiska, bezpieczeństwo żywności, bezpieczeństwo żywnościowe, ochrona interesów konsumenta i przedsiębiorcy rolnego. Z uwagi na specyfikę opracowania wykorzystano metodę dogmatyczną, za pomocą której przeprowadzono analizę materiału badawczego składającego się z obowiązujących wybranych, kluczowych przepisów prawa międzynarodowego i unijnego oraz aktów prawa krajowego. W celu rozszerzenia problematyki i uwypuklenia zagadnień będących przedmiotem opracowania wykorzystano metodę analizy treści i analizy dokumentów, dzięki czemu ukazano aktualność omawianej problematyki i jej istotne znaczenie ze społecznego punktu widzenia. Przeprowadzona analiza miała na celu ukazanie i podkreślenie wieloaspektowości i złożoności zagadnienia.

Słowa kluczowe: chemizacja rolnictwa; ochrona środowiska; bezpieczeństwo żywności; bezpieczeństwo żywnościowe; konsument; przedsiębiorca rolny