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Item 768

**NOTICE  
OF THE MINISTER FOR AGRICULTURE AND RURAL DEVELOPMENT<sup>1</sup>**

of 7 June 2023

**on the National Action Plan (NAP) to Reduce the Risk Associated with the Use of Plant Protection Products for the period 2023–2027**

On the basis of Article 47(5) of the Plant Protection Products Act of 8 March 2013 (Journal of Laws 2023, items 340 and 412), the National Action Plan (NAP) to Reduce the Risk Associated with the Use of Plant Protection Products for the period 2023–2027, which constitutes an Annex to this Notice, is hereby promulgated.

Minister for Agriculture and Rural Development: *R. Telus*

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<sup>1</sup> The Minister for Agriculture and Rural Development heads the Government department responsible for agriculture pursuant to Section 1(2)(1) of the Regulation of the Prime Minister of 15 April 2023 detailing the remit of the Minister for Agriculture and Rural Development (Journal of Laws 2023, item 716).

Annex to the Regulation of the Minister for Agriculture and Rural Development  
of 7 June 2023 (Monitor Polski, item 768)

## **NATIONAL ACTION PLAN TO REDUCE THE RISK ASSOCIATED WITH THE USE OF PLANT PROTECTION PRODUCTS FOR THE PERIOD 2023–2027**

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## I. Introduction

The National Action Plan to Reduce the Risk Associated with the Use of Plant Protection Products, hereinafter referred to as the 'National Action Plan' or 'NAP', implements the obligations arising from 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, 24.11.2009, p. 71, as amended), hereinafter referred to as 'Directive 2009/128/EC'.

In Poland, the first national action plan was adopted on 6 May 2013 and promulgated on 18 June 2013 in the Official Gazette of the Republic of Poland 'Monitor Polski' (Monitor Polski, item 536), while the second national action plan was adopted on 11 July 2018 and promulgated on 25 July 2018 in the Official Gazette of the Republic of Poland 'Monitor Polski' (Monitor Polski 2018, item 723; 2020, item 99).

The legal basis for the promulgation of the national action plans was Article 47(5) of the Plant Protection Products Act of 8 March 2013 (Journal of Laws 2023, item 340, as amended), and their implementation was scheduled for the years 2013-2017 and 2018-2022 respectively. In accordance with Article 47(6)(2) of the Plant Protection Products Act of 8 March 2013, the minister responsible for agriculture is obliged to review the national action plan at least once every five years.

The objective of the first and second national action plans was to promote the general principles of integrated pest management and to prevent the occurrence of risks associated with the use of plant protection products (PPPs). It was assumed that the implementation of the principles of integrated pest management, in particular by promoting non-chemical plant protection methods, will reduce the dependence of plant production on chemical PPPs, thus reducing the risks associated with their use.

During the preparation of the third [the current] National Action Plan, objectives and measures were specified to further reduce the risks associated with the use of PPPs. The experience and results of the implementation of the National Action Plans for the years 2013-2017 and 2018-2022 have been taken into account, and new measures have been introduced to respond to current needs.

A key objective for Poland in connection with the implementation of the third National Action Plan was, as in previous years, to promote the general principles of integrated pest management and to prevent the occurrence of risks associated with the use of plant protection products. The implementation of the principles of Integrated Pest Management (IPM), in particular by promoting non-chemical protection methods, reduces the dependence of plant production on chemical preparations and, as a result, reduces the risks associated with the use of PPPs, both for consumers of agricultural crops, persons applying PPPs and the environment.

## II. Selected information on Polish agriculture

The Republic of Poland has a surface area of 312 679 km<sup>2</sup> and a population of 38 179 000 (according to the 2021 General Population and Housing Register).

Data from Statistics Poland (Agricultural Register 2020. Characteristics of agricultural holdings – 2020) show that the number of agricultural holdings has been gradually decreasing. In 2020, more than 1.3 million holdings cultivated 14.95 million hectares of land and kept 10.0 million heads of livestock. The structure of agricultural holdings shows that, as in previous years, more than half of them (52.0%) were holdings with a surface area of up to 5 ha of agricultural land.

There has been a gradual increase in the number of the largest holdings with a surface area of 50 ha and more of agricultural land, with 40 700 such holdings having been recorded in 2020 (this represented 3.1% of all holdings), compared with 27 000 holdings (1.8%) in 2010. In 2020, the average agricultural area of a holding was 11.35 ha.

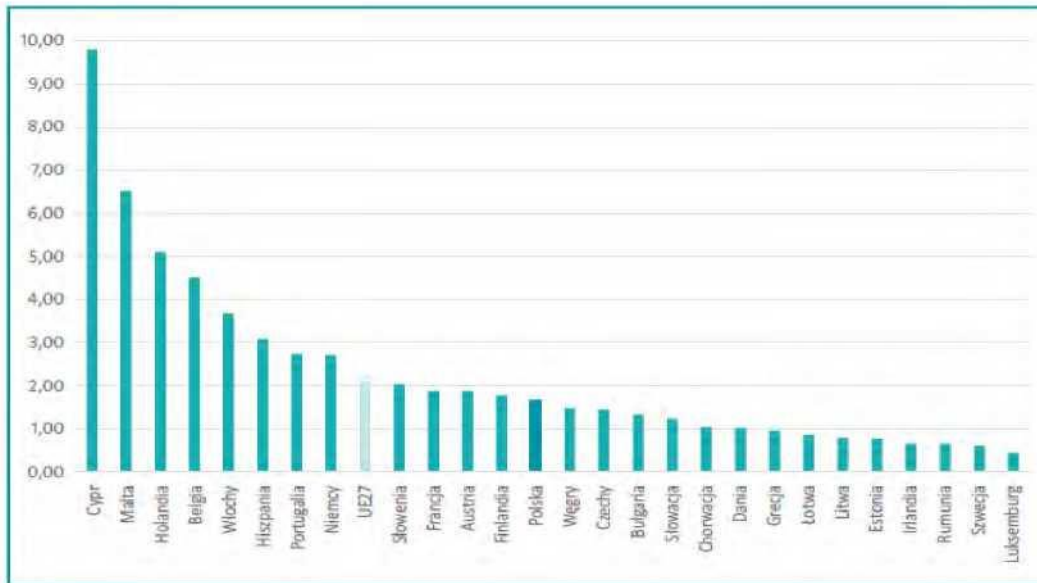
In 2020, crop production holdings were the predominant type of holding in Poland. These holdings accounted for 55.8% of all farms, while holdings with livestock production only accounted for 0.6% of that number. Mixed-production holdings (crop and livestock production) accounted for 43.6% of all farms.

The sowing area on holdings in 2020 was 10 962 000 ha and had increased by 596 000 ha (5.7%) since 2010. The area of permanent grassland also increased to 2 788 000 ha, i.e. by 210 000 ha (8.1%). These changes were caused by a decrease in the surface of land lying fallow, other agricultural areas, permanent pasture and permanent crops.

Cereals accounted for the largest share of crops (68.1%), including wheat (21.8%) and triticale (12.7%).

Due to the size of agricultural production, Poland ranked 25 in 2020 and 22 in 2021 in the food security ranking – the World Food Security Index. The ranking list was based on an analysis of the level of food security in 113 countries.

In recent years, approx. 350 000 tonnes of active substances used in plant protection products have been sold each year throughout the European Union. In 2019, Poland was the fifth country in the European Union in terms of sales of active substances, with 24 281 tonnes sold. However, according to the Plant Protection Institute – National Research Institute in Poznań (Instytut Ochrony Roślin – Państwowy Instytut Badawczy, IOR-PIB), Poland only ranks 13th in terms of sales of plant protection products, which in 2019 amounted to 1.67 kg/ha UAA (*utilised agricultural area* including arable land, permanent grassland, permanent crops, backyard crops) and 2.12 kg/ha UAA without permanent grassland. These values are lower than the average for the EU27, lower than the indicator values for countries with the highest levels of pesticide use (Spain, France, Italy, Germany) and lower than for countries with very intensive plant protection (the Netherlands, Belgium).

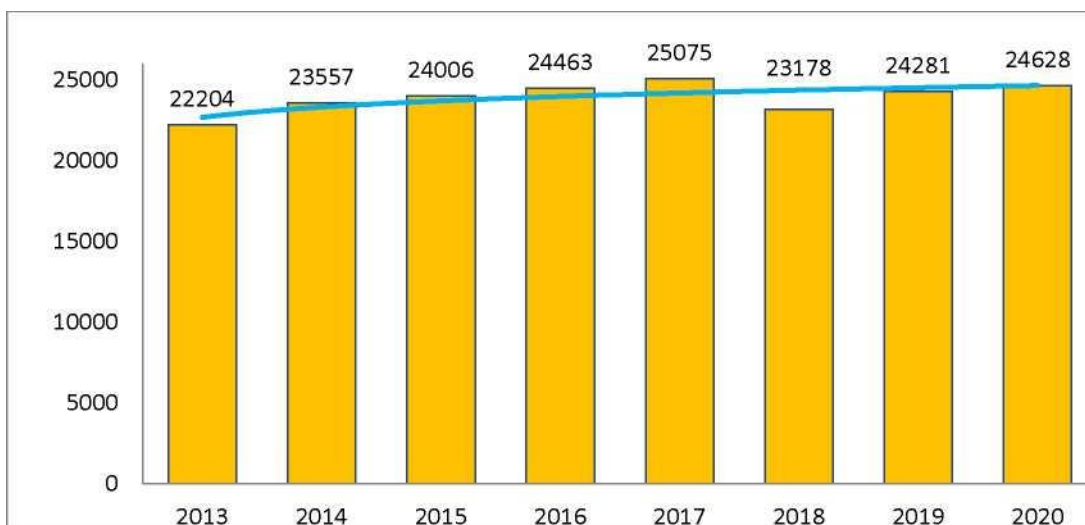


Graph 1, source: Own resources of the Ministry of Agriculture and Rural Development

[from left to right:]

Cyprus, Malta, The Netherlands, Belgium, Italy, Spain, Portugal, Germany, EU27, Slovenia, France, Austria, Finland, Poland, Hungary, Czechia, Bulgaria, Slovakia, Croatia, Denmark, Greece, Latvia, Lithuania, Estonia, Ireland, Romania, Sweden, Luxembourg

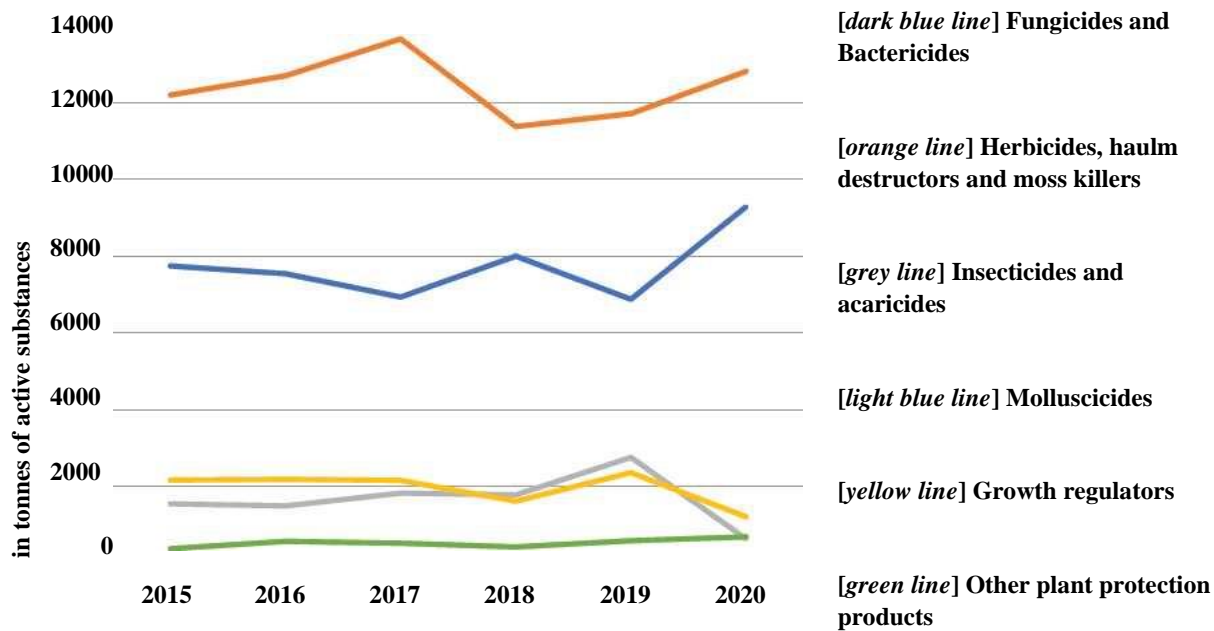
In recent years, Poland has seen the upward trend in the sales of plant protection products stalling. Sales of plant protection products per active substance in 2018 were 7.57% lower than in 2017, i.e. the year with the highest sales level recorded to date. This value increased by 4.76% in 2019 compared with 2018, but was still 3.17% lower than in 2017. In 2020, there was a further slight increase in sales (by 1.43% compared with 2019). This means that the rise in sales until 2017, after a correction in 2018, has been recovering slowly, but has not yet exceeded the 2017 level.



Graph 2, source: Own resources of the Ministry of Agriculture and Rural Development

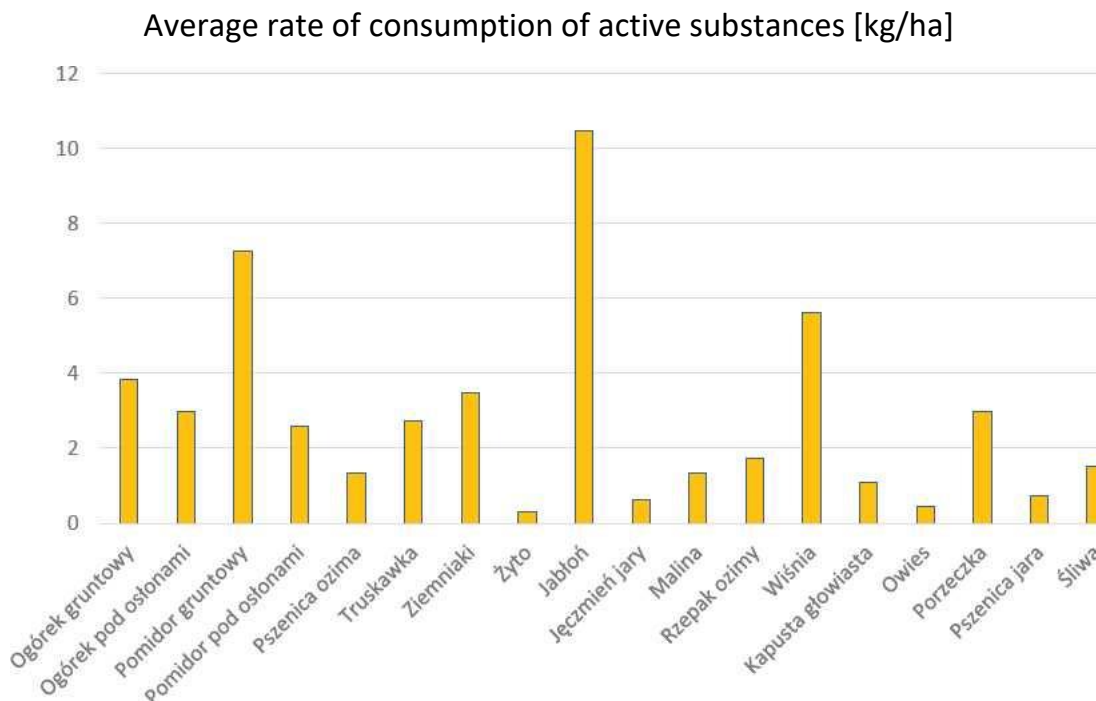
A thorough analysis of the data on sales of PPPs in 2018 showed a significant decrease in sales of organophosphorus herbicides by 29% and of plant growth regulators by 25%, while the sales of fungicides increased by 15%. In 2019, sales of insecticides increased by 55%. Sales of fungicides and herbicides increased in 2020, while sales of insecticides and plant growth regulators decreased.





Graph 3, source: Own resources of the Ministry of Agriculture and Rural Development

A significant variation in the use of plant protection products is observed in respect of different crops.



Graph 4, source: Own resources of the Ministry of Agriculture and Rural Development

*[from left to right:]*

*Cucumbers, cucumbers (protected production), tomatoes, tomatoes (protected production), winter wheat, strawberries, potatoes, rye, apple trees, spring barley, raspberries, winter oilseed rape, cherry trees, head cabbages, oat, redcurrant/blackcurrant, spring wheat, plum trees*

In comparison with the highly developed EU countries, there has been a steady increase in the capacity and efficiency of agricultural production in Poland, taking into account the principle of sustainable development as a priority. This improvement has been due, among other things, to the resources from the Structural Funds spent on financial support measures aimed at enhancing the competitiveness of agricultural holdings by modernising the technical production infrastructure, adjusting the [business] profile, scale and quality of production to market needs, as well as improving food safety, animal welfare, environmental protection and occupational safety. In addition, the implementation of cross-compliance rules also increases the level of agricultural production efficiency.

Since the 1950s the use of plant protection products has been intrinsically linked to the development of agricultural production and food economics in Poland. However, their use continues to be lower than in other EU countries with highly developed agriculture. The current upward trend in the sales of plant protection products per unit of agricultural area is expected to continue in the next years. All measures taken to minimise the risks associated with their use are therefore important.

The objectives set out in the National Action Plan are therefore aimed at reducing the risks associated with the use of plant protection products and at their rational and sustainable use, which should not be equated with a quantitative reduction in their use. Indeed, the objectives linked to reducing the risks arising from crop protection methods must be achieved while maintaining the competitiveness of Polish agriculture.

### III. The role of the Strategic Plan in implementing the objectives of the 'Farm to Fork' Strategy

In line with the EU's 'Farm to Fork' strategy and 'Biodiversity Strategy for 2030', the goal should be to 'reduce the overall use and risk of chemical pesticides by 50% and the use of more hazardous pesticides by 50% by 2030'. The EU's ambitions and objectives set out in the strategies are a response to the society's expectations with regard to food safety and environmental protection. To assess the achievement of these objectives, the European Commission (EC) put forward the following indicators:

- 1) the modified harmonised risk indicator HRI-1 – this indicator is based on statistical data on sales of plant protection products where different weights are assigned to the different categories of these preparations (hereinafter 'F2F-1');
- 2) the rate of reduction in the use of plant protection products containing candidates for substitution (hereinafter 'F2F-2').

The reference period for calculating the values of these indicators is 2015-2017.

The above objectives will be achieved through the actions detailed in the National Action Plan as well as in the 2023-2027 Common Agricultural Policy Strategic Plan ('the CAP SP').

According to the estimates of the Institute of Agricultural and Food Economics (Instytut Ekonomiki Rolnictwa i Gospodarki Żywnościowej, IERiGŻ) – National Research Institute, interventions under the CAP SP have the potential to reduce the use of plant protection products in Poland by 3.0-7.5%. This assessment was based on a sample of selected municipalities whose organisational and natural conditions are the most favourable from the point of view of interventions aimed at reducing the use of plant protection products. It was assumed that holdings that are likely to implement environmentally- and climate-friendly practices associated with the non-use of PPPs are those located in areas with low agricultural production potential. In addition, the share of permanent grassland in the surface area of these holdings is relatively high.

The assessment of the possibility of reducing the use of PPPs while maintaining the same level of agricultural productivity was carried out jointly by the IOR-PIB and the Institute of Horticulture – National Research Institute (Instytut Ogrodnictwa – Państwowy Instytut Badawczy, IO-PIB). The assessment was based on an analysis of the possibility of reducing individual protective measures by using alternative plant protection methods and rationalising the use of chemical PPPs. In line with these estimates, the maximum reduction in the sales of plant protection products (expressed in kg of active substance) could range from 3.67% to 9.09%. However, this would require all farmers to comply with the principles of integrated pest management (which in practice means joining the Eco-scheme – Plant production under the Integrated Plant Production scheme).

The above analyses focus on a quantitative reduction in the use of PPP, and they do not relate to a change in the indicators set out above.

On the basis of similar assumptions, taking into account the assessment of the possibility of refraining from the use of PPPs containing candidates for substitution, the IOR-PIB and IO-PIB also undertook to assess the feasibility of achieving the indicators proposed by the Commission.

Achieving a maximum possible reduction in the value of both indicators depends on a number of factors, both related to and independent of the CAP SP (e.g. withdrawal of approval for individual active

substances).

The maximum reduction in the value of the F2F-1 indicator, resulting solely from a change in crop protection measures, as expected by farmers, was established at 16.46%.

At the same time, however, despite the identified potential for reducing the use of PPPs, there has now been an increase in sales of preparations containing candidates for substitution, which will have an impact on the value of the indicators. In 2020, the value of the indicator relating to the reduction in the use of PPPs containing candidates for substitution was 117, according to the Commission's calculations.

For this reason, the aim of reducing the HRI-1 indicator by 5% compared with the 2019 reference value, i.e. the last year for which the indicator was calculated at the time when the plan was being developed, was set as the reduction target in the CAP SP. As the indicator value was 85% in 2019, the goal will be to reach 80% in 2030 (which corresponds to a total reduction of 20%).

The value of this indicator depends to a large extent on the withdrawal of approval of active substances, a process independent of the CAP SP. The lack of effective alternative protection methods and concerns about the emerging resistance of pests to such measures may encourage producers to use preparations containing active substances that are candidates for substitution.

The achievement of the reduction targets will depend on changes in the producers' decisions and their participation in eco-schemes, in particular the Eco-scheme – Plant production under the Integrated Plant Production scheme, which is dedicated to farmers engaged in and wishing to continue intensive plant production.

Therefore, changes in the range of available PPPs, the emerging resistance of pests, climate change and the resulting challenges linked to plant protection, as well as the spread of new pests, all of which are factors independent of the CAP SP, constitute a threat to the achievement of the reduction targets.

In order to achieve the above objectives, the following interventions have been put forward under the CAP SP:

- 1) Eco-scheme – Areas with melliferous plants;
- 2) Eco-scheme – Plant production under the Integrated Plant Production scheme;
- 3) Eco-scheme – Biological plant protection products;
- 4) Protection of valuable habitats and endangered species in Natura 2000 sites;
- 5) Organic farming;
- 6) Protection of valuable habitats and endangered species outside Natura 2000 sites;
- 7) Extensive use of meadows and pastures in Natura 2000 sites;
- 8) Preservation of orchards of traditional varieties of fruit trees;
- 9) Conservation of endangered plant genetic resources in agriculture;
- 10) Investments contributing to the protection of the environment and climate;
- 11) Intervention in the fruit and vegetable sector – Activities to protect the environment and mitigate climate change;
- 12) Knowledge exchange and dissemination of information.

These interventions are aimed at encouraging the use of alternative, non-chemical plant protection methods, at rationalising plant protection measures, taking measures to enhance biodiversity in the

agricultural environment and cultivating land in a manner which does not involve chemical substances.

#### **IV. Implementation of the first two National Action Plans**

General indicators were used to assess the achievement of the main objectives of the first NAP, while specific indicators were used for each intervention to assess the achievement of the respective specific objectives. The following were adopted as general indicators:

- 1) adherence of professional users of plant protection products to the general principles of Integrated Pest Management – the value of the indicator should be at least 90% in 2017 (according to data from the State Plant Health and Seed Inspectorate (Państwowa Inspekcja Ochrony Roślin i Nasiennictwa, PIORIN));
- 2) percentage share of values exceeding the maximum residue levels of plant protection products in food of plant origin – during the implementation of the National Action Plan, the value of this indicator should remain below 1% (according to data from the State Sanitary Inspection Service);
- 3) the percentage share of values exceeding the maximum residue levels for plant protection products in feed and food of animal origin – during the implementation of the National Action Plan, the value of this indicator should remain below 0.1% (according to data from the Veterinary Inspection Service).

The planned actions adopted for 2013-2017 were implemented consistently, as reflected in the indicator values used to assess the achievement of the objectives under the National Action Plan, i.e.:

- 1) according to PIORIN data, in 2017 between 68.3% and 96.5% of professional users of plant protection products applied individual Integrated Plant Production (IPP) requirements;
- 2) between 2013 and 2017, the State Sanitary Inspection Service found values exceeding by 1.22% on average the maximum residue levels for plant protection products in samples of food of plant origin (after accounting for the uncertainty of the result);
- 3) The Veterinary Inspection Service found no values exceeding the maximum residue levels for plant protection products in any of the samples of feed and food of animal origin tested in 2013-2014 and 2017. In 2015, four feed samples did not meet the requirements laid down in the applicable legislation, and non-compliant PCB results were detected in one sample of horse fatty tissue and in one sample of wild boar fatty tissue. A non-compliant PCB content was also detected in one sample of wild boar fatty tissue in 2016.

Thus, the objectives of the National Action Plan for 2013-2017 were almost fully achieved.

As with the first National Action Plan for 2013-2017, the objective of the second National Action Plan was to promote the general principles of Integrated Pest Management and to prevent the occurrence of risks associated with the use of plant protection products.

The National Action Plan covered actions by public administration bodies and state institutions aimed at providing support primarily to farmers in order to help them reduce the risks arising from the use of plant protection products.

As part of the programme, 13 actions were planned:

- 1) improving the system of training on plant protection products;

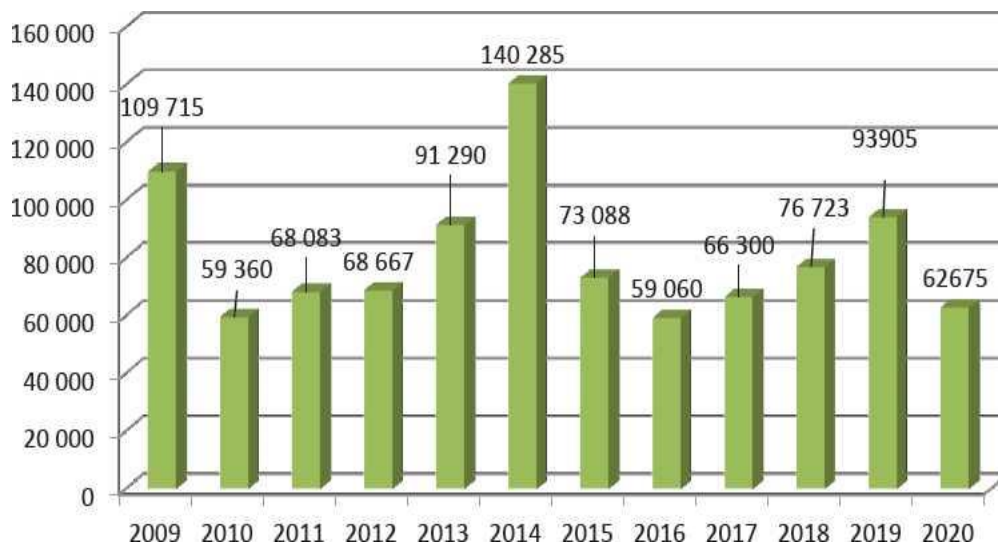
- 2) reducing the risk related to the use of plant protection products;
- 3) improving public understanding of plant protection products;
- 4) ensuring the technical fitness of equipment for the application of plant protection products;
- 5) reducing the risk related to the aerial spraying of plant protection products;
- 6) alerting bystanders to the fact that plant protection products are being applied in a given area;
- 7) protecting the aquatic environment and drinking water;
- 8) restricting the use of plant protection products in particularly sensitive areas;
- 9) eliminating risks at the various stages of applying plant protection products;
- 10) promoting Integrated Pest Management;
- 11) performing an analysis of risk associated with the use of plant protection products;
- 12) maintaining effective supervision of the marketing and use of plant protection products;
- 13) optimising the protection of minor and organic crops.

Detailed reports on the implementation of the National Action Plan are published annually on the website of the Ministry of Agriculture and Rural Development.

Due to the reporting systems used by the administration bodies involved in the tasks, at the moment of preparing this National Action Plan, the available data were reporting data for 2018-2020.

**Action 1** of the National Action Plan consisted in improving the system of mandatory training for users and distributors of PPPs, and advisors. Between 2017 and 2020, a total of 9 967 training courses were held, completed by 233 303 participants. However, a number of sanitary restrictions were in place in 2020 due to the SARS-CoV-2 coronavirus pandemic. That situation affected the quantity and form of training and contributed to a temporary suspension of the obligation to hold a recent certificate attesting to the completion of training on plant protection products.

The number of participants between 2009 and 2020 is shown in the graph below. The graph clearly shows the periodic character of training (as training sessions should be completed once every five years).



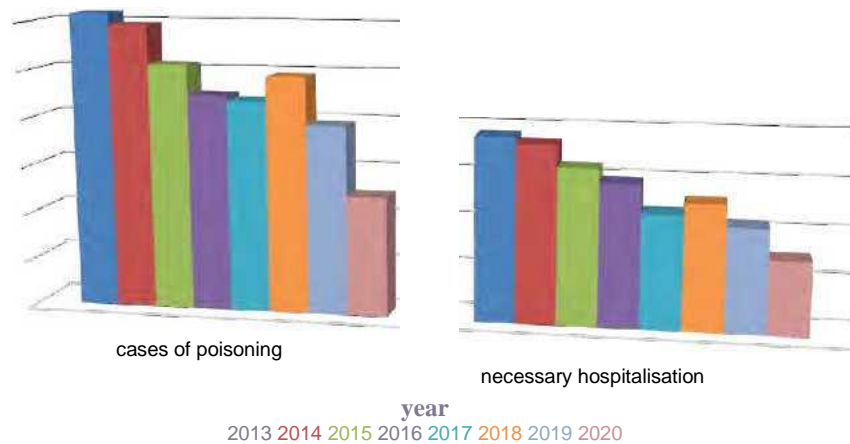
Graph 5, source: Own resources of the Ministry of Agriculture and Rural Development

The objectives of **Action 2** focused on eliminating irregularities in the sale of plant protection products and distribution of counterfeit or unauthorised preparations. According to the records kept by PIORIN, plant protection products were sold at approx. 8 100 points of sale each year. Approximately 6 300 checks on the points of sale trading in PPPs were performed annually.

The objective of **Action 3** was to improve public understanding of plant protection products, including through awareness-raising campaigns on the safe use of PPPs. Information in this regard was presented at conferences and published in the press. The safe use of plant protection products depends, to a large extent, on the awareness, knowledge and skills of persons applying them, which is why it was important to promote good practices for the safe use of PPPs. As part of this action, good plant protection practice manuals were developed and made available, covering the topics of testing of field and fruit sprayers, seed dressers and greenhouse sprayers.

Under this action, information was also collected on cases of humans being poisoned with plant protection products. According to the data from the National Health Fund, medical assistance in response to the poisoning with pesticides was provided: in 2018 to 492 people; in 2019 to 393 people, and in 2020 to 249 people.

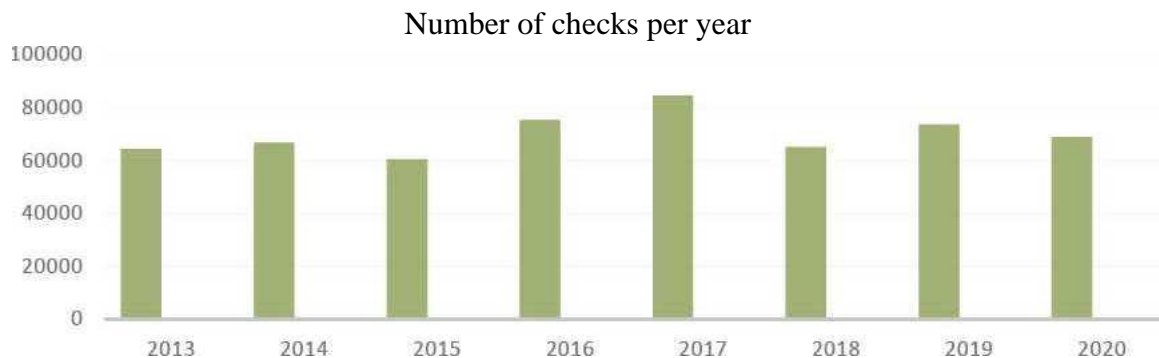
The number of cases of poisoning with PPPs between 2013 and 2020 is shown in the graph below. The data show that since 2013, with the exception of 2018, the number of poisonings with pesticides, as well as the number of hospitalisations as a result of such poisoning, has been steadily decreasing.



Graph 6, source: Own resources of the Ministry of Agriculture and Rural Development

As part of **Action 4**, the system of mandatory inspections of the technical fitness of equipment for the application of plant protection products was improved. In addition to field sprayers and fruit sprayers, inspections were carried out of spraying equipment mounted on aircraft, spraying equipment mounted on trains, seed dressers, installations for the application of plant protection products in greenhouses and foil tunnels, as well as other equipment intended for the application of plant protection products with a tank capacity above 30 litres. In total, between 2017 and 2020, 199 565 items of plant protection equipment were inspected. There were also 15 678 items of new equipment not yet subject to inspection.

The number of items of plant protection equipment inspected between 2013 and 2020 is shown in the graph below.



Graph 7, source: Own resources of the Ministry of Agriculture and Rural Development

The objective of **Action 5** was to monitor compliance with the provisions laying down rules for the application of plant protection using spraying equipment mounted on aircraft. No irregularities were identified as regards the application of PPPs in 2018-2020. The plant protection products were applied exclusively in forests, in 2018 on 218 799.51 ha, in 2019 on 237 876.00 ha and in 2020 on 50 073.93 ha of forest land respectively; the following products were used: Mospilan 20 SP, Dimilin 480 SC and Foray 76 B.



**Action 6** consisted in improving public understanding of the rules concerning the provision of information on planned application of plant protection products, in particular among beekeepers and organic farmers. Between 2018 and 2020, PIORIN inspectors performed checks on the use of plant protection products as regards the provision of information on planned application of PPPs. No irregularities were found in this area.

Under **Action 7** – measures to protect the aquatic environment and drinking water, the following were carried out:

- 1) monitoring of surface water, groundwater and bottom sediments by the Inspectorate for Environmental Protection;
- 2) monitoring of water intended for human consumption by the State Sanitary Inspection Service;
- 3) assessing the impact of chemical plant protection products on surface water status carried out by the IOR-PIB and IO-PIB in cooperation with the provincial inspectorates for environmental protection in Warsaw and Poznań.

The effectiveness of the measures was assessed on the basis of a water quality study. In 2020, water quality, as determined on the basis of a study on the chemical impact of plant protection products on the status of surface water carried out by the IOR-PIB, showed that 95.9% of the water samples analysed met the requirements of the highest category A1 in accordance with the standard laid down in the Regulation of the Minister for the Maritime Economy and Inland Waterways of 29 August 2019 on the requirements to be met by surface water used for the public supply of water for human consumption (Journal of Laws 2019, item 1747). In the case of the tests performed by the IO-PIB, 91% of the water samples met the requirements for category A1. The tests performed by the IOR-PIB comprised 492 samples from 14 provinces, while the tests performed by the IO-PIB comprised 100 samples from two provinces, and the analyses were carried out on water from the Vistula river and its basin between the tributary Wilga and Warsaw.

As part of **Action 8**, checks were performed on compliance with legislation restricting the use of plant protection products in particularly sensitive areas. In 2018, 1 280 inspections were carried out by PIORIN inspectors, of which 1 233 did not detect any irregularities, while in 2019, 1 084 inspections were carried out, including 1 074 without findings of irregularities. In 2020, due to the SARS-CoV-2 pandemic, 245 inspections were carried out, of which 211 were closed without findings of irregularities. The rate of irregularities between 2018 and 2020 was 3.67%, 1.46% and 1.83% respectively; unfortunately it was above the target of <1%.

The risks associated with the use of plant protection products may occur not only during the actual application of the products, but also at other stages of preparation and application. In order to ensure safety, it is therefore particularly important that plant protection products be properly stored and that the spray fluid be prepared, its residues managed and the equipment washed after use. As part of **Action 9**, between 2018 and 2020, PIORIN inspectors carried out checks on the safe use and storage of plant protection products. The level of irregularities as regards the conditions for safe use and storage of plant protection products found in the course of the checks carried out by PIORIN was low at 0.95% in 2018, 1.45% in 2019 and 1.48% in 2020.

The primary objective of the National Action Plan is to promote the principles of Integrated Pest Management (IPM). This action pursues the objectives set out in Article 14 of Directive 2009/128/EC. Implementation of the principles of IPM, the main objective of which is to ensure a rational use of plant protection products, on the basis of the actual need for application, taking into account non-chemical methods as a matter of priority, is the most effective way of reducing the risks associated with the use of plant protection products. **Action 10** – Integrated Pest Management (IPM); this action involved, among other things:

- 1) disseminating knowledge on IPM in particular by creating and developing the Pest Monitoring Platform (Platforma Sygnalizacji Agrofagów), providing specialised training (1 453 participants completed training courses organised by the IOR-PIB and the Agricultural Advisory Centre (Centrum Doradztwa Rolniczego), seminars and conferences, and disseminating research and information material (a total of 6 500 leaflets and 1 150 posters were prepared);
- 2) providing agricultural producers and advisors with the tools necessary IPM requirements, such as: crop-specific IPM methodological guidelines (a total of 74 methodological guidelines were developed), decision-support systems for plant protection, pest monitoring manuals, IMP programmes, results of post-registration variety trials;
- 3) promoting an integrated plant production system – a voluntary food quality and certification scheme based on the principles of IPM;
- 4) providing advice on plant protection;
- 5) ensuring safety for pollinators when applying plant protection products.

The correct targeting of regulatory and control activities relating to the marketing and use of plant protection products in the appropriate risk areas, as well as the development of State policy in relation to these products, required the establishment of an efficient system for collecting and analysing data on the risks associated with the use of PPPs and analysing the behaviour of their users. Therefore, as part of **Action 11**, checks, monitoring, and statistical surveys were carried out, including:

- 1) checks on food of plant origin for residues of plant protection products, performed by the State Sanitary Inspection Service bodies (approx. 3 000 samples per year);
- 2) checks on feed for residues of plant protection products, performed by the Veterinary Inspection Service (approx. 330 samples per year);
- 3) checks on food of animal origin for residues of plant protection products, performed by the Veterinary Inspection Service (approx. 1 000 samples per year);

This action also involved developing indicators and assessing the risks associated with the use of plant protection products.

**Action 12** was aimed at maintaining effective supervision of the marketing and use of plant protection products. Each year, PIORIN performed approx. 6 000 checks on the marketing of PPPs and approx. 23 000 checks on the use of those products, which also included testing for residues in agricultural products (approx. 3 100 samples per year). As part of its task, the IOR-PIB developed mathematical and statistical tools for carrying out risk analyses at the stage of inspection planning by the Inspection Service.

The objective of **Action 13** was to optimise the protection of minor and organic crops, with 318 decisions issued in 2018-2020 extending the scope of authorisations for plant protection products to be used on minor crops, as requested by industry organisations and producer groups, research institutes and producers of plant protection products. Scientific research in the area of organic farming has been an important source of support for this production sector. It has made it possible to develop new technologies for organic production, making it simpler and less risky. As a matter of priority, work was carried out to ensure an adequate range and choice of plant protection products authorised for use in organic farming and basic substances. In 2018-2020, approx. 100 plant protection products were authorised for use in organic farming.

To monitor the achievement of the objectives of the National Action Plan, an indicator of the level of irregularities in the use of plant protection products was used, the value of which should not exceed 1.5 during the implementation of the National Action Plan.

This indicator takes into account the results of checks carried out by PIORIN on the use of PPPs by agricultural producers. Checks on holdings are carried out separately for the three crop groups (agricultural, vegetable and fruit crops); approx. 20 000 checks of this type are performed every year. The checks are carried out in seven specific control areas:

- 1) documentation relating to the plant protection products used;
- 2) use of an unauthorised plant protection product;
- 3) use of a plant protection product not in line with its authorised use;
- 4) conditions for the safe use of the plant protection product;
- 5) conditions for storage of the plant protection product;
- 6) recent certificates attesting to the completion of training;
- 7) technical fitness inspections of equipment used for applying plant protection products.

The indicator is based on the number of irregularities detected in relation to the number of checks carried out in the individual control areas. The control areas were assigned weights depending on the potential risk to humans and the environment posed by the irregularities detected.

The indicator value is calculated as follows:

$$W_{S.Kontrola} = \sum_j (W_j \cdot N_j / Lk_j) \cdot 100 [\%]$$

where:

- $j$  – index for the specific control area (from 1 to 7);
- $W_j$  – weight (which depends on the potential risk to human safety and the environment posed by the irregularities detected in a particular control area)  
( $W_1 = 0.05$ ;  $W_2 = 0.3$ ;  $W_3 = 0.2$ ;  $W_4 = 0.2$ ;  $W_5 = 0.1$ ;  $W_6 = 0.05$ ;  $W_7 = 0.1$ );
- $N_j$  – total number of irregularities detected in the control area 'j';
- $Lk_j$  – number of checks carried out in the control area 'j'.

The indicator  $W_{S.Kontrola}$  was calculated for the period from 2014. It decreased to 1.279 % in 2020. However, this is higher than the 2014-2018 level. Compared with 2019, the number of irregularities in the areas of 'Documentation relating to the plant protection products used' and 'Technical performance

inspections of equipment used for applying plant protection products' decreased, while it increased in the area 'Use of an unauthorised plant protection product'. The main control area affecting the indicator is 'Use of a plant protection product not in line with its authorised use' – 618 irregularities were detected during 19 508 checks (3.17%), which accounts for almost 50% of the indicator value (0.634%). These irregularities may be explained by an insufficient range of plant protection products.

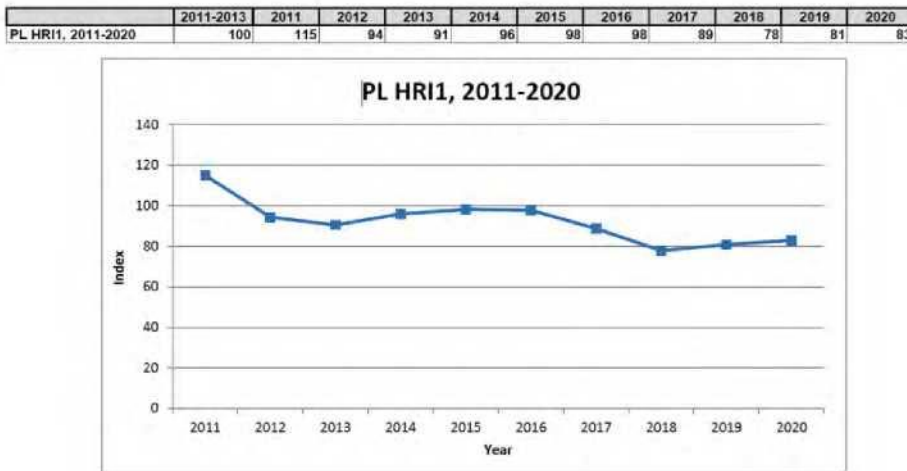
Year	2014	2015	2016	2017	2018	2019	2020
Ws.Kontrola [%]	0.925	1.039	1.103	1.101	1.086	1.335	1.279

During the implementation period of the National Action Plan, the indicator remained below 1.5%, as expected.

In accordance with Commission Directive (EU) 2019/782 of 15 May 2019 amending Directive 2009/128/EC of the European Parliament and of the Council as regards the establishment of harmonised risk indicators (OJ L 127, 16.5.2019, p. 4), the National Action Plan was amended in 2019 by adding the following provision: 'the harmonised risk indicators set out in Annex IV to Directive 2009/128/EC shall also be used to analyse the risks associated with the use of plant protection products. In accordance with Article 15(2) of Directive 2009/128/EC, these indicators shall be used as the basis for identifying trends and priority items relating to the use of active substances of particular relevance to the risks associated with the use of plant protection products. Information on these trends and priority items, as well as the values of the harmonised risk indicators calculated, shall be made available to the public on the website of the Ministry of Agriculture and Rural Development.'

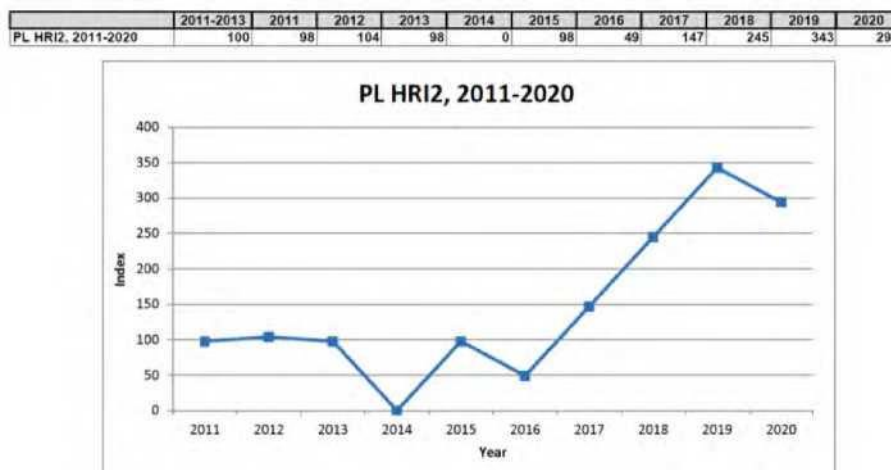
In addition, the achievement of the objectives of the National Action Plan was assessed on the basis of harmonised risk indicators HRI-1 and HRI-2, as defined in Directive 2009/128/EC.

The trend for the HRI-1 indicator, together with its values in subsequent years, is shown in the graph below:



Graph 8, source: Own resources of the Ministry of Agriculture and Rural Development

The trend for the HRI-2 indicator, together with its values in subsequent years, is as follows:



Graph 9, source: Own resources of the Ministry of Agriculture and Rural Development

The HRI-1 indicator values show that after three years of marked decline (in 2016-2018), the indicator stabilised at around 20 points below the value calculated for the reference years.

Given that the changes in the indicator value are influenced by a number of different factors, it is difficult to clearly identify the most relevant ones.

The growing awareness of agricultural producers and the implementation of IPM principles are among the factors influencing the decrease in the indicator value between 2016 and 2018. This trend was also the result of the withdrawal of certain active substances from use in plant protection products.

On the other hand, a separate assessment is required to understand the halt in the downward trend and the stabilisation of the indicator value between 2018 and 2020.

A thorough analysis of changes in the surface area of major crops over the past five years does not indicate a clear link between the indicator value and the changes in the surface area of any of those crops or the sum of those areas. The structure of the crop areas did not change significantly during that period.

Thus, the dynamics of changes in the indicator value was mainly influenced by changes in the use of plant protection products.

An analysis of the data on sales of plant protection products showed that in 2018, there was a significant decrease in sales of organophosphorus herbicides (by 29%) and of plant growth regulators (by 25%), while the sales of fungicides increased by 15%. At the same time, the sales of insecticides increased significantly (by 55%) in 2019. There was an increase in sales of plant protection products to which high weights had been assigned under this indicator, i.e. plant protection products containing substances that are candidates for substitution, as listed in Part E of the Annex to Commission Implementing Regulation (EU) No 542/2011 of 1 June 2011 amending Implementing Regulation (EU) No 540/2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards the list of approved active substances to take into account Directive 2011/58/EU amending Council Directive 91/414/EEC to renew the inclusion of carbendazim as active substance (OJ L 153, 11.6.2011, p. 189).

Changes in the structure of the active substances used in products protecting against weeds are linked to an increasing number of biotypes of monocotyledonous weeds, mainly the common windgrass (*Apera spicaventi*) and the slender meadow foxtail (*Alopecurus myosuroides*), that are resistant to herbicides. These are weeds commonly found among winter cereal crops. The growing problem of herbicide resistance of grassland weeds has contributed to changes in the practice of protecting winter cereals from weed infestation. At present, as part of winter cereal protection programmes, the proportion of PPP applications performed in the autumn increases, with the use of active substances which have an impact on the indicator value due to the weights assigned.

The indicator value is also influenced by the phase-out of certain active substances from use in plant protection products that have so far been widely used in agriculture, which prompts agricultural producers to resort to active substances to which high weights have been assigned under the indicator. This concerns the protection of cereals against pathogens such as rust (*Puccinia* spp.), septoriosi s (*Zymoseptoria tritici*, *Stagonospora nodorum*), barley powdery mildew (*Blumeria graminis*), *Ustilago* spp., *Tilletia*, *Urocystis oculata* or *Microdochium nivale* and the protection of rapeseed against *Leptosphaeria* spp. and white mould (*Sclerotinia sclerotiorum*).

In vegetable and fruit crops, the phase-out of certain active substances from use in plant protection products has led to situations where the only alternative is to use substances that have been assigned high weights under the indicator. This is the case with products protecting against a number of fungal pathogens. The use of PPPs containing active substances with high weights assigned under the HRI-1 indicator is also prompted by the increased prevalence of soil pathogens of the *Phytophthora* and *Verticillium* genus.

The HRI-2 indicator is based on the number of authorisations for the placing of plant protection products on the market in emergency situations.

The calculations provided show that such situations occurred to varying degrees in subsequent years, but in the period analysed, in the last three years (2016-2019) the indicator clearly exceeded the reference period value (i.e. the average for the years 2011-2013). Changing cultivation conditions, climate change affecting the environment, emerging new phytosanitary risks and the phase-out of active substances from use in plant protection products may also mean that this trend will continue in the future.

In 2019, a particularly high risk was associated with the presence of sugar beet and rapeseed pests, which resulted in the Minister for Agriculture and Rural Development authorising the placing on the market of plant protection products for limited and controlled use pursuant to Article 53 of 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(OJ L 309, 24.11.2009, p. 1, as amended).

The HRI-2 indicator decreased markedly in 2020.

An important element in the analysis of this harmonised risk indicator is the benchmark for plant protection (intensity) in Poland, which comprises the quantity of products used, the number of applications of plant protection products carried out and the crop yield. The average use of active substances in Poland is lower than the EU average. In Poland, the sales rate of plant protection products in kg/ha of crop area was 1.67 in 2019, while the EU average was 2.05.

According to the data provided, the objectives of the National Action Plans for 2013-2017 and 2018-2022 have largely been met, and the risks associated with the use of plant protection products are limited. Food produced in Poland is practically free from residues of plant protection products higher than the maximum allowable levels and is therefore safe for consumers. Agricultural producers are also aware of the principles of Integrated Pest Management, and they apply the various elements of IPM in their farming practice.

The limitation of risks associated with the use of plant protection products has been achieved, on the one hand, by the adoption of detailed rules on the marketing and use of plant protection products and, on the other hand, by information/educational activities among agricultural producers and other PPP users and by equipping them with the tools to implement the principles of IPM (IPM methodological guidelines, crop protection programmes, decision-support programmes for plant protection, good plant protection practice manuals, pest monitoring system and advice).

In particular, reference should be made in this context to:

- 1) the introduction and improvement of a system of training on plant protection products;
- 2) the introduction and improvement of the system for inspecting equipment used for the application of plant protection products;
- 3) the introduction of effective supervision mechanisms for the marketing and use of plant protection products.

In most areas, the risks identified have therefore been significantly reduced and in some cases completely eliminated (as in the case of spraying equipment mounted on aircraft).

## V. Objectives and measures to reduce the risk associated with the use of plant protection products in the period 2023–2027

The main objectives of the National Action Plan are the following:

- 1) promotion of the general principles of Integrated Pest Management;
- 2) prevention of risks associated with the use of PPPs.

The indicator developed under the National Action Plan for 2013-2017, namely the rate of irregularities associated with the use of plant protection products, will be used to monitor the achievement of the above objectives. During the implementation of the National Action Plan, the value of the indicator should not exceed 1.5.

This indicator takes into account the results of checks carried out by PIORIN on the use of PPPs by agricultural producers. Checks on holdings are carried out separately for the three crop groups (agricultural, vegetable and fruit crops); approx. 20 000 checks of this type are performed every year. The checks are carried out in seven specific control areas:

- 1) documentation relating to the plant protection products used;
- 2) use of an unauthorised plant protection product;
- 3) use of a plant protection product not in line with its authorised use;
- 4) conditions for the safe use of the plant protection product;
- 5) conditions for storage of the plant protection product;
- 6) recent certificates attesting to the completion of training;
- 7) technical fitness inspections of equipment used for applying plant protection products.

The indicator is based on the number of irregularities detected in relation to the number of checks carried out in the individual control areas. The control areas were assigned weights depending on the potential risk to humans and the environment posed by the irregularities detected.

The indicator value is calculated as follows:

$$W_{S.Kontrola} = \sum_j (W_j \cdot N_j / Lk_j) \cdot 100 [\%]$$

where:

- $j$  – index for the specific control area (from 1 to 7);
- $W_j$  – weight (which depends on the potential risk to human safety and the environment posed by the irregularities detected in a particular control area)  
( $W_1 = 0.05$ ;  $W_2 = 0.3$ ;  $W_3 = 0.2$ ;  $W_4 = 0.2$ ;  $W_5 = 0.1$ ;  $W_6 = 0.05$ ;  $W_7 = 0.1$ );
- $N_j$  – total number of irregularities detected in the control area 'j';
- $Lk_j$  – number of checks carried out in the control area 'j'.

In addition, the achievement of the objectives of the National Action Plan will be assessed on the basis of harmonised risk indicators HRI-1 and HRI-2, as defined in Directive 2009/128/EC.

The objectives of the National Action Plan will be achieved through the implementation of the following actions.

### 1. Action 1. Training on plant protection products

The implementation of a system of compulsory training under the supervision of PIORIN for persons



applying plant protection products is a key element in reducing the risks associated with the use of those products to human health, food safety and the protection of the environment, in particular with regard to the protection of non-target organisms (e.g. pollinators) and the aquatic environment. This action pursues the objectives set out in Article 5 of Directive 2009/128/EC.

In accordance with Article 41 of the Plant Protection Products Act of 8 March 2013, application of plant protection products intended for professional users may be carried out upon completion of specialised training. Thus, all applications of plant protection products intended for professional users, including in urban green areas, spraying by means of equipment mounted on trains, may only be carried out by persons who have completed appropriate training.

Specialist training must also be completed by persons selling plant protection products. In accordance with Article 25 of the Plant Protection Products Act of 8 March 2013, an entrepreneur carrying out economic activity consisting of placing plant protection products on the market should ensure that persons selling PPPs complete the relevant training and that they provide the purchaser, at their request, with information on the risks associated with those products and on their correct and safe use. The sellers have a direct influence on the behaviour of users of plant protection products, and the knowledge they pass on should help reduce the risks arising from the transport, storage and use of PPPs.

In addition, in accordance with Article 42 of the Plant Protection Products Act of 8 March 2013, advisors providing professional guidance on plant protection, including in the context of marketing activities, are also required to complete compulsory training.

Detailed requirements for the training programmes and their organisation are laid down in the Regulation of the Minister for Agriculture and Rural Development of 8 May 2013 on training in the area of plant protection products (Journal of Laws 2022, item 824). Training programmes must cover the general principles of Integrated Pest Management and methods of mitigating the risks associated with the use of plant protection products, including risks to the aquatic environment. There is a strong focus in training programmes on the protection of beneficial organisms, including pollinators. The training also covers selected aspects of proper storage of plant protection products and the handling of packaging of used products. Separate programmes have been established for initial and additional training. Training should be completed once every five years. The requirement to set up a training programme imposed on Poland by Directive 2009/128/EC has thus been fulfilled.

Under the National Action Plan, it is planned to further refine and improve the quality of training. In the context of training, particular focus will be on:

- 1) the protection of beneficial species, including pollinators, when using plant protection products;
- 2) the protection of the aquatic environment when using plant protection products;
- 3) the elimination of risks associated with the marketing of counterfeit plant protection products;
- 4) the technical fitness of plant protection equipment and the benefits of regular inspections of such equipment.

### **1.1. How this action will be implemented**

As part of the implementation of the action,

- 1) the following will be carried out:

- a) compulsory training for the different professional groups required to complete training;
  - b) information activities among the professional groups required to complete training;
  - c) checks on professional groups required to complete training;
- 2) training material will be developed.

## **1.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints, and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. In particular, it will be implemented by the Agricultural Advisory Centre and the provincial agricultural advisory centres, in accordance with the provisions governing the financing of these bodies, including the payment for training, and by the IO-PIB and the IOR-PIB as part of special-purpose subsidies awarded to institutes for the implementation of tasks specified by the Ministry of Agriculture and Rural Development. The tasks relating to the supervision of the system of training on plant protection products will be carried out by PIORIN, within the budgetary constraints of the Chief Inspector of PIORIN, and by provincial governors. Cooperation will continue in this regard with agricultural councils, local government units, agricultural schools and universities, as well as organisations active in the field of agriculture.

Under the CAP SP, it is planned to entrust the provincial agricultural advisory centres with the provision on training on Integrated Pest Management and the sustainable use of plant protection products and integrated plant production, and comprehensive agricultural advisory services.

## **2. Action 2. Reducing the risk associated with the sales of plant protection products**

Certain risks are associated not only with the use of plant protection products, but also with placing PPPs on the market. It is therefore necessary to also include this area in the National Action Plan. This action pursues the objectives set out in Article 6 of Directive 2009/128/EC.

In accordance with the provisions of Article 25(1) of the Plant Protection Products Act of 8 March 2013, operators involved in the placing on the market and packaging of plant protection products must be entered in the register of regulated activities. This ensures that PIORIN can effectively supervise these entities.

At the same time, Article 31 of the above-mentioned Act prohibits:

- 1) the selling of a plant protection product and offering to sell such product:
  - a) to a person whose conduct indicates that he or she is in a state of intoxication or who is a minor;
  - b) in replacement packaging;
  - c) on premises where food or feed is sold, unless, in the case of a plant protection product intended for non-professional users, the product is stored in a locked place in such a way as to ensure that it is not in contact with the food or feed;
  - d) from a vending machine, via self-service or outside a permanent location of the point of sale (door-to-door and mobile sales at markets within the meaning of the provisions on local taxes and charges);
  - e) after its expiry date;

- 2) the provision of information which is not in accordance with the requirements indicated on the label of the plant protection product, including at the moment of sale.

The Plant Protection Products Act of 8 March 2013 also requires distributors of plant protection products, as described above, to ensure that appropriate training (for advisors) is completed by persons who sell plant protection products to the final purchasers (this requirement does not apply to micro-enterprises selling only low-risk preparations to non-professional users) and to provide purchasers of plant protection products with information on the risks those products pose and on how to avoid those risks (Article 25 of the aforementioned Act). Persons who sell plant protection products are often the main source of knowledge about those products for persons who apply such products.

The legal framework in force in Poland therefore ensures that the marketing of plant protection products is completely safe. In this respect, the objectives of Directive 2009/128/EC have been achieved.

Actions to mitigate the risks associated with the sale of plant protection products under the National Action Plan will focus on eliminating sales of PPPs to unauthorised persons and the distribution of counterfeit or unauthorised products. This will be done through training and educational activities for distributors, farmers and other operators using plant protection products. Checks will also be carried out on compliance with the above requirements.

### **2.1. How this action will be implemented**

As part of the implementation of the action,

- 1) information will be disseminated on the risks associated with the use of unauthorised and counterfeit plant protection products;
- 2) checks will be performed on operators placing plant protection products on the market.

### **2.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints, and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. In particular, it will be implemented by the IOR-PIB and the IO-PIB as part of special-purpose subsidies awarded to these institutes (for the development of educational material and the carrying out of information/educational activities) and supported by the Agricultural Advisory Centre and the provincial agricultural advisory centres with regard to the dissemination of information. The tasks relating to the supervision of the marketing and packaging of plant protection products will be carried out by PIORIN, within the budgetary constraints of the Chief Inspector of PIORIN, and by provincial governors. Cooperation will continue in this regard with agricultural councils, local government units, agricultural schools and universities, as well as organisations active in the field of agriculture.

### **3. Action 3. Improving public understanding of plant protection products**

Directive 2009/128/EC stresses the need to improve public understanding of plant protection products, and to inform persons who are not professional users of PPPs about the role of those products in modern agriculture and the risks associated with their use.

As part of this action, the goal of which is to achieve the objectives set out in Article 7 of Directive 2009/128/EC, the Ministry of Agriculture and Rural Development, PIORIN, the Agricultural Advisory Centre

and the provincial agricultural advisory centres, as well as the institutes supervised by the Minister for Agriculture and Rural Development, will organise educational activities concerning plant protection products for farmers and residents of rural areas. These activities will include, in particular, the provision of information on the risks arising from incorrect use of plant protection products and possible ways of eliminating those risks. Information in this regard will be presented at conferences and published in the press and online. The information material will be distributed to users of plant protection products. Information on the mitigation of risks associated with the use of plant protection products for human and animal health and the environment will also be made available on the Integrated Pest Management website – the Pest Monitoring Platform.

In addition, the action will entail the implementation of the following specific tasks:

#### **Task 1. Promoting good practices for the safe use of plant protection products**

The safe use of plant protection products depends, to a large extent, on the awareness, knowledge and skills of persons applying those products. By making correct choices and using appropriate equipment and technical infrastructure, persons applying plant protection products can minimise the risks associated with their use.

As part of the National Action Plan, good plant protection practice manuals will be developed and updated, covering issues such as:

- 1) occupational health and safety when storing and using plant protection products;
- 2) protection of the aquatic environment when using plant protection products;
- 3) protection of beneficial species, including pollinators, when using plant protection products;
- 4) calibration of equipment for the application of plant protection products;
- 5) detection of counterfeit plant protection products.

All information and published material on good practices will be uploaded to the Pest Monitoring Platform.

#### **Task 2. Collecting information on cases of humans being poisoned with plant protection products**

The requirement to keep a register of cases of poisoning with plant protection products is laid down in Article 7(2) of Directive 2009/128/EC, which reads: 'Member States shall put in place systems for gathering information on pesticide acute poisoning incidents, as well as chronic poisoning developments where available, among groups that may be exposed regularly to pesticides such as operators [who handle pesticides], agricultural workers or persons living close to pesticide application areas'. The Plant Protection Products Act of 8 March 2013, which Transposing the Directive into Polish legislation, provides that information on cases of poisoning with plant protection products is collected by the office supporting the minister responsible for agriculture.

The Ministry of Agriculture and Rural Development will continue to cooperate with the Agricultural Social Insurance Fund (Kasa Rolniczego Ubezpieczenia Społecznego, KRUS), the Ministry of Health (the National Health Fund) and the State Labour Inspectorate in obtaining data on cases of poisoning with plant protection products.

In addition to obtaining up-to-date knowledge of cases of poisoning with plant protection products and the circumstances in which they occurred, the objective of the task is to assess the legal and organisational arrangements aimed at preventing such incidents.

### **3.1. How this action will be implemented**

As part of the implementation of the action,

- 1) public understanding of plant protection products will be improved;
- 2) information and training materials on good practices in the use of plant protection products will be prepared;
- 3) information activities will be organised for users of plant protection products;
- 4) information will be collected and analysed on cases of poisoning with plant protection products.

### **3.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints, and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. Cooperation will continue in this regard with provincial agricultural advisory centres, agricultural councils, local government units, agricultural schools and universities, as well as organisations active in the field of agriculture. Tasks relating to the monitoring of cases of poisoning with plant protection products will be performed in cooperation with KRUS, the National Health Fund and the State Labour Inspectorate, among others.

## **4. Action 4. Ensuring the technical fitness of equipment for the application of plant protection products**

Ensuring the technical fitness of plant protection equipment is of the utmost importance. The use of defective equipment can have negative effects both on human and animal health and on the state of the environment. In addition, uneven distribution of plant protection products on the areas sprayed may translate into lower efficiency of the application in places where the quantity of the products used is lower than it should be. This action pursues the objectives set out in Article 8 of Directive 2009/128/EC.

In order to reduce the risks associated with the use of unsafe sprayers when applying plant protection and, consequently, to reduce the risk of incorrect application of plant protection products, a system of compulsory periodic inspections of the technical fitness of sprayers has been put in place.

Technical fitness inspections of sprayers are carried out on the basis of the Plant Protection Products Act of 8 March 2013 and the Regulation of the Minister for Agriculture and Rural Development of 18 December 2013 on requirements concerning the technical fitness of equipment intended for the application of plant protection products (Journal of Laws 2016, item 760) and the Regulation of the Minister for Agriculture and Rural Development of 13 December 2013 on re-assessments of the technical fitness of equipment for the application of plant protection products (Journal of Laws 2021, item 775).

The provisions of the aforementioned Act require professional users of plant protection products to carry out both periodic technical inspections and calibrations of equipment intended for the application of these products. Under those provisions, technical fitness inspections should be carried out on tractor- and self-propelled field or fruit sprayers, spraying equipment mounted on aircraft and spraying equipment mounted on trains, as well as non-standard equipment, i.e. seed dressers, installations for the application of plant protection products in the form of spray or fog in glasshouses or foil tunnels, self-propelled or tractor-type equipment for the application of plant protection products in the form of granules, and equipment intended

for application of plant protection products in the form of spray, other than handheld sprayers and knapsack sprayers, whose tank capacity exceeds 30 litres.

Whereas Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast) (OJ L 157, 9.6.2006, p. 24, as amended) lays down the technical requirements to be met by machinery intended for the application of plant protection products when placed on the market or put into service (new sprayers), the abovementioned provisions lay down requirements applicable only to sprayers already in use. Their purpose is to verify whether the technical condition of the sprayers has not deteriorated in a way that poses a risk to human health and the environment when those machines are being operated.

The above-mentioned legal framework fully implements Article 8 of Directive 2009/128/EC and also eliminates the risks associated with the application of plant protection products by means of technically unfit equipment.

As part of the action, it is planned to further improve the system for the technical inspection of plant protection equipment and to develop inspection and control guidelines for plant protection equipment for both users and inspectors.

In addition, information/educational activities and inspections will be carried out to ensure that the equipment for applying plant protection products used by professional users is regularly inspected for technical fitness.

#### **4.1. How this action will be implemented**

As part of the implementation of the action,

- 1) the following will be carried out:
  - a) compulsory inspections of equipment for the application of plant protection products;
  - b) information/educational activities will be organised for users of plant protection products;
  - c) checks on operators carrying out inspections and using plant protection products;
- 2) information/educational material will be developed.

#### **4.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints, and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. The supervision of the inspections of the technical equipment for the application of plant protection products will be carried out by PIORIN, within the budgetary constraints of the Chief Inspector of PIORIN, and by provincial governors. Training, educational and methodological materials will be developed by the scientific and research entities, also as part of the implementation of special-purpose subsidies. It is envisaged that cooperation will be established in this regard with provincial agricultural advisory centres, agricultural councils, local government units, agricultural schools and universities, as well as organisations active in the field of agriculture.

### **5. Action 5. Aerial spraying**

In Poland, the necessary legal and organisational arrangements have been adopted to minimise the risks

associated with the application of plant protection products using spraying equipment mounted on aircraft. This action pursues the objectives set out in Article 9 of Directive 2009/128/EC. The requirements and obligations relating to the application of plant protection products using spraying equipment mounted on aircraft in Poland are laid down in the Plant Protection Products Act of 8 March 2013 and the Regulation of the Minister for Agriculture and Rural Development of 18 April 2013 on technical solutions to be applied when applying plant protection products using spraying equipment mounted on aircraft (Journal of Laws 2013, items 504), Regulation of the Minister for Agriculture and Rural Development of 22 May 2013 on the procedure for the use and storage of plant protection products (Journal of Laws 2013, item 625) and the Regulation of the Minister for Agriculture and Rural Development of 31 March 2014 on the conditions for the use of plant protection products (Journal of Laws 2014, item 516).

The above provisions lay down precise rules for applying plant protection using spraying equipment mounted on aircraft, specifying:

- 1) plant protection products which cannot be applied using spraying equipment mounted on aircraft;
- 2) the rules for the approval of planned applications of PPPs by PIORIN;
- 3) the means of alerting persons who might be exposed to accidental contact with the plant protection product about the fact that is being applied in a given area;
- 4) the conditions, including the atmospheric conditions, under which such application may take place;
- 5) requirements with regard to aircraft equipment (obligation to have GPS devices to guide the aircraft onto the area of application, as well as requirements as to the beginning and end of spraying).

The application of PPPs using spraying equipment mounted on aircraft in Poland is carried out exclusively in forests, which cover 29.6% of the country's surface area (9.26 million ha – data from Statistics Poland – Forestry in 2020). The application of PPPs in this manner is carried out mainly against the nun moth (*Lymantria monacha*), the pine-tree lappet (*Dendrolimus pini*), the pine beauty (*Panolis flammea*), *Acantholyda posticalis*, the pine sawfly (*Diptrion* spp.), the (*Melolontha* spp.) beetle, the tortrix moths (*Tortricidae*) and the geometer moths (*Geometridae*).

Bearing in mind that the current legal and organisational arrangements have made it possible to eliminate the risks associated with the application of plant protection products using spraying equipment mounted on aircraft, the action will entail checks on compliance with these provisions.

### **5.1. How this action will be implemented**

Checks will be performed as part of the implementation of the action.

### **5.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints, and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. The tasks relating to the supervision of the application of plant protection products using spraying equipment mounted on aircraft will be carried out by PIORIN, within the budgetary constraints of the Chief Inspector of PIORIN, and by provincial governors.

## **6. Action 6. Alerting bystanders to the fact that plant protection products are being applied in a specific area**

The risks associated with the use of plant protection products concern not only operators of application equipment and consumers of agricultural crops, but also bystanders who may accidentally be exposed to plant protection products while unknowingly entering the application area.

Livestock, including honeybees, may also be exposed to accidental contact with plant protection products. In the light of the above, legal solutions have been adopted to alert bystanders to the application of PPPs. This action pursues the objectives set out in Article 10 of Directive 2009/128/EC.

Detailed solutions have been adopted for application of PPPs using spraying equipment mounted on aircraft, as this is done over large areas of forest land, which are often, in the minds of the general public, not associated with the use of plant protection products. These arrangements have been laid down in the Regulation of the Minister for Agriculture and Rural Development of 22 May 2013 on the procedure for the use and storage of plant protection products.

As part of the implementation of the action, it is planned to

- 1) raise awareness of the right to request information on planned applications of plant protection products, in particular among beekeepers and organic farmers;
- 2) perform checks.

### **6.1. How this action will be implemented**

As part of the implementation of the action,

- 1) awareness-raising activities will be carried out focusing on the right to request information on planned applications of plant protection products, in particular among beekeepers and organic farmers;
- 2) checks will be carried out.

### **6.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints, and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. The supervision of the planned applications of plant protection products will be carried out by PIORIN, within the budgetary constraints of the Chief Inspector of PIORIN, and by provincial governors.

## **7. Action 7. Protecting the aquatic environment and drinking water**

When used improperly, plant protection products infiltrate natural reservoirs and watercourses, contributing to the contamination of the aquatic environment. This poses a threat to both aquatic organisms and humans, who use water resources in different ways (for consumption, water sports). Some PPPs may also accumulate in bottom sediments and can be detected in water long after their application.

In view of the above, given that the purpose of this action is to achieve the objectives set out in Article 11 of Directive 2009/128/EC, regulations have been adopted to protect the aquatic environment from possible negative effects of incorrect application of plant protection products. These issues are regulated in



the Plant Protection Products Act of 8 March 2013 and the Regulation of the Minister for Agriculture and Rural Development of 22 May 2013 on the procedure for the application and storage of plant protection products and the Regulation of the Minister for Agriculture and Rural Development of 31 March 2014 on the conditions for the use of plant protection products. The above provisions regulate the conditions for the use of plant protection products (e.g. the maximum wind speed at which PPPs may be applied so as to eliminate the risk of spray drift, the width of buffer strips around reservoirs and watercourses, as well as impermeable surfaces, posing a risk of localised contamination in the event of plant protection products being washed away), as well as the minimum distances from reservoirs and watercourses where activities involving the highest risk of contamination of the aquatic environment (such as storage of plant protection products, filling and washing of equipment intended for the application of plant protection products) may be carried out.

Rules on the protection of the aquatic environment are also contained in the Water Act of 20 July 2017 (Journal of Laws 2022, item 2625, as amended). The regulatory obligations under Directive 2009/128/EC have thus been complied with.

Notwithstanding the above, information/educational activities will be carried out under the National Action Plan concerning the above-mentioned legal provisions (linked to Actions 1 and 3) as well as checks on compliance with the rules on the protection of the aquatic environment. Activities will also be carried out to monitor the status of the aquatic environment on an ongoing basis in respect of the risks posed by plant protection products.

The action will entail the following tasks:

#### **Task 1. Monitoring surface water, groundwater and bottom sediments**

The State Environmental Monitoring (Państwowy monitoring środowiska, PMŚ) is a system established on the basis of the Inspectorate for Environmental Protection Act of 20 July 1991 (Journal of Laws 2023, item 824, as amended) to provide reliable information on the status of the natural environment. Under Article 23(1) of the above-mentioned Act, the PMŚ is a system comprising measurements, assessments and forecasts relating to the status of the natural environment; it also involves collecting, processing and disseminating information about the environment. The information collected supports environmental action by systematically informing administration bodies and the public about the following issues:

- 1) the quality of natural elements, compliance with the quality standards laid down in legislation and the areas where these standard values are exceeded;
- 2) changes in the quality of natural elements, the causes of these changes, including the causal link between emissions and the status of natural elements.

In accordance with the Inspectorate for Environmental Protection Act of 20 July 1991, the PMŚ is implemented by the Inspectorate for Environmental Protection.

One of the tasks performed under this system is the monitoring of surface water and groundwater. The rules governing this monitoring are laid down in the Regulation of the Minister for Infrastructure of 13 July 2021 on the forms and method of monitoring surface water bodies and groundwater bodies (Journal of Laws 2021, item 1576). Detailed rules governing the assessment of groundwater status are contained in the Regulation of the Minister for the Maritime Economy and Inland Waterways of 11 October 2019 on the criteria and method for assessing the status of groundwater bodies (Journal of Laws 3019, item 2148), while detailed

rules governing the assessment of surface water status are contained in the Regulation of the Minister for Infrastructure of 25 June 2021 on the classification of ecological status, ecological potential and chemical status, the method for classifying the status of groundwater bodies and the environmental quality standards for priority substances (Journal of Laws 2021, item 1475).

Water quality monitoring is performed taking into account the requirements laid down in Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1, as amended - OJ Polish Special Edition: 15, Vol. 5, p. 275), hereinafter: 'the Framework Water Directive', and, in the case of groundwater, Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration (OJ L 372, 27.12.2006, p. 19, as amended).

The monitoring programme for surface water quality is implemented as part of:

- 1) diagnostic monitoring;
- 2) operational monitoring;
- 3) research monitoring;
- 4) monitoring of protected areas

– in accordance with the requirements laid down in the Regulation of the Minister for Infrastructure of 13 July 2021 on the forms and method of monitoring surface water bodies and groundwater bodies;

while the monitoring programme for surface water quality is implemented as part of:

- 1) diagnostic monitoring;
- 2) operational monitoring

– in accordance with the requirements laid down in the Regulation of the Minister for Infrastructure of 13 July 2021 on the forms and method of monitoring surface water bodies and groundwater bodies, or an amendment to that Regulation.

As part of the various types of monitoring of surface water quality, tests of biological, physico-chemical and chemical indicators are carried out by the departments of the Central Research Laboratory of the Chief Inspectorate for Environmental Protection, and hydromorphological indicators are monitored by the hydrological and meteorological service. As part of groundwater quality monitoring, tests are carried out of general, non-organic and organic physico-chemical indicators (including pesticides).

River and lake sediments are tested as part of surface water monitoring. The Chief Inspector of Environmental Protection directly supervises the implementation of the testing programme.

Under the PMŚ, tests are carried out of the priority substances, which include substances or groups of substances that are present or were present in, or used for the production of, plant protection products.

#### **Sub-task 1. Surface water**

As part of the diagnostic, operational and research monitoring, as well as monitoring of protected areas, the Inspectorate for Environmental Protection will carry out the tests specified in the PMŚ programmes in river and lake water bodies, transitional and coastal water. Testing will also continue of the biological elements underpinning the assessment of ecological status, a key element determining the ecological status

of water bodies. As part of chemical monitoring, tests will be carried out of substances that are particularly harmful to the aquatic environment (priority substances). Pesticides from the list of priority substances to be tested in water and biota are the following: alachlor, atrazine, chlorfenvinphos, chlorpyrifos (chlorpyrifos-ethyl), diuron, endosulfan, hexachlorocyclohexane, isoproturon, pentachlorophenol, simazine, tributyltin compounds, trifluralin, dicofol, quinoxifen, aclonifen, bifenox, cybutryne, cypermethrin, dichlorvos, heptachlor and heptachlor epoxide, terbutryn.

### **Sub-task 2. Groundwater**

As part of the national monitoring of groundwater quality, testing for residues of pesticides will continue, and its scope will be enlarged, subject to modifications.

Since 2021, in addition to the tests for the presence of organochlorine pesticide compounds and organophosphorus pesticides and triazine pesticides, tests have been carried out for the presence of pesticides from the following groups: pyrethroids, thiocarbamates, pyrazoles, carbamates and phenoxyacetic acid derivatives and non-grouped pesticides.

### **Sub-task 3. Bottom sediments**

Monitoring of river and lake sediments will be carried out at representative monitoring points for surface water bodies. The monitoring of bottom sediments will be carried out in accordance with the Water Framework Directive and Directive 2013/39/EU of the European Parliament and of the Council of 12 August 2013 amending Directives 2000/60/EC and 2008/105/EC as regards priority substances in the field of water policy (OJ L 226, 24.8.2013, p. 1); its focus will be on analysing long-term trends as regards the changing presence of substances that accumulate in bottom sediments. The monitoring of river and lake sediments will involve conducting tests of persistent organic pollutants (including pesticides), such as:

- 1) endosulfan, hexachlorobenzene,  $\alpha$ -HCH,  $\beta$ -HCH,  $\gamma$ -HCH,  $\delta$ -HCH, pentachlorobenzene, heptachlor and heptachlor epoxide, aldrin, dieldrin, endrin, isodine, DDT (including DDT — para-para isomer, p,p'-DDE, p,p'-DDD, polychlorinated biphenyls (congeners Nos 28, 52, 101, 118, 138, 153 and 180) – at all sampling points during the year;
- 2) alachlor, brominated diphenylethers (congeners Nos 28, 47, 99, 100, 153 and 154), chloro-alkanes C10-13, chlorfenvinphos, chlorpyrifos, di(2-ethylhexyl)-phthalate, hexachlorobutadiene, nonylphenols (4-nonylphenol), octylphenols (4-(1,1',3,3'-tetramethylbutyl)-phenol), pentachlorophenol, tributyltin compounds (tributyltin cation), trichlorobenzenes, trifluralin, dicofol, perfluorooctane sulfonic acid and its derivatives (PFOS), quinoxifen, dioxins and dioxin-like compounds, aclonifen, bifenox, cybutrin, cypermethrin, hexabromocyclododecane, chlordecone, hexabromodiphenol, toxafen – at selected sampling points during the year.

## **Task 2. Monitoring of water intended for human consumption**

The monitoring of the quality of water intended for human consumption is carried out by the State Sanitary Inspection Service on the basis of the State Sanitary Inspection Service Act of 14 March 1985 (Journal of Laws 2023, item 338) and the Collective Water Supply and Collective Wastewater Disposal Act of 7 June 2001 (Journal of Laws 2023, item 537).

Pursuant to Article 5 of the Collective Water Supply and Collective Wastewater Disposal Act of 7 June 2001, water and sewerage undertakings are required to ensure, inter alia, appropriate quality of the water

supplied and to carry out regular internal checks as part of the collective water supply. In addition, the Regulation of the Minister for Health of 7 December 2017 on the quality of water intended for human consumption (Journal of Laws 2017, item 2294) introduces an obligation to ensure water quality through internal checks on water quality by operators supplying or using water from their own intakes in the course of business activities or in public-use buildings, collective residential buildings or food business operators using water. The monitoring rules, which govern the day-to-day monitoring of the quality of water intended for human consumption by means of regular tests and provision of information necessary for water quality assessment, are laid down in the Regulation of the Minister for Health of 7 December 2017 on the quality of water intended for human consumption. Tests of the quality of drinking water are carried out by laboratories of the State Sanitary Inspection Service or other laboratories with a documented testing quality system approved by the State Sanitary Inspection Service bodies in accordance with the Collective Water Supply and Collective Wastewater Disposal Act of 7 June 2001.

Water quality tests for the presence of, inter alia, pesticides and the sum of pesticides are carried out as part of a water quality monitoring programme, which comprises the results of water quality tests obtained as part of the internal checks on water quality carried out by water supply and sewerage companies and entities supplying or using water from their own intakes in the course of business activities or in public-use buildings, collective residential buildings or food business operators using water, and as part of the water quality monitoring carried out by the State Sanitary Inspection Service bodies. The purpose of this monitoring is to provide the information necessary to assess compliance with the requirements laid down in the Regulation of the Minister for Health of 7 December 2017 on the quality of water intended for human consumption in terms of the health risks that contaminants present in water may cause. Samples for water quality testing are taken according to the schedule for the respective year at specified intervals. The minimum sampling frequency for water quality tests depends on the volume of water supplied or produced in the supply zone concerned.

In accordance with Annex 1, Part B, to the Regulation of the Minister of Health of 7 December 2017 on the quality of water intended for human consumption, tests for the presence of pesticides and the sum of pesticides in water intended for human consumption are carried out by the State Sanitary Inspection Service bodies and entities supplying water intended for human consumption to the public, where those substances are likely to be detected in the areas concerned. The tests are carried out for the presence of pesticides that are likely to be detected. The scope for testing the quality of water intended for human consumption is determined by the competent State District Sanitary Inspector or the State Border Sanitary Inspector, taking into account various factors such as the quality and type of water sourced, the water treatment methods used, the materials used for the construction of the water supply network and pollution of the environment.

### **Task 3. Testing the impact of chemical plant protection products on the status of surface water bodies**

State monitoring of surface water, groundwater and bottom sediments focuses on collecting data on the status of surface water bodies in order to issue multifaceted and comprehensive assessments, with a view to meeting water management objectives. Due to the limited range of substances tested due to legal considerations, this monitoring does not include tests for the presence of plant protection products used.

This monitoring should therefore be supplemented by tests covering as many active substances as

possible that are present in plant protection products.

To this end, as part of special-purpose subsidies, monitoring of residues of plant protection products in surface waters will be carried out by the IOR-PIB and the IO-PIB in cooperation with the provincial inspectorates for environmental protection on the basis of agreements or arrangements between those institutes and the provincial inspectorates for environmental protection.

#### **Task 4. Monitoring plant protection products containing active substances which should be subject to special monitoring**

Under Article 1 of Commission Implementing Regulation (EU) No 540/2011 of 25 May 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards the list of approved active substances (OJ L 153, 11.6.2011, p. 1, as amended), active substances listed in the Annex to that Regulation have been approved for use in plant protection products. The Annex to the Regulation also sets out specific requirements for the individual active substances and information whether the active substance should be subject to a special monitoring programme in view of the increased risks associated with the use of plant protection products.

On the basis of the National Action Plan, there will be monitoring of the use of plant protection products containing active substances which should be subject to a special monitoring programme.

#### **7.1. How this action will be implemented**

As part of the implementation of the action, the following will be carried out:

- 1) information/educational activities;
- 2) checks;
- 3) monitoring of surface water, groundwater and bottom sediments;
- 4) monitoring of water intended for human consumption;
- 5) an analysis of the results of control and monitoring activities;
- 6) monitoring of plant protection products containing active substances which should be subject to special monitoring.

#### **7.2. Entities responsible for implementation**

The action will be implemented by the Ministry of Agriculture and Rural Development, the Ministry of Health, the Ministry of Climate and the Environment, and by the subordinate entities within the budgetary constraints of the individual public finance sector units involved in the implementation of this action. Tasks relating to the supervision of compliance with measures to protect the aquatic environment during the application of plant protection products will be carried out by the competent Inspectorates within the budgetary constraints of their chief inspectors and provincial governors. The IOR-PIB and IO-PIB will examine the effects of chemical plant protection products on the status of surface water as part of a special-purpose subsidy in cooperation with the provincial inspectorates for environmental protection.

#### **8. Action 8. Restricting the use of plant protection products in particularly sensitive areas**

In Poland, specific legislation has been adopted to restrict the use of plant protection products in

particularly sensitive areas, especially in areas which may be frequented by vulnerable persons (children, elderly persons or people with medical conditions). This action pursues the objectives set out in Article 12 of Directive 2009/128/EC.

Article 36(1) of the Plant Protection Products Act of 8 March 2013 prohibits the use of plant protection products which, in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1, as amended), have been classified as posing a risk to human health, in playgrounds, nurseries, kindergartens, primary schools, hospitals, 'A' protection zones in health resort areas or protected health resort areas within the meaning of the provisions on health resort establishments and treatments offered by health resort establishments, protected health resort areas and health resort municipalities. Derogations from this rule may be applied only in specific cases:

- 1) when quarantine pests are detected;
- 2) in the case of threats posed by pests to natural monuments or nature/landscape complexes within the meaning of nature conservation legislation;
- 3) when plants are detected posing a risk to human health;
- 4) when organisms harmful to plants or plant products are detected, the eradication of which by non-chemical means is economically unjustifiable or inefficient.

The decision on the derogation is taken by the provincial inspector of PIORIN.

In addition, under Article 35(1) of the above-mentioned Act, plant protection products should be used in such a way as not to pose a risk to human or animal health or the environment; this entails counteracting spray drift to areas and facilities which are not supposed to be impacted by PPPs, as well as planning the application of plant protection products with account taken of the period during which people may be present in the area affected.

In view of the above, all the necessary legal measures have been adopted in Poland to restrict the use of plant protection products in particularly sensitive areas and to eliminate the associated risks to vulnerable groups of the population.

Under this action, educational activities will be organised and checks carried out on compliance with the above provisions.

### **8.1. How this action will be implemented**

As part of the implementation of the action, the following will be carried out:

- 1) information/educational activities;
- 2) checks.

### **8.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints, and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. The checks on compliance with the legislation relating to the restrictions on the use

of plant protection products in particularly sensitive areas will be carried out by PIORIN, within the budgetary constraints of the Chief Inspector of PIORIN, and by provincial governors.

### **9. Action 9. Eliminating risks at the various stages of applying plant protection products**

The risks associated with the use of plant protection products may occur not only during the actual application of the products, but also at other stages of preparation and application. In order to ensure safety, the proper storage of plant protection products (in order to prevent leaks into the water or soil environment in the event of an accidental spill of the product, accidental contact with the product by unauthorised persons or animals), the preparation of the spray liquid (risk of spillage and localised contamination), as well as proper management of residues of the spray fluid and thorough washing of equipment after use, are of the utmost importance. This action pursues the objectives set out in Article 13 of Directive 2009/128/EC.

Since non-professional users of plant protection products are generally unable to meet the requirements for proper storage of PPPs, washing the equipment or managing residues after use (PPP are stored and used by amateurs, among other places, in occupied residential premises), such persons should not have free access to particularly dangerous products.

In the light of the above, provisions have been adopted detailing how the various plant protection measures are to be carried out, including the following:

- 1) storage of plant protection products (including health and safety requirements, requirements for storage facilities);
- 2) preparation of spray liquids (minimum distance from reservoirs and watercourses);
- 3) use of plant protection products (including requirements for the maintenance of buffer strips, the atmospheric conditions under which PPPs may be applied);
- 4) cleaning of equipment for the application of plant protection products (determining the minimum distance from reservoirs and watercourses at which these operations may be carried out);
- 5) handling of spray liquid residues after use;
- 6) handling of empty packaging of plant protection products.

The procedure to eliminate the risks associated with each of the above activities is laid down in the Regulation of the Minister for Agriculture and Rural Development of 24 June 2002 on health and safety at work in the application and storage of plant protection products and mineral and organic-mineral fertilisers (Journal of Laws 2002, item 896, as amended), the Regulation of the Minister for Agriculture and Rural Development of 22 May 2013 on the procedure for the application and storage of plant protection products, the Packaging and Packaging Waste Management Act of 13 June 2013 (Journal of Laws 2013, item 160, as amended) and the Regulation of the Minister for Agriculture and Rural Development of 31 March 2014 on the conditions for the use of plant protection products.

Solutions have also been adopted to limit the access of non-professional users to preparations posing the highest risk. Such persons generally do not have detailed knowledge on how to use plant protection products safely, and they apply them in places where it is difficult to ensure that the conditions for their safe use are met (residential premises, balconies, kitchen gardens).

Article 36(4) of the Plant Protection Products Act of 8 March 2013 prohibits the use by non-professional users, in the form of spraying or fumigation and for the purpose of seed dressing, of plant protection products which, in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006, have been classified as belonging to at least one of the following risk classes and categories:

- 1) Acute toxicity, category 1, 2 and 3;
- 2) Carcinogenicity;
- 3) Mutagenicity;
- 4) Reproductive toxicity;
- 5) Specific target organ toxicity – single exposure category 1 (STOS SE);
- 6) Specific target organ toxicity – repeated exposure category 1 (STOT RE);

Eliminating risks at the various stages of application of plant protection products also involves ensuring that PPPs are applied in a way that does not pose a risk to human and animal health or the environment (promoting good practices must not only concern spraying but also other methods of using plant protection products, such as seed dressing), and preventing spray drift to areas and facilities that should not be affected by those products. Particular attention should be paid in this regard to the protection of pollinators.

Under this action, educational activities and checks will be carried out to monitor compliance with the above provisions.

#### **9.1. How this action will be implemented**

As part of the implementation of the action, the following will be carried out:

- 1) information/educational activities;
- 2) checks.

#### **9.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints, and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. The tasks relating to the application of plant protection products will be carried out by PIORIN, within the budgetary constraints of the Chief Inspector of PIORIN, and by provincial governors. Information/educational material will be prepared by institutes supervised by the Minister for Agriculture and Rural Development, including through special-purpose subsidies implemented by them.

### **10. Action 10. Integrated Pest Management**

The primary objective of the National Action Plan is to promote the principles of Integrated Pest Management (IPM). This action pursues the objectives set out in Article 14 of Directive 2009/128/EC.

Implementation of the principles of IPM, the main objective of which is to ensure a rational use of plant protection products, on the basis of the actual need for application, taking into account non-chemical methods as a matter of priority, is the most effective way of reducing the risks associated with the use of plant



protection products.

This action is a continuation of the actions implemented under the 2013-2017 and 2018-2022 National Action Plans, which have promoted the main principles of IPM among professional users of PPPs, thus reducing the risks associated with the use of those products.

The promotion of IPM principles will be implemented through the following specific tasks.

### **Task 1. Disseminating knowledge on Integrated Pest Management**

One of the priority issues under the National Action Plan is to continue disseminating knowledge on Integrated Pest Management.

The implementation of this task will entail:

- 1) providing specialised training, seminars and conferences, demonstrations of best practices and practical experience and other activities relating to plant protection products;
- 2) preparing and disseminating research results, information, training materials and publishing information on plant protection in specialised press;
- 3) maintaining and developing the Pest Monitoring Platform (Platforma Sygnalizacji Agrofagów), where IPM methodological guidelines, decision-support systems, pest monitoring manuals, IPM programmes and scientific studies on plant protection will be made available.

The main way of promoting the idea of IPM and thus raising public awareness of sustainable crop protection methods will be to educate farmers and advisors and to provide them with the tools necessary to implement the principles of IPM. The development of electronic communication will provide a platform and a tool for the exchange of experience and knowledge transfer between theory and practice in connection with the implementation of IPM.

### **Task 2. Maintaining an online IPM platform**

The Pest Monitoring Platform ([www.agrofagi.com.pl](http://www.agrofagi.com.pl)), set up under the 2013-2017 National Action Plan, provides a platform and a tool for the exchange of experience and knowledge transfer between theory and practice in connection with the implementation of IPM requirements. The platform is run by the IOR-PIB in close cooperation with the IO-PIB and the Institute of Soil Science and Plant Cultivation – the National Research Institute (Instytut Uprawy Nawożenia i Gleboznawstwa – Państwowy Instytut Badawczy, IUNG-PIB) in Puławy.

Given the accessibility of the internet in Poland and, in particular, its development in rural areas, the platform allows the inhabitants of those areas to access modern IT tools. The IPM platform also makes it possible to inform the general public about PPPs and how they should be used. The following will be made available on the website: pest monitoring data, decision-support systems for plant protection, pest control information, as well as integrated pest management methodological guidelines, IPM programmes, pest monitoring manuals and other publications.

As part of the action, it is planned to further develop and update the Pest Monitoring Platform in order to adapt it to the current needs of its users; this will entail, in particular:

- 1) regular publication, in the form of a newsletter, of information relevant to integrated crop

management (results of scientific studies, field observations, amendments to legislation, identified risks);

- 2) notification of the monitoring results and unforeseen risks to crops;
- 3) ensuring an interactive character of the platform by allowing users to ask questions of an expert.

The information on the platform will be supplemented, highlighting the importance of rational fertilisation as part of IPM. Materials with advice on the rational use of fertilisers will also be made available; these will be based on the results of soil and plant sample tests carried out by chemical-agricultural stations.

In addition, in order to obtain as many data as possible, cooperation with other bodies in the area of pest monitoring will be developed (in particular with the provincial agricultural advisory centres, the Research Centre for Cultivar Testing and scientific research bodies).

### **Task 3. Developing, updating and making available crop-specific integrated management methodological guidelines**

One of the non-legislative actions aimed at implementing the general principles of Integrated Pest Management will entail updating and making available IPM methodological guidelines to professional users. The methodological guidelines contain recommendations on crop-specific plant protection methods, including agrotechnical, biological and chemical methods, with a particular focus on supporting natural self-regulation processes in agricultural biocoenoses. One of the elements of IPM is correct crop rotation. It is also important to cultivate resistant and tolerant varieties and to introduce alternative forms of cultivation into agricultural practice, such as sowing mixtures of varieties and species, allowing for a better use of the resources of the agricultural environment without disturbing its biological equilibrium.

The IPM methodological guidelines provide guidance on the choice and use of plant protection products in such a way as to minimise the risks to human health and the environment, including the aquatic environment and pollinators.

The task will involve updating the existing methodological guidelines (to take account of the technological progress in plant protection, results of new scientific studies and identified risks) and developing methodological guidelines for new species. The methodological guidelines, once developed and updated, will be made available via the Pest Monitoring Platform.

### **Task 4. Operating the pest monitoring system**

An important element of IPM is to limit the application of chemical plant protection products to cases where this is justified by the presence of harmful organisms at a level that may jeopardise crops, and to choose the best times for applying PPPs. This makes it possible, by increasing the efficiency of PPP applications, to reduce the amount of plant protection products used and to select the most effective preparations.

It is planned that these tasks will be carried out by research institutes, advisory bodies – both agricultural advisory bodies and commercial bodies and organisations active in the field of agriculture or producer groups.

This task will be performed mainly by means of the Pest Monitoring Platform, which will include notifications and recommendations on PPP applications in connection with the occurrence of risks posed by

harmful organisms.

In addition, the implementation of the task will entail developing and making available pest monitoring manuals for additional crops to producers and advisors; these manuals will provide practical guidance on the identification and monitoring of individual pests. These manuals, available via the Pest Monitoring Platform, will take the form of both comprehensive crop-specific compendiums and brief pest information sheets.

#### **Task 5. Providing decision-support systems for plant protection**

The use of advanced decision-support systems for plant protection is an important part of monitoring and signalling the presence of harmful organisms. Such systems make it possible to reduce the number of applications of PPPs while ensuring an effective protection of arable crops, which helps increase the safety of consumers of agricultural crops and the environment, as well as reduce production costs.

The implementation of IPM principles outside the pest monitoring system is therefore supported by the provision of selected plant protection decision-support systems to professional users of PPPs. One example is the eDWIN system, the 'Online Advisory and Decision-Support Platform for Integrated Pest Management', implemented with public funds under Measure 2.1 'Better access to and quality of public e-services' of the second Priority Axis 'E-government and open government' of the 2014-2020 Digital Poland Operational Programme.

As part of special-purpose subsidies implemented by the institutes supervised by the Minister for Agriculture and Rural Development, new systems will be developed and tested, and existing ones will be updated. All of them will be made accessible via the Pest Monitoring Platform.

#### **Task 6. Making IPM programmes available**

Crop-specific integrated management programmes are an essential tool for the proper planning and application of plant protection products. These programmes also supplement the knowledge shared through IPM methodological guidelines, as they provide information on currently available PPPs.

In order to support the implementation of IPM principles, plant protection programmes must include, in addition to information on chemical plant protection methods, guidance on the prevention of pests and information on non-chemical methods of controlling them. The programmes also identify preparations containing low-risk active substances, biological preparations and basic substances, which should be given priority over the use of chemical plant protection products.

Plant protection programmes will also take into account the specific requirements of food quality schemes aimed at reducing risks to the environment and to human health, such as organic farming and integrated plant production.

Plant protection programmes will also indicate which risks may be associated with the use of particular preparations and contain recommendations on how these risks can be eliminated. This concerns in particular the protection of water, beneficial animals and pollinators. They will also include other information necessary for the proper planning of plant protection activities, such as guidance on the combined use of agrochemicals or the prevention of resistance in harmful organisms, or the minimisation of active substance residues.

As part of the National Action Plan, crop-specific protection programmes will be drawn up and regularly updated, meeting the above conditions. These programmes will be disseminated via the Pest Monitoring

Platform.

#### **Task 7. Disseminating the results of the assessment carried out as part of post-registration variety trials**

The use of crop varieties showing resistance or tolerance to harmful organisms is one of the factors that help reduce the use of plant protection products.

The task will be carried out by the Research Centre for Cultivar Testing (Centralny Ośrodek Badania Odmian Roślin Uprawnych), using an assessment of the resistance of crop varieties to pests as part of post-registration variety trials, on the basis of which lists of varieties recommended for cultivation in individual provinces will be drawn up. These lists are one of the elements made available via the Pest Monitoring Platform as part of agricultural advisory activities.

#### **Task 8. Promoting an integrated plant production system**

Integrated plant production is a national food quality system that makes sustainable use of technical and biological progress in cultivation, plant protection and fertilisation, the primary objective of which is to protect human health and the environment. In accordance with the Plant Protection Products Act of 8 March 2013, the supervision of holdings participating in the system and the issuing of certificates attesting to that participation are the responsibility of the certification bodies authorised by the provincial PIORIN inspectors.

Participation in the scheme makes it possible to achieve high-quality agricultural produce that can be placed on the market under the label of integrated plant production.

As part of this task, information activities will be organised to promote the system, and training and advisory services will be provided, also as part of the CAP SP. The range of crops whose producers will be able to participate in the scheme (by developing new or updating existing integrated plant production methodological guidelines) will be extended. The control methods under the system will also be improved to ensure the system's reliability, both on the domestic market and on the markets of the countries to which Polish agricultural crops will be exported.

#### **Task 9. Providing advice on plant protection**

The task of the Agricultural Advisory Centre in Brwinów and the provincial agricultural advisory centres is to provide agricultural advice. As part of their agricultural advisory tasks, the provincial agricultural advisory centres provide training to farmers and inhabitants of rural areas, in particular on the use of modern agrotechnical methods and organic farming. In addition, the provincial agricultural advisory centres organise information activities to support the development of agricultural production, to improve the professional qualifications of farmers and other inhabitants of rural areas, and to promote agricultural production methods. These tasks also include raising awareness and providing users of plant protection products with the latest information relating to plant protection. Wherever agricultural producers use plant protection products correctly, the risks associated with their use are minimised. It is therefore necessary to rely on professional advice in this regard.

The Agricultural Advisory Centre in Brwinów and the provincial agricultural advisory centres cooperate with the central and local government bodies working to promote plant protection, with research institutes, agricultural universities, PIORIN and agricultural chambers, professional farmers' organisations and other

economic operators providing inputs for agricultural production.

The Agricultural Advisory Centre in Brwinów, together with the provincial agricultural advisory centres, provide continuous training to farmers and inhabitants of rural areas. Improving the qualifications of advisory staff from the provincial centres is ensured through a system of specialised training and seminars, conferences and demonstrations of best agricultural practices, which are an important factor guaranteeing the provision of high-quality advisory services.

#### **Task 10. Ensuring safety for pollinators when applying plant protection products**

One of the primary objectives of IPM is to reduce the impact of PPP applications on non-target organisms, in particular on beneficial animals, including pollinators.

Pollinators, in particular honeybees, play a vital role in agriculture, as well as in natural ecosystems. According to the Food and Agriculture Organisation (FAO) of the United Nations, of the 100 main crop species, representing 90% of the world's food production, as many as 71 are pollinated by bees. These insects play a particularly important role in the production of fruit (e.g. apples, cherries), vegetables (e.g. cucumbers, pumpkins, courgettes) and industrial plants (e.g. rapeseed).

At the same time, plant protection products are identified as one of the causes of pollinator decline alongside viral diseases, parasitic diseases and environmental change.

When improperly used, plant protection products may cause acute poisoning of bees, causing sudden falls, and chronic poisoning, weakening the insects and increasing their vulnerability to other harmful agents.

In view of the above, solutions have been adopted to reduce the risk that plant protection products may pose to pollinators. The protection of pollinators is one of the requirements of IPM set out in the Regulation of the Minister for Agriculture and Rural Development of 18 April 2013 on the requirements of Integrated Pest Management (Journal of Laws 2013, item 505), as well as mandatory training for users of plant protection products, the contents of which are laid down in the Regulation of the Minister for Agriculture and Rural Development of 8 May 2013 on training on plant protection products. The provisions of the Regulation of the Minister for Agriculture and Rural Development of 31 March 2014 on the conditions for the use of plant protection products also specify the minimum distances from apiaries at which these products may be used.

As part of this task, measures will be taken to reduce the number of cases of bees being poisoned with plant protection products; this will include:

- 1) information/educational activities for users of plant protection products;
- 2) monitoring activities to determine the health status of bee colonies in Poland;
- 3) checks on compliance with the methods for the correct use of plant protection products;
- 4) scientific studies on the sensitivity of honeybees and other pollinators to plant protection products.

In addition, in order to correctly assess the risk posed by plant protection products to bees, it was established, on the basis of the Plant Protection Products Act of 8 March 2013, that the office of the minister responsible for agriculture shall collect information on cases of bee poisoning with plant protection products. The system for collecting information on bee poisoning makes it possible to fully understand the extent of this phenomenon and, if necessary, to take additional measures to reduce it.

As part of the National Action Plan, existing actions aimed at identifying the scale of risks posed by plant

protection products to bees will continue.

### **Task 11. Monitoring and reducing the resistance of pests to plant protection products**

The basic principle of IPM is to limit the use of chemical plant protection products to the necessary minimum. Pest resistance to plant protection products is currently a very common cause of ineffectiveness of chemical treatment. This phenomenon requires an intensification of chemical treatments, which runs counter to the objectives of IPM. As a result, many more chemicals enter the natural environment. Also, the economic losses in agriculture caused by the immunisation of pests are often very high (decrease in crop yields, higher costs associated with the increased use of chemical products).

Pest resistance is a dynamic and ever-changing phenomenon that requires continuous monitoring. This phenomenon is nowadays widespread in Poland and concerns PPPs classified as insecticides, fungicides, herbicides and other groups of chemical and biological agents. The most economically important pest species whose resistance to chemical agents causes significant losses in agriculture are the common pollen beetle, the cabbage seed weevil, the green peach aphid in rapeseed, the *Cercospora beticola* fungus or the common windgrass.

Based on the changes in sensitivity levels of economically important pest species, appropriate strategies to counter the increase in resistance will be developed and implemented in agricultural practice. These strategies may also be prepared and analysed in terms of maintaining the efficacy of active substances of particular importance to agriculture. In addition, up-to-date, innovative recommendations and information on the sensitivity level of pests will be developed and communicated to farmers, allowing plant producers to protect their crops more effectively and to protect the environment.

The implementation of this task will not only help solve current problems linked to pest resistance and efficacy of plant protection products, but it will also help continuously monitor the phenomenon, respond quickly to emerging problems (often during the period when the product is [still] authorised but resistance has developed and increases), and increase the number of effective plant protection products.

Resistance mechanisms will also be examined, and in many cases it will be possible to develop methods that will enable the resistant population to return to a sufficient level of sensitivity to the active substance, for instance by using appropriate synergists blocking the resistance mechanisms.

As part of this task:

- 1) monitoring will be carried out to determine the level of resistance or sensitivity of the selected pest species to plant protection products;
- 2) research will be conducted to identify resistance mechanisms;
- 3) strategies to reduce the risk of resistance will be developed;
- 4) recommendations for agricultural producers and advice will be developed, taking into account the current pest resistance situation;
- 5) information/educational activities will be organised for users of plant protection products.

### **Task 12. Incentives for the implementation of IPM through CAP SP interventions**

Non-chemical methods of plant protection, including agrotechnical, biological or breeding methods (the use of varieties resistant and tolerant to pests), are an important element of IPM.

In order to encourage farmers to switch to sustainable farming methods, a number of interventions under the CAP PS have been designed to promote non-chemical methods of plant protection and a sustainable use of plant protection products.

The most important of such interventions, alongside support for organic farming, will be an eco-scheme dedicated to participation in the integrated plant production system.

This eco-scheme will require cultivation in accordance with integrated plant production methods under the supervision of certification bodies. It should be stressed that integrated plant production requires, among other things:

- 1) correct application of the crop rotation system;
- 2) use of appropriate agro-techniques limiting the presence of pests;
- 3) use of biological protection;
- 4) creating favourable conditions for beneficial organisms;
- 5) use of varieties tolerant or resistant to pests, in accordance with the recommendations from the post-registration variety trials;
- 6) use of balanced fertilisation based on the actual needs of the plants.

Support will be granted for the area where the eco-scheme requirements are met and the area of permanent grassland corresponding to the equivalent of the area of those crops at approx. EUR 292.13/ha. The payment rates set out in EUR will be converted into PLN at the PLN/EUR exchange rate determined on the last working day of September of the respective year.

#### **10.1. How this action will be implemented**

The implementation of this action will involve:

- 1) disseminating knowledge on integrated pest management;
- 2) maintaining and developing the online IPM platform;
- 3) developing, updating and making available crop-specific integrated management methodological guidelines;
- 4) maintaining the pest monitoring system;
- 5) providing decision-support systems for plant protection;
- 6) making available IPM programmes;
- 7) disseminating the results of the assessment carried out as part of post-registration variety trials;
- 8) promoting a system of integrated plant production;
- 9) providing advisory services in the area of plant protection;
- 10) conducting information/educational activities and inspections to reduce the risks posed by plant protection products to pollinators;
- 11) monitoring cases of bee poisoning with plant protection products;
- 12) monitoring the level of sensitivity of pests to plant protection products, on the basis of which strategies to reduce resistance will be developed and disseminated;
- 13) implementing interventions under the CAP SP.

## **10.2. Entities responsible for implementation**

The task will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints and by entities subordinate to or supervised by the Minister for Agriculture and Rural Development, including the Agricultural Advisory Centre in Brwinów and the provincial agricultural advisory centres as part of the measures referred to in Article 11 of the Agricultural Advisory Units Act of 22 October 2004 (Journal of Laws 2020, item 721, as amended). The task will also be carried out by the IOR-PIB, the IO-PIB, the IUNG-PIB, the National Veterinary Institute – National Research Institute in Puławy, the Institute of Natural Fibres and Herbs – National Research Institute (Instytut Włókien Naturalnych i Roślin Zielarskich – Państwowy Instytut Badawczy) in Puławy, as part of tasks financed by special-purpose subsidies and implemented by these institutes. The monitoring of the integrated plant production will be carried out by PIORIN, within the budgetary constraints of the Chief Inspector of PIORIN, and by provincial governors. The Agency for Restructuring and Modernisation of Agriculture will be responsible for carrying out the tasks under the CAP SP.

## **11. Action 11. Analysing the risk associated with the use of plant protection products**

The correct targeting of regulatory and control activities relating to the marketing and use of plant protection products at the correct risk areas, as well as the development of State policy in relation to these products, requires the establishment of an efficient system for collecting and analysing data on the risks associated with the use of plant protection products, as well as expanding the knowledge and influencing the behaviour of users of PPPs. This action pursues the objectives set out in Article 15 of Directive 2009/128/EC.

Therefore, checks and monitoring and statistical surveys will be carried out under the National Action Plan in order to obtain information on the environmental impact of plant protection products. On the basis of the data obtained, pesticide risk indicators will be calculated.

To this end, the following specific tasks will be performed:

### **Task 1. Statistical surveys on plant protection products**

Data from statistical surveys conducted by Statistics Poland on the basis of the provisions issued pursuant to Article 18(1) of the Public Statistics Act of 29 June 1995 (Journal of Laws 2023, item 773) will be used for the implementation of the National Action Plan.

The task will entail the following sub-tasks:

#### **Sub-task 1. Conducting statistical surveys on the sales of plant protection products**

Statistical surveys on the sales of plant protection products will be carried out by Statistics Poland in cooperation with the Ministry of Agriculture and Rural Development and the IOR-PIB.

#### **Sub-task 2. Conducting statistical surveys on the use of plant protection products**

This sub-task will be carried out as part of statistical surveys in accordance with the methodology laid down in Regulation (EC) No 1185/2009 of the European Parliament and of the Council of 25 November 2009 concerning statistics on pesticides (OJ L 324, 10.12.2009, p. 1, as amended) by Statistics Poland in cooperation with PIORIN, the Ministry of Agriculture and Rural Development and the IOR-PIB.

The purpose of the survey will be to determine the average consumption of the respective active



substances, expressed in kg/ha area, for each crop species. The survey will be carried out taking into account crop structure and production volumes and data on sales of plant protection products at randomly selected farms.

## **Task 2. Checks and monitoring of plant protection products**

In Poland, checks are carried out by the authorities specified in the relevant legislation. Monitoring is also carried out of the correct use of plant protection products in respect of the following areas: human safety (including food safety), animal safety and environmental safety. Most commonly, this monitoring entails measuring the level of PPP residues or metabolites.

The results of the tests will form the basis for assessing the extent to which the objectives of the National Action Plan have been achieved, and for potentially revising the provisions on managing the risks related to the marketing and use of PPPs.

The task will entail the following sub-tasks:

### **Sub-task 1. Checks on food of plant origin for residues of plant protection products**

The State Sanitary Inspection Service bodies carry out official controls on food of plant origin produced and placed on the market and on food of animal origin placed on the market, in accordance with the powers laid down in the Food and Nutrition Safety Act of 25 August 2006 (Journal of Laws 2006, item 2132, as amended) and in the State Sanitary Inspection Service Act of 14 March 1985.

As part of the sampling plan drawn up annually, the State Sanitary Inspection Service, as far as pesticide residue testing is concerned, conducts the following:

- 1) coordinated EU monitoring (in line with EC regulations on multi-annual coordinated EU control programmes for subsequent years);
- 2) monitoring and official control of pesticide residues in food;
- 3) border controls (in line with the EU and national rules on border control).

Implementation of the above-mentioned plan in respect of pesticide residues includes:

- 1) control of food on the national market for the presence of pesticide residues and verification of compliance with the MRLs set out in 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 (OJ L 70, 16.3.2005, p. 1, as amended);
- 2) consumer exposure assessment and Rapid Alert System for Food and Feed (RASFF) or other measures – where the MRLs are exceeded.

Sixteen provincial sanitary and epidemiological stations are involved in the monitoring of pesticide residue in food. Samples for testing are taken by the staff of district sanitary and epidemiological stations and, where appropriate, by border station staff, in accordance with the Regulation of the Minister for Health of 17 October 2007 on the sampling of foodstuffs for testing for pesticide residues (Journal of Laws 2007, item 1502). Testing for pesticide residues in food is carried out in the accredited laboratories of six provincial sanitary and epidemiological stations in Warsaw, Bydgoszcz, Łódź, Opole, Rzeszów and Wrocław. In the event of non-compliance with the MRLs in food sampled from the market, at the request of the Chief Sanitary

Inspector, experts of the National Institute of Public Health of the National Institute of Hygiene – National Research Institute in Warsaw assess the risk to consumers.

### **Sub-task 2. Checks on feed for residues of plant protection products**

The Veterinary Inspection Service, as part of the implementation of the Official Feed Inspection Plan, carries out monitoring of feed for the presence of organochlorine and organophosphorus residues. The feed monitoring system, as well as the powers and responsibilities of the competent authorities, are laid down in the Feed Act of 22 July 2006 (Journal of Laws 2023, item 1149). The control authority responsible for monitoring the whole feed sector is the district veterinary officer, with the exception of the production and marketing of medicated feed, which is supervised by the provincial veterinary officer. The Veterinary Inspection Service's monitoring involves, among other things, sampling feed of plant origin and compound feed.

Official control of feed and medicated feed entering the customs territory of the European Union is carried out by the border veterinary officers in accordance with the rules laid down in Chapter V of Regulation (EU) 2017/625 of the European Parliament and of the Council of 15 March 2017 on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products, amending Regulations (EC) No 999/2001, (EC) No 396/2005, (EC) No 1069/2009, (EC) No 1107/2009, (EU) No 1151/2012, (EU) No 652/2014, (EU) 2016/429 and (EU) 2016/2031 of the European Parliament and of the Council, Council Regulations (EC) No 1/2005 and (EC) No 1099/2009 and Council Directives 98/58/EC, 1999/74/EC, 2007/43/EC, 2008/119/EC and 2008/120/EC, and repealing Regulations (EC) No 854/2004 and (EC) No 882/2004 of the European Parliament and of the Council, Council Directives 89/608/EEC, 89/662/EEC, 90/425/EEC, 91/496/EEC, 96/23/EC, 96/93/EC and 97/78/EC and Council Decision 92/438/EEC (Official Controls Regulation) (OJ L 95, 7.4.2017, p. 1, as amended) and the above-mentioned Feed Act.

### **Sub-task 3. Checks on food of animal origin for residues of plant protection products**

The task of monitoring residues of plant protection products in food of animal origin, including organochlorine pesticides, polychlorinated biphenyls and organophosphate pesticides, falls within the competence of the Veterinary Inspection Service. As regards food of animal origin in retail trade, with the exception of agricultural retail trade, this task falls within the competence of the State Sanitary Inspection Service. Official controls on food of animal origin for the presence of the above-mentioned substances are performed in accordance with the provisions of Regulation (EU) 2017/625 and with the rules issued pursuant or on the basis of that Regulation. The tenets of the residue testing programme, its schedule and the results of the tests are drawn up by the State Veterinary Institute – National Research Institute in Puławy, and they are approved for implementation by the Chief Veterinary Officer and then submitted to the Commission for assessment.

### **Task 3. Establishing risk indicators and analysing the risk related to the use of plant protection products**

On the basis of data obtained during control activities, statistical surveys on the marketing and use of plant protection products and systems for monitoring different phenomena relating to plant protection products, the national risk indicators for the use of plant protection products will be improved as part of the special-purpose subsidy implemented by the IOR-PIB, and the values of these indicators will be calculated

in a reliable manner. In the years to come, these indicators will allow for an analysis of the risks associated with the use of plant protection products, as a basis for risk management and policy-making in relation to plant protection products.

Based on national and EU indicators, as well as other data obtained as part of the implementation of the National Action Plan, a risk analysis will be carried out each year on the basis of trends, and conclusions for the following years will be presented.

### **11.1. How this action will be implemented**

As part of the implementation of the action, the following will be carried out:

- 1) collection and analysis of data obtained during control activities, monitoring and statistical surveys on the marketing and use of plant protection products;
- 2) establishment and calculation of risk indicators and analysis of the risk associated with the use of plant protection products.

### **11.2. Entities responsible for implementation**

This action will be implemented by the Ministry of Agriculture and Rural Development, the Ministry of Health, the Ministry of Climate and the Environment and by units subordinate to the Minister for Agriculture and Rural Development, the Minister for Health or the Minister for Climate and the Environment, and by Statistics Poland, within the constraints of the budgetary allocations to individual entities in the public finance sector participating in the implementation of this action. The action will also be implemented within the budgetary constraints of the provincial governors and by the IOR-PIB and IO-PIB as part of special-purpose subsidies implemented by these institutes.

## **12. Action 12. Maintaining effective monitoring of the marketing and use of plant protection products**

The risk of irregularities in the marketing, packaging and use of plant protection products may be reduced by providing professional users of those products with appropriate knowledge and tools to limit the use of PPPs to the minimum necessary; it is also necessary, however, for State services to conduct checks in order to remedy the irregularities identified. In order to ensure appropriate efficiency, these checks are conducted on the basis of a risk analysis that makes it possible to target the areas where irregularities are most likely to be detected.

In accordance with the Act of 13 February 2020 on the State Plant Health and Seed Inspection Service (PIORIN) (Journal of Laws 2023, item 288, as amended), tasks relating to the prevention, marketing and use of plant protection products are the responsibility of PIORIN. Eliminating infringements of legal standards on the marketing and packaging of plant protection products has a major impact on reducing the risks associated primarily with their marketing and, to a lesser extent, their use.

The tasks carried out by PIORIN include:

- 1) checks on the marketing of plant protection products (preventing the placing on and removing from the market of unauthorised or counterfeit products posing an unknown risk to humans, animals and the environment);

- 2) checks on the quality of PPPs on the market;
- 3) checks on the use of plant protection products on plant production farms, in seed dressing establishments, on fumigation sites, in storage facilities for agricultural crops, in places where the use of plant protection products may be restricted or prohibited, as well as in other places where these products are used, including places where the principles of Integrated Pest Management are applied;
- 4) monitoring the application of plant protection products using aircraft-mounted spraying equipment;
- 5) testing for residues of plant protection products in crops as part of checks on the correct use of plant protection products.

Effective monitoring of the marketing and use of plant protection products is also planned under this action.

In order to ensure effectiveness, it is also necessary to ensure appropriate cooperation between State administration bodies responsible for the monitoring of the marketing and use of plant protection products and their counterparts in the other EU Member States.

The primary focus of PIORIN's activities will be on:

- 1) ensuring safety for pollinators when applying plant protection products;
- 2) protecting the aquatic environment when applying plant protection products (compliance with the requirements for buffer zones);
- 3) compliance with the requirements concerning the technical state of the equipment intended for the application of plant protection products;
- 4) removing counterfeit plant protection products from the market;
- 5) eliminating the risks associated with the marketing and use of plant protection products in the context of human and animal safety and environmental protection.

In order to ensure that the checks carried out by PIORIN are as effective as possible, the IOR-PIB developed mathematical and statistical tools for risk analysis and control planning as part of the 2013-2017 National Action Plan. These tools will be developed further as part of the current National Action Plan.

### **12.1. How this action will be implemented**

The implementation of this action will involve:

- 1) checks on the correct marketing and use of plant protection products;
- 2) improved tools for risk analysis and control planning.

### **12.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the budgetary constraints and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. The tasks relating to the monitoring of the marketing, packaging and use of plant protection products will be carried out by PIORIN, within the budgetary constraints of the Chief Inspector of PIORIN, and by provincial governors. The task will also be implemented by the IOR-PIB and IO-PIB as part of special-

purpose subsidies implemented by these institutes.

### **13. Action 13. Optimising the protection of minor and organic crops**

Pest management with limited use of chemical PPPs comprises Integrated Pest Management (IPM) and organic farming.

The implementation of IPM principles requires the provision of appropriate tools to agricultural producers, including products containing low-risk active substances, as well as substances authorised for use in organic crops that minimise the risk of negative environmental impacts.

The selection of plant protection products should not only ensure the protection of individual crops, but also the alternating application of plant protection products containing different active substances. In addition to chemical plant protection products, agricultural producers should be able to use biological preparations containing micro-organisms, macro-organisms or basic substances.

The lack of optimal availability of plant protection products is particularly evident in the case of organic farming and minor crops, where only preparations containing certain active substances may be used. The IOR-PIB assesses compliance of plant protection products with the requirements of organic farming and maintains a list of such products.

The lack of plant protection products authorised for use in minor crops is one of the factors increasing the risk of infringements of the rules on the use of these products, including their use not in line with the product label.

In procedures for the authorisation of plant protection products, 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 (OJ L 309, 24.11.2009, p. 1, as amended), provides for the possibility of using mechanisms such as zone-specific registration, mutual recognition of authorisations (including for minor crops) or extension of authorisations for minor crops.

In view of the above, as a matter of priority, work will be carried out to ensure an adequate range and choice of plant protection products authorised for use in organic farming and basic substances.

#### **13.1. How this action will be implemented**

As part of the implementation of the action, the following will be carried out:

- 1) tests and analyses to ensure an adequate range and choice of plant protection products, taking into account minor and organic crops;
- 2) consultations with representatives of organisations active in the field of agriculture, producer groups, research entities, advisory services and producers of plant protection products.

#### **13.2. Entities responsible for implementation**

This Action will be implemented by the Ministry of Agriculture and Rural Development within the applicable budgetary constraints, and by bodies subordinate to or supervised by the Minister for Agriculture and Rural Development. As part of this action, it is planned to establish cooperation with organisations active in the field of agriculture and producers of plant protection products.

## **VI. Compatibility of the National Action Plan with strategy papers for agriculture**

Sustainable use of plant protection products has become one of the priorities of environmental policy in Poland. The restructuring and modernisation of Polish economy help lower the pressure on the environment. The National Action Plan is in line with the environmental policy as regards plant production. The preservation of beneficial organisms in field crops is one of the most important elements of biological protection, which is a priority in the search for non-chemical plant protection methods.

The National Action Plan is in line with the Responsible Development Plan adopted by Cabinet Resolution of 16 February 2016 and the medium-term development strategy, i.e. the Responsible Development Strategy for 2020 (with an outlook until 2030), adopted by Cabinet Resolution of 14 February 2017. The main objective of the development measures under the strategy is to 'create the conditions for Polish citizens to grow their income while increasing social, economic, environmental and territorial cohesion'. The document stresses that enhancing the competitiveness of farms and agri-food producers through improved profitability, integration of the food chain and a fairer distribution of added value in the chain, based on the partnership principle, will be crucial for the sustainable and responsible development of the country.

At the same time, seven lines of intervention have been designed, including three dedicated to the development of the agri-food sector, as part of the strategy's specific objective I – Sustainable growth increasingly based on knowledge, data and organisational excellence. These lines are the following: 2. Public institutions supporting the development of operators in the sector; 4. Competitive farms and agri-food producers, and 7. Support for local drivers of entrepreneurship. The objectives of these lines are to make agricultural advisory services more efficient and accessible, and to support the production and distribution of high-quality and innovative products, including, among other things, traditional, regional and organic products. We would also stress that one of the strategic projects forming part of the above-mentioned lines of intervention involves strengthening and increasing the efficiency of the agricultural advisory system by improving the training system for agricultural advisors, strengthening the competences linked to knowledge transfer from research to practice, modernising farms and farm management, etc. Providing advisory services is also one of the key tasks under the National Action Plan. The main objective of agricultural advisory services is to disseminate knowledge and up-to-date information on plant protection, which helps create a list of desired behaviours and influences the conduct of PPP users. Wherever agricultural producers use plant protection products correctly, the risks associated with their use are indeed minimised.

The Brwinów Agricultural Advisory Centre and the other agricultural advisory centres cooperate closely with the central and local government bodies active in the field of plant protection, e.g. research institutes, agricultural universities, PIORIN, agricultural chambers and organisations, and other economic operators providing inputs for agricultural production.

The Agricultural Advisory Centre in Brwinów, together with other provincial agricultural advisory bodies, provide continuous training to farmers and inhabitants of rural areas. In addition, they organise training courses, conferences, workshops and information meetings on these topics.

The National Action Plan is in line with Resolution No 123 of the Council of Ministers of 15 October 2019

adopting the 'Strategy for the sustainable development of rural areas, agriculture and fisheries 2030' (Polish Official Gazette 'Monitor Polski', item 1150), in particular by implementing the following actions:

- 1.2.4. ensuring that the food products offered are of high quality and that products are adapted to the individual dietary needs of consumers;
- 1.2.6. control and supervision of national agri-food trade;
- 1.2.9. simplification of food quality schemes and providing training and advice in this regard;
- 1.2.13. streamlining the management of food promotion systems and an effective food safety monitoring system;
- 1.4.16. implementation of obligations arising from the eradication and prevention of plant diseases; implementation of mechanisms to mitigate the market impact of related phenomena;
- 2.4.16. protection of water quality, including through rational use of fertilisers and plant protection measures,  
and promotion of agrotechnical activities that are beneficial for the protection of water quality and the simultaneous plant production for the needs of livestock production;
- 2.4.18. development of organic farming, promotion of environmentally friendly agricultural and fisheries production methods and handling by-products from agriculture, fisheries and agri-food processing;
- 2.4.22. raising awareness of environmental protections methods in agriculture, rural areas and the fisheries sector, e.g. by improving and developing the advisory system and promoting good agricultural practices.

The National Action Plan is also in line with the European Green Deal and the 'Farm to Fork' Strategy, according to which 'the Commission will take additional action to reduce the overall use and risk of chemical pesticides by 50% and the use of more hazardous pesticides by 50% by 2030'.