Walloon programme to reduce pesticides 3

2023-2027

WALLONIE
environnement

SPW

Summary

Part 1: Introduction and general objectives

1.1. The overall finding

By the end of 2022, the world's population will reach 8 billion people on Earth. The figure of 10 billion is announced by 2050.

The scale of the activities generated by the Terrien.ne.s is now measured, inter alia, by the climate disruption that they cause and which could threaten humanity.

The Intergovernmental Panel on Climate Change (IPCC) announces a minimum global average warming of + 1.5 °C over the next 20 years1. The impacts are now known to all: repeated heatwaves and droughts, violent storms, sudden and intense localised storms, unparalleled floods, erosion of arable soils, large scale fires, increased deaths in heatwaves, etc. Thus, through climate change, we indirectly influence our environment.

While climate change has often been highlighted as one of the major consequences of human activity since the industrial revolution, the much more direct impact on the environment of a whole range of human activities that have little to do with the release of greenhouse gases cannot be overlooked.

Our activities include:

- on a global scale: the annual disappearance of 26.280 animal and plant species, i.e. 1 animal or plant species every 20 minutes;
- in Europe and Belgium: a loss of at least 10 % of the number of birds in the last 40 years;
- in France: a 40 % decrease in the number of wild bees (dramatic situation when pollinators are estimated to be responsible for 75 % of global food production and 80 % of plant species reproduce thanks to bees);
- in Belgium: for winter 2021-2022, the loss of bee colonies is estimated at 21 % (source: CARI).

These dramatic losses due to their speed never occurred before the industrial era.

Certain.e.s predict that if environmental damage does not decrease drastically and rapidly, almost a quarter of animal and plant species could disappear by 2050. In the light of this untenable finding, a single conclusion must be drawn: humanity is putting itself at risk. While collective awareness is growing, the liveliness of the response and its level of ambition do not seem to be commensurate with this.

The Member States shall draw up targeted adaptation strategies in an attempt to curb the consequences. Many initiatives are being taken, not always coordinated. If Europe is to be at the forefront of the fight, unfortunately, recent events remind us that the priorities of the Member States may change. However, structural measures that fundamentally change the way we understand our way of life are needed. Nobody has a monopoly of responsibility for the situation: all sectors of economic activity bear their share of responsibility, and must therefore also be part of the solution, to varying degrees. Each and every one of them.

In the combination of footprints due to human activities on health and the environment, the footprint related to the use of pesticides is included. The post-war period saw the emergence, rapid development and widespread use of synthetic chemicals, which at that time made it possible to improve food autonomy, ensure the maintenance of railways and the road network, develop a certain design of the beauty of public spaces and gardens, counteract humain.es' aversion towards insects in their homes, etc. The reverse of the medal has not been awaited: the massive use of these products has led to negative impacts on human health, biodiversity and the wider environment. To such an extent that, today, nature alone is no longer capable of ensuring its protection, nor that of humans.

Combating the adverse effects of these substances is the backbone of this Walloon pesticide reduction programme. However, it alone will not be enough: more than ever, our individual and collective daily behaviour will have to change in order to change the lines. Not only for ourselves, but above all for future generations who

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1 IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, In press, doi: 10.1017/9781009157896.

will have their own set of challenges to manage.

1.2. A vision for Wallonia

The finding must necessarily lead to the action being taken. First of all, we would point out that humanity has not always been dependent on pesticides. The good news is that opportunities exist, provided that, both in the context of his professional and private activities, it is already taking on its role. This joint commitment must be reflected in the strengthening and dispersion of a culture of the future in order to counter early defeat in the face of change. To do so, it is up to the public authorities to set a vision, a course, which is not limited to the short or medium term. This vision must be a reasonable ideal to be achieved within a certain period of time. **The vision we propose is to firmly place Wallonia in a healthy, safe and pleasant environment, for the benefit of all.**

The first step towards a society aspiring to zero use of synthetic chemicals, the first goal we propose to you, is **to reduce our pesticide footprint by 50 % by 2030**[2]. This objective is part of the Walloon Government's Regional Policy Declaration 20192024 and is in line with the objectives *of the European strategy 'F2F' (Farm to Fork)*. We will return to this in Part 2.

Achieving this ambitious objective requires **strengthening the existing system, consisting of** a national plan, NAPAN, enriched by the plans and strategies specific to each region of the country, including the Walloon Pesticides Reduction Programme (PWRP 1 and 2). **This reinforcement for the future takes the form of this Walloon Pesticide Reduction Programme (PWRP 3) covering the period 2023 to 2027**. Fortunately, the page is not white. The vision and its first milestone are part of an existing framework, in particular a set of measures previously approved by the Walloon Government but dispersed in several thematic plans and programmes.

While the drafting of the PWRP 3 provides an opportunity to recall these measures already in place, it is an opportunity, above all, to adopt new measures to strengthen the overall pesticide management system. Its design requires compliance with the 'three best' rule: *better protection of natural resources and better respect for them, in order to make better use of them in a sustainable way*.

1.3. The operative part

If the vision is our compass, the device is the hand that supports it.

As our vision is established, it needs to be operationalised by a coherent mechanism. It is based on a system of Russian dolls, with an increasing degree of operationality, which can be summarised as follows:

- setting*strategic objectives* that set the direction,
- concretely broken down into *operational objectives*,
- in turn, specified by *concrete measures,*

It 2 *should be noted that the European Commission will assess the 50 % reduction in pesticides using indicators. This indicator will take into account both the quantities and the toxicity of the products. The exact calculation method is still under discussion at European level.*

- sometimes they are organised in *actions* (steps).

The scheme includes the following aspects:

- *preventive* (appropriateness of using a product, sensitisation of users, conditions of use, adapted strengths, monitoring and research on uses and impacts, etc.);
- *alternatives* (the quantities used will be reduced mainly by developing alternative practices requiring less or no pesticides);
- *curative* (de-pollution of water and soil, etc.);
- *law enforcement* (enforcement of offences).

The components of the scheme are all levers that will enable Wallonia to achieve its objective under the PWRP 3.

Furthermore, as several thousand new substances are emitted to the market each year by the industrial sector, whose potential impact on health and the environment is often not known or even unknown, the scheme must also focus on the continuous improvement of knowledge, in particular:

- monitoring and seeking credible alternatives;
- impacts on health and the environment;
- advice on the best conditions of use.

In this respect, the system can rely on recognised and valuable expertise on the ground.
Finally, it must be regularly evaluated by means of existing indicators or indicators to be constructed in order to verify that the course is maintained.

However, while the scheme presented in Part 3 of this document aims to reduce our 'pesticide' footprint on our health and the environment, it alone will not be able to fully achieve the objective. Since we are all using more or less pesticides, directly or indirectly, whether in the course of our professional or domestic activities, he demands that it contribute to this in his daily gestures, by supporting the production sectors in our region which have embarked on a pesticide reduction approach, or by permanently banning these products from its domestic use.

We would like this project to give the top start of 2023 for all Wallon.ne.s:

"In isolation, we can a bit. Together, we will be able to do a lot!"

2.2. General context

2.2.1. Definitions: pesticides and plant protection products (PPPs)

Pesticides should be understood as all plant protection products and biocides.

within the meaning of Regulation (EC) No 1107/2009 defined in Regulation (EC) No 528/2012

A plant protection product (PPP) is also sometimes referred to as a plant protection product or plant protection product. It is a product of natural or chemically manufactured origin that is used to control plant diseases and pests or to eliminate undesirable plants or organisms. Herbicides, fungicides, insecticides, growth regulators, etc.

The term 'active substance' refers to the active substance of the pesticide. These are *'substances, including micro-organisms, having a general or specific action on harmful organisms or on plants, parts of plants or plant products'*3.

In Belgium, and thus also in Wallonia, it was decided to use European terminology in order to maintain consistency between the various pieces of legislation. In this PWRP 3, the terms plant protection products and pesticides will therefore be used depending on whether the measures concern PPPs only or all PPPs and biocides. Indeed, Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides makes clear that it applies initially only to PPPs. The scope will be extended to biocides in the future.

In each review of the PWRP (every 5 years), its extension to biocides may be considered.

2.2.2. The legislative framework

In the course of 2009, the European Parliament and the Council adopted the "Pesticides Package". It consists of 2 directives and 2 regulations aimed at implementing

3 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, Article 2 (2), *J.O.U.E.,* L 309, 24 November 2009, p. 1.

the objectives of the Thematic Strategy for the Sustainable Use of Pesticides as presented by the European Union in 2006.

“Pesticides package”

1. *Regulation (EC) No 1107/2009 of 21 October 2009 concerning the placing of plant protection products on the market (replacing Directive 91/414/EC);*

2. *Directive 2009/128/EC of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides;*

3. *Regulation (EC) No 1185/2009 of 25 November 2009 concerning statistics on pesticides;*

4. *Directive 2009/127/EC of 21 October 2009 amending Directive 2006/42/EC as regards machinery for pesticide application.*

a. Regulation (EC) No 1107/2009

Under Regulation (EC) No 1107/2009 concerning the placing of plant protection products on the market, the competent authority for placing plant protection products on the market:

of the active substance: the European Union 

of the commercial product: Member States (Belgium) 

The main contributions of this Regulation compared to Directive 91/414/EC relate to the introduction of stricter cut-off criteria for the approval of active substances concerning risks to human health and the environment. The Regulation also provides for the recognition of PPPs by a zonal approach[4]. Those containing active substances likely to pose a high risk to human health or the environment must be regularly reviewed by the Member States in order to replace them with products containing low-risk active substances or by non-chemical methods of prevention or control.

New rules on the classification, packaging, labelling and advertising of products have been laid down.

b. Framework Directive 2009/128/EC

Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides (also known as the Pesticides Framework Directive or FAD) is cross-cutting. Its transposition requires the intervention of the 7 institutions, namely the Federal State, the 3 Regions and the 3 Communities (see box).

As part of the transposition of this Directive, the Walloon Government has revised the rules on the application of plant protection products in public spaces. The main points of this legislation relate to:

- the ban on the use of PPPs from 1^{June} 2014 but derogations are granted, as a last resort, for certain areas (e.g. railways) and for certain types of plants;
- mandatory application of the principles of integrated management;
- the definition of buffer zones;
- proof of sufficient knowledge of pesticides on the part of the user and the service manager;

4 The EU has been divided into 3 areas for placing PPPs on the market: a northern area, a central area and a southern zone. Belgium is part of the central area from Ireland to Romania. For information, France is part of the southern zone. A PPP approved in a Member State of the zone may be mutually recognised in all the Member States in the same zone.

- measures to protect vulnerable groups and to keep a register of chemical treatments carried out in accordance with the entry into force of Regulation (EC) No 1107/2009.

The main texts to transpose this Directive were finally adopted in July 2013. Other secondary texts were adopted between 2014 and 2019. A revision of the main texts has already taken place in October 2016 (amending Decree of 20 October 2016 supplementing the Decree of 10 July 2013) and two others took place in 2018 and 2019 (adaptation and amendment of the Walloon Government Decree of 11 July 2013). An adaptation of the Walloon Government Decree of 11 July 2013 and the Walloon Government Orders of 13 June 2013 (full and sectoral conditions for PPP storage depots) is being finalised. It should improve the controllability of the measures and simplify some of them.

The drafting and implementation of the National Action Plan NAPAN (*Nationaal Actie Plan d'Action National*) is central to the implementation of the Framework Directive. The plan consists of the federal plan (PFRP), the Flemish regional plan (VADP), the Brussels regional plan (regional pesticide reduction plan) and the Walloon regional programme (PWRP). The Walloon pesticide reduction programme will be reviewed every 5 years.

Belgium is a federal state made up of communities and regions. It is divided on the basis of language and culture in 3 Communities and on the basis of territory in 3 regions. On this basis, competences have been divided between these institutions. Some competences may sometimes involve several levels of government; in this case they are referred to as mixed.

Federal competences:

- *placing on the market (approval, sale) of PPPs;*
- *the establishment and monitoring of phytolicence;*
- *technical inspection of sprayers (carried out in practice by regional centres (in Wallonia, the CRA-W));*
- *aerial spraying, etc.*

Regional competences:

- *the use of PPPs;*
- *communication and awareness-raising among users on PPPs;*
- *environmental protection (water, air, soil, Natura 2000, etc.);*
- *integrated pest management;*
- *basic (dual) training and continuous training of phytolicence detents.s, etc.*

Community competences:

- *basic (school and full exercise) training for phytolicence detents.s.*

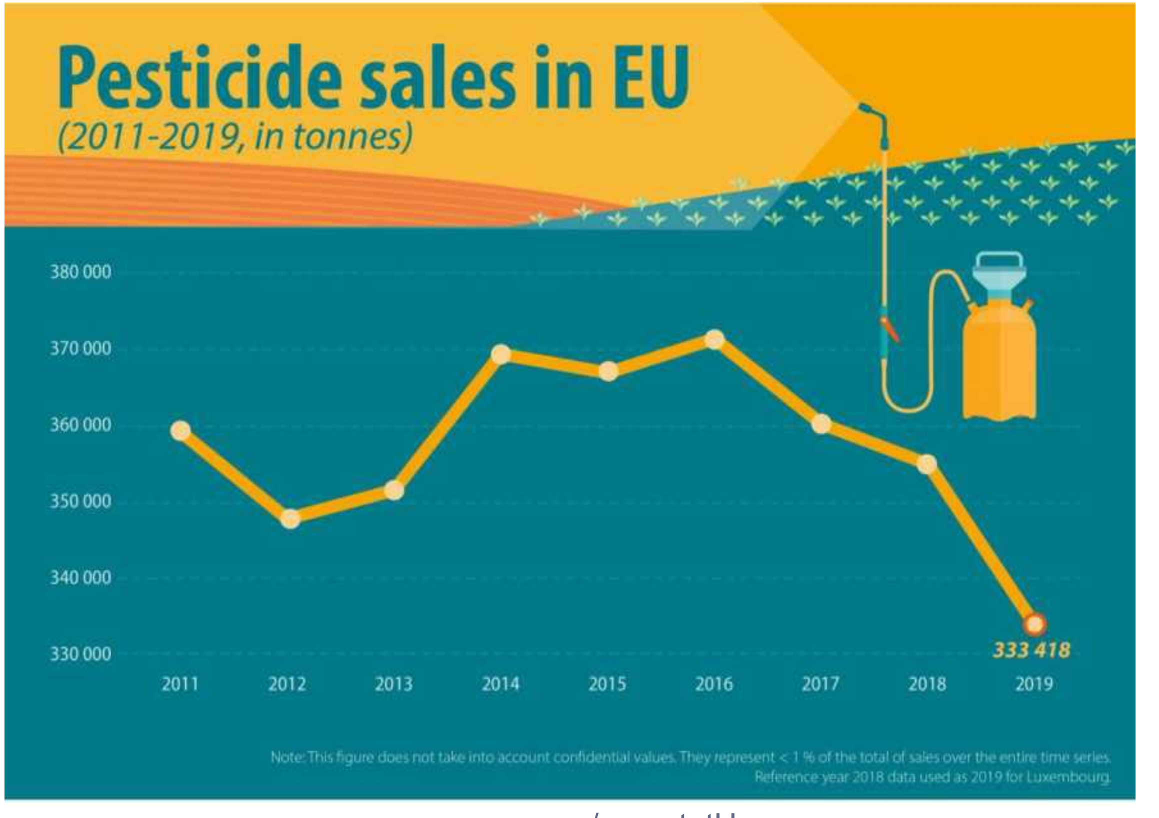
Mixed skills:

- *health (information and awareness-raising, monitoring of poisoning, etc.);*
- *information to the public,*
- *handling and storage of pesticides, etc.*

2.2.3. State of play on the use of PPPs

A. At European level

On the basis of figures published by Eurostat for the period 2011-2019, total sales of plant protection products (PPPs) in the European Union of 28 countries (EU-28) remained stable at around 360.000 tonnes per year. Spain (22.5 %), France (16.3 %), Italy (14.5 %) and Germany (6.3 %) remain the largest consumers of PPPs and together account for around 60 % of pesticide sales in the EU-28. In 2019, sales data decreased from 6 % to around 333.000 tonnes.



ec.europa.eu/eurostatH

Figure 1: Quantities of PPPs sold in the EU-28 between 2011 and 2019 (tonnes).

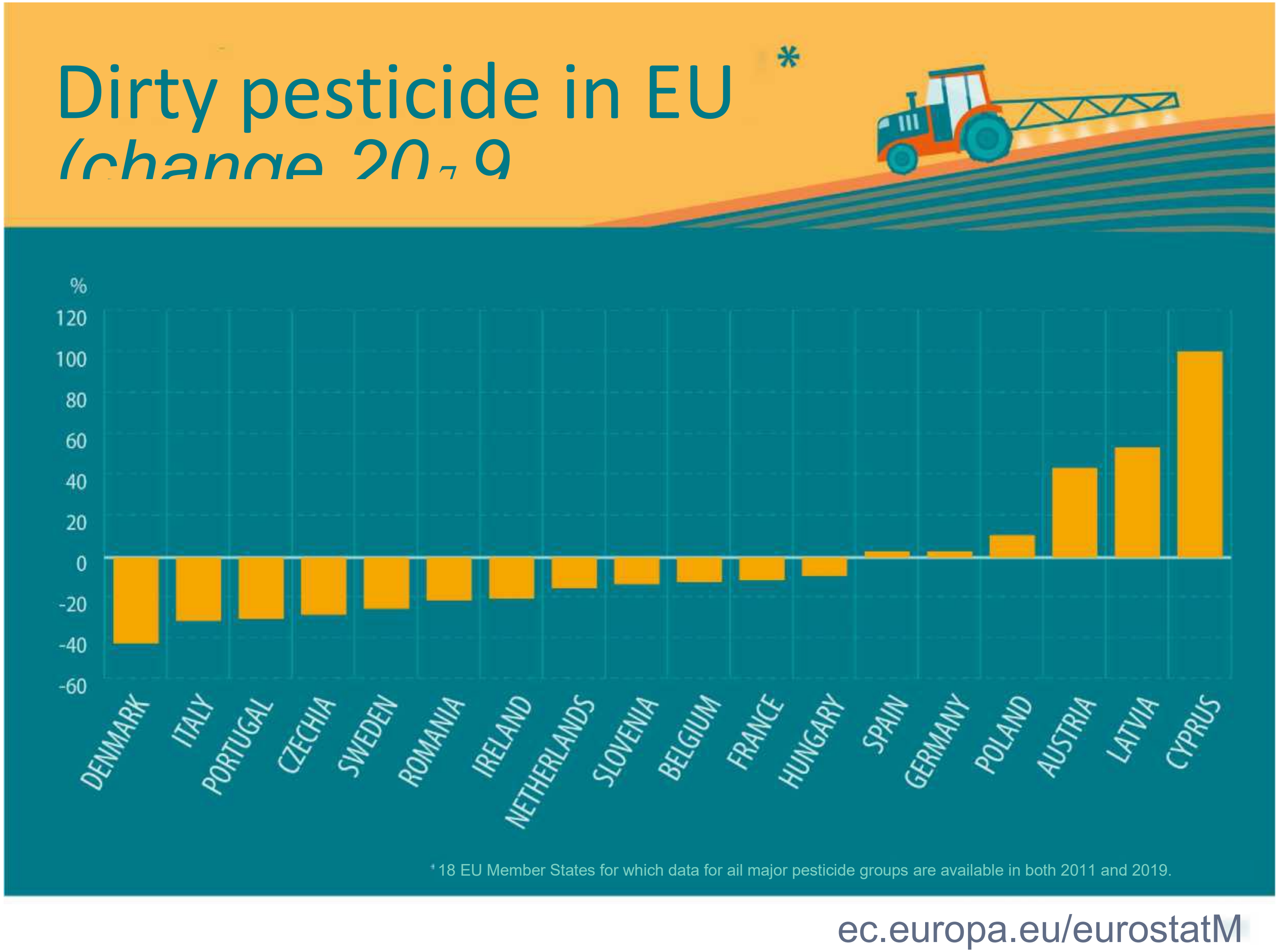


Figure 2: Changes in quantities of PPPs sold in the EU-28 between 2011 and 2019 (% compared to 2011)

PESTICID (kg)	Fungicides and bactericides		Herbicides, haulm destructors and moss killers		Insecticides and acaricides		Molluscicides		Plant growth regulators		Other plant protection products	
GEO/TIME	2011	2020	2011	2020	2011	2020	2011	2020	2011	2020	2011	2020
Belgium	2452,10	2203,25	2610,57	1944,73	694,61	389,57	14,28	5,95	268,97	456,38	885,01	392,08
Bulgaria		1697,66		1987,70		502,89				8,59		19,14
Czechia	1626,67	1544,88	3473,23	2002,23	290,97	151,21	12,88	4,59	1183,45	464,51	462,04	192,33
Denmark	632,93	502,61	3692,15	2453,59	44,94	31,61	3,67	7,45	172,60	165,40	3,17	6,81
Germany	10472,85	9504,73	17955,17	14589,32	11831,54	21248,30	255,16	38,89	3122,90	2232,72	218,55	360,01
Estonia	50,53		357,09	510,77	19,38	16,38			31,69	105,44		
Ireland	619,97	440,43	2811,90	2262,45	47,51	9,96	4,46	12,23	188,22	149,00	20,39	35,75
Greece	2256,37	1801,71	1454,63	1910,46	109,30	860,84		1,93	21,28	124,57	733,48	201,92
Spain	31343,39	37915,96	13834,60	20199,36	8061,92	8165,12	228,52		223,24	191,44	19420,62	
France	24495,84	26001,47	29252,30	29155,64	2190,21	5845,20	331,36	413,52	2531,96	2076,28	2460,67	1251,17
Croatia		700,97		729,91		119,19		3,28		93,44		8,30
Italy	43574,47	31644,12	8327,29	9749,76	2493,84	4705,18	97,43	45,13	389,84	416,35	15443,35	9812,05
Nicosia	894,77	862,58	169,99	181,32	158,67	91,15	2,03	2,44	3,34	0,76	5,94	52,33
Latvia	148,22	303,79	722,05	1167,42	34,16	44,01		5,08	163,60	359,82	5,97	20,29
Lithuania	361,50	592,65	1772,87	1487,05	26,36	85,72			402,93	393,34		
Luxembourg	92,08		102,07	60,23			1,11	0,19		3,68		
Hungary	2997,44	3371,88	3668,07	4264,63	522,09	582,59	2,09	2,61	223,70	189,61	1134,55	267,77
Malta	95,04	89,78	6,22	2,90	4,38	2,63	0,91	0,51	0,00	0,00		
Netherlands	4246,28	3962,23	3011,21	2606,60	1898,29	2371,59	20,14	16,15	206,19	560,49	1532,11	306,75
Austria	1544,22	1931,28	1505,16	1152,79	247,98	2362,72	33,43	8,52	59,37	46,04	58,11	64,68
Poland	6080,80	9278,13	12408,49	12809,35	991,42	618,82		29,23	1593,14	1201,37	689,38	679,47
Portugal	9974,80	6401,93	1995,99	2401,92	877,77	416,63	13,09	28,94	3,87	8,59	1158,09	448,26
Romania	3481,61	3877,89	6770,90	4125,50	807,80	453,94	0,76	9,30	335,30	121,89	30,06	111,57
Slovenia	797,05	731,01	264,29	180,87	38,49	38,68	0,97	1,73	0,59	7,43	20,33	4,04
Slovakia	540,82	662,31	1079,87	1107,93	63,69	138,09	0,00		112,72	370,78	8,88	51,87
Finland	165,15	3698,30	1452,13	1155,00	31,42	11,67		0,91	59,33	39,23	1310,82	11,84
Sweden	218,46	222,21	2136,11	1707,96	28,83	32,11	0,78	1,12	20,69	63,76	10,90	20,32
Iceland		0,16		0,45		0,05		0,00		0,00		0,00
Norway	106,61	93,63	679,23	520,80	5,10	13,58	1,13	2,36	38,40	50,51	0,13	27,07
Switzerland	932,86	979,88	918,62	498,96	260,77	256,93	37,76	23,39	32,97	33,30	90,96	92,26
United Kingdom	8202,56		11603,88		2871,36		157,22		1573,86		17,91	
Türkiye		20507,81		13250,00		14457,22		280,00		1318,88		3676,12

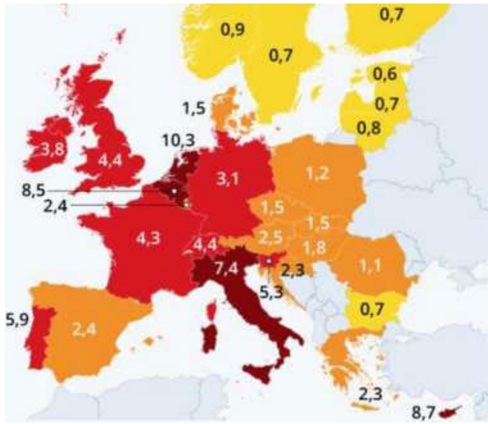
Table 1: Trends in the quantities of PPPs sold in the European Economic Area between 2011 and 2020, by country and by type of PPP (tonnes). The colour scale is determined according to the minimum and maximum *for each pesticide category*. Sources: EUROSTAT.

In general, countries have different use profiles for plant protection products linked in particular to climatic conditions. Few fungicides and insecticides are used in cold countries (Finland, Sweden, Norway, Estonia and Latvia). On the other hand, consumption is high in southern European countries (Malta, Cyprus, Slovenia, Portugal and Greece), due to the importance of vegetable crops, tree farming and vines.

While the total quantities of pesticides used in Belgium are relatively small compared to other larger countries, it can be seen that the four largest PPP *users per hectare* are the Netherlands, Cyprus, Belgium and Italy. These differences are linked to crop patterns, which are more or less intensive in the countries, to very different agricultural structures (permanent crops such as vineyards and tree farming are those that use the most PPPs), or to differences in health pressures. It should be noted that the tonnage of products sold does not reflect the variable characteristics of PPPs (toxicity, ecotoxicity and concentrations of active substances). However, this allows for a general overview of the situation.

Πεστιχιδε χονσυμπτιον ιν Ευροπε Πεστιχιδε use in kg per hectare of cropland in 2018

- > 6 kg/ha
- 3-6 kg/ha
- 1-3 kg/ha
- < 1 kg/ha



Selection of EU countries with Switzerland, Norway and the United Kingdom. Rounded data.
Sources: FAO

Statista

Figure 3: PPP consumption (kg of PPP sold/ha UAA) in the EU-28 for the year 2018

b. At Belgian level

Based on the work carried out by the asbl corder (Source: REEW; CORDER-CRP asbl – SPW-ARNE-DEMNA & DEE), the number of active substances (hereafter SA) on the Belgian market was reduced from 342 to 237 between 1995 and 2010 due to the imposition of strict European standards to ensure the protection of human health and the environment. After 2010, the number of SA on the Belgian market stabilised and ranges from 237 to 258 SA. Since 2018, the number of AS sold has slightly decreased to 245 active substances sold in 2020.

Figure 4: Changes in quantities of active substances sold in Belgium (tonnes) between 1995 and 2020
Sources: Corder, 2022a. Quantitative estimation of the uses of plant protection products by the different sectors of activity. Final report.
Study carried out on behalf of SPW – ARNE – DEMNA & DEE. Online: http://etat.environnement.wallonie.be —
Data are provisional Validated data will be available on the state of the Walloon environment site

The quantities of SA sold in Belgium halved between 1995 and 2010, from 10.512 tonnes to 5.141 tonnes; slightly increased between 2010 and 2012 (6.641 tonnes); overall, it stabilised until 2018. However, we note a slight increase in SA's sales in 2014 amounting to 7.036 tonnes. In 2019 and 2020, the quantities of SA sold decreased by 5.888 tonnes and 5.552 tonnes respectively.

This decrease between 2018 and 2020 can be partly explained by drier years, where the number of fungal disease treatments in some crops could be reduced compared to 2018.

In 2020, the total quantity of active substances (AS) of PPPs sold in Belgium was 5.552 tonnes. Professional users account for 97.4 % of the total quantity of SA sold in Belgium (5.408 tonnes), while non-professional users purchased 2.6 % (144 tonnes). The professional users of PPPs are farmers, parks and gardens, rail network managers, public space managers, etc. Non-professional users of PPPs mainly concern individuals.

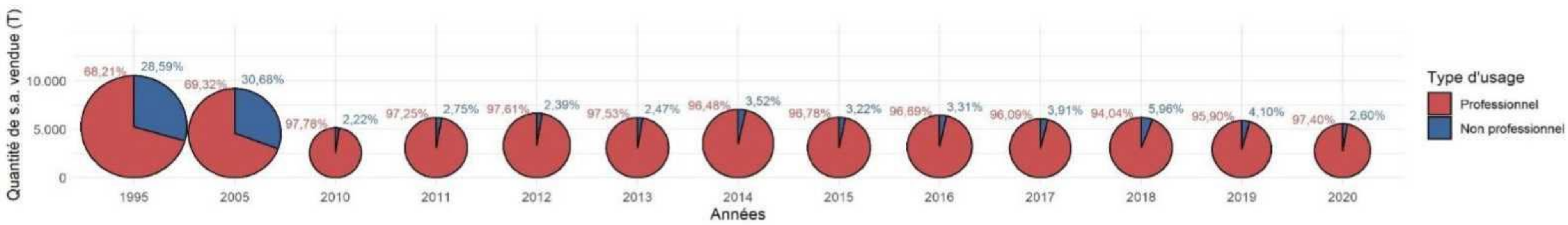


Figure 5: Evolution of the distribution of quantities of active substances sold (in thousands of tonnes and in%) among the different types of users of plant protection products for the years 1995 (10.512 tonnes), 2005 (9.187 tonnes), 2010 (5.141 tonnes), 2011 (6.201 tonnes), 2012 (6.641 tonnes), 2013 (6.194 tonnes), 2014 (7.036 tonnes), 2015 (6.226 tonnes), 2016 (6.440 tonnes), 2017 (6.070 tonnes), 2018 (6.215 tonnes), 2019 (5.888 tonnes) and 2020 (5.552 tonnes) in Belgium.
Sources: Corder, 2022a. Quantitative estimation of the uses of plant protection products by the different sectors of activity. Final report. Study carried out on behalf of SPW – ARNE – DEMNA & DEE. Online: http://etat.environnement.wallonie.be provisional data. Validated data will be available on the Walloon Environmental Status site.

Sales of active substances mainly for professional uses

There are many and varied uses of plant protection products. The professional users of PPPs are those with the highest sales of active substances. The change in the size of the discs shown in Figure 5 above represents the total quantities of SA sold each year.

The share of quantities sold to non-professional users has fallen sharply over time: from 28.6 % in 1995 to 30.7 % in 2005, it fell between 2.2 % and 3.5 % for the period 2010-2015. This drop is mainly related to the withdrawal of soda chlorate from the market and the decrease in sales of iron sulphate (linked to its combination with co-formulants such as EDTA which allow for better efficiency at much lower doses). The majority of sales of AS dedicated to non-professional uses are in the form of herbicides, defensive agents and anti-foaming agents.

Fungicides and herbicides at the top in user.rice.s

In 2020, on the Belgian territory, the group of fungicides and bactericides corresponded to the highest sales of active substances (SA) in users.rice.s professional.le.s (40.6 %, i.e. 2.196 tonnes). Mancozeb, mainly intended to control mildiou in potato cultivation, was the most sold fungicide (901 tonnes), followed by sulphur (289 tonnes) and captan (181 tonnes). The group of herbicides, defanants and anti-foam agents accounted for 33.8 % of sales attributable to professional users (1.826 tonnes), the most sold herbicides being glyphosate (414 tonnes) and prosulfocarb (236 tonnes). In non-professional users, the highest sales of SA were in the group of herbicides, defancers and anti-foaming agents (89.4 %, i.e. 129 tonnes). Of these, Pelargonic acid was the most sold herbicide (76 tonnes), followed by iron sulphate (29 tonnes) and acetic acid (23 tonnes). Glyphosate is prohibited for non-professional users.

since the end of 2018.

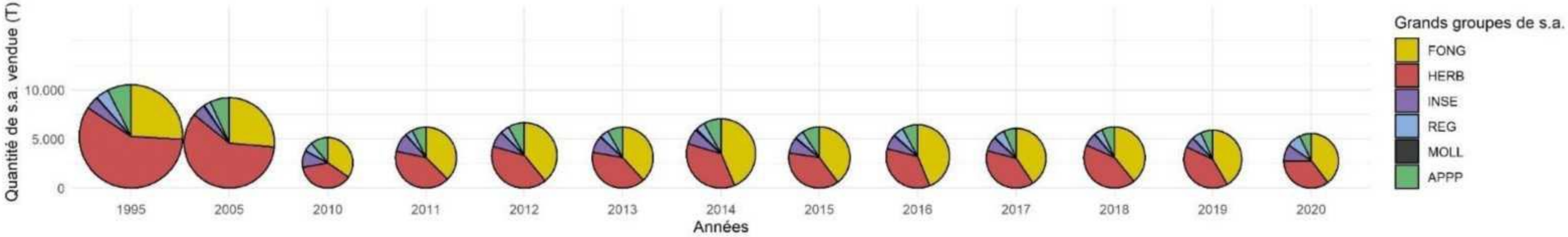


Figure 6: Distribution of quantities of active substances sold (in thousands of tonnes and%) among the different main groups of active substances for the years 1995 (10.512 tonnes), 2005 (9.187 tonnes), 2010 (5.141 tonnes), 2011 (6.201 tonnes), 2012 (6.641 tonnes), 2013 (6.194 tonnes), 2014 (7.036 tonnes), 2015 (6.226 tonnes), 2016 (6.440 tonnes), 2017 (6.070 tonnes), 2018 (6.215 tonnes), 2019 (5.888 tonnes) and 2020 (5.552 tonnes) in Belgium for all types of users.
Sources: Corder, 2022a. Quantitative estimation of the uses of plant protection products by the different sectors of activity. Final report. Study carried out on behalf of SPW – ARNE – DEMNA & DEE. Online: http://etat.environnement.wallonie.be
Data are provisional Validated data will be available on the Walloon Environmental Status site.

In PPP users, fungicides and bactericides dominate sales between 2011 and 2020.

The overall distribution profile of the quantities of active substances (AS) sold among the six large groups of AS is relatively similar for the professional users.le.s over time. Between 1995 and 2010, herbicides, defensive agents and anti-foaming agents accounted for the highest sales for professional uses. Between 2011 and 2020, fungicides and bactericides were the top sales of SA. Mancozeb, mainly intended to control mildiou in potato cultivation, is the most widely sold fungicide between 1995 and 2020. Between 2005 and 2020, glyphosate is the most widely sold herbicide to professional users.

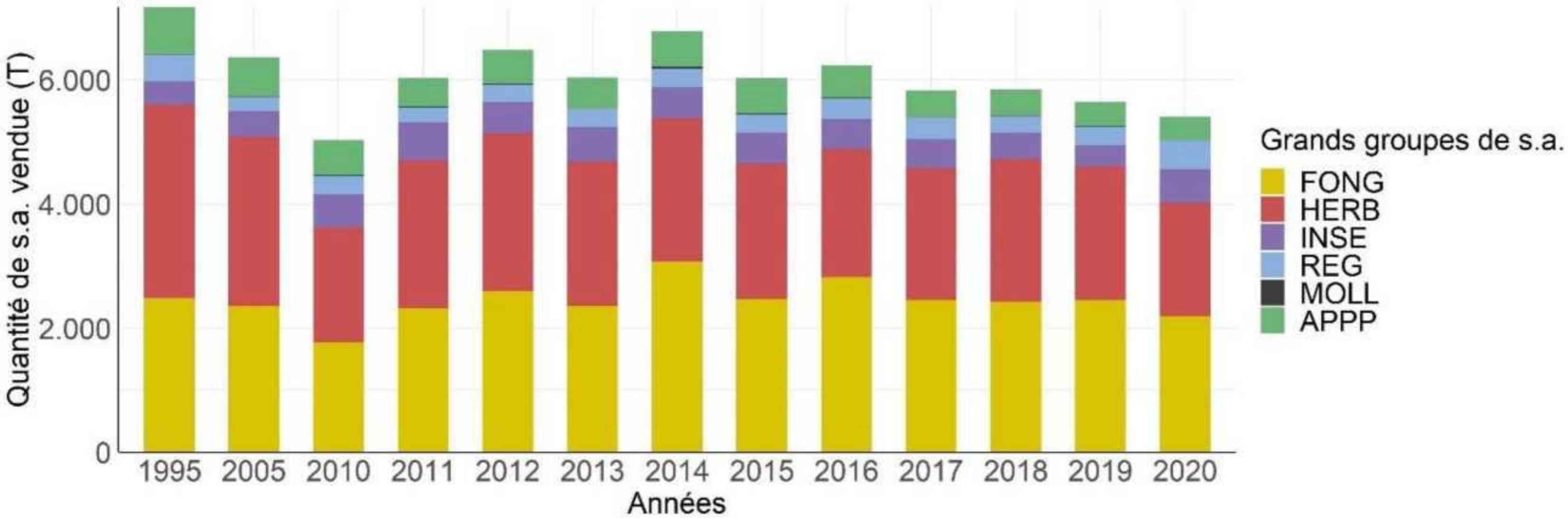


Figure 7: Evolution of the total quantities (in tonnes) of active substances sold in Belgium for professional users per large group of active substances in 1995 (7.170 tonnes), 2005 (6.369 tonnes), 2010 (5.028 tonnes), 2011 (6.030 tonnes), 2012 (6.482 tonnes), 2013 (6.040 tonnes), 2014 (6.789 tonnes), 2015 (6.026 tonnes), 2016 (6.227 tonnes), 2017 (5.832 tonnes), 2018 (5.845 tonnes), 2019 (5.646 tonnes) and 2020 (5.408 tonnes).
Sources: Corder, 2022a. Quantitative estimation of the uses of plant protection products by the different sectors of activity. Final report. Study carried out on behalf of SPW – ARNE – DEMNA & DEE. Online: http://etat.environnement.wallonie.be
Data are provisional Validated data will be available on the Walloon Environmental Status site.

c. At Wallonia level[5]

In agriculture, the use of PPPs is higher in potato crops.

In Wallonia, among the main arable crops, ware potatoes had the highest PPP use rate per hectare in 2020 (15.3 kg/ha), followed by sugar beet (5.4 kg/ha) and winter wheat (2.3 kg/ha). Between 2004 and 2018, with the exception of potatoes, there was a relatively stable trend in the doses used per hectare. The peak observed in 2007 in potato crops can be linked to the favourable climate conditions for mildew.

5 Sources: REEW; CORDER-CRP asbl – SPW-ARNE-DEMNA & DEE

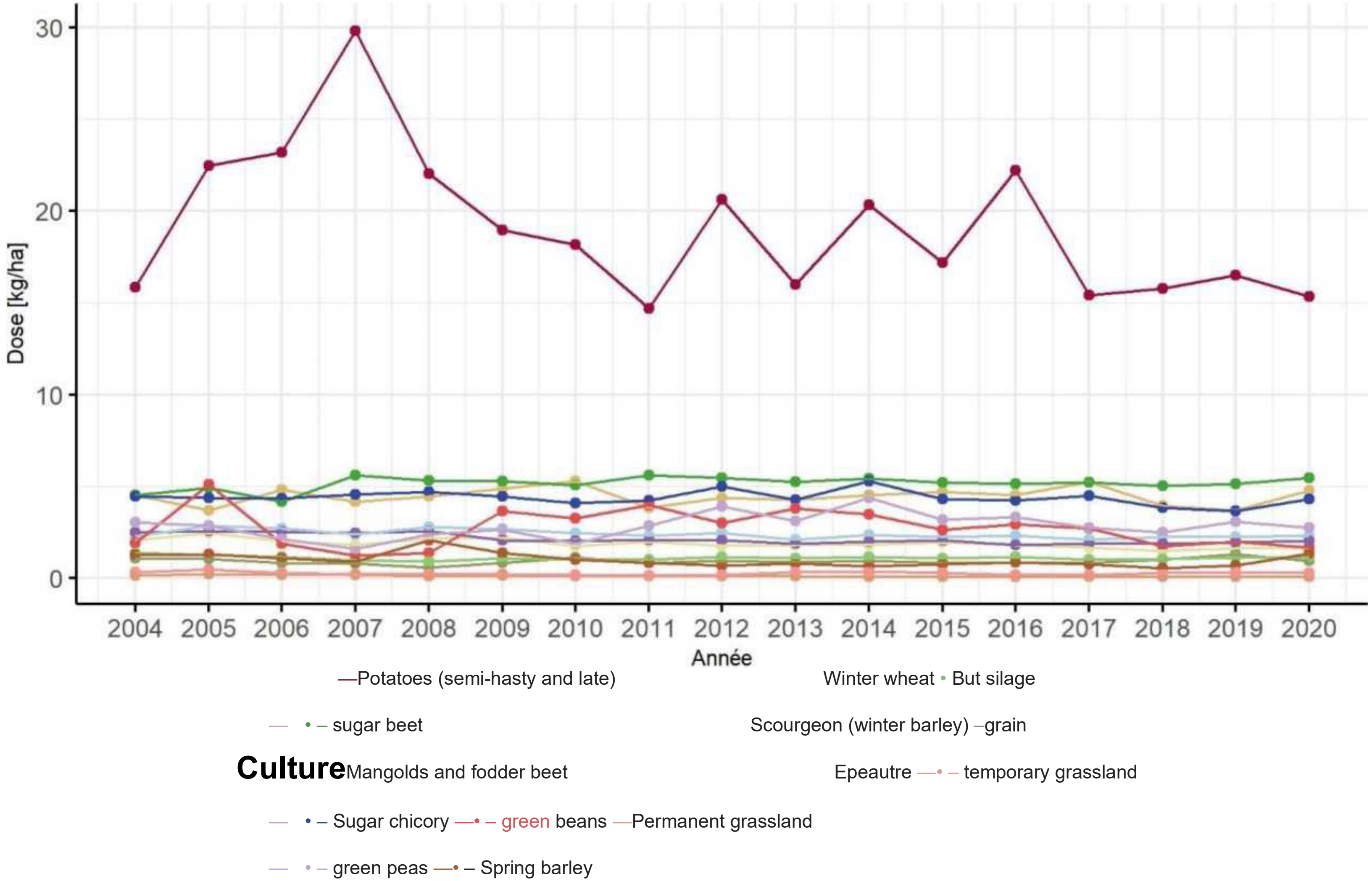


Figure 8: Evolution of the quantity of active substances per hectare (expressed in kg/ha) at Walloon level extrapolated from agricultural accounts data for the main crops consuming plant protection products between 2004 and 2020

Sources: Corder, 2022a. Quantitative estimation of the uses of plant protection products by the different sectors of activity. Final report. Study carried out on behalf of SPW – ARNE – DEMNA & DEE. Online: http://etat.environnement.wallonie.be

Data are provisional Validated data will be available on the Walloon Environmental Status site.

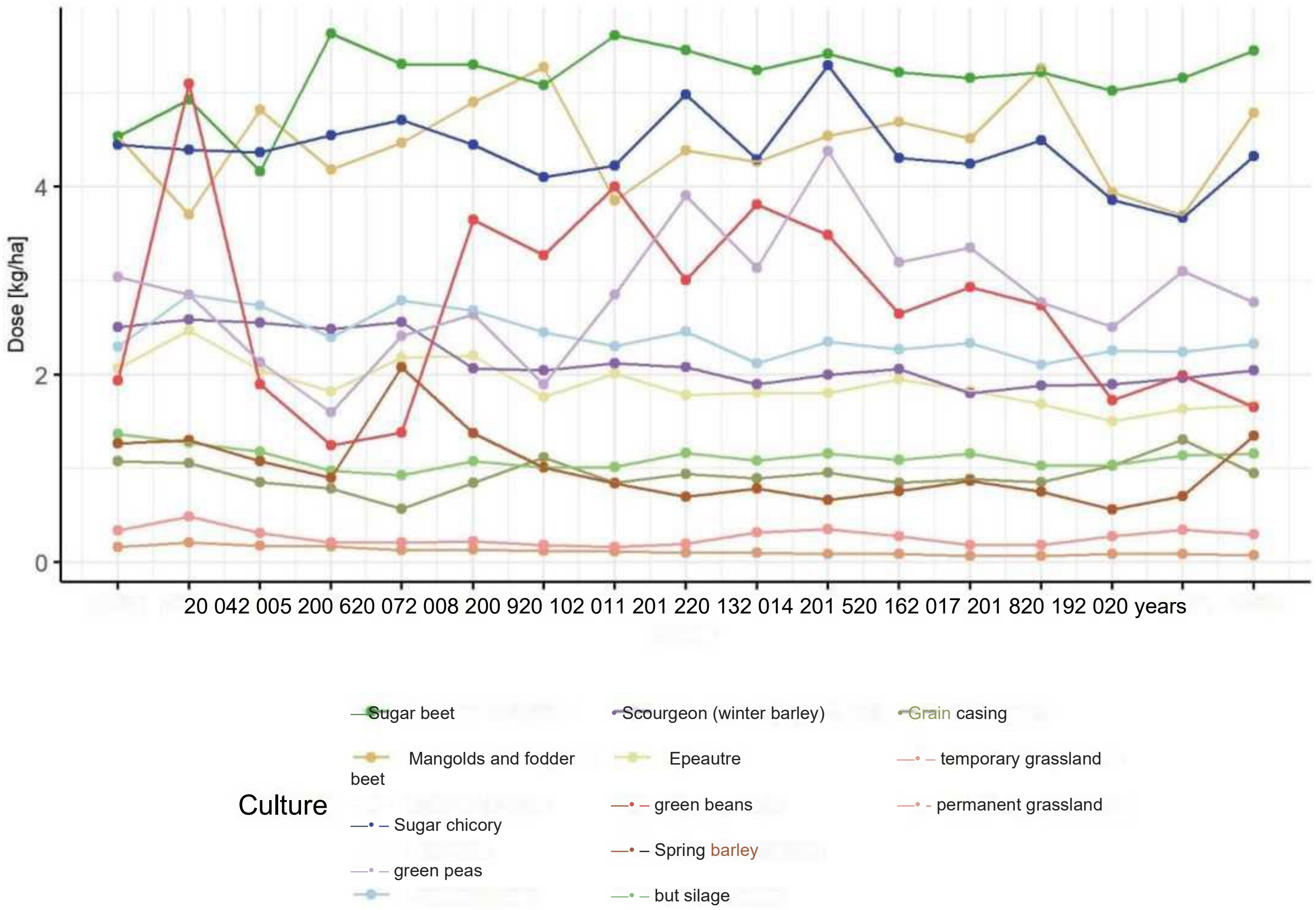


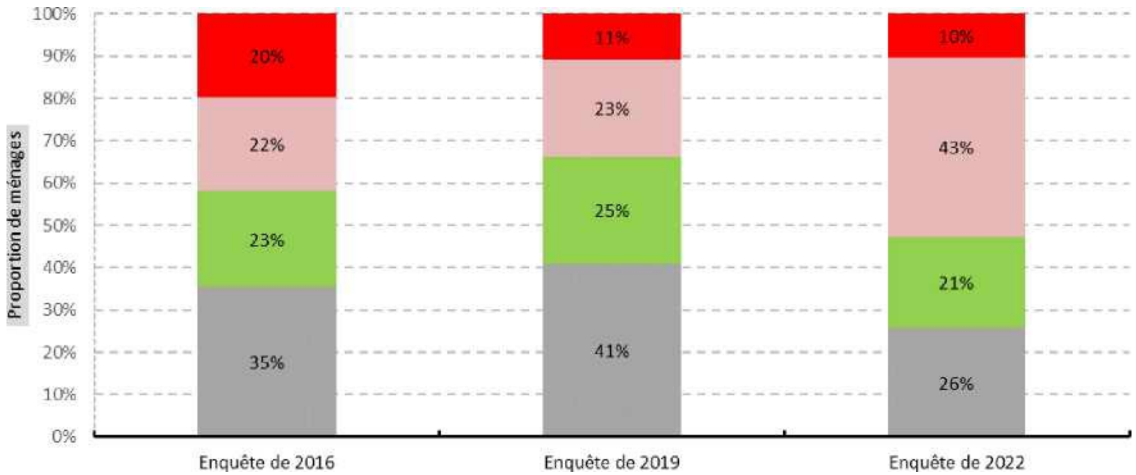
Figure 9: Evolution of the quantity of active substances per hectare (expressed in kg/ha) at Walloon level extrapolated from agricultural accounts data for the main crops consuming plant protection products between 2004 and 2018, with the exception of potato cultivation (semi-hasty and late)
Sources: Corder, 2022a. Quantitative estimation of the uses of plant protection products by the different sectors of activity. Final report. Study carried out on behalf of SPW – ARNE – DEMNA & DEE. Online: http://etat.environnement.wallonie.be
Data are provisional Validated data will be available on the Walloon Environmental Status site.

D. Use of pharmaceutical products by Walloon households

As part of the updating of the state of the Walloon environment, a survey was carried out in spring 2022 among a panel of 2 099 Walloon households with a garden representative of the Walloon population, in order, in particular, to identify their reasons for using plant protection products (PPPs) and/or alternative methods and to identify the arrangements for purchasing and using PPPs. This survey follows two similar surveys carried out in spring 2016 and spring 2019, respectively, of a panel of 2 033 and 2009 Walloon households with a garden.

In 2 022.53 % of Walloon households use PPPs in their garden

In 2 022.10 % of the Walloon households surveyed used PPPs exclusively and 43 % used both PPPs and alternative methods. While the share of households using PPPs only remained stable compared to 2019 (11 %), the share of households using both PPPs and alternative methods increased significantly compared to previous surveys (23 % in 2 019.22 % in 2016). The most common PPP uses were the terrace and/or the garden alley, pavement and/or garage entrance and turf. The share of households using alternative methods only stood at 21 % in 2022, down from 2019 (25 %), while the share of households that did not use anything was 26 %, a lower share than in previous surveys (41 % in 2 019.35 % in 2016). The decrease in PPP use observed in 2019 therefore does not continue.



Ostensibly
Only alternative methods

Plant protection products and alternative methods

Only plant protection products

Figure 10: Use of plant protection products and alternative methods by Walloon households.
Sources: Ipsos, 2022 – SPW-ARNE-DEMNA & DEE

The motivations of households using PPPs were diverse, with the most frequently cited factors being better control of the return of unwanted people, lack of effectiveness of other methods and ease of use. Households using alternative methods, on the other hand, prioritised the preservation of the environment, the lower risks to their surroundings and the fact that these methods are cheap.

More and more households buy or buy from a farmer

Do-it-yourself shops remained the preferred place for households to obtain PPPs in 2022 (53 % of users). They were followed by specialised gardens (47 %) and supermarkets (24 %). These results were stable compared to 2019. Internet purchases, on the other hand, continued to grow, with 13 % of users in 2022, compared with 5 % in 2019 and 2 % in 2016. The share of households purchasing PPPs from a farmer (illegal industry) was also on the rise: 10 % in 2022, compared to 5 % in 2019 and 4 % in 2016.

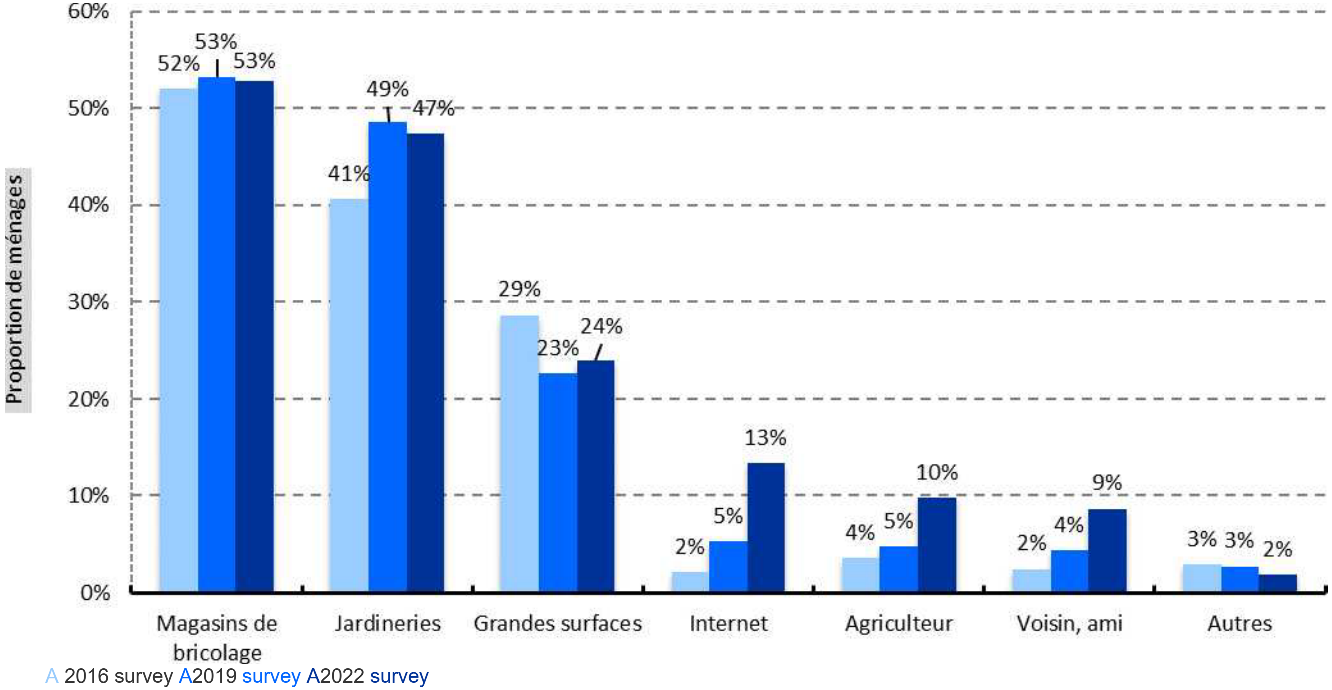


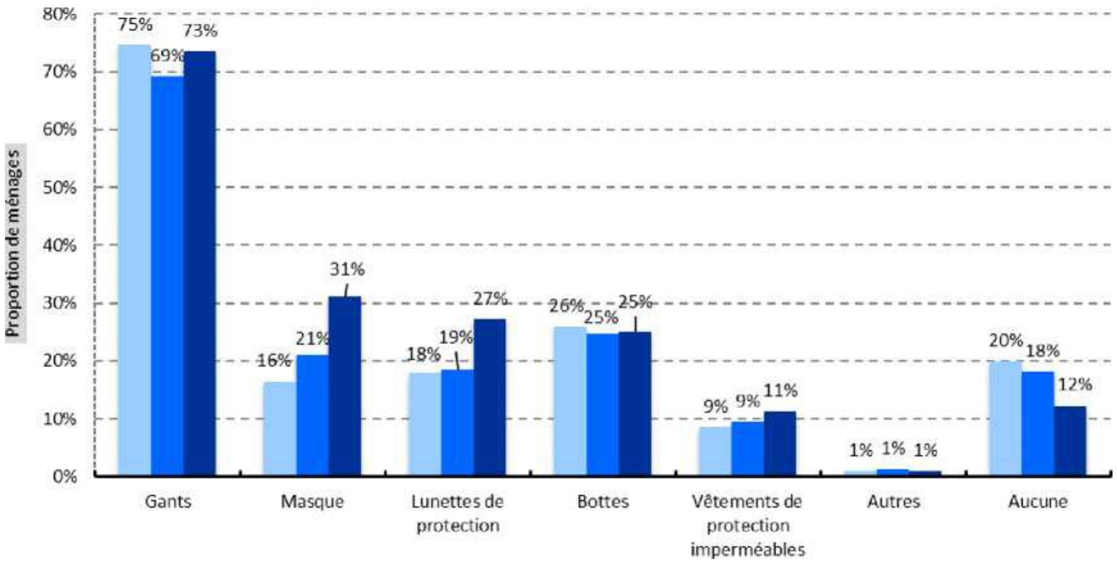
Figure 11: Places where Walloon households buy their PPPs
Sources: Ipsos, 2022 – SPW-ARNE-DEMNA & DEE

Varying knowledge of hazard pictograms

According to the results of the survey carried out in 2 022.92 % of PPP users read the product label before purchasing it (47 % in full and 45 % diagonally) and 95 % read the instructions for use when applying it (55 % in full and 40 % diagonally). When interviewed in relation to the comprehensibility of the information on the packaging, most users consider that the pictograms present on the packaging are understandable (80 %) and that the other information present is also understandable (78 %). However, the survey revealed quite variable knowledge of pictograms: while 88 % of households know and attribute the correct meaning to the ‘flammable’ pictogram, this percentage is 57 % for the pictogram ‘hazardous to aquatic organisms and the environment’, and less than 50 % for the pictograms ‘corrosive’, ‘harmful/irritant’ and ‘carcinogenic’.

Use of PPPs not always responsible

As regards the protections taken during the handling of PPPs, the wearing of gloves remained the most common protective measure in 2022 (73 % of users, stable compared to 2019). However, the wearing of suitable gloves, i.e. nitrile or neoprene, concerned only 10 % of users, down from 2019 (17 %). This low user rate is likely to be partly related to the fact that PPP labels do not specify the type of gloves to be worn. The use of other means of protection was relatively low, but increasing for some of them: mask (31 % vs 21 % in 2019 and 16 % in 2016), spectacles (27 % vs 19 % in 2019), boots (25 %), waterproof protective clothing (11 %). A significant proportion of users had no protection (12 % versus 18 % in 2019).



2016 survey A 2019 survey A 2022 survey

Figure 12: Types of personal protective equipment (PPE) used by Walloon households Source: Ipsos, 2022 – SPW-ARNE-DEMNA & DEE

Often non-compliant waste management

Finally, as regards waste management, 58 % of PPP users used the right pathway and deposited their empty packaging or surplus/outdated products in Recyparc, while 22 % deposited them in the PMC bin [3], 14 % in the general waste bin and 5 % incinerated them. These results were stable compared to 2019.

PMC bin
(plastics, metals and
beverage cartons)

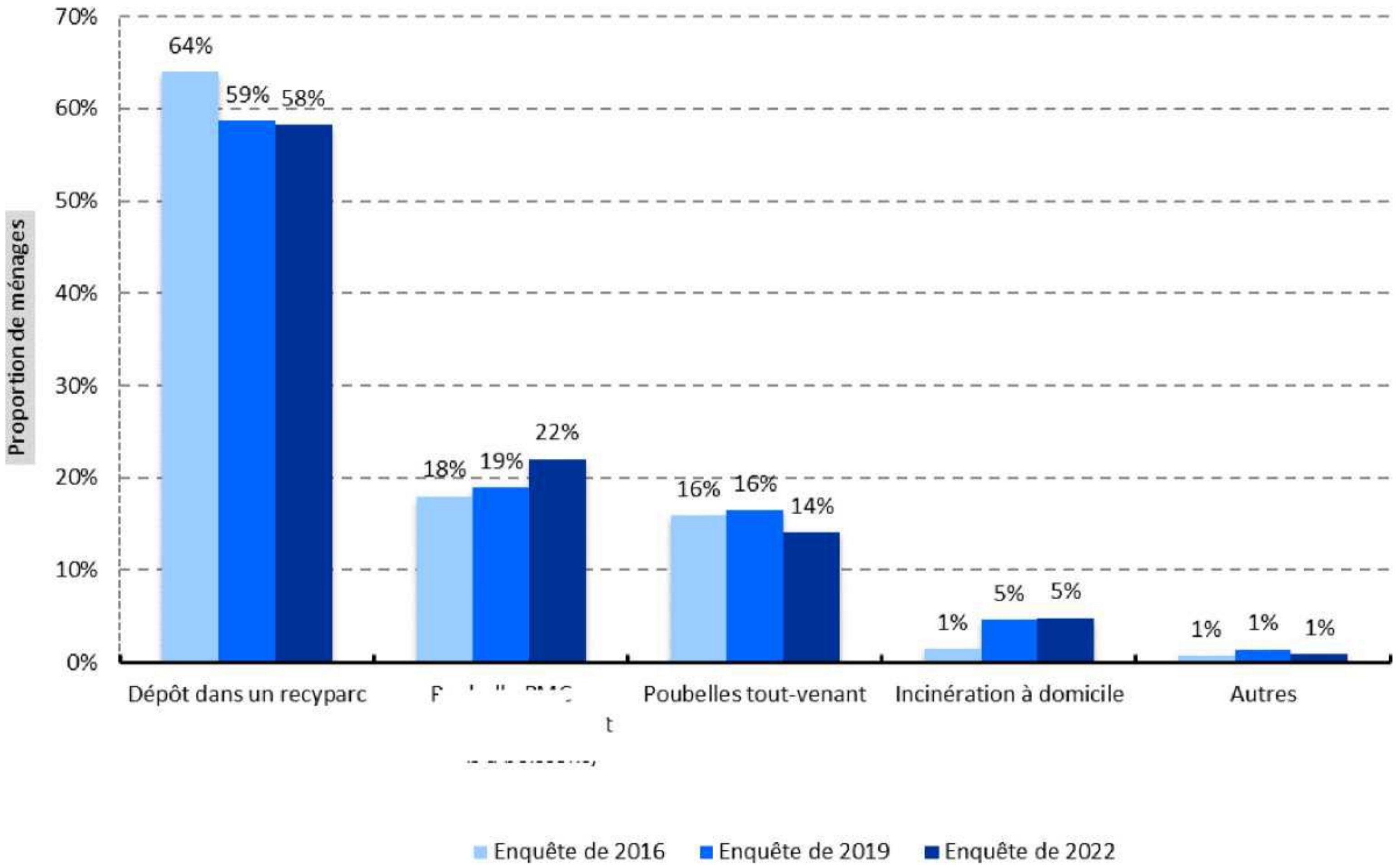


Figure 13: Disposal routes for packaging and PPP remnants for Walloon households. Sources: Ipsos, 2022 – SPW-ARNE-DEMNA & DEE

Most households support a ban on the use of PPPs by individuals

In spring 2017, a survey was carried out among a representative panel of the Walloon population of 1 326 Walloon households with a garden, in order, inter alia, to assess the perception of households in relation to possible restrictions on the use of PPPs by individuals.
More than half of Walloon households (58 %) were then in favour of a ban on the use of herbicides by private individuals and half of Walloon households (50 %) were in favour of a ban on the use of all types of PPPs by private individuals.

In 2019, Walloon households supported 65 % of the total ban on the use of PPPs by private individuals (23 % against). The trend is decreasing in 2022 (60 % in favour of the ban and 28 % against).

Source: GfK, 2016. Survey on the use of plant protection products by Walloon households. Survey carried out on behalf of SPW – DGO3 – DEMNA & DEE. Online. http://etat.environnement.wallonie.be/; GfK, 2017. Survey on the use of plant protection products by Walloon households. Survey carried out on behalf of SPW – DGO3 – DEMNA & DEE. Unpublished document; IPSOS, 2019. Use of plant protection products by Walloon households. Final report. Survey carried out on behalf of SPW ARNE – DEMNA & DEE. Online. http://etat.environnement.wallonie.be/; IPSOS, 2022. Use of plant protection products by Walloon households. Final report. Survey carried out on behalf of SPW ARNE – DEMNA & DEE. Document not published but will be uploaded in 2023.

2.3. Impacts related to pesticides

In November 2021, the NGO BASIC6 published a report entitled ‘ *Pesticides, a model that is dear to us*’. The main objective of the research was to pursue as far as possible the economic arguments linked to the 4 pillars of modern agricultural production: agricultural mechanisation, synthetic fertilisers, hybrid seeds and the widespread use of synthetic pesticides.

Synthetic pesticides have made it possible at a time to contain and reduce the risk of agricultural losses due to increased disease and pest pressure (in particular agricultural specialisation), while helping to meet the increasing demands of standardisation of raw materials and lower prices for consumers. For several years now, agricultural yields have been stagnating or even falling in specialised crop areas. This concerns increasing pesticide resistance, but also soil and biodiversity degradation resulting from intensive agricultural production systems using pesticides, as well as climate change (even amplified by intensive agricultural production systems).

The presence of pesticides is most often persistent, as many pesticides that have been banned for decades because of their toxicity are still found in water, soil and ecosystems (e.g. DDT, chlordecone, lindane, atrazine, etc.). Basic estimated the societal costs of pesticides for France and extrapolated them to the European level as illustrated in the following diagram:

6 Basic – Analysis of the value creation and hidden costs of synthetic plant protection products – Research Report -25/11/2021 (BASIC_Etude-Creation-de-Valeur-et-Couts- Societaux-Pesticides_20211125.pdf (lebasic.com)).

Societal costs
not estimable

105.9 partly attributable TO pesticides EUR Mds

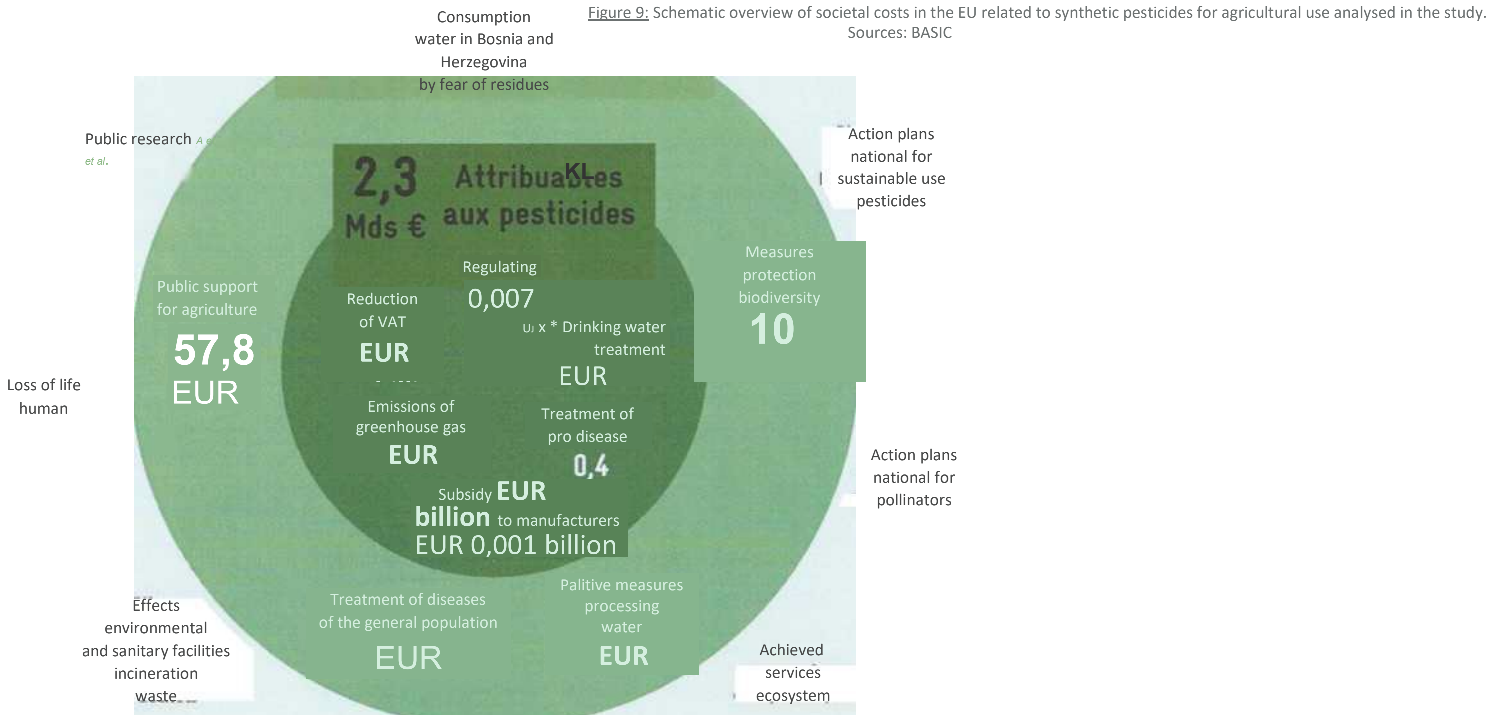


Figure 14: Schematic overview of societal costs in the EU related to synthetic pesticides for agricultural use. Sources: Basic

At European level, in 2017, the results can be summarised as follows:

- the societal costs attributable to the use of synthetic pesticides amounted to **EUR 2.3 billion**;
- the societal costs partly attributable to the use of synthetic pesticides amounted to **EUR 105.9 billion**.

On the other hand, the direct profits generated by pesticide manufacturers from sales of their products to European farmers amounted to EUR 940 million in that year, according to Eurostat.

Thus, similarly to what BASIC has been able to estimate for France, the societal costs attributable to the use of synthetic pesticides in agriculture at European level would be 2,44 times higher than the direct benefit derived from synthetic pesticides by their manufacturers (EUR 2.3 billion in 2017 for societal costs compared to EUR 940 million in profits in the same year).

With regard to the multiplicity and diversity of the consequences of pesticide use, the summary of the impacts generated in this study illustrates the importance of meeting the objectives of this plan:

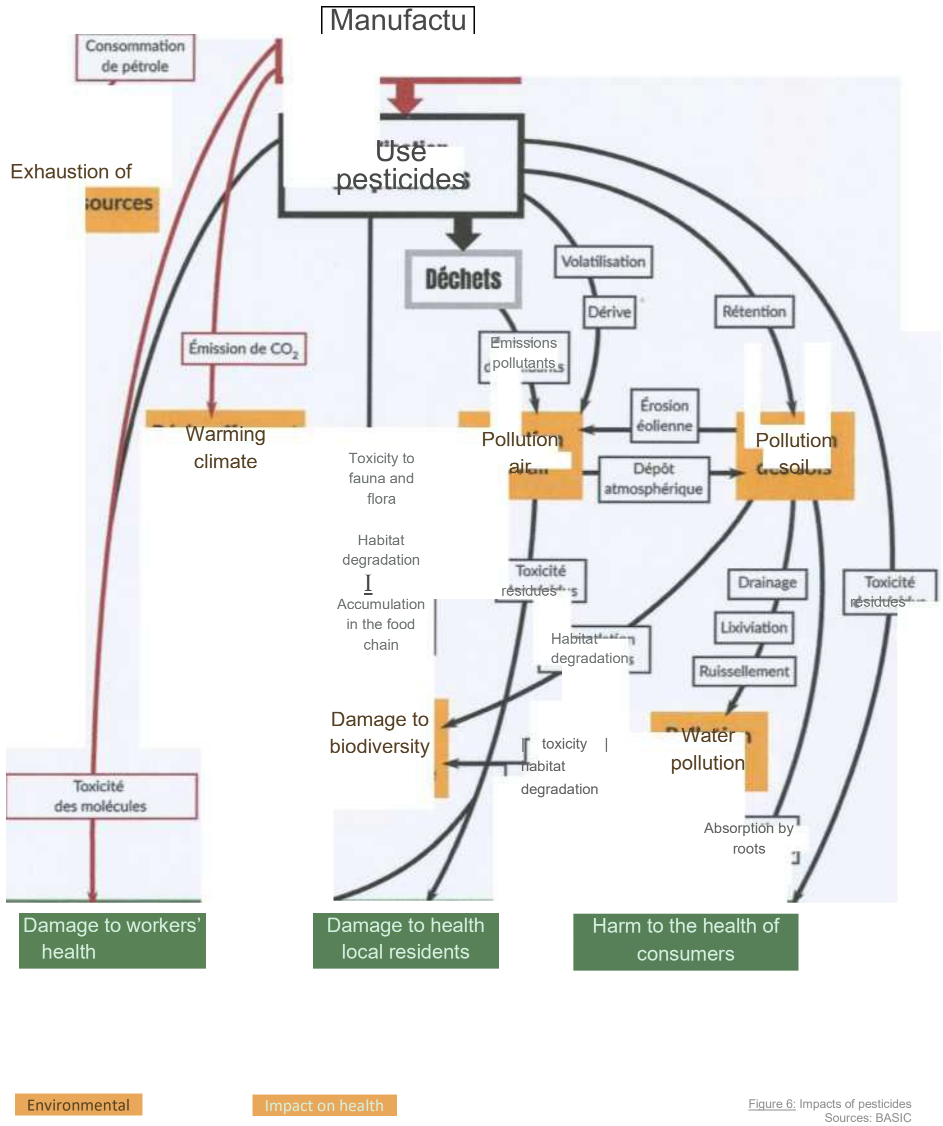


Figure 15: Impacts of pesticides. Sources: BASIC

2.3.1. Impact on health

The use of plant protection products (PPPs) has made a significant contribution to improving agricultural yields and has led to huge progress in controlling food resources. However, their use can generate pesticide residues7 in harvested products and expose the consumer to a health risk. Consumer nutrition is the main route of exposure to these residues. Therefore, legislation8 imposes maximum residue limits (MRLs)9 in their composition for all fresh products of plant and animal origin. The purpose of these MRLs is to protect the health of the consumer. MRLs are not toxicological limits. Therefore, exceedance of MRLs does not necessarily – and even rarely – mean a danger to the consumer, but is a sign of the misuse of a pesticide. Feed and food with residues exceeding the MRL may not be placed on the market. Checks on compliance with these MRLs are carried out annually in Belgium by the FASFC.

Conformities according to the origin of the foodstuffs under the control plan (fruit, cereal vegetables and other plant products)

Product origin	***Samples compliant (%)***
Belgium	*99,2*
EU Member States	*99,0*
Third country	*95,7*

As in previous years, products of Belgian and European origin showed proportionally a higher compliance rate than products imported from third countries. The main commodities that did not comply with the maximum residue limits for pesticides were fresh herbs (coriander, mint, basil, chestnut) imported from third countries (Cambodia, Morocco, Dominican Republic), teas and herbal infusions, and celery.

Pesticide 7 residue: substance in or on a food product following the application of plant protection products.
8 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 DirectiveHYPERLINK "http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31991L0414:FR:NOT" 91/414/EEC; Royal Decree of 29 September 2008 repealing the Royal Decree of 13 March 2000 fixing maximum levels for pesticide residues authorised in and in foodstuffs.
9 MRL = Maximum Residue Limit: legally fixed maximum level of a given compound that may be present in a food (expressed in µg/kg produced).

Overall results of pesticide residue analyses (Annual Report 2019, FASFC)

Number of missions	***Number operator.rice.s***
3.314	*1.673*

Matrix	***Subject of control***	***Number of samples***	***Compliant sampling * (%)***	***Compliant sampling * (%) 2019 VS 2018***
Feed for animals	*Control plan * **	*159*	*98,7*	*—1,3*
	*Monitoring from no — conformities * * **	*1*	*100*	*/*
Baby food	*Control plan * **	*95*	*98,9*	*—1,1*
Food and Non-Food Water	*Control plan * **	*164*	*100*	*+ 0,7*
	*Monitoring from no — conformities * * **	*2*	*100*	*=*
Fruit, vegetables, cereals and other products plants	*Control plan * **	*2.126*	*98,1*	*+ 0,1*
	*Regulation 669/2009 * * * **	*350*	*86,3*	*—6,5*
	*Monitoring from no — conformities * * **	*119*	*82,4*	*+ 13,2*
Products of animal origin	*Control plan * **	*1.193*	*99,7*	*—0,1*
Products transformed of plant origin	*Control plan * **	*242*	*99,6*	*+ 2,7*
	*Regulation 669/2009 * * * **	*1*	*100*	*=*
	*Monitoring from no — conformities * * **	*1*	*100*	*/*
Total		***4.452***	***97,3***	***—0,4***

* taking into account the analytical uncertainty of the result
* * sampling as part of the control programme with random sampling
* * * targeted sampling following non-compliances observed in the control plan, complaints...
* * * * targeted sampling under reinforced import controls

The overall compliance rate of pesticide residue sampling observed in 2019 is slightly lower than in 2018 (-0.4 %)

Sampling carried out under the inspection plan (fruit, vegetables, cereals and other plant products)

Matrix	***Number of samples***	***Sampling with at least one residue (%)***	***Samples compliant (%)***	***Compliant sampling * (%) 2019 vs. 2018***
Citrus	*104*	*98,1*	*99,0*	*—1,0*
Pome fruits	*45*	*95,6*	*100*	*=*
Stone fruits	*42*	*95,2*	*100*	*=*
Berries and small fruits	*256*	*91,4*	*100*	*+ 0,7*
Herbs	*54*	*90,7*	*85,2*	*—7,4*
Leafy vegetables	*89*	*84,3*	*100*	*+ 1,7*
Mushrooms	*40*	*80,0*	*100*	*+ 5,0*
Stem vegetables	*138*	*66,7*	*95,7*	*—1,1*
Bulb vegetables	*94*	*62,8*	*100*	*=*
Fruit vegetables	*290*	*59,7*	*99,3*	*—1,0*
& infusions tea	*176*	*58,0*	*96,0*	*+ 1,1*
Root vegetables and vegetables —	*216*	*52,8*	*99,1*	*+ 0,3*
Miscellaneous fruits with	*133*	*50,4*	*97,0*	*+ 1,1*
Legume vegetables	*122*	*46,7*	*96,7*	*—1,8*
Cereals	*91*	*41,8*	*100*	*—4,0*
Other plant products (beans, oilseeds & spices)	*145*	*40,0*	*95,2*	*—1,2*
Cabbage	*91*	*35,2*	*100*	*—1,7*
Total	***2.126***	***64,3***	***98,1***	***+ 0,1***

64.3 % of the samples of fruit, vegetables, cereals and other plant products analysed contained one or more pesticide residues. 98.1 % complied with the MRLs set out in the legislation (similar to 2018).

The evaluation of an active substance shall include a hazard characterisation of its intrinsic properties and a risk assessment taking into account the claimed uses based on eco-toxicological data. However, some unintended effects of plant protection products may appear. A distinction can be made between acute and chronic effects:

(i) Acute effects are the effects of sudden onset and rapid change. They are mostly related to short but high dose exposure. They usually disappear spontaneously when exposure ceases.

(ii) Chronic effects, on the other hand, are persistent clinical manifestations slowly developing. They are often related to low but prolonged exposure. They can occur several decades after exposure (latency time) and are usually irreversible without treatment.

The main knowledge of the acute effects of pesticides in humans is derived from observations reported in the workplace and from poisons documented by poison centres (see the activity report of the Anti-Poisons Centre[10]). The vast majority of epidemiological studies with chronic effects concern professional.s using pesticides as part of their work.

The long-term effects of chronic exposure are more difficult to assess, especially at population level. The reasons are multi-faceted: pesticides include a large number of compounds with different uses and different chemical families with different toxicological effects. Moreover, the interaction of compounds with each other is still poorly documented in terms of "cocktail effects".

Since 2019, ISSeP has set up a Walloon human biomonitoring programme called BMH-Wal[11]. The objective of the first programme is to obtain reference values on the exposure of Wallon.ne.s to emerging and older pollutants and chemicals – such as POPs – encountered in the environment: in air, food, packaging, everyday products, home and garden. The programme focuses on all kinds of chemicals, including current (e.g. Glyla) or old (e.g. DDT) pesticides.
Human biomonitoring is the measurement of substances or their metabolites in human fluids or tissues (blood, urine, umbilical cord, hair, etc.). It provides an estimate of the internal and overall exposure of individuals to substances from all sources and routes of exposure.

The first phase of BMH-Wal, called BMH-Wal 1, focused on 3 age groups: novelties, teenagers aged 12 to 19 and young adults aged 20 to 39. During this phase, among other substances, pyrethrinoid insecticides and glyphosate (and their respective metabolites) were analysed in teenagers' urines and adults. Some former organochlorine pesticides (e.g. DDT, chlordane, aldrin, dieldrin, hexachlorobenzene, etc.) were also analysed in adolescent and adult blood and umbilical cord blood.

Analysis by (families of) substances

Current pesticides: glyphosate, pyrethrinoids, organophosphorates (including chlorpyrifos).

(iii) At least one pyrethrinoid insecticide metabolite and one organophosphorus insecticide metabolite were detected in 94 % and 93 % of urine samples (ados + adults) respectively. Herbicide glyphosate (banned in private use in Belgium since 1^January 2017) was present in almost a quarter of urine samples.

(iv) The concentrations measured in teenagers are significantly higher than those measured in adults for the vast majority of current pesticides. For most pyrethrinoid pesticides and for TCPY, measured concentrations in men are significantly higher than those measured in women.
(v) While the results for glyphosate and pyrethrinoids are comparable to the values reported in the literature, organophosphorus concentrations are generally lower than the concentrations measured in other national or international studies. However, these comparisons must be qualified by the fact that 85 % of urine samples from ados and 69 % of BMH-WAL adults were carried out between 15 November 2019 and 13 March 2020, i.e. during a period of low pesticide use.
(vi) The specific biomarker of chlorpyrifos organophosphorus insecticide (TCPY), withdrawn from the Belgian market on 31 January 2020 due to its health effects (genotoxic and neurotoxic), was found in more than 90 % of urine samples (ados and adults). However, Aucun.e did not reach the health reference value for TCPY. By June 2015, chlorpyrifos had been found in 100 % of children (aged 9-12) in Wallonia and at much higher concentrations (5-6 times).

10 https://www.centreantipoisons.be/sites/default/files/imce/Rapport%20d%27activit%C3%A9%202021.pdf
11 https://www.issep.be/bmh-wal/

Old pesticides: 16 organochlorinated insecticides

(vii) Despite being banned in Europe for decades for some of them, out of the 16 organochlorinated insecticides sought, 3 could be quantified in 20 % for hexachlorobenzene (HCB), 7 % for 4,4' -DDE (metabolite 4,4' -DDT) and 3 % for beta hexachlorohexane (b-HCH)) of the 542 blood samples. These 3 pesticides have been banned since 1979 (Directive 79/117/EEC). In novelties detections were below 1.5 % and very low concentrations.
(viii) Men and adults have the highest HCB concentrations.

Another difficulty is linked to the multifactorial nature of pathologies. The multiplicity of exposure routes (ingestion, inhalation, skin contact) and exposure (primary when using products, secondary if products are present in the environment) should also be taken into account. The generally observed low levels of contamination also make it difficult to quantify the exposure of the population. **For some pesticides that are also recognised or suspected of being endocrine disruptors, the effects are not necessarily dose-related. For example, in some cases there may be a large effect at a low dose and a lower effect at a higher dose.**

Finally, the fact that it is often necessary to characterise past exposure, given the delayed effects of pesticides, is an additional difficulty for studies. However, work published in recent years has highlighted delayed health effects, referring mainly to cancers, but also neurological effects (such as Parkinson's disease) and reproductive and developmental disorders. A French decree, which entered into force on 7 May 2012, officially recognises Parkinson's disease as an agricultural occupational disease linked to the use of pesticides.

Strong presumption	Average presumption	Low presumption (which may be due to a lack of data to link)
Disorders cognitive (means at the no professional.le.s)	Alzheimer’s disease (professional.le.s)	Hodgkin lymphoma
Non-Hodgkin lymphoma (recognised as an occupational disease caused by pesticides in France)	Anxiodepressive disorders (occupational)	Breast cancer after exposure to adulthood (professional.le.s)
Parkinson’s disease (recognised as an occupational disease caused by pesticides in France and low presumption in no professional.le.s)	Central nervous system tumour	Endometriosis (non-professional)
Prostate cancer	Leukemia	Amyotrophic lateral sclerosis (professional.le.s)
Multiple myeloma	Breast cancer after prenatal exposure or before 18 years of age	Damage to the neurodevelopment of the child exposed during pregnancy (occupational and non-occupational)
Haemopathies malignants, tumors from system central nervous of the child exposed during pregnancy (professional) and no professional.le.s)	Kidney cancer (professional.le.s)	Testicular cancer
Congenital malformations following exposure during pregnancy	Soft tissue and viscera sarcomes (professional)	Melanoma
Leukaemia of the child exposed during pregnancy	Alterations from the health respiratory (professional.le.s – strong presumption for chronic bronchitis)	
	Pathologies thyroid (professional) — low presumption among non-professional persons (s)	
	Foetal death	
	Fertility disorders and fertility	

Figure 16: Diseases for which the presumption of link has been established and taken into account in INSERM’s expertise

According to INSERM. Pesticides and health effects: new data. Collective Expertise Collection. Montrouge: EDP Sciences, 2021 and INSERM, Pesticides, Effects on health. Collective Expertise Collection, INSERM, Paris, 2013.

In the context of PFRP 2018-2022, the FPS Public Health, Safety of the Food Chain & Environment (FPS-HSFCE) also carried out a study on monitoring the chronic effects on human health associated with the use of PPPs. [12] This study is based on studies carried out on the French cohort Agrican (agriculture & cancers) between 2005 and 2017, with approximately 180.000 farmers.

A first conclusion of the Agrican study, corroborated by other cohort studies, finds that life-long contact with animals, crops and pesticides can have rather diverse long-term effects. Figures on cancer incidence in general or mortality from cancer show that the results in the agricultural community are not significantly worse than in the general population. On the contrary, overall, excess mortality is even lower, albeit slightly but systematically. On the other hand, the overall incidence of cancers is similar to that in the general population (Agrican), or 1 015 % lower (other cohorts). Incidence rates in agricultural workers.es and PPP operators.s may be higher for a limited number of tumours, with the most common ones appearing to be lymphoma (including multiple myeloma) and prostate cancer. Moreover, the weight of the evidence also indicates a thin but rather systematic association between PPP exposure and Parkinson's disease (MP).

Basically, to assess the long-term effects of PPPs on the human population or to minimise exposure to *in vivo* PPPs, the FPS-HSFCE proposes to focus on at least 6 main points:

(i) Focus both on **long-term studies resulting from regulatory science imposed in guidelines and** on studies published in open access literature, including in vitro alternatives.
Evaluations should therefore be complemented as much as possible by exploring new modes of action in order to address possible gaps in the current knowledge of still unknown biomarkers.

(ii) Ensure maximum follow-up of **epidemiological** studies (especially prospective studies), combined with techniques to best assess actual exposure rates, for example by using biomonitoring tools. The more efficient use of culture-exposure matrices combined with data on the purchase/use of professional PPPs – currently underused – is an additional tool to build a better picture of actual exposure rates on and around farms.

(iii) In Belgium (but also in other EU Member States practising intensive agriculture), there is an urgent need to assess the potential risks associated with short-term or long-term exposure to PPPs, for example in areas known for their high exposure to PPPs such as fruit crops and ornamental crops, etc., which are reputable sectors for their use of high levels or a wide variety of PPPs. This applies to farmers and operators, but even more so to dwellers, whereas for the latter there is still a lack of data on their exposure to PPPs.

(iv) Additional resources should be devoted to designing reliable and robust **records** on serious/long-term effects. In Belgium (as in other EU countries), cancer registries have existed for a decade. Nevertheless, the lack of reliable records of developmental anomalies covering the whole territory of Belgium is blatant. There is therefore an urgent need to set up a **Belgian large-scale data collection network** that would feed into the EU database on fertility disorders and developmental anomalies (see EUROCAT objectives).

(v) Establishing a causal link between exposure to PPPs and adverse health effects depends heavily on whether **exposure to PPPs can be properly assessed**. In the absence of such data, the effect is smoothed. The actual need for an **online registration** of the actual use of PPPs by law, the legal

12 https://fytoweb.be/sites/default/files/content/reduction/202110089_national_initiatives_chronic_effects.pdf

possibility to do so and to provide for official control of the entry of such data, as well as the potential value of cross-checking these data with data on location and subsequently with health data (cancer registries, developmental anomalies, etc.) using a geographical information system (GIS), make this approach a very effective tool for studying post-market surveillance of the long-term threats that PPPs pose to both occupational groups and the general population.

(vi) Finally, examine ways to **avoid as much as possible exposure** to PPPs during real-world application in order to protect operator.rice.s, workers.s, bystanders and residents.The possible regulatory measures include the systematic introduction of buffer zones for field application (2 m) or on high-stem trees in orchards (5 m), below which no reliable exposure assessment is possible due to the lack of exposure data. In addition to the use of rapidly evolving control engineering such as targeted application (e.g. using drones), there is an urgent need to systematically create well-defined and easy to enforce buffer zones to protect the river.e.s of agricultural parcels, especially vulnerable people (children, elderly, pregnant women, etc.).

Controll.e.s Farmers have set up an association, known as Phyto-Victimes[13], to highlight diseases caused by recurrent exposure to pesticides and to assist farmers suffering from severe diseases (cancers, neurodegenerative diseases) with a view to obtaining recognition of their rights.

PreventAgri is a service of the Mission Wallonne des Secteurs Verts14, whose objective is to promote and raise awareness of prevention, health and safety in agriculture, horticulture, parks and gardens and technical work also known as ‘green sectors’. As part of its training activities, PreventAgri collects, via a standard form, information from its on possible incidents due to exposure to pesticides. These elements will be further analysed in the context of this PWRP 3 in order to draw conclusions and guide, where appropriate, information and awareness-raising on the risks associated with the use of pesticides. 3 to draw conclusions and guide, where appropriate, information and awareness raising on the risks associated with the use of pesticides.

2.3.2. Impact on water quality

2.3.2.1. Surface water

The main objective pursued by the Water Framework Directive is to achieve good ecological status and good chemical status of the various constituentwater bodies of river basins. Monitoring of surface water status is carried out by the Directorate for Surface Water (SPW ARNE, DEE, desu) for the chemical and physico-chemical elements and by the Department for the Study of the Natural and Agricultural Environment (SPW-ARNE, DEMNA) for the biological part. Sampling and analysis shall be carried out by the ISSeP Reference Laboratory.

The main active substances found in surface waters in Wallonia in recent years are:

- **mainly herbicides** (9/10 in top 10 of downgrading15 of water bodies);

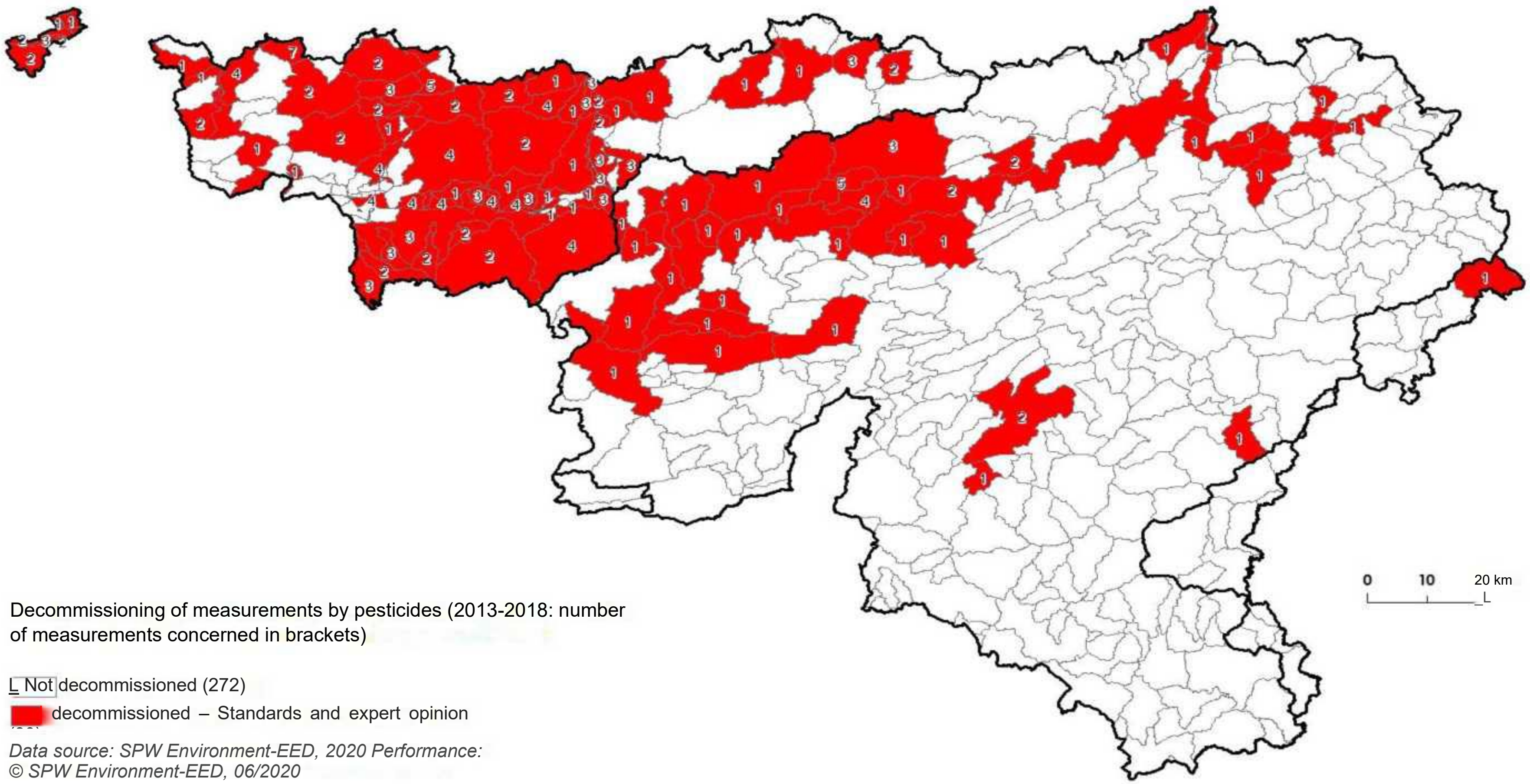
13 https://www.phyto-victimes.fr/
14 https://secteursverts.be/preventagri-prevention-securite-secteurs-verts/
15 Decommissioning concerns failure to achieve good status of the water body within the meaning of the Water Framework Directive. It occurs when one of the parameters for calculating good

- cypermethrin, which is an insecticide with very low standards.

The general situation is illustrated in the map below. It includes decommissioning of surface water bodies for pesticide parameters in Wallonia (chemical status and specific pollutants of biological status). The number in water bodies corresponds to the number of declassifying pesticides in the water body.

condition exceeds the standard laid down.

State 2018 – Pesticides



Decommissioning of measurements by pesticides (2013-2018: number of measurements concerned in brackets)

Not decommissioned (272)

decommissioned – Standards and expert opinion

Data source: SPW Environment-EED, 2020 Performance:
© SPW Environment-EED, 06/2020

Figure 17: Decommissioning of surface water bodies in Wallonia due to pesticides (number of decommissioned pesticides per mesu) Source: SPW-ARNE-DEE-Surface Water Directorate

2.3.2.2. Groundwater

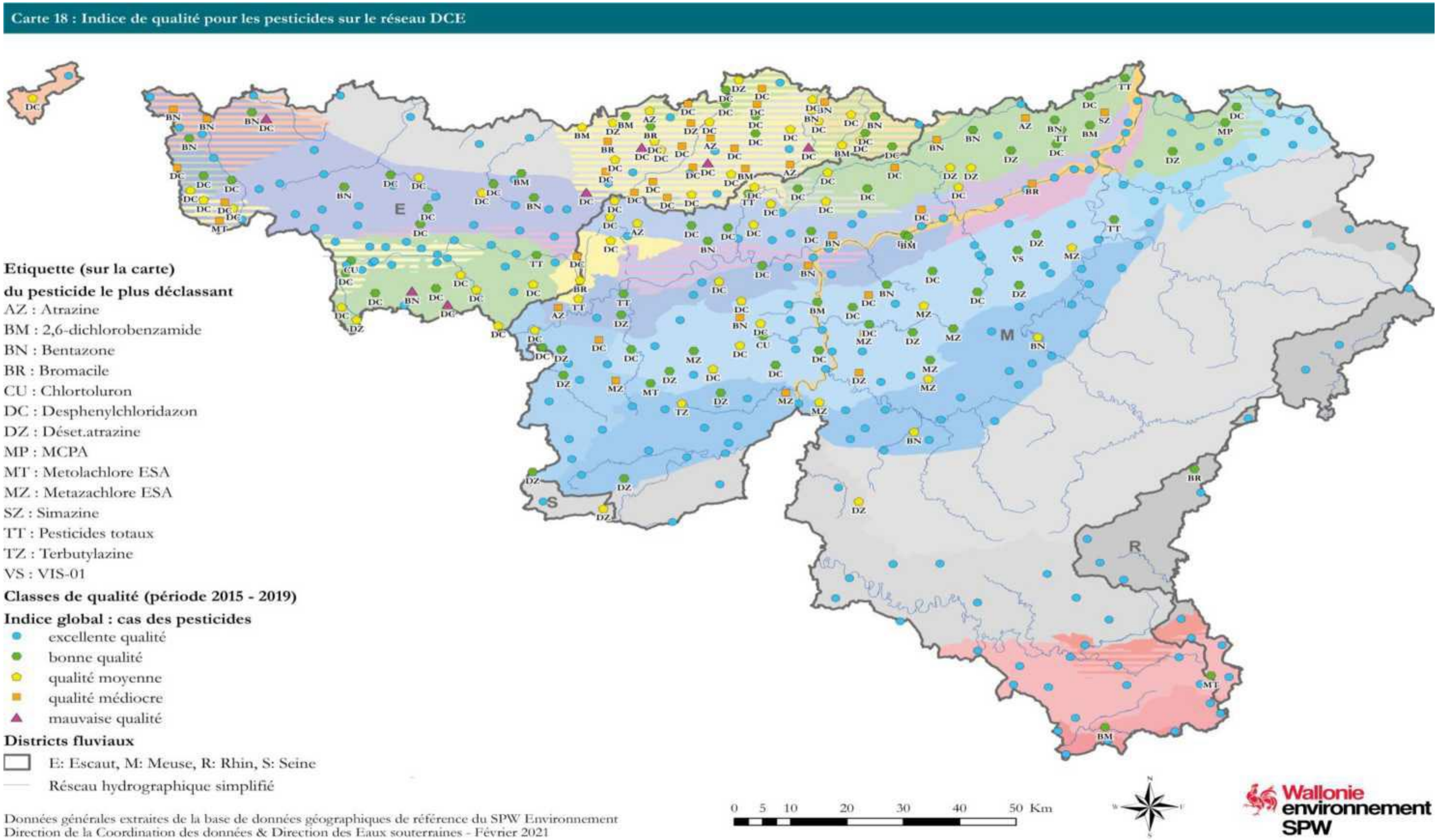


Figure 18: Quality index for pesticides on the WFD network of groundwater bodies

Since 2019, the assessment of the status of groundwater bodies includes 916 additional active substances and metabolites17 of non-relevant pesticides compared to the 9 initial molecules. Of these 18 molecules, 5 are banned (atrazine, diuron, bromacile, isoproturon and simazine) and 5 are derived from prohibited molecules (desethylatrazine, deisopropylatrazine, desphenyl-chloridazon, BAM and VIS-01). The most problematic pesticides are:

- desphenyl-chloridazon, a metabolite of chloridazon, a herbicide (beet cultivation) which has been banned since the end of June 2021. It is this metabolite that has the greatest impact on groundwater;
- bentazone, an approved herbicide for predominantly agricultural use, which was restricted to use on maize in January 2018, but is still used on peas and beans;
- desethylatrazine, which is the main metabolite of atrazine, a mixed herbicide (agricultural and non-agricultural) authorised for use until September 2005. Desethylatrazine, and to a lesser extent atrazine, are still among the substances detected at high concentrations in groundwater, due in particular to their mobility and persistence in soils and aquifers;
- 2,6-dichlorobenzamide (BAM), a metabolite of dichlobenil, a total herbicide mainly for non-agricultural use (private individuals, public administrations and managers of green spaces) authorised for use until March 2010;
- chlorothalonil SA (or VIS-01), a metabolite of chlorothalonil, a fungicide used to control a wide range of diseases on many crops and mainly cereals, the use of which has been banned since May 2020;
- metolachlor ESA, a metabolite of metolachlor, herbicide used in particular for maize cultivation;
- metazachlor ESA, metazachlor metabolite, herbicide used mainly in rapeseed cultivation.

The groundwater status analysis over the period 2017-2020 was carried out in 2 different ways:

- an assessment on the basis of the 9 initial molecules, to allow comparison with previous periods, which reveals that 8 water bodies (of the 34 in Wallonia) have proven risks of contamination by plant protection products, to varying degrees. The most affected water bodies, i.e. those with the lowest quality indices across18 the aquifer as a whole, are 3. These are the water bodies of the Brussels Sables, the Cretaceous du Bassin du Geer and the Calcaires of the Northern Meuse basin.
- an assessment based on the 18 molecules. The inclusion of additional molecules increases the number of water bodies at risk to 14, mainly due to desphenyl-chloridazon. In addition to the 3 water bodies mentioned above, another 3 also have a poor to poor quality index: the Craies of the Deûle Valley, the Sables of Flanders and the Brussels-based Sables of Haine and Sambre. In the other 8 water bodies affected, contamination is generally less intense and more localised.

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16 Not relevant for the calculation of good status of water bodies.

17 Metabolites degradation products of pesticide active substances.

18 SEQ-ESO quality index for the deterioration “pesticides” (< 60) calculated on the basis of the annual average concentrations of the 18 most problematic PPPs in Wallonia (9 PPPs before 2019: atrazine, desethylatrazine, simazine, diuron, isoproturon, chlortoluron, bromacile and bentazone; Additional 9 from 2019 onwards: 2,6-dichlorobenzamide (BAM), desphenyl chloridazon (MET B), chlorothalonil SA (VIS-01), metazachlor ESA, metolochlor ESA, metribuzin, terbuthylazine, deisopropylatrazine, 2,4-dichlorophenoxyacetate (2,4 D), 2-methyl, 4-chlorophenoxyacetate (MCPA).

Water bodies in Ardenne are relatively well preserved, probably because they are exposed to much lower plant health pressure (less cultivated areas and lower population density).

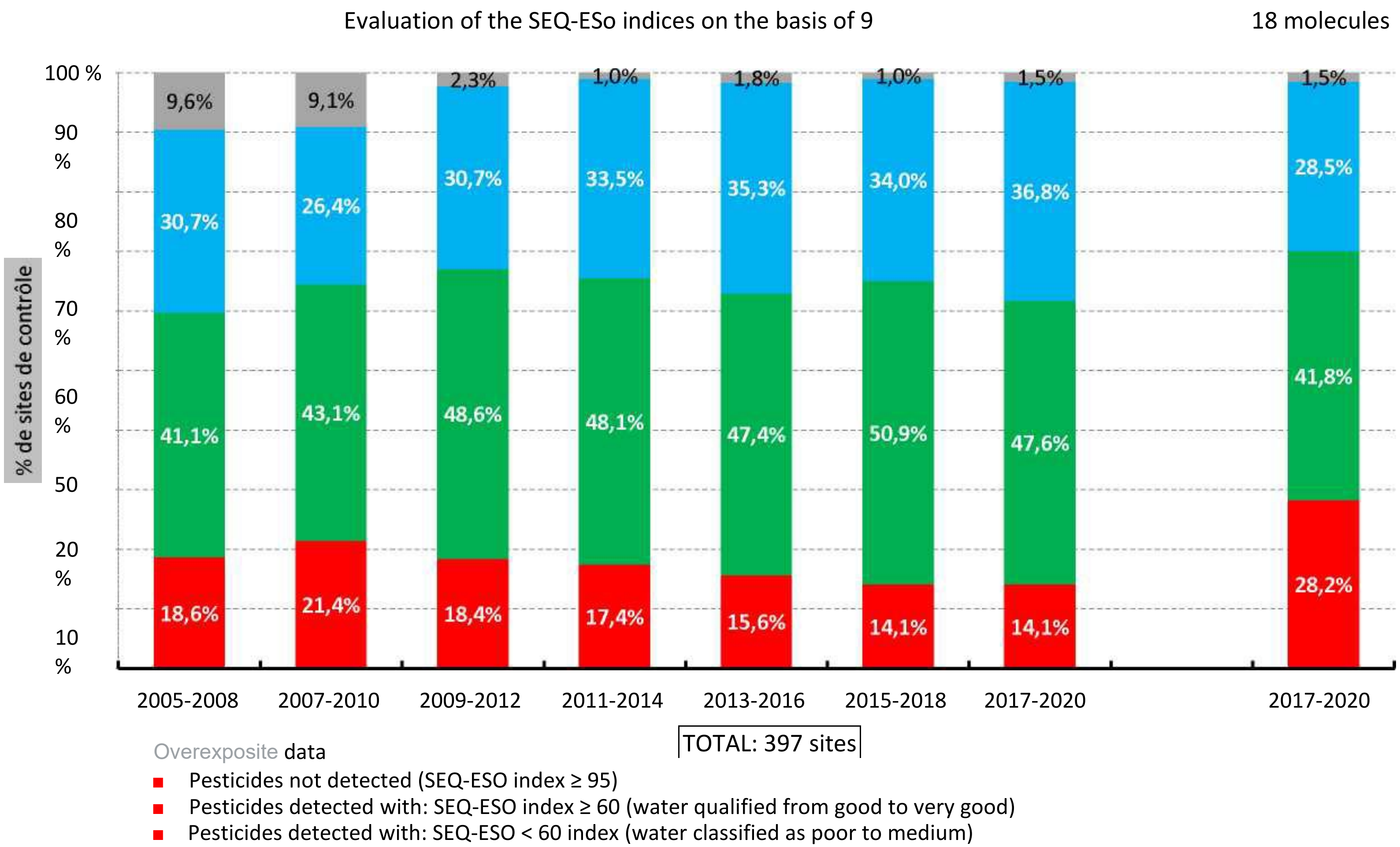


Figure 19: Presence of pesticides in groundwater in Wallonia (period 2005-2020) – Source: SPW-ARNE-DEE-DESo

As regards groundwater intended for human consumption, the SPW ARNE requires water suppliers to carry out research and analysis of around 100 plant protection products in raw water, in accordance with Council Directive 98/83/EC of 3 November.

1998 on the quality of water intended for human consumption. The results of these analyses indicate that herbicides (agricultural and non-agricultural) are responsible for the majority of pesticide problems encountered by water suppliers19.

19 For more information, see the status of groundwater in Wallonia 2021, SPW-ARNE- Directorate of Environmental State and Groundwater Directorate (http://environnement.wallonie.be/de/eso/atlas).

Furthermore, exceedances of the standards for the concentration of plant protection products in drinking groundwater have led water suppliers to process or stop production in 68 abstraction sites.

In 2021, 52 groundwater abstraction sites require treatment with activated carbon filtration, representing a volume of 60 million m³ exploited, or 15.8 % of the total annual water supply production in Wallonia.

Between 2000 and 2020, 281 groundwater abstraction sites20 (more than 27 million m³) were permanently decommissioned in Wallonia. For at least half of the number of abstractions, the closure of the plants is due to poor water quality (the rest being attributed to quantitative problems or restructuring). **Of these, 16 abstraction sites were abandoned due to pesticides (almost 2.3 million m³)** and 30 due to nitrate (almost 4.4 million m³).

The Water Code also provides that if significant exceedances are observed, the Minister may carry out an investigation to clarify whether the concentration of active substances in pesticides has been exceeded. Where appropriate, it may take measures restricting use, in consultation with the local actors. These measures are gradual and depend on the extent of the contamination.

20 Out of a total of 1330.

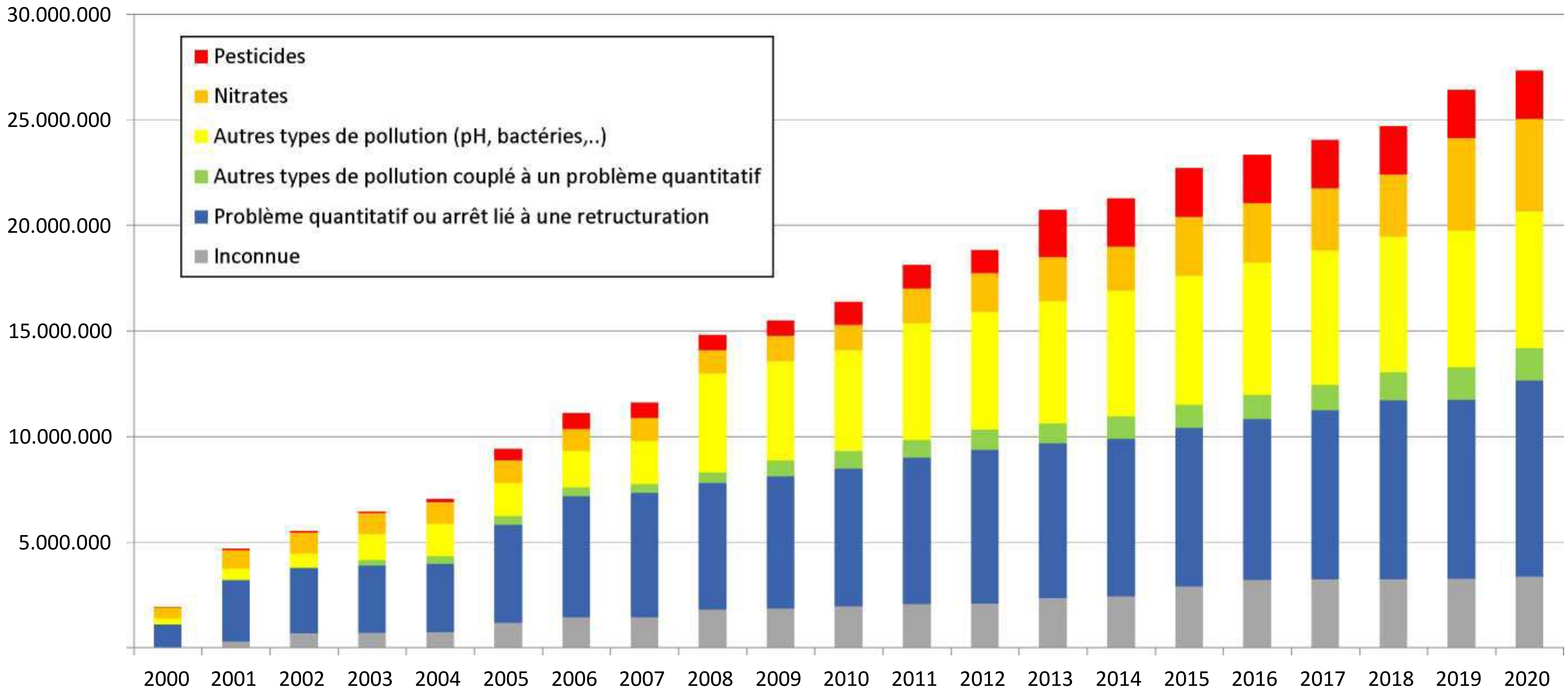


Figure 20: Cumulative volumes and causes of definitive decommissioning of drinking groundwater abstraction in Wallonia (2000-2020) – Source: SPW — ARNE-DEE-DESo

2.3.2.3. Drinking water for distribution

Water distributed by networks is one of the most controlled food products in Wallonia, with more than 39.000 checks per year. These are carried out from the abstraction to the tap. The water supply must meet the quality requirements imposed by European and Walloon legislation. Thus, it must not contain any micro-organisms, parasites or substances (including PPPs) that are potentially dangerous to human health. It must also comply with a set of potability standards21.

Overall, the water supply in Wallonia is of excellent quality as it had a rate of compliance with the standards in force of 99.2 % in 2019. Among the causes of non-compliance that are registered, **non-regulatory concentrations of plant protection products in 'tap water' concerned only 0.3 % of the analyses**

21 For more information, see " *The quality of water distributed by the public network in Wallonia*", SPW-DGARNE – Directorate for Environmental State and Groundwater Directorate (http://environnement.wallonie.be/de/eso/eau_distribution/index.htm).

carried out in 2019.

However, it should be borne in mind that the monitoring of pesticides currently used is very partial in relation to the 271 active substances approved in Belgium. A minimum of 20 pesticides and metabolites must be monitored, but the list may be adapted to the local characteristics of the distribution area. Furthermore, it is not excluded that some groundwater bodies used for the production of drinking water may not, by reason of their depth and type of soil, have yet been reached by pesticides used several years ago, but in the coming years (latency up to 10 years). Therefore, this means that the compliance rate that can be achieved today by certain technical means may in the future require more means for the same result.

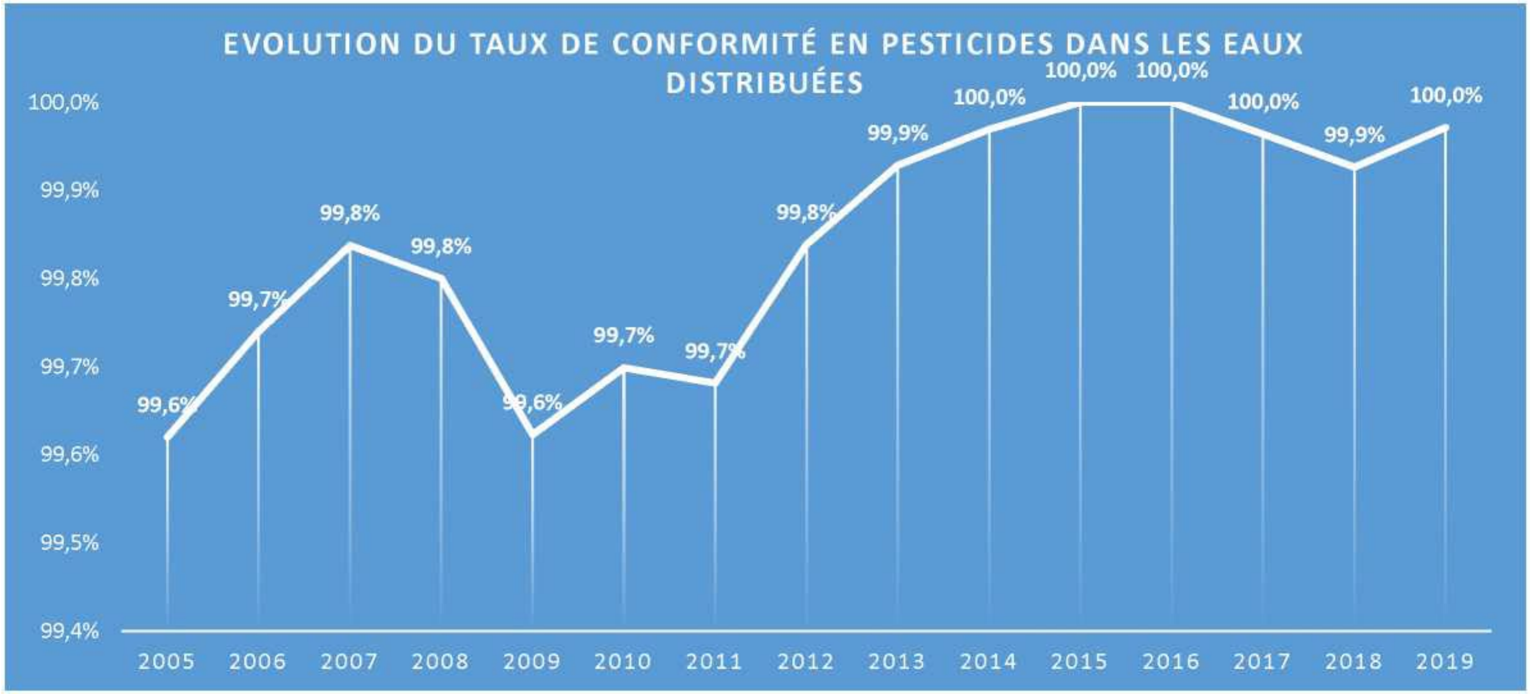


Figure 21: Evolution of pesticide compliance rate in distributed waters. Sources: SPW-ARNE-DEE-DESo

2.3.3. Impact on biodiversity

Species that inhabit the environment do not live independently. Each organism interacts with others, which in turn are positively or negatively affected by others. These living beings, their environment and the various natural processes that make up the environment make up the ‘biological diversity’ called biodiversity. Fauna, flora, bacteria and environments form a link.

Why conserve and manage biodiversity?
Biodiversity values are of various kinds:

- *direct utility* ***value:*** *it is an essential resource for humanity because we eat, dress, protect themselves, take care, build... with biodiversity!*

- *indirect utilitarian* ***value:*** *it is an essential component of natural heritage, along with soil and water. This is an element that facilitates or even simply allows primary production and indirect services offered by biodiversity which are very important.*
- *social, cultural, aesthetic* ***value:*** *this is a key reference for humanity.*
- *moral or ethical* ***value:*** *humanity has become responsible for its sustainability.*

In the context of global climate change, humankind has a strong interest in managing the capital of biodiversity, as many essential processes depend on the adaptability, resilience or resilience of species and ecosystems. The field of assessment of ecosystem services is booming and early results already show that traditional calculations of economic profitability very often undermine the essential role of biodiversity (reference MA[22], TEEB23: The Economy of Ecosystems and Biodiversity).

Biodiversity is currently facing many pressures that promote its erosion. The most important threats are frequently associated with agricultural activities and the development of urban and transport infrastructure. These factors promote the diffuse spread of various pollutants in the environment (pesticides, fertilisers and eutrophication, air pollutants, etc.), as well as the take and fragmentation of natural environments leading to the loss of habitats and a reduction in their capacity to operate in a network.

22 http://biodiversite.wallonie.be/fr/millenium-assesment.html?IDD=836&IDC=2940
23 http://biodiversite.wallonie.be/fr/teeb.html?IDD=1486&IDC=2940

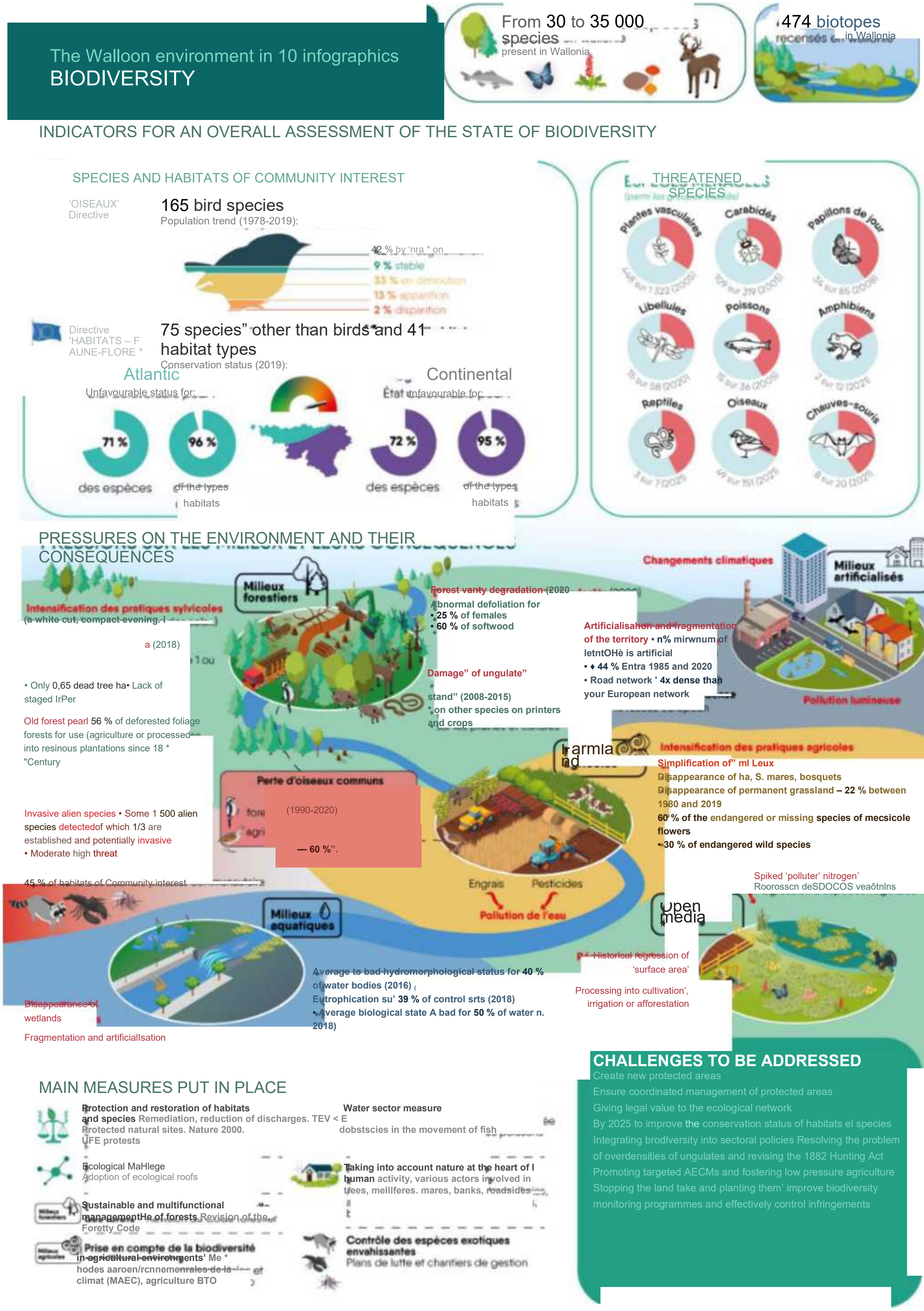


Figure 22: Infographic summarising the impacts on biodiversity[24] in Wallonia. Sources: REEW.

[24] http://etat.environnement.wallonie.be/home/Infographies/biodiversite.html

Yet biodiversity produces direct services to society such as pollination or decomposition of organic matter, but it also plays a functional role in the ecosystem indirectly participating in many other ecosystem services.

Where a plant protection product is used on a given target, unintended effects may occur on non-target organisms. Indeed, the active substance used may have intended effects on organisms harmful to cultivation, but also on various physiological functions of non-target living beings. In order to minimise the unintended effects of PPPs on the environment, ecotoxicity and environmental behaviour studies (degradation rate and mobility in soil, speed and degradation pathways in water and air, etc.) must be carried out and are required in the dossier submitted for assessment as part of the application for placing the product on the market.

Even if a product has been authorised for sale, all measures will then have to be taken during use in order to avoid the product being dispersed into air, water or soil and to preserve this natural dynamic allowing life to maintain its adaptability in the environment.

Measures are being taken to increase biodiversity improvements in Walloon municipalities (grass cover, civic participation in the management of public spaces, planting of hedges, green cemeteries, etc.). These include the 'late mowing' operation, the 'Yes We Plant' operation and the BiodiverCité grant,[25] which supports Walloon municipalities in their actions to preserve and restore natural areas and develop biodiversity in their territory. This grant now brings together, inter alia, the Maya Plan, Arbre Day, the Common Nature Development Plans (PCDN) and the Nature Cimetières.

Balance sheet of the various operations:

"Roadside – Late Leave" operation*: After banning the use of herbicides on the edges of roads in 1984, the Walloon Region launched in 1995 a programme to manage these environments: the Road Bords Convention. It calls on road managers to carry out ecological management of the edges of municipal roads in order to make them more welcoming for wildlife. On 1June 2019, 230 Walloon municipalities applied late mowing. The edges of late mowing roads cover 16.200 km for an area of approximately 3.600 ha in Wallonia.*

Maya Plan*: Operation Plan Maya aims to promote plantations of 'melliferous' species, with the aim of encouraging the development of pollinating insects, which play a major role in the fertilisation and reproduction of more than 80 % of the plant species needed for the survival of many animal species. On 1June 2019, 211 municipalities and the 5 Provinces were involved in that operation. Since 2013, the operation has also been accessible to gardens.*

For the Maya plan, the 211 municipalities involved have established pollinator-friendly facilities on their territory:

- *12.558 Ares of flowering meadows;*

  11.007 fruit trees;

25 http://biodiversite.wallonie.be/fr/subvention-biodivercite.html?IDC=6394

20.355 alignment trees;
367.666 hedges or melliferous massifs26.

***Label 'Cimetière Nature'**: To meet the "zero phyto" obligations in public spaces as of June 2019, one of the solutions is to re-accommodate nature in cemeteries. This **rolling label** consists of **3 levels**. The system is based on the philosophy of small steps and conceived according to a flexible system comprising both mandatory criteria by level and a set of criteria to be chosen according to the constraints and potential of the qualified cemetery. The first level of labelling is intended to be 'easily' accessible and essentially requires a real motivation in the form of a few achievements on the ground. Levels 2 and 3 imply gradually greater achievements.*
*Its objectives focus on different **themes** such as:*

- *the most important and varied vegetation possible in view of the constraints of the place;*
- *the development of biodiversity through the presence of native plants, the creation of a natural water room or the placement of nichoirs;*
- *the fight against invasive species;*
- *the best possible water and waste management;*
- *the installation of pleasant and natural collection areas.*

*The municipalities entering this dynamic benefit from **support** provided by Asbl Ecowal and Adalia 2.0, both supported by Wallonia.*
On 1September 2021, approximately 220 cemeteries in 74 Walloon municipalities were awarded the label.

*In addition, as part of the **Yes We Plant campaign**, more than 1.400 kilometres of hedgerows (of which 606 have already been planted) and more than 1.300.000 trees (of which 791.798 already planted) have already been subscribed by 8 September 2022 to an initial target of 4.000 km of hedges and/or 1 million trees to be planted by 2024.*

In line with the Regional Policy Declaration, Wallonia prepares its biodiversity strategy for the next 30 years (the Biodiversity Strategy 360°). It builds in particular

26 Sources: SPW _DGARNE-DDRCB-DNEV

on the results of the 2019[27] BiodiversityHYPERLINK "http://biodiversite.wallonie.be/fr/wallonie.html?IDC=6235" Workshops. Its aim is to halt the decline of regional biodiversity as of 2030. And ultimately achieving biodiversity that is preserved, restored, recognised for its value and for its contribution to the prosperity of our society and to human well-being.

By 2050, the strategy aims to:

- create a network of protected spaces allowing the redeployment of species and environments currently under threat;
- restore the good ecological status of rivers;
- link this redeployment of biodiversity with the development of soft travel, well-being projects, socio-secretive activities around cities, etc.;
- develop agriculture and forest management based on ecosystem and biodiversity services to avoid chemical inputs and adapt to the climate crisis.

This contribution to biodiversity will be integrated into business and business models and promoted through more local consumption. 2.3.4. Other Impacts

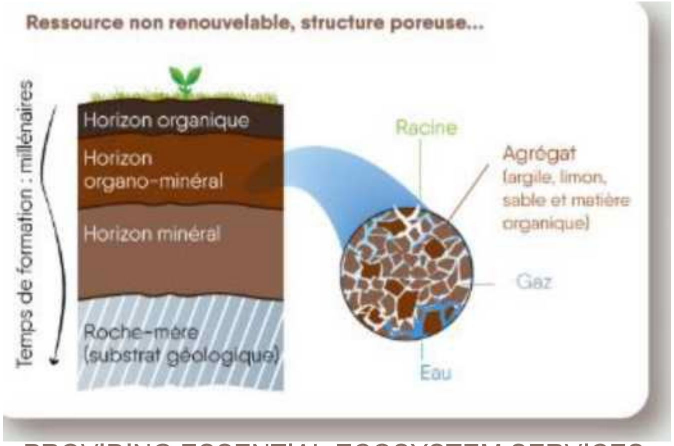
One of the compartments for which the impact of PPPs is not yet known in Wallonia is air or soil. The PWRP 3 plans to investigate these impacts (see point 2.4 below).

27 http://biodiversite.wallonie.be/fr/wallonie.html?IDC=6235

The Walloon environment in 10 infographics

SOILS

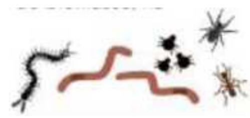
COMPLEX AND DIVERSE TRAINING



... with rich biodiversity

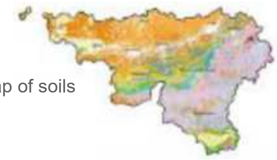
MICROFLORA
1 billion individuals/g soil
31 biomass/ha

FAUNA
260 million indivldus/m^2
1,51 biomass/ha

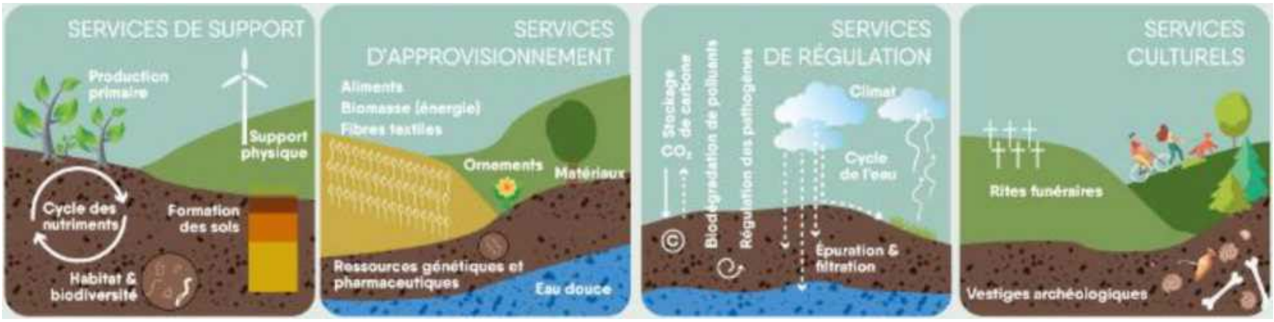


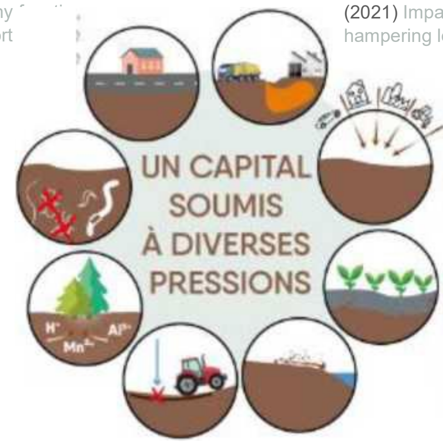
Diverse Walloon soils

6 000 do ground units in the legend of the digital map of soils in Wallonia



PROVIDING ESSENTIAL ECOSYSTEM SERVICES





Sealing
Almost 122 000 ha sealed (2007) Impacts: biologically inert soils, loss of any outside the physical support

Local pollution
Meadows of 40 000 ha concerned, cleaned or to be managed (2021) Impacts: risks to health, groundwater, ecosystems; hampering local economic development

Loss of biodiversity
Urban and agricultural soils more affected; currently no follow-up Impacts on organic matter mineralisation, nutrient cycle, species regulation, genetic and pharmaceutical resources

Diffuse pollution
Low but widespread pollution, variable depending on Impacts: enrichment of soil with undesirable substances

Acidification
75 % of forest soils that are too acidic (pH ^ s 4,5) 11994-2012) Impacts: unbalanced nutrition, release of elements toxic to plants, trees in poor health

Lack of organic matter
90 % of areas under crops 1375 000 ha) (2015-20191
Impacts on fertility, biodiversity, back soil structure, stock of carbon, capacity of castrafion/epuration

Compaction
Impact varies according to agricultural and forestry machinery and local conditions Impacts: barrier to infiltration and rooting, flooding, river pollution

Erosion
Unsustainable erosion on 59 % of areas under crops 1240 000 ha) (2010-2019)
Impact: loss of soil, decline in fertility, damage to crops, muddy casting, flooding, change in prices

RDECIDED TO RELEVER

- Titrise of land consumption, including continued management • Fight against diffuse pollution polluted soils • Completion of the *EU Soi strategy Strategy for 2030 '*
- Increase in organic matter content in agricultural soils

Figure 23a: Infographic summarising the impacts on soils[28] in Wallonia. Sources: REEW

[28] http://etat.environnement.wallonie.be/home/Infographies/sols.html

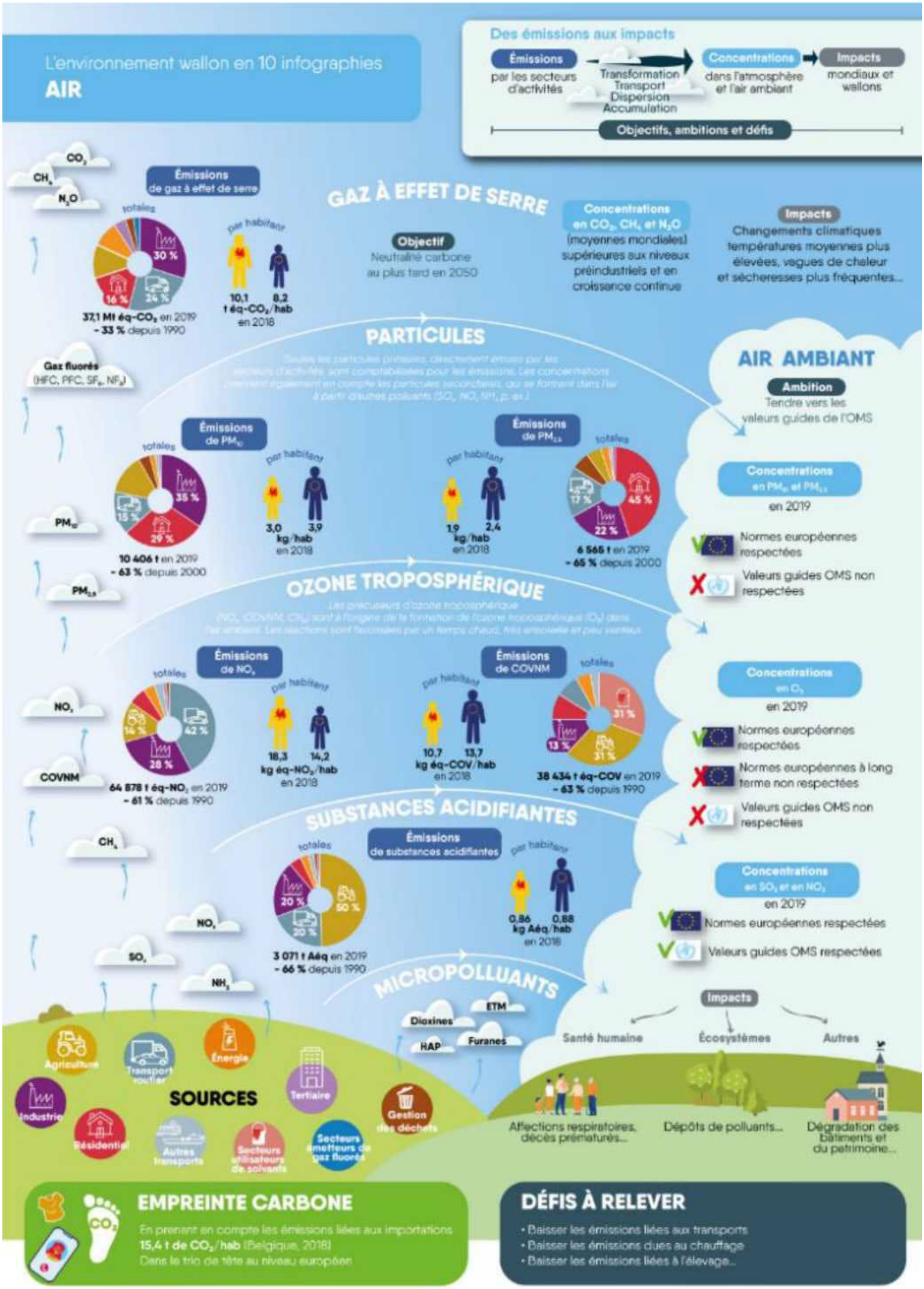


Figure 23b: Infographic summarising the impact on air[29] in Wallonia. Sources: REEW

[28] http://etat.environnement.wallonie.be/home/Infographies/sols.html

The main negative effect of pesticides on soils is that these chemicals can lead to the decline of some soil beneficial micro-organisms. Thus, the massive use of pesticides results in soil degradation, the fertility of which is directly affected.

In terrestrial systems, pesticides have been directly and indirectly linked to the decline in populations of birds, insects and pollinators and they also pose a threat to soil micro-organisms, which cause essential soil processes, such as the carbon and nutrient cycle. As soil life provides a wide range of ecosystem services, these harmful effects of pesticides could potentially affect soil health and thus agricultural production.

A new study gives us a comprehensive overview of the presence and abundance of 46 widely applied pesticides (16 herbicides, 8 herbicide degradation products, 17 fungicides and 7 insecticides) in the soils of 100 agricultural fields, including 40 under biological management. In addition, the researchers assessed whether:

- management systems (conventional, conventional without tillage and biological management) influenced the occurrence of pesticides;
- the duration of biological management had an impact on the occurrence and concentration of pesticides in soils;
- soil characteristics influenced the occurrence of pesticide residues;
- the occurrence of pesticide residues detected in this farm study is linked to soil life indicators (microbial biomass and soil breathing as well as abundance of mycorhizian fungi).

The analysis showed **that pesticide residues are widespread in agricultural soils**. Indeed, all 100 sites tested contained pesticide residues in the upper soil layer. The number of pesticides detected per field ranged from 3 to 32**, and soils under conventional management contained approximately twice as many residues as soils under biological management**.

The sum of the concentration of all residues (µg per kilogram dry soil) also differed significantly between management systems. The median concentration of pesticides in conventionally managed market garden crops was 79 % higher than the median of the fields of other conventionally managed crops. In addition, the median sum of pesticide concentration in organic sites producing arable crops or market gardens was in both cases 85 % lower than the median of conventionally managed sites.

Of the 46 pesticides and processing products analysed, **41 were detected in at least one soil**, including 12 herbicides, 8 herbicide by-products, 16 fungicides and 7 insecticides. 2-hydroxyatrazine, a degradation product of atrazine (a broad-leaf herbicide), was detected most frequently in 92 % of arable soils and 100 % of plant soils. It also contributes most to the burden of pesticides in biologically managed sites.30

30 Sources: Judith Riedo, Felix E. Wettstein, Andrea Rösch, Chantal Herzog, Samiran Banerjee, Lucie Büchi, Raphaël Charles, Daniel Wächter, Fabrice Martin-Laurent, Thomas D. Bucheli, Florian

Some studies have confirmed the presence of pesticide residues in ambient air in Wallonia (e.g. EXPOPESTEN[31]). Little information is available on the impacts of pesticides in the air. Some active substances (including organochlorines) may have impacts on the respiratory system (irritation). The PWRP 3 envisages the establishment of a permanent network for monitoring this issue.

Part 3: A device for vision

3.1. The operative part

If the vision is our compass, the device is the hand that supports it.

As our vision is established, it needs to be operationalised by a coherent mechanism. The scheme is based on a system of Russian dolls, with an increasing degree of operationality, which can be summarised as follows:

- setting*strategic objectives* that set the direction,
- concretely broken down into *operational objectives*,
- in turn, specified by *concrete measures*,
- sometimes they are organised in *actions* (steps).

In addition to the general objectives of the 2019-2024 Regional Policy Declaration and those of the European Farm to Fork (F2F) strategy set out in the introduction to this document, the partners of the PWRP[32] and SPW-ARNE wished to restructure the programme around the main challenges of the Pesticides Framework Directive (Directive 2009/128/EC), namely:

- reduce the quantities and risks associated with the use of PPPs in Wallonia;
- reducing dependence on synthetic plant protection products by promoting the use of integrated management and alternative methods these products.

These challenges have thus been broken down into 6 strategic objectives and 14 operational objectives:

WALLOON PESTICIDE REDUCTION PROGRAMME 3 (2023-2027): STRATEGIC OBJECTIVES AND OPERATIONS, MEASURES AND ACTIONS
OS.1 MITIGATING ENVIRONMENTAL IMPACTS
OO.1.1 AMELIORATING AIR QUALITE
OO.1.2 AMELIORATING WATER QUALITE
OO.1.3 PRESERVING AND RESTORING BIO-DIVERSITY
OO.1.4 SOIL PRESERVES

Walder and Marcel G.A. van der Heijden. Widespread Occurrence of Pesticides in organically Managed Agricultural Soils – the Ghost of a Conventional Agricultural Past? Approximately 280 mm. SCI. Technol. DOI: https://pubs.acs.org/doi/10.1021/acs.est.0c06405.

31 https://www.issep.be/expopesten/

32 PWRP cup: it brings together asbl Adalia 2.0, asbl corder, asbl PreventAgri and asbl PROTECT'water and several representatives of SPW-ARNE to coordinate the implementation of the PWRP.

OS.2 MITIGATING IMPACTS ON SANTE	
	OO.2.1. PROTECTING SANTE FROM RIVERAIN.E.S
	OO.2.2. IMPROVE THE COHABITATION BETWEEN AGRICULTURAL ACTIVITY AND OTHER LAND USES
OS.3 REDUCING DEPENDENCE ON SYNTHETIC PLANT PROTECTION PRODUCTS	
	OO.3.1 DEVELOPING AND ENHANCING THE USE OF INTEGRATED PEST MANAGEMENT AND OTHER MANAGEMENT VEGETAUX
	OO.3.2 DEVELOPING AND ENHANCING ALTERNATIVE METHODS OR TECHNIQUES TO SYNTHETIC PPPS
OS.4 (TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	
	OO.4.1 IMPROVE APPROPRIATE TRAINING, INCLUDING PHYTOLICENCE
	OO.4.2 DEEPENING RESEARCH AND DEVELOPMENT IN RELATION TO THE CHALLENGES OF THE PESTICIDE FRAMEWORK DIRECTIVE
OS.5 (TRANSVERSAL) DISSEMINATE KNOWLEDGE AND SKILLS	
	OO.5.1 DEVELOPING TRANSPARENT, SIMPLIFIED, POSITIVE AND INCLUSIVE COMMUNICATION
	OO.5.2 DEVELOPING AND STRENGTHENING A NEUTRAL AND INDEPENDENT COUNCIL AND THE EXTENSION OF RESEARCH RESULTS
OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	
	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES
	OO.6.2 MONITORING INDICATORS

The scheme includes the following aspects:

- *preventive* (appropriateness of using a product, sensitisation of users, conditions of use, adapted strengths, monitoring and research on uses and impacts, etc.);
- *alternatives* (the quantities used will be reduced mainly by developing alternative practices requiring less or no pesticides);
- *curative* (de-pollution of water and soil, etc.);
- *law enforcement* (enforcement of offences).

The components of the scheme are all levers that will enable Wallonia to achieve its objective under the PWRP 3.

Furthermore, as several thousand new active substances are emitted to the market each year by the industrial sector, whose potential impacts on health and the environment are often unknown or unknown, it is imperative that the scheme should also address the continuous improvement of knowledge, in particular:

- monitoring and seeking credible alternatives;
- impacts on health and the environment;
- advice on the best conditions of use.

In this respect, the system can rely on recognised and valuable expertise on the ground.
Finally, the system must be regularly evaluated by means of existing indicators or indicators to be constructed in order to verify that the course is maintained.

<u>Checks and penalties for measures under the Programme</u>

Checks are organised by Wallonia to ensure compliance with the legal provisions on pesticides. The regional department responsible for these inspections is the Department of Police and Control (DPC) of the SPW ARNE.

The professional users concerned by these checks are as follows:
- *farmers;*
- *green sectors (nurserists, parks and gardens, agricultural producers, etc.);*
- *public services;*
- *sports, leisure and recreation centres (centres attended by the public);*
- *distributors and retailers of pesticides (including supermarkets).*

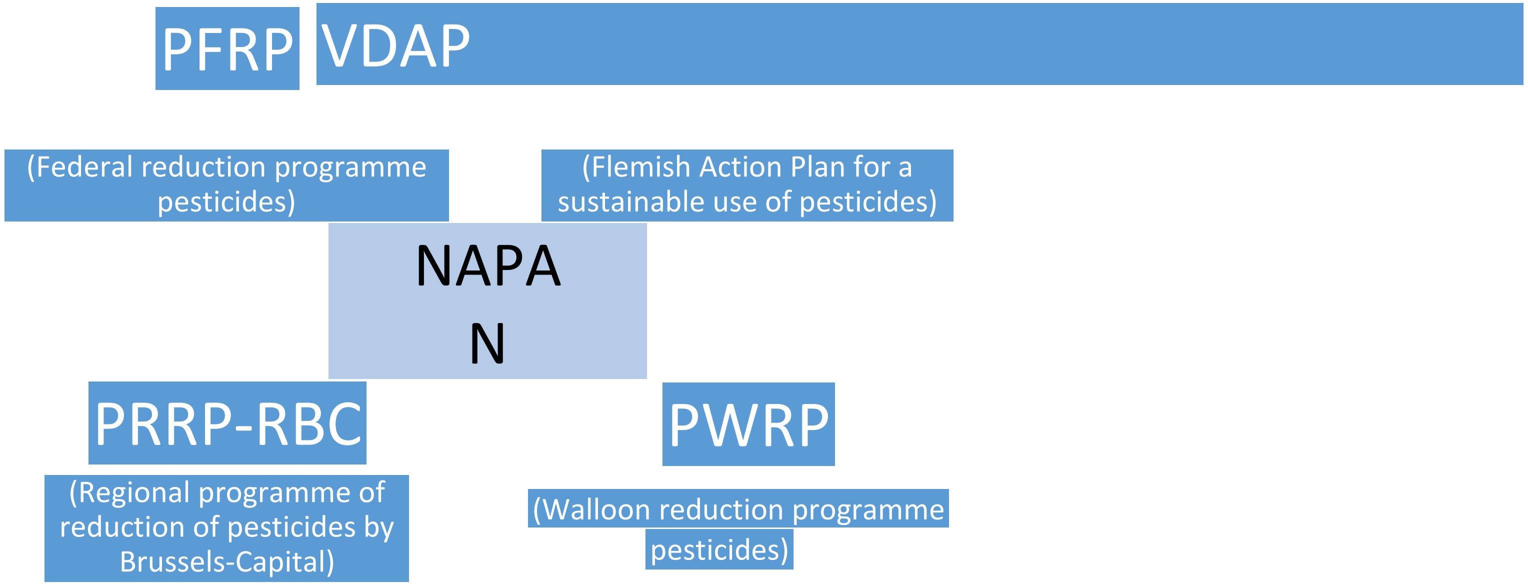
Checks shall be carried out both at the level of users themselves and at distributors. They will be carried out as a matter of priority in areas sensitive to pesticides: water bodies at risk “pesticides”, specific protection areas (abstraction, Natura 2000, etc.).

Sanctions regimes related to PWRP measures that are not yet dependent on existing schemes (management of public spaces, protection of vulnerable groups, PPP handling, IPM) are specified in Article 9 of the pesticide framework decree of 10 July 2013. Other measures depend on legal bases that already provide for a sanction regime (e.g.: Water Code, Forestry Code, etc.).

Through the NAPAN Task Force’s inspection working group, extensive consultation will take place between the regional control services and the federal services (FASFC, DG V of the FPS Public Health) in order to draw up control plans in a coordinated manner.

3.2. Proposals for national measures

The National Action Plan (NAPAN) includes federal, Flemish, Brussels and Walloon plans/programmes. Some actions have a national scope and are then steered at the level of the NAPAN Task Force, which brings together the federal and regional authorities.



The measures presented below have been validated by the Interministerial Environment Conference extended to include the other competences of the NAPAN (Agriculture, Health) (CIEe_NAPAN).

Themes	Key items	REQ.	Objective	Action	KSF (indicators)
2.0. Sales of PPPs					
2.1. Information general available at points of sale of amateur PPPs	Provide of information correct at points of sale of PPPs for amateur use. Renewal and update of the communication message at least once every three years, taking into account the results of the survey on PPP knowledge in the general public.	Bel.3.2.1	Availability of correct information at points of sale of plant protection products for non-professional use. Renew and update the official communication message at least every three years. Stimulate the creativity of revendeur.euse.s EN material from communication.	Development of a new campaign from communication for points of sale of plant protection products for use no professional Cooperation with of organisations and associations with expertise and experience EN material from communication.	Campaign from communication in 2025

				Stimulate the participation from distribution sector, e.g. to medium of an competitions. *(Led by the Brussels-Capital Region*)	
3.0. Information and general awareness of pesticides and their alternatives					
3.2. System from collection information on poisoning cases	Improving the relevance of monitoring to professionals	Bel.3.3.1	Support for the establishment of a follow-up to the use of from products plant pharmaceuticals by the professional user.le.s.	Ensure consistency of policy between the different competent authorities in relation toregistration from the use of from products plant protection systems by professional users and the collection and transmission of this information, in order to meet the obligations imposed by the relevant EU legislation and to enable the authorities to operate to maximum the information obtained. The authorities will consult regularly the sectors members of the NAPAN Council.	Coordination of activities in accordance with to European deadlines.
6.0. Protecting aquatic environment					
	Retention from process from reducing emissions from PPPs defined by the Belgian Eau-PPP Charter	Bel.3.6.1	Implementation of reactive risk management through emission reduction plans for problematic substances.	Implementation and improvement of the ‘Charter for combating exceedances of reference values’ of products plant protection in surface water in Belgium’, collaboration with the sectors. Communication to the public. The extension of the scope of the Charter to metabolites relevant of substances active of products plant protection and on contamination of waters	Assessment of the impact of the plans from reduction (achieving sufficient reduction — measures additional if necessary). If relevant, the Charter will be extended to relevant metabolites and to groundwater compartment.

				groundwater will be considered and implemented as appropriate. (*Under the direction of the Federal State*)	
	Implementation of a new buffer zone policy to protect the agencies aquatic.	Bel.3.6.2	Wager EN carried out this is new protection buffer zone policy of agencies aquatic.	Search for a link between regional measures for the protection of surface waters and federal risk reduction measures essential, where appropriate, for placing on the market of products plant pharmaceuticals in order to guarantee their implementation. The support of professional user.le.s will sought. The problem, the steps taken and the results obtained will be communicated to the NAPAN Council and on Phytoweb*(under the Wallonia Directorate*).	Clarity on plant protection products may be used EN all security or no, under subject to compliance with the required buffer zones, and controlled by the Regions (list of plant protection products available in early 2023). Adaptation from the regional legislation and control measures depending on the clarity created in 2023 (detention or exclusion measures for certain products plant protection products). Limited market presenceto products phytosanitary who can be used safely when they: respect the areas buffers imposed and controlled to level regional (adaptation of legislation Federal EN 2023 to implement it, adaptation of authorisations in early 2024 to implement the legislation).
7.0. Protecting targeted areas					
7.1. Areas used by the general public or of groups vulnerable	Harmonisation of measures regional authorities for the protection of river.s and bystanders.	Bel.3.7.1	Consultation of policies regional relative to areas visited by the general public, such as public spaces, and those	Consultation of measures regional for protection of the general publicand groups vulnerable Communication	Ongoing consultation. Publication on Phytoweb of a regional summary of the measures and

			occupied by of groups vulnerable, such that the dwellings.	synthetic of measures and existing advice. *(This exchange of information and the communication of measures and advice will be carried out at the level of the NAPAN Task Force alternately by the three regions.)*	existing advice in 2023 and wager to day annually thereafter.
9.0. Integrated Pest Management (IPM)					
9.1. Fostering low-input systems such as integrated pest management and agriculture biological	Increase the visibility of approved PPPs for agriculture biological, basic substances and low-risk PPPs on Phytoweb.	Bel.3.9.1	Increasing the visibility of plant protection products for use in agriculture organic, of basic substances and low-risk plant protection products on Phytoweb.	Increase visibility and ease of find of products plant protection products suitable for use in organic farming, basic substances and of products low-risk plant protection products on Phytoweb. Keep this information up to date through a structural exchange of information between federal and regional authorities. (*Under the direction of the Federal*	Implementation in 2023
10. Indicators	Obtain an overview of national management characteristics of risks in order to develop the policy.	Bel.3.10.1	Keep national indicators up to date and further develop them to support risk reduction policy EN material from products plant protection.	Updating and further development from NAPAN Dashboard (table on board NAPAN). Publication of indicators collected every two years. In the year who follows the publication of indexes, one overall assessment of the results of the NAPAN will be provided by the authorities responsible for its implementation.	NAPAN Scoreboard published in 2023, 2025 and 2027 Publication of the overall assessment of the NAPAN within 12 months of the publication of the indices.
11. Management of and follow-up to the plan	Maintain the work of the NTF and the NAPAN Council.	Bel.3.11.1	Continue to ensure the functioning of the NAPAN Task Force and the NAPAN Advisory Board	Regular meetings. Monitoring from progress of actions under EU reduction targets	Quarterly

				Farm-To-Fork through the NAPAN Task Force. (*Under the direction of the Federal State*)	
	Involve the public widely in the NAPAN decision-making process	Bel.3.11.2	Develop a future vision for Belgium in the area of plant protection risk reduction policy. Revise the national action plan to align it with Belgium's vision for the future and, where appropriate, with new EU legislation	Elaboration this is perspective for the future commune for the Belgium by the authorities competent Federal and regional. Development of new plan action national EN consultation with stakeholders. Consultation public the future perspective and draft national action plan. Communication to the general public (*under the Federal*	Public consultation and adoption of the national action plan within the legal deadlines. Adoption of the future perspective for Belgium at the latest at the same time as the national action plan. Communication to the general public during the public consultation and after the adoption of the national action plan and future perspective.

3.3. Existing regional measures

The table below summarises the measures resulting from other Walloon Plans and Programmes which contribute directly or indirectly to achieving the objectives of the PWRP 3. Details of these measures are set out in Annex 1.

Examples are some measures that are expected to have direct and significant impacts:

1. *Support for organic farming* (CAP Strategic Plan and Bio 2030 Plan):

   The Bio 2030 Plan aims to reach 30 % of the Utilised Agricultural Area (UAA) in organic farming by 2030. In 2019, 11.5 % of Walloon UAA was already organic.

2. *GAEC 8 "Non-productive elements"* (CAP Strategic Plan):

   Of all agricultural areas and at least 4 % (7 % if the CIPAN is taken into account) of arable land used for non-productive areas and features, maintenance of landscape features and prohibition of cutting hedges and trees during the bird breeding and breeding season. No use of PPPs, except for fishfish and rumex and herbicides in the first year for miscanthus and silphia.

3. *Additional measure 28 'Risk crops'* (RBMP 3):

It targets crops at risk of water contamination in sensitive areas (e.g. pea cultivation in catchment areas). It is proposed to replace risky herbicides with mechanical weeding.

4. The ‘Input reduction’ eco-scheme (CAP Strategic Plan):

   It aims to promote the non-use of ‘candidates for substitution’ PPPs (i.e. PPPs still approved but with the least favourable tox/ecotox profile) on arable land and permanent crops. The objective envisaged during the period of the new CAP (2023-2027) is 76.700 ha (~ 10 % of Wallonia’s utilised agricultural area) under this eco-scheme.

5. *The introduction of biodiversity-friendly clauses in supply contracts* (Biodiversity Strategy 360°):

   This Action is aimed to:

   1) Set up a working group bringing together agricultural biodiversity experts, sectoral stakeholders and representatives of the various sectors engaged in contractual agriculture (businesses and agricultural representatives) with a view to proposing biodiversity-friendly clauses in cultivation and other supply contracts;
   2) Test the criteria proposed on the ground through a number of pilot contracts;
   3) Encourage the use of such contracts;
   4) Integrating biodiversity-related elements into existing standards;
   5) Extend the approach to different sectors taking into account the traceability criteria to be put in place by the EU.

Other Walloon Plans and Programmes	***Direct impact on PPP quantities***	***Indirect impact on PPP quantities***	***Direct impact on PPP risks***	***Indirect impact on PPP risks***
River Basin Management Plans (RBMP 3) (*)				
Basic measures	X	X	X	X
Additional measures	X	X	X	X

CAP Strategic Plan (*)				
GAEC	X	X	X	X
Eco-Regimes	X	X	X	X
Coupled payments		X		X
MAEC	X	X	X	X
Support to organic farming	X		X	
Natura 2000	X	X	X	X
Aid for productive investments	X	X	X	X
Aid for non-productive investments		X		X
Plan for the development of organic production in Wallonia by 2030				
Plan Bio 2030	X		X	
Wallonia's recovery plan				
Axis 2 of which AgroEcology Action Plans	X	X	X	X
Walloon Environmental and Health Plan – envies				
Axis 1 REPLY TO HEALTH ENVIRONMENT		X		X
Area 3: SUPPORTING RESEARCH AND EXPLOITING ITS RESULTS		X		X
Walloon Sustainable Development Strategy Action Plan (SWDD) + Walloon Sustainable Food College (Alliance Emploi-Environnement sur l'Alimentation)				
AEEA		X		X
SDG 2.4.10 to 12/3.9.22/6.3.37/14.1.79/15.1.80/15.5.83		X		X
Air-Climate-Energy Plan (PACE) 2030				
No impact on the objectives of the PWRP 3				
Flood Risk Management Plans (FRMPs)				
Limitation of run-off				X
Walloon Plan of Resources				
PPNU collection and PPP packaging			(X)	
Biodiversity Strategy 360° to 2050 (*)				

	X 1	X 1	X 1	X
Community Nature Development Plans				
Project Catalogue 2011	X	X	X	X
Natural park management plans				
Various projects including Generation Terres	X		X	
River contract action programmes				
Local measures to protect the aquatic resource.				X
LIFE-Nature programmes				
Improvement and long-term conservation of the habitats of the species concerned				X
Circular Wallonia programme	no impact on the objectives of the PWRP			

(*) Under validation

The table below shows the recurrent measures resulting from PWRP 2013-2017 (Wal...) and 2018-2022 (Wal.2...).

Measure No.	Objective	Pilot	SPW focal point	Partners
Chapter 1: Phytolicence				
Wal.2.1.2 (Wal. 1.3)	Existence of a system of continuous training allowing renewal of phytolicences	Corder	CIAE	Centres fro m
Wal.2.1.4 (Wal. 1.5)	Existence of a coordination unit for the whole system	Corder	CIAE	Centres fro m
New Wal.2.1.5	Development of continuous training tailored to the specific characteristics of the various **green sectors**	Corder	CIAE	Centres fro m
New Wal.2.1.6	Existence of an assessment system giving access to phytolicence	Corder	CIAE	SPW

Chapter 2: Sale of PPPs				
Wal.2.2.1 (Wal. 2.1)	Annual publication of a guide to good practice in the garden and dissemination of this guide by municipalities and gardens	Corder	DRD	Adalia 2.0
Wal.2.2.2.1° (Wal. 2.2)	Raising awareness among individuals of alternative means of fighting	Adalia 2.0	DRD	Corder
Wal.2.2.2.2° (Wal. 2.2)	Raising the awareness of and encouraging private individuals to adopt a more responsible attitude towards PPPs.	Corder	DRD	/
Wal.2.2.3. (merger of Wal.2.3. with Wal.2.6.)	Raising awareness among individuals of the risks associated with storage, handling and use and disposal of remnants and packaging from PPP to usage no professional Harvest a maximum of products that have expired and/or are no longer	Corder	DRD	Adalia 2.0, COPIDEC
Wal.2.2.4 (merger of Wal. 2.4 and Wal 2.5)	Raising awareness of individuals at events = > providing stands at events	Adalia 2.0	DRD	Corder Protect water
New Wal.2.2.7	Make it clear to individuals that the purchase of PPPs is not insignificant	Adalia 2.0	DRD	Corder
Chapter 6: Protecting aquatic environment				
New Wal.2.6.5	Awareness raising and information for professional PPP users for the application of legal requirements and good practices for reducing the risk of occasional and diffuse water pollution by PPPs through the organisation of visits and demonstrations	Protect water	DRD + CIAE	PreventAgri
Chapter 8: Handling/Storage of PPPs and their packaging/residues				
Wal.2.8.1 (Wal. 7.3)	Support and supervise the users of pesticides for professional use in order to bring their farms up to standard in the treatment of plant protection effluents.	Protect water	DRD + CIAE	PreventAgri
Wal.2.8.2 = Wal.2.6.3 displacement	Information, awareness-raising and supervision of PPP users for professional use (concerning the handling and storage of PPPs and the protection of the aquatic environment)	Corder	DRD	PreventAgri Protect'Eau
Wal.2.8.3 (Wal. 7.5)	'Upgrading to standards – safety – handling, storage – accident and fire prevention' diagnosis	PreventAgri	DRD	PWRP cup
Wal.2.8.5 (Wal. 7.7)	Avoid accidental contamination through compliant PPP storage devices	Protect water	DRD + CIAE	PreventAgri

Finally, reference can also be made to the general tasks of the partners of the Coupole, which also cover recurrent measures under the previous programmes:

- ADALIA 2.0:
  - Objective: Working for healthy green spaces designed and managed in a way that respects the environment and nature
  - Missions:

    To communicate to and raise awareness of the individual:

    - Merge the ‘Pesticide-free Spring’ and ‘Bee and Pollinator Quinzaine’ campaigns (measure Wal 2.3.2);
    - Form ‘zero pesticide for more nature’ (Wal measure. (2.2.4);
    - Make technical advice capsules (Wal measure. (2.2.2);
    - Develop advice to the garden on the website;
    - Collect non-usable PPPs and private owned packaging (Wal measure. (2.2.3);

    THE FOLLOWING: Raise awareness and technical support among the public and private professionals:

    - Provide training (measure Wal.2.1.2);
    - Performing machine demonstrations;
    - Organise awareness-raising events;
    - Supporting public administrations (measures Wal.5.4 and Wal.5.5.);
    - Assisting the professionals responsible for the maintenance of private outdoor areas;
    - Study the feasibility of a system for pooling alternative weed control equipment (Wal action. (3.3.2.3.1);
    - Support the managers of prevention sites for catchment areas;

- Include biodiversity in advice and training (initially planned as Wal.3.1.3.1.1 action but eventually integrated into Adalia 2.0 core missions);
- Enhance the value of parks and gardens sensitive to differentiated management (initially planned as actions Wal.3.1.3.1.2 and Wal.3.3.2.2.1 but eventually integrated into core missions);
- Support the tourism sector (initially planned as a Wal.3.3.2.3.2 action but ultimately integrated into the core missions);

To inform and raise awareness in schools;

THE FOLLOWING: Raising public awareness:

- Continue the work of gardens labelled as "Pesticide-free garden" (Wal measure. (2.2.7);
- Carry out a survey and training for supermarket gardens and shops (action Wal.3.6.1.1.5);
- Put in place the "Alert to the garden" bulletin;
- Animate/make available information stands at public events (Wal measure. (2.2.4);
- Carrying out actions specific to capture contracts;
- Study the feasibility of setting up a system for lending weed tools or a bonus (action Wal.3.6.1.2.2);

To put in place cross-cutting communication arrangements;

To take part in the PWRP coupole.

- CORDER:
  - General missions of the asbl:
    - Enable **interaction** between rural actors in order to establish integrated and reasoned plant protection;
    - Being able to recognise a plant/crop disease, identify the agent responsible for the disease, **understand** why it appears in order to prevent future outbreaks, know the threshold for action before treatment;
    - When the user decides to process, **inform about** the authorised products, their characteristics, how they are used and the legal framework related to their use in order to comply with the legislation in force;
  - PHYTO Regional Committee:
    - Exchanging information, evaluating techniques and disseminating scientific knowledge;

To play an information and consultation role through:

- The coordination of various initiatives designed to help farmers, the professional in green areas and roads, and the individual in taking decisions on the choice of plant protection treatment;
- The impetus of scientific research and fieldwork in the field of PPP use;
- Reflection and objective analysis on the place of PPPs in today's agriculture and non-agricultural sectors and the impact of their employment on the environment;
- Informing the public about actions taken to promote the sustainable use of PPPs;

- Also act as an interface between the bodies representing the various Walloon agricultural and horticultural sectors (known as 'pilot centres') and the FPS Public Health, Safety of the Food Chain and the Environment, in order to carry out dossiers for extending the authorisation of PPPs which are essential for small crops which represent little area in Belgium and for which plant protection solutions are lacking;
- Together with other organisations in the agricultural world, develop the joint Living Referential on the use of PPPs in Wallonia, a tool currently being tested in several Walloon municipalities with the aim of providing information to initiate dialogue between farmers and local authorities in the same municipality in order to provide solutions to the problems encountered;
- Be part of the Agricultural Council system, a body which guarantees advice to farmers on various subjects, particularly in the context of the CAP;

- Phytolicence and scientific support:

A Phytolicence mission:

- Focal point for Phytolicence in Wallonia – coordinating the system:
  - Ensuring the existence of an assessment system giving access to the phytolicence;
  - Ensure the existence of a system of continuous training allowing renewal of phytolicences;
  - Develop continuous training tailored to the specific characteristics of the various sectors;
  - Inform all target audiences on the conditions of access to phytolicence and its implications in Wallonia;
  - Animate the teaching committee;
  - Agir as Helpdesk;
  - Evaluate the system annually;
  - Revision the phytolicence decrees (AGW of 28 April 2016 on initial and continuing training and the assessment of the knowledge needed to obtain a phytolicence and AM of 24 May 2016 implementing the Walloon Government Decree of 28 April 2016 on initial and continuing training, and the assessment of the knowledge needed to obtain and renew a phytolicence) in consultation with the Pesticides Focal Points and the CIAE Cellule of the SPW;

A scientific support mission:

- Piloting and monitoring measures relating to research actions included in the PWRP;
- Ensure a forward-looking role in terms of research into PPPs and their alternatives;
- Centralise information on research projects implemented in Wallonia under the PPP theme (files monitored/subsidised by Research Centres, Administration, Universities, ISSeP, SPGE, etc.);
- Set up a watch on what is being done in other European countries as part of their national action plan;
- Use the APPI application as a watchdog tool for tracking emerging issues in the field of plant protection: frontline support for emerging problems in their management while taking into account biological and legislative developments;
- Participate in working groups on selected topics, such as:
  - Consider and how to respond to the real constraints/obstacles that may arise in the context of zero phyto management;
  - Determine the place of "biopesticides", micro-organism preparations and basic substances in PPP uses in Walloon territory and how these products are defined and considered/accepted in the other Member States;
  - Responding to concerns and complaints from river.s in relation to PPPs;
- Support the Administration on specific topics related to the missions concerned (parliamentary questions, green notes, etc.);

- Plants' linics:
  - Target: enhance the quality of plant protection services, improve their external visibility, develop technology transfer capacities to stimulate synergies between academic research (within the UCLouvain Earth and Life Institute) and professional sectors of activity;
  - Tasks: provide a service of analysis, advice and implementation of tailor-made projects for clients (professionals and individuals) and partners in the field of plant protection;
- Research projects:
  - Quantitative estimate of the use of PPPs by the various sectors of activity in Wallonia (EQPP):
    - Update the indicators of the Walloon state of the environment relating to the use of PPPs in order to estimate quantitatively the uses of PPPs by the various sectors of activity.

- PreventAgri:
  - Objective: raise awareness among stakeholders in the sectors of prevention of accidents at work and occupational diseases;

- Missions:
  - To carry out risk analyses on farms or on site;
  - To assist in the compliance of plant protection premises;
  - To provide technical information on safety and hygiene;
  - To propose conferences and animations in agriculture and horticulture schools, etc.

- PROTECT'water:
  - Objective: protect water resources, in line with environmentally, economically and socially sustainable agriculture;
  - Missions:
    - To supervise and advise farmers and professional users of plant protection products;
    - To carry out awareness-raising activities with a view to protecting groundwater and surface water bodies;
    - The development of communication tools;
    - To vulgarise to the target audiences;
    - To enhance the value of the measures put in place;
    - To provide a scientific basis for the work of field teams;
    - Scan the results of the PGDA, establish and propose improvements;
    - To establish the annual reference curves for the APL observation programme;
    - A framework for the reference farms;
    - Contribute to the preparation of reporting documents for the European authorities in the context of the PGDA and the PWRP;
    - Carry out an environmental diagnosis by abstraction of drinking water with pesticide contamination problem and/or nitrate and propose appropriate remedial measures.

3.4. Complementary regional measures (PWRP 3 in the strict sense)

3.4.1 Structure of the PWRP 3

Below are the 16 measures and 29 actions detailing the 6 strategic objectives and 14 operational objectives of the PWRP 3 (see table in section 3.1).

The current Walloon legislation on pesticides entails some concrete measures in relation to the achievement of the objectives of the PWRP 3:

- *Ban on the use of PPPs on 'non-cultivable coated land' (TRNC) linked to a rainwater collection network since 1 September 2014;*
- *Ban on the use of PPPs in spaces attended by vulnerable groups (pregnant or breastfeeding women, infants, children, elderly, long-term sick, etc.) since 1 June 2018;*
- *Ban on the use of PPPs in public spaces since 1 June 2019;*
- *Compliance with a 6 m buffer zone along surface waters since June 2014 and implementation of permanent ground cover (GSK) on 6 m along rivers since October 2021.*

PWRP 3 (2023-2027): STRATEGIC AND OPERATIONAL OBJECTIVES, MEASURES AND ACTIONS

OS.1 MITIGATING ENVIRONMENTAL IMPACTS

OO.1.1 AMELIORATING AIR QUALITE

Measure 3.1.1.1 Monitoring pesticides around specific crops

ACTION 3.1.1.1.1 Assess the exposure to PPPs of populations bordering specific crops and assess the effectiveness of the protective measures used

OO.1.2 AMELIORATING WATER QUALITE

Measure 3.1.2.1 Integrated Council for the Protection of Water

ACTION 3.1.2.1.1 Set up a multi-stakeholder advisory service, mobilising advisory bodies already active in Wallonia and the tools already available, in order to offer farmers targeted solutions to reduce PPP transfers to surface water.

OO.1.3 PRESERVING AND RESTORING BIO-DIVERSITY

Measure 3.1.3.1 Search and creation of tools

ACTION 3.1.3.1.1 Identify technical routes that favour both a decrease in PPPs and an increase in functional biodiversity

OO.1.4 SOIL PRESERVES

Measures related to soil quality are included in Operational Objective 6.1 – Basic and Prerequisites (Action 3.6.1.1.1)

OS.2 MITIGATING IMPACTS ON SANTE

OO.2.1. PROTECTING SANTE FROM RIVERAIN.E.S

Measure 3.2.1.1 Development of tools

ACTION 3.2.1.1.1 Develop a tool for locating areas in which spraying of pesticides is prohibited and make it available to professional users of PPPs, enabling them to take better account of compliance with local communities and vulnerable groups.

ACTION 3.2.1.1.2 Develop a toolbox of means and techniques to mitigate the exposure of river.s to PPPs and a decision support tool to select those that are most appropriate according to the situations encountered.

OO.2.2. IMPROVE THE COHABITATION BETWEEN AGRICULTURAL ACTIVITY AND OTHER LAND USES

Reduce problematic exposures to off-crop drifts and enhance risk-related information sharing. .. of exhibition

ACTION 3.2.2.1.1 Continue to improve dialogue, exchange of information between farmers and local authorities and put in place measures to mitigate and prevent risks associated with the application of PPPs.

OS.3 REDUCING DEPENDENCE ON SYNTHETIC PLANT PROTECTION PRODUCTS

OO.3.1 DEVELOPING AND ENHANCING THE USE OF INTEGRATED PEST MANAGEMENT AND OTHER VEGETARY

Measure 3.3.1.1 Development of tools to facilitate the implementation of integrated management

ACTION 3.3.1.1.1 Create observation and warning networks made up of trained farmers who can refine warning systems by multiplying observation points

ACTION 3.3.1.1.2 Improve agricultural/horticultural knowledge and improve the APPI application

ACTION 3.3.1.1.3 Strengthen the deployment and implementation of agri-environment-climate methods (AECMs) as integrated management tools

OO.3.2 DEVELOPING AND ENHANCING ALTERNATIVE METHODS OR TECHNIQUES TO SYNTHETIC PPPS

Measure 3.3.2.1 Developing levers towards reducing PPPs – agricultural public

ACTION 3.3.2.1.1 Develop a network of exemplary operators in the field of reducing the use of PPPs

ACTION 3.3.2.1.2 Encourage investment in the purchase of equipment to reduce the use of PPPs and encourage joint purchasing of such equipment

Measure 3.3.2.2 Facilitate the implementation of Zero phyto – non-agricultural public already in zero phyto

ACTION 3.3.2.2.1 Propose concrete solutions to develop a system of shared management of alternative weed control machines at municipal level

OS.4 (TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS

OO.4.1 IMPROVE APPROPRIATE TRAINING, INCLUDING PHYTOLICENCE

Measure 3.4.1.1 Existence of an initial training system

Develop an initial training system based on the combination of face-to-face training and e-learning for the different types of phytolicence

Measure 3.4.1.2 Visibility of training related to the reduction and/or proper use of PPPs

ACTION 3.4.1.2.1 Increase the visibility of all training courses related to the reduction of pesticide use in Wallonia Set up a platform offering a common agenda for all training courses, including phytolicence

OO.4.2 DEEPENING RESEARCH AND DEVELOPMENT IN RELATION TO THE CHALLENGES OF THE PESTICIDE FRAMEWORK DIRECTIVE

Measure 3.4.2.1 Establishment of a guidance document

ACTION 3.4.2.1.1 Draw up a guidance document identifying needs in order to select research to be funded as a matter of priority in Wallonia

Measure 3.4.2.2 objecting to the issues needed for strategic decision-making

Action 3.4.2.2.1 Defining multi-sectoral agricultural transition scenarios at regional level

Action 3.4.2.2.2 Estimating the costs and benefits of different agricultural transition scenarios at regional level

OS.5 (TRANSVERSAL) DISSEMINATE KNOWLEDGE AND SKILLS

OO.5.1 DEVELOPING TRANSPARENT, SIMPLIFIED, POSITIVE AND INCLUSIVE COMMUNICATION

Measure 3.5.1.1 Communication strategy

Action 3.5.1.1.1 Developing a communication strategy on the wider PWRP 3 (towards the various target audiences)

OO.5.2 DEVELOPING AND STRENGTHENING A NEUTRAL AND INDEPENDENT COUNCIL AND THE EXTENSION OF RESEARCH RESULTS

The topic of independent advice is already dealt with in the broader context of the implementation of the new AKIS-SCIA system (AGRICULTURAL KNOWLEDGE AND INNOVATION SYSTEMS – Agricultural Knowledge and Innovation System) linked to the Common Agricultural Policy.

OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW

OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES

Measure 3.6.1.1 State of play

Introduce monitoring of risks related to pesticides in the environment (water, air, soil, agricultural production)
ACTION 3.6.1.1.1
Identify sensitive areas where PPP pressure is high through the development of a PPP load indicator and propose measures to avoid or mitigate PPP pressures on these areas
ACTION 3.6.1.1.2
Draw up a position paper on observed incidents and the use of protective equipment
ACTION 3.6.1.1.3 Evaluate the implementation of integrated management
ACTION 3.6.1.1.4 Assess the consultancy skills of staff involved in the sale of PPPs to individuals
ACTION 3.6.1.1.5 Objectiving the exposure of professional users of pesticides to these products
ACTION 3.6.1.1.6 Measure 3.6.1.2 Prerequisites for further development of specific measures
ACTION 3.6.1.2.1 Harmonise Walloon and federal regulations in relation to the implementation of the PWRP through the Thematic Working Group on these issues
ACTION 3.6.1.2.2 Identify the feasibility of access by individuals to suitable weed control equipment (via a loan structure or through a purchase premium)
ACTION 3.6.1.2.3 Set up a PWRP 3 indicator cell bringing together expertise developed in Wallonia
ACTION 3.6.1.2.4 Study the feasibility of an electronic register for the use of PPPs by agricultural and non-agricultural professionals at pilot level
Set up the electronic register in certain pilot areas (depending on the results of the feasibility study)

OO.6.2 MONITORING INDICATORS

Measure 3.6.2.1 Evaluate the effects of PWRP 3

Develop methodologies for assessing behavioural changes in certain topics
Action 3.6.2.1.1 of the PWRP 3
Carrying out impact surveys among the various target audiences identified by the methodologies developed

3.4.2 PWRP 3 Action Catalogue

The action files below set out in turn all these actions, their objectives, key milestones and indicators, as well as more practical information (budget, human resources, deadlines, etc.).

Strategic objective 1	TO MITIGATE ENVIRONMENTAL IMPACTS	**Priority**	2.25
Operational objective 1.1	AMELIORATING THE QUALITE OF THE AIR		
Measure 3.1.1.1	Monitoring of pesticides around specific crops		
Action 3.1.1.1.1	Assess the exposure to PPPs of populations bordering specific crops and assess the effectiveness of the protective measures used		

Objectives	THE FOLLOWING: Acquire data on the presence of pesticides in the air and atmospheric deposition in the vicinity of specific crops (e.g. orchards) during and after spraying, taking into account the protective means used (drift nozzle, physical barrier, etc.) THE FOLLOWING: Assess the exposure to PPPs and the risks to the river.e.s of these specific crops using the measurement data acquired. ▪ Compare the risk 'riverain.e.s' calculated using the EFSA model used by FPS and the EU for the approval of active substances (AS) and PPPs with the risk ▪ riverain.e.s' calculated using measurement data at the edges of the specific crops, in order to verify whether the model assumptions are sufficiently cautious. ▪ Analyse PPP concentrations in the different matrices (water, air, soil, etc.) considering the measures imposed (e.g.: percentage reduction of the anti-nose drift; buffer zones; ...) and check whether the current Walloon legislation (AGW 14 June 2018), drawn up on the basis of assumptions relating to arable crops, is also sufficiently lenient at the border of these specific crops. Draw up recommendations to reduce pesticide exposure of river.s and ecosystems during plant protection treatments.

Stages	THE FOLLOWING: Benchmarking of PPPs used in specific crops in Wallonia, their spraying methods and legislation applied for their use (EU, Be, RW) THE FOLLOWING: Determination of study methodology, sampling and analysis of pesticides in samples THE FOLLOWING: Analysis of results to assess the risk to human health and determine the suitability of the regulations in place for arable crops with specific crops THE FOLLOWING: Drafting of the scientific report presenting: - results of analyses of pesticides in ambient air and deposition atmosphere around the specific crops studied, - the adequacy of the current regulatory measures for application to specific crops (e.g.: orchard)
Indicators	THE FOLLOWING: Number of field tests carried out THE FOLLOWING: Number of regulatory measures current assessed THE FOLLOWING: Proposed recommendations THE FOLLOWING: Number of new regulatory measures adapted for crops specific studies

Target audiences Beneficiaries	THE FOLLOWING: Neighbouring populations of specific crops THE FOLLOWING: Green sector: agriculture and horticulture THE FOLLOWING: Agricultural ASBL, managers of spaces visited by vulnerable groups (schools, crèches, MAPE, hospitals, nursing homes)	
Deadline	2023-2027	
Budget	EUR 968.846	
Human resources	**Chief from**	ISSEP – Directorate for Chronic Risks – Environmental and Health Unit (ESC)
	Project team	ISSEP – Directorate for Analyses Laboratories (DLA) CRA-W – Department of Agriculture and Natural Milieu
	Stakeholders	Agricultural federations (e.g. FWA, FUGEA) Citizens' Representation (e.g. IEw)

Strategic objective 1	TO MITIGATE ENVIRONMENTAL IMPACTS	**Priority**	1
Operational objective 1.2	AMELIORATE WATER QUALITE		
Measure 3.1.2.1	Integrated Water Protection Council		
Action 3.1.2.1.1	Set up a multi-stakeholder advisory service involving advisory bodies already active in Wallonia and the tools already available to offer farmers targeted solutions to reduce transfers of PPPs to surface waters		

Objectives	Set up a multi-stakeholder advisory service to: - diagnoses risks of PPP transfer to surface water through run-off and erosion, and - propose targeted and concerted solutions, at the level of a catchment area or a farmer's parcel. Propose to the regional authorities a SWOT analysis to develop an integrated advisory service on changes in practices and beneficial changes to the parcel for surface water quality. The analysis will also include a detailed description of how this service could function and quantify the human resources needed to operationalise it. This service would target, as a matter of priority, farmers who operate parcels sensitive to run-off and erosion in the WFD priority areas. The aim will be to help these farmers comply with the rules in force and to encourage them to go further on the basis of diagnoses identifying cultivation techniques and adjustments likely to have a significant impact on the transfer of PPPs. * Priority area WFD = surface water bodies for which the impact of PPPs is a priority for achieving the objectives of the Water Framework Directive.

Stages	THE FOLLOWING: Geographical targeting and estimation of the potential effect of an advisory service on the practices affecting water quality THE FOLLOWING: Establishment of an inventory of resources and identification of bodies which would be involved in the advisory service THE FOLLOWING: Definition of the methodology for the transfer of knowledge and skills between agencies THE FOLLOWING: Reflection on how farmers will be contacted and development of arguments promoting their ownership and the implementation of solutions THE FOLLOWING: Compilation of all deliverables and conclusions of the study in a report to the SPW
Indicators	THE FOLLOWING: Level of feasibility of setting up the advisory service THE FOLLOWING: Number of priority areas studied and supported by the advisory service — Objective 10 target areas THE FOLLOWING: Level of implementation of the advice provided on the first 10 target areas

Target audiences Beneficiaries	THE FOLLOWING: Farmers active in priority areas THE FOLLOWING: Advisory bodies THE FOLLOWING: SPW Agriculture, Natural Resources and Environment THE FOLLOWING: Water Productor (s)	
Deadline	From May 2023 to December 2027	
Budget	EUR 225.000	
Human resources	**Chief from project**	PROTECTE'asbl water
	Project team	THE FOLLOWING: SPW-DEE – Directorate surface water and the Souterran Water Directorate THE FOLLOWING: SPW-Cellule GISER THE FOLLOWING: Natagriwal
	Stakeholders	Other management bodies involved in the management of farmers, such as the pilot centres, the FAS bodies, the eco-advisers, the agricultural federations and certain other departments of the SPW

Strategic objective 1	TO MITIGATE ENVIRONMENTAL IMPACTS	**Priority**	1.41
Operational objective 1.3	PRESERVES AND RESTORE BIO-DIVERSITY		
Measure 3.1.3.1	Search and create tools		
Action 3.1.3.1.1	Identify technical routes that favour both a decrease in PPPs and an increase in functional biodiversity		

Objectives	Decision support tool: - Develop a standard 'dashboard' tool to anticipate which technical routes allow both PPP reduction and biodiversity restoration functional to ensure farm resilience and autonomy - Provide a structure for data capitalisation and skills/knowledge sharing to perform diagnostics and summary analysis of routes innovative techniques and their impacts and dependencies on biological groups - Quantify the impact of practices involving reduction of phytos on restoration and preservation of functional biodiversity - Characterise technical routes in terms of associated environmental risks and their potential to restore functional biodiversity - Support, by providing a detailed understanding in the Walloon context, projects and structures whose role is to support farmers. the agro-ecological transition (examples: draft recovery plan type "farm network", Natagriwal, etc.) - Contribute to the feeding of the agro-ecology platform of the Recovery Plan so as to disseminate the knowledge acquired by reaching out to the actors concerned. - Synthesising and publicising the results of contemporary scientific literature, which are often inaccessible to farmers. concrete improvements for each farm

Stages	THE FOLLOWING: Development of a modular data storage structure ▪ Development of PPP indicators based on ISAC and Phytoscore indicators ▪ Development of a network of arable crops farms in Wallonia covering a diversity of practices in diverse landscapes representative of Wallonia ▪ Characterisation of the types of farms associated with the different practices ▪ State of play on the ground for 3 years in the gradient of practices identified in the network of farms ▪ Integration of monitoring data and scientific analysis for development tools to guide practices ▪ Synthesis and extension
Indicators	THE FOLLOWING: Number of participating farms by modality and soil/ecological context THE FOLLOWING: Identification of technical agricultural routes promoting biodiversity functional and thus allowing limited use of PPPs THE FOLLOWING: Number of recommendations made THE FOLLOWING: Number of Walloon pedo-ecological contexts covered THE FOLLOWING: Number of farms wishing to apply the best practices identified within the project

Target audiences Beneficiaries	THE FOLLOWING: Citizen.ne.s THE FOLLOWING: Farmers'.rice.s	
Deadline	2023-2026	
Budget	EUR 1.287.123	
Human resources	**Chief from project**	ULg and ULB
	Project team	THE FOLLOWING: ABT GBX THE FOLLOWING: ULB THE FOLLOWING: CORDER THE FOLLOWING: CRA-W
	Stakeholders	Agro-ecological projects of the Relance Plan – Natagriwal, CRA-W, Greenotec and Fourrages Better, Regenacterre asbl Tenderers who will be selected for public contracts under the Relance Plan (AgroEcology reference and functional biodiversity assessment method)

Strategic objective 1	TO MITIGATE ENVIRONMENTAL IMPACTS
Operational objective 1.4	SOIL PRESERVES

Measures related to soil quality are included in Operational Objective 6.1 – Basic and Prerequisites (Action 3.6.1.1.1)

Strategic objective 2	MITIGATE IMPACTS ON SANTE	**Priority**	1.74
Operational objective 2.1	PROTECTING SANTE FROM RIVERAIN.E.S		
Measure 3.2.1.1	Tool Development		
ACTION 3.2.1.1.1	Develop a tool for locating areas in which spraying of pesticides is prohibited and make it available to professional users of PPPs, enabling them to take better account of compliance with local communities and vulnerable groups.		

Objectives To strengthen the protection of river.s and vulnerable audiences by raising awareness and informing professional users of PPPs (agricultural and non-agricultural) of the proximity of treated areas to areas inhabited or visited by the public, and of the drift of the products used
A clear location of areas where spraying of pesticides is prohibited (and where the risk to the public is higher)

Stages	THE FOLLOWING: Complete the inventory of places where vulnerable groups are in need specific measures in relation to neighbouring parcels, on the basis of information gathered by different bodies THE FOLLOWING: Map these places THE FOLLOWING: Development of the tool to easily locate areas where the spraying of pesticides is prohibited, in order to have a clearer overview of the constraints related to the protection of vulnerable groups in relation to the use of PPPs THE FOLLOWING: Define and implement channels for the dissemination of information to the professional users of PPPs 1) on the measures in force to protect river.s and groups vulnerable in rural areas 2) possible solutions THE FOLLOWING: Communicate and train on the use of the tool for users.rice.s professional PPP (via Phytolicence training)
Indicators	THE FOLLOWING: Number of map layers of places where audiences need action THE FOLLOWING: Information dissemination channels THE FOLLOWING: Provision of a tool to identify the location of constraints of protection and dissemination of information THE FOLLOWING: Number of infringements of existing rules on distancing respect during spraying THE FOLLOWING: Number of complaints from river.s

Target audiences Beneficiaries	THE FOLLOWING: Agricultural PPP Users (Farmers, rice.s, maraur.ère.s, tree growers, fruit growers, horticulturalists, vineyards, nurseries and agricultural growers), THE FOLLOWING: Non-agricultural PPP users THE FOLLOWING: River.e.s and uses.è.s (vulnerable public) of areas where PPPs are used	
Deadline	January 2023 – December 2026	
Budget	EUR 64.230	
Human resources	**Chief from project**	ISSEP – Directorate for Chronic Risks – Environmental and Health Unit (ESC)
	Project team	ISSEP – Directorate for Chronic Risks – Environmental and Health Unit (ESC) CRA-W – Sustainability, Systems and Foresight Department – Soil, Water and Integrated Production Unit Corder – PHYTO Regional Committee Cell
	Stakeholders	SPW (CIAE), College of Producers, various 'relay' bodies for places that would be targeted by the proximity of vulnerable groups (Federation Wallonia-Brussels, ONE, Belgian Hospitals Association, SOFICO, Fédération des Maisons de Repos (Femarbel), Natagriwal, PROTECT'water], Centres pilots and other agencies management of Wallonia, UVCW

Strategic objective 2	MITIGATE IMPACTS ON SANTE	**Priority**	1.30
Operational objective 2.1	PROTECTING SANTE FROM RIVERAIN.E.S		
Measure 3.2.1.1	Tool Development		
ACTION 3.2.1.1.2	Develop a toolbox of means and techniques to mitigate exposure of river.s to PPPs and a decision support tool to select those that are most appropriate according to the situations encountered.		

Objectives

- Creation of a toolkit of the various remedial measures identified in previous studies (PROPULPPP) designed to limit the exposure of populations to PPPs or to encourage people to move away from them. Economic evaluation of the costs and impacts of implementing each of these measures
- In a selection of areas identified as subject to high PPP pressure, recommend the implementation of the most appropriate remedial measures for the rivers.s by means of local analysis according to a decision tree supported by a decision support tool (OAD)
- Test this OAD under various conditions in collaboration with SoCoPro, study all the resources needed to ensure its sustainability so that it can be used at a later stage by all operational structures (Eco-Advisers, RWDR, FWA, etc.) for future dissemination within Walloon municipalities.
- Contribute to the assessment of the economic impact of the generalisation of these measures at regional level by reimbursing to the authorities the costs identified for each individual measure during the cross-study with the corresponding area of the areas concerned.

Stages	▪ Preliminary analysis, development of the structure of the toolkit fiches, identify and identify all the permanent regional structures that can implement all the measures in a sustainable and operational manner ▪ Microeconomic analysis of the cost of each identified remedial measure, design of solution scenarios with cost of implementation analysis and continued operation, design of the decision-making process ▪ Functional analysis of the decision-making process and therefore of the OAD ▪ Refinement of the available pressure map at ISSeP and selection of areas ▪ Drawing up the specifications with SoCoPro for the implementation of the processes within the framework of the living framework ▪ Practical implementation of the test area procedure in collaboration with the SoCoPro in the context of the living together framework ▪ Macroeconomic extrapolation of the cost of the measures to the Region by identification the number of potential areas per measure ▪ Development of a scheme for the sustainability and transfer of the OAD to the structures regional regions identified in order to make the OAD permanent.
Indicators	▪ Number of pilot areas selected for which the full procedure has been carried out in ▪ Number of permanent regional structures and operators contacted with capacity implement all measures in an operational and sustainable manner ▪ User rate.rice.s putting in place the protection measures (depending on the type of measure) in pilot areas ▪ User Raties.rice.s having reduced/abandoned PPP use in pilot areas ▪ 'Before/after' monitoring of the presence of PPPs in the air in the test zones

Public targets Beneficiaries	T River.e.s of agricultural parcels T Agricultural PPP Users T SPW, Decentrur.euse.s, local authorities	
Deadline	January 2023 – December 2027	
Budget	EUR 588.507	
Human resources	**Chief from project**	CRA-W D3-U7-Water Centre
	Project team	CRA-W D3-U7-Water Centre ISSEP (Environmental and Health Unit, ESC) SoCoPro
	Stakeholders	Water PROTECT

Strategic objective 2	MITIGATE IMPACTS ON SANTE	**Priority**	2.36
Operational objective 2.2	IMPROVE THE COHABITATION BETWEEN AGRICULTURAL ACTIVITY AND OTHER LAND USES		
Measure 3.2.1.1	Reduce problematic exposures to off-crop drifts and increase the sharing of information related to exposure risks		
ACTION 3.2.2.1.1	Continue to improve dialogue, exchange of information between farmers and competitors and put in place measures to mitigate and prevent risks associated with the application of PPPs		

Objectives	THE FOLLOWING: Promote communication, objectivation and exchange of information on PPP spraying between agriculteur.rice/l'entrepreneur.e agriculture and their neighbours. THE FOLLOWING: Encourage the introduction of additional measures to reduce the exposure of river.e.s living in rural areas to possible PPP abuses and more especially vulnerable audiences and sensitive areas in rural areas The pilot project for Living Together has shown that constructive dialogue and objective information can reduce the number of conflicts and complaints about agricultural activities within the municipality. Dialogue makes it possible to answer many questions/fears raised by river.s, communal representatives, etc. and to de-escalate situations which, in the absence of constructive exchanges, could escalate and lead to conflict situations. It then reduces health impacts and improves cohabitation through voluntary actions by reducing general exposure to PPPs and better protecting vulnerable audiences and sensitive areas in rural areas.

Stages	THE FOLLOWING: Benchmark and analysis of the pilot phase with the pilot municipalities THE FOLLOWING: Creation of a "Toolbox" bringing together information sheets, content techniques, examples of existing municipal charters, explanatory signs, meeting guides and positive communication guides THE FOLLOWING: Organisation of general information sessions THE FOLLOWING: Organisation of preparatory meetings with pilot municipalities and meetings of consultation between farmers: 1year 2023 = 30 municipalities, 2rd year 2024 = 35 municipalities, 3rd year 2025 = 35 municipalities THE FOLLOWING: Monitoring of pilot municipalities THE FOLLOWING: Establishment of concrete solutions (hedges, AECMs, untreated crops or strips, ...) THE FOLLOWING: Allocation of a budget to implement these solutions on the ground: setting-up a financial support procedure based on criteria (number of beneficiaries, sensitive public, etc.), the budget and via the application and award procedure; THE FOLLOWING: On the basis of the budget allocated to the project, annual
Indicators	THE FOLLOWING: Number of information meetings, preparatory meetings with municipalities, agricultural consultancies' meetings. THE FOLLOWING: Number of voluntary measurements carried out + number of municipalities and implements.s the adopters adopted THE FOLLOWING: Number of communications put in place to publicise the project towards the different beneficiaries THE FOLLOWING: Reduced anxiety situations in river.s leading to an increase in

Public targets Beneficiaries	THE FOLLOWING: River.e.s in rural areas THE FOLLOWING: Vulnerable groups in rural areas welcoming vulnerable groups) THE FOLLOWING: Communes THE FOLLOWING: Farmers' rice.s	
Deadline	2023-2025	
Budget	EUR 890.000	
Human resources	**Chief from project**	SoCoPro
	Project team	Collective Repository Phyto: Bauernbund, FUGEA, Fédération Wallonne de l'Agriculture, Fédération Wallonne Horticole, PHYTO Regional Committee, CRA-W, Institute Eco-Council, PROTECT'water, SPW-DGARNE, UVCW, ISSeP, Natagriwal
	Stakeholders	IEW Agro-Service Agricall Pilot centres for crops and horticulture

Strategic objective 3	REDUCING DEPENDENCE ON SYNTHETIC PPPS	**Priority**	1.18
Operational objective 3.1	DEVELOP AND STRENGTHEN THE USE OF INTEGRATED PEST MANAGEMENT AND OTHER VEGETARY		
Measure 3.3.1.1	Development of tools to facilitate the implementation of integrated management		
ACTION 3.3.1.1.1	Create observation and warning networks made up of trained farmers to refine warning systems by multiplying observation points		

Objectives	Develop the active participation of farmers in Belgium in the management of crop health monitoring. Integrate their parcel/field observations on the same platform/application for rational input management and increase the exchange between the various plant health monitoring actors. The objective requires the implementation of 4 main actions: Action 1: Develop a methodology for producing and recording observations made by farmers. Action 2: Highlight/analyse the field observations of farmers in relation to different agronomic practices Action 3: Use these comments (alerts) to alert counsellors and other farmers. Action 4: Link the information gathered by farmers on the ground with an existing tool (BelCAM) in order to simplify the collection of data, minimise the number of platforms available for farmers and facilitate the transition from one platform to another and also to enable geographical and meteorological information to be collected in parallel with field observations.

THE FOLLOWI NG: **Stages**	THE FOLLOWING: Develop a methodology for encoding and validating observations (improve the 'Signaler' tab in APPI.be; provide for quick encoding of observations in a limited number of steps; set up a system for validating observations; geolocation of observations; link APPI with a mapping platform related to agriculture (BelCAM) THE FOLLOWING: Develop encoding of the use of PPPs (link with actions 3.6.1.2.4 and 3.6.2.1.1) THE FOLLOWING: Inform and train farmers. ▪ Analysing and spreading agronomic practices that promote agriculture sustainability and reduction of PPPs ▪ To enable farmers who wish to find out about the impact and the feasibility of innovations to meet farmers who are already experienced in these techniques ▪ Through the centrespilotes.be platform and the different systems existing warnings, informing farmers, federating them and inviting them to make wider and more active use of the tools available to them
Indicators	THE FOLLOWING: Number of users.rice.s; number of alerts; geographical coverage of warnings THE FOLLOWING: Number of position papers available; number of APPI fiches THE FOLLOWING: Increase in the number and accuracy of warnings THE FOLLOWING: Number of crops monitored and changes in plant health status of crops THE FOLLOWING: Visualise and objectivate a decrease in PPP inputs for targeted crops THE FOLLOWING: Valorisation of existing tools and exchange of information between farmers

Target audiences Beneficiaries	THE FOLLOWING: Green sector: agriculture, horticulture THE FOLLOWING: Pilot centres, advisory bodies and management

Deadline	January 2023 – December 2027	
Budget	EUR 160.000	
Human resources	**Chief from project**	CORDER
	Project team	Pilot centres Lie – > geo-location aspect CRA-W, UCL – > BELCAM
	Stakeholders	Walloon pilot centres Platforms and networks organised by or with other structures (Natagriwal, PROTECT'water, College of Producers) SPW-ARNE

Strategic objective 3	REDUCING DEPENDENCE ON SYNTHETIC PPPS	**Priority**	1.48
Operational objective 3.1	DEVELOP AND STRENGTHEN THE USE OF INTEGRATED PEST MANAGEMENT AND OTHER VEGETARY		
Measure 3.3.1.1	Development of tools to facilitate the implementation of integrated management		
ACTION 3.3.1.1.2	Improve agricultural/horticultural knowledge and improve the APPI application		

Objectives	THE FOLLOWING: Improve knowledge in terms of plant disease and then target the best solutions to be implemented – upgrade the APPI tool as part of integrated management As part of pest control, many preventive and culturing techniques can reduce the development of pathogens by avoiding the development and maintenance of outbreaks of infection/infestation. In the context of IPM, it would be appropriate to further improve farmers' knowledge of plant pathology and to communicate on favourable and unfavourable practices in order to move towards a reduction of chemical inputs. The fiches proposed in APPI.be provide an online diagnosis and description of plant pests, the symptoms caused by them, the development cycle and integrated control and management measures.

THE FOLLOWING: **Stages**	• Enrich the APPI Library by: consult and invite pilot centres to share cases requiring the existence of a specific fiche, incorporating the needs identified at the IPM Technical Committee meeting, updating existing ones, creating new fiches, etc. THE FOLLOWING: Communicating and disseminating information widely THE FOLLOWING: To train the.rice.s
Indicators	THE FOLLOWING: Number of crops/plant species, sheets made, users of APPI, WG and/or studies on plant pathology aspects THE FOLLOWING: Number of cases addressed to the MPI Technical Committee included in the Communication THE FOLLOWING: Number of courses offered in plant disease THE FOLLOWING: Improving knowledge of plant diseases (evaluation survey proposed during PL training) THE FOLLOWING: Greater independence of professional staff from visits to advisors to plant protection firms – > less "automatic" PPP purchases – > reduction of phyto inputs THE FOLLOWING: More knowledge of plant pathology among users. professional PPPs – > increase in the implementation of alternative techniques (Adalia 2.0) and decrease in the use of PPPs THE FOLLOWING: Development of the network of independent plant pathology counsellors

Target audiences Beneficiaries	THE FOLLOWING: Green sectors: agriculture, horticulture and green spaces THE FOLLOWING: Pilot centres, advisory bodies and management	
Deadline	January 2023 – December 2027	
Budget	EUR 68.750	
Human resources	**Chief from project**	CORDER
	Project team	Walloon pilot centres, Natagriwal Protect'Eau
	Stakeholders	Management bodies IPM Technical Committee, training bodies

Strategic objective 3	REDUCING DEPENDENCE ON SYNTHETIC PPPS	**Priority**	1.65
Operational objective 3.1	DEVELOP AND STRENGTHEN THE USE OF INTEGRATED PEST MANAGEMENT AND OTHER VEGETARY		
Measure 3.3.1.1	Development of tools to facilitate the implementation of integrated management		
ACTION 3.3.1.1.3	Strengthen the deployment and implementation of agri-environment-climate methods (AECMs) as integrated management tools		

Objectives	THE FOLLOWING: Strengthening the role of AECMs and ecological agricultural infrastructure as tools for integrated pest management THE FOLLOWING: Improve the specifications of the AECMs and the advice given to farmers by incorporating integrated management methods THE FOLLOWING: Strengthen the integration of AECMs into the technical routes of operations THE FOLLOWING: Strengthening the role of the eco-grid of the CAP as a tool for agricultural production THE FOLLOWING: Train field advisers and farmers in this approach to AECMs through training on functional biodiversity, functional entomology, biological control by conservation, recognition of land, etc. THE FOLLOWING: Raise awareness among the agricultural sector of the role of integrated management as a model for reducing the use of PPPs THE FOLLOWING: Develop a fieldwork network of biocontrol infrastructure models in the field and use it as training and research support (at the service of research organisations) THE FOLLOWING: Contributing to the implementation of MPI compliance obligations in Wallonia

Stages	• Train agri-environment advisors on functional biodiversity with qualified experts and trainers • Develop a methodology of expertise on the ground in order to propose the measures; more effective • Validate field methodology • Training farmers by field counsellors on biodiversity functional, biological control, recognition of crop auxiliaries, etc. • Advising and providing expertise on maximising functional biodiversity on the ground • Working with the research and development sector • Monitoring the functional biodiversity of installed developments
Indicators	THE FOLLOWING: Number of farmers trained by type of farming and by region agricultural THE FOLLOWING: Number of farmers hired, interested in the approach THE FOLLOWING: Number of functional biodiversity monitoring carried out THE FOLLOWING: Integration of IPM into farming practices THE FOLLOWING: Increase in the surface area of AECMs used as integrated control tools

Target audiences Beneficiaries	THE FOLLOWING: Agricultural holdings (farms) THE FOLLOWING: Agricultural Councillors on the ground	
Deadline	2023-2027	
Budget	EUR 465.000	
Human resources	**Chief from project**	Natagriwal
	Project team	THE FOLLOWING: The entire team of counsellors agri-environment as well as the Natagriwal Communication and Scientific Support Cell THE FOLLOWING: Agricultural Exploitant.s involved in the implementation actions
	Stakeholders	Agricultural Councillors for active structures in Wallonia (pilot centres, CRA-W, the agencies from research thus that the farmers involved in training)

Strategic objective 3	REDUCING DEPENDENCE ON SYNTHETIC PPPS	**Priority**	1.33
Operational objective 3.2	DEVELOP AND STRENGTHEN ALTERNATIVE METHODS OR TECHNIQUES TO SYNTHETIC PPPS		
Measure 3.3.2.1	Developing levers towards reducing PPPs – agricultural public		
ACTION 3.3.2.1.1	Develop a network of exemplary operators in the field of reducing the use of PPPs		

Objectives	▪ Co-build, test and communicate, with and from a network of around 10 farms with a desire to reduce the use of PPPs, transition pathways towards this 50 % reduction target in PPP use. This cluster of around ten farms must include PPP species (potatoes, beet, etc.) and be located, as far as possible, in sensitive areas (catches, Natura2000, etc.). ▪ Co-construct/develop, with the actors involved in the sectors, a support scheme, ideally by the market, for the production thus obtained In terms of result indicators, farmers will be involved in testing innovative, thought-out techniques. with the acteur.s of research andfrom development but also of sectors and territories, on a rotational scale in order to achieve the target set for at least one hectare of their operation overallfrom the duration of the rotation. The pressure of PPPs, assessed using the ISAC indicator, should be halved compared to with the classic practices EN work. Existing trade off with other dimensions of farm sustainability will also be taken into account.

Stages	THE FOLLOWING: Formation of a group of around ten farmers. report on the use of pesticides in a territory with problems of pollution by pesticides, a territory which is quite limited in order to support trade between farmers. ▪ Mobilisation of Decide, SYSTERRE and ISAC indicator to achieve a initial assessment of pesticide use but also of the economic, environmental and social performance of the farm. In order to clarify the areas for improvement, trade off and to quantify the progress that will be made. ▪ Mobilisation of downstream actors/territories, dynamic group initiation, initiation of tests in operation, monitoring of tests and objectivation of performance, field tower and visit. ▪ Individual refunds – After the three monitoring seasons, a review will be carried out on achievement of the objectives set – objectivation by mobilising Decide and ISAC indicators. ▪ Production of communication and dissemination support, co-construction of an ADO, note proposing to change the institutional framework ▪ Publishing a guide to participatory coaching
Indicators	THE FOLLOWING: Number of farmers engaged in the dynamics THE FOLLOWING: Number of Decide and ISAC balances carried out THE FOLLOWING: Number of fact sheets describing strategies and practices THE FOLLOWING: Reducing pesticide use and pressure on water resources THE FOLLOWING: Number of farmers in transition, hectares in transition

Target audiences Beneficiaries	THE FOLLOWING: Farmers'.rice.s (crops, polycultures, rearing), Actors in the sectors and territories	
Deadline	2023-2027	
Budget	EUR 1.636.162,50	
Human resources	**Chief from project**	CRA-W
	Project team	CRA-W Farmin 4 Climate
	Stakeholders	THE FOLLOWING: Farmers'.rice.s engaged in the transition THE FOLLOWING: Protect water THE FOLLOWING: LAG if some farmers are on their territory

Strategic objective 3	REDUCING DEPENDENCE ON SYNTHETIC PPPS	**Priority**	1.23
Operational objective 3.2	DEVELOP AND STRENGTHEN ALTERNATIVE METHODS OR TECHNIQUES TO SYNTHETIC PPPS		
Measure 3.3.2.1	Developing levers towards reducing PPPs – agricultural public		
ACTION 3.3.2.1.2	Encourage investment in the purchase of equipment to reduce the use of PPPs and encourage joint purchasing of PPPs		

Objectives	Encourage investment (possibly pooled) in equipment to reduce the use of PPPs

Stages	THE FOLLOWING: Investment aid for the purchase of equipment to reduce use PPPs will be implemented through the "Investment and Installation Support" organised under the CAP and managed by the OPW. Each year, it will be possible to review the list of subsidised equipment (to add any interesting equipment) in the annex to the Ministerial Decree. THE FOLLOWING: Internal benchmarking of existing aid under the ADISA system and study of possibilities for integrating aid from this project into the new "IIA formula" (Investment and Installation Assistance) THE FOLLOWING: Assessment of the types of equipment to be subsidised: if appropriate, propose to add certain types of equipment in the Annex to the Ministerial Order
Indicators	THE FOLLOWING: Specific support scheme for equipment reducing the use of PPPs operational THE FOLLOWING: Number of aid granted according to the scheme developed

Target audiences Beneficiaries	THE FOLLOWING: Agriculture, horticulture	
Deadline	2023-2027	
Budget	— Via the CAP	
Human resources	**Chief from project**	SPW-Department of Aids, OPW
	Project team	SPW – CIAE SPW-OPW Coupole partners for the equipment proposal to be included in the Annex to the MA
	Stakeholders	Farmers and horticultural products.s Politicien.ne.s

Strategic objective 3	REDUCING DEPENDENCE ON SYNTHETIC PPPS	**Priority**	1.5
Operational objective 3.2	DEVELOP AND STRENGTHEN ALTERNATIVE METHODS OR TECHNIQUES TO SYNTHETIC PPPS		
Measure 3.3.2.2	Facilitate the implementation of the "Zero phyto" – non-agricultural public already in "Zero phyto"		
ACTION 3.3.2.2.1	Propose concrete solutions to develop a system of shared management of alternative weed control machines at municipal level		

Objectives	THE FOLLOWING: Facilitate efficient management of 'zero phyto' green spaces by limiting costs for municipalities and promoting greener management modes THE FOLLOWING: To provide all municipalities, regardless of their size and budget, with effective alternative weed control equipment for optimal management of their weed public spaces

Stages	▪ Identification of needs with municipalities by producing a questionnaire ▪ Benchmarking (identification of examples of mutualisation) by Wallonia and elsewhere ▪ SWOT analysis of existing pooling examples ▪ Identification of structures that could ensure coordination of mutualisation inter-municipal ▪ Presentation of the project to interested bodies ▪ Conduct of an interest survey by the identified structures vis-à-vis the projected system ▪ Drawing up an interest survey by the municipalities in relation to the proposed system ▪ Estimated pooling budget (purchase of machinery, rental of space storage, recruitment of staff, training, etc.) ▪ The implementation of mutualisation is not foreseen in this project as it will depend on the results of the feasibility study and, if necessary, the subject of a second project.
Indicators	THE FOLLOWING: Number of municipalities that responded to the survey THE FOLLOWING: Number of structures identified THE FOLLOWING: Carrying out the feasibility study on the establishment of a mutualisation system of machinery THE FOLLOWING: Production of a final report containing the feasibility conclusions and the recommendations

Target audiences Beneficiaries	THE FOLLOWING: Non-market sector managed by the municipality (crèches and municipal schools, CPAS, social housing, etc.)	
Deadline	2023-2024	
Budget	EUR 135.000	
Human resources	**Chief from project**	Adalia 2.0 asbl
	Project team	Adalia 2.0 asbl
	Stakeholders	Fournisseur.euse.s and manufacturer of alternative weed control machines, nature parks, river contracts, LAGs, intercommunales, SPW, provinces, administrations municipal authorities, UVCW...

Strategic objective 4	(TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	**Priority**	1.5
Operational objective 4.1	IMPROVE APPROPRIATE TRAINING, IN PARTICULAR IN THE FRAMEWORK OF PHYTOLICENCE		
Measure 3.4.1.1	Existence of an initial training system		
ACTION 3.4.1.1.1	Develop an initial training system based on the combination of face-to-face training and e-learning for the different types of phytolicence		

Objectives	▪ Develop an initial training system for the different types of phytolicence by combining face-to-face and e-learning training Strengthening knowledge and skills in the field of PPPs is a requirement of the Pesticide Framework Directive in order to reduce the health and environmental risks that PPPs may pose. The organisation of bimodal initial training can reduce costs while offering training opportunities even for a limited number of learners.

Stages	THE FOLLOWING: Accessible initial training – ensure the development of training courses initials accessible for each type of phytolicence: o Animate the pedagogical committee around the project o Arrangements: which parts in e-learning, which parties in presential o How to ensure knowledge acquisition – Link with assessment o Invitation to tender for the development of e-learning o Monitoring the development of the e-learning part o Launch and follow up of first bimodal training courses o Extension of the tender ▪ Bimodal mode – development of an e-learning system for training initial phytolicence ▪ Training support – Provide a phytogreen guide for obtaining the phytolicence NP
Indicators	THE FOLLOWING: List of available initial training courses THE FOLLOWING: E-learning module available THE FOLLOWING: Phytogreen guide created THE FOLLOWING: Number of approved centres in Wallonia offering initial training THE FOLLOWING: Number of assistantsto trainings ▪ Number of certificates of successful assessment after proposed initial training in Wallonia ▪ Matching supply and demand for initial training to obtain the phytolicence

Target audiences Beneficiaries	THE FOLLOWING: Farmers, horticulture.rice.s and other professional users of PPPs THE FOLLOWING: Future vendeur.euse.s and PPP advisors.ère.s THE FOLLOWING: Pilot centres, advisory and	
Deadline	January 2023 – December 2027	
Budget	EUR 30.000	
Human resources	**Chief from project**	CORDER
	Project team	SPW-CIAE Phytolicence pedagogical committee PWRP 3 cup
	Stakeholders	SPW Economy Research Employment Training organisations

Strategic objective 4	(TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	**Priority**	1.44
Operational objective 4.1	IMPROVE APPROPRIATE TRAINING, IN PARTICULAR IN THE FRAMEWORK OF PHYTOLICENCE		
Measure 3.4.1.2	Visibility of training related to the reduction and/or proper use of PPPs		
ACTION 3.4.1.2.1	Increase the visibility of all training related to the reduction of pesticide use in Wallonia Set up a platform with a common agenda for all training courses, including phytolicence		

Objectives	Highlight training courses which are not labelled PL but which provide very interesting elements in the context of the objectives and challenges of the PWRP 3. Show the diversity of existing training courses in agriculture and promote participation in all of them.

Stages	THE FOLLOWING: Take stock of centres offering training in agriculture in Wallonia THE FOLLOWING: Ensure the development of continuous training (analysis of demand and adaptation of the tender) THE FOLLOWING: Try to focus on training courses aimed at highlighting the alternative methods (zero phyto target) THE FOLLOWING: Ensure that there are enough trainers for all topics THE FOLLOWING: On the basis of the cadastre, select the subjects relevant to the issues at stake in the PWRP 3 to invite pilots of identified projects to share innovations and research results through training THE FOLLOWING: Ensure that training is accessible (location, access, costs, etc.) THE FOLLOWING: Bringing together the whole training offer THE FOLLOWING: Training of trainers – in the event of a shortage of trainers, provide for the training of a group of trainers
Indicators	THE FOLLOWING: List of training centres in agriculture in Wallonia THE FOLLOWING: Evaluation grid adapted to identify training courses that meet the objectives of the PWRP 3 THE FOLLOWING: Common agenda for all training courses THE FOLLOWING: Group of trained trainers available THE FOLLOWING: Upgrading of all the training courses developed in Wallonia: final objective/result a reduction in phytos inputs THE FOLLOWING: Increase in participation in all training courses offered

Target audiences Beneficiaries	THE FOLLOWING: Agriculture, Horticulture THE FOLLOWING: Pilot centres, advisory and mentoring bodies THE FOLLOWING: Managers of public spaces	
Deadline	January 2023 – December 2027	
Budget	EUR 10.000	
Human resources	**Chief from project**	CORDER
	Project team	SPW-CIAE PWRP 3 cup
	Stakeholders	SPW Economy Employment Research Training and Trainers Committee Phytolicence

Strategic objective 4	(TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	**Priority**	1.53
Operational objective 4.2	DEVELOP FURTHER RESEARCH AND DEVELOPMENT IN RELATION TO THE CHALLENGES OF THE PESTICIDE FRAMEWORK DIRECTIVE-FRAMEWORK		
Measure 3.4.2.1	Introduction of a guidance document		
ACTION 3.4.2.1.1	Draw up a guidance document identifying needs in order to select research to be funded as a matter of priority in Wallonia		

Objectives	Identify, pool and prioritise research needs according to defined criteria, with a view to achieving the agreed reduction targets (50 % reduction in pesticide use by 2030) while offering alternatives to professionals.

Stages	THE FOLLOWING: Centralise identified research needs THE FOLLOWING: Propose a blueprint to characterise the projects brought together THE FOLLOWING: Draw up the guidance document – characterise each proposed project according to the canvas developed THE FOLLOWING: Use the guidance document, disseminate the information gathered, processed and gathered in the guidance document: o to the Administration and Cabinets to assist in decision-making in the framework for the award of subsidies. o to project promoters, to direct proposals and connect them existing projects to pursue the objectives of the PWRP 3. THE FOLLOWING: Development of an encoding interface: consideration could be given to developing an interface enabling each organisation wishing to propose its own project to be able to do so directly via that interface. The organisation/project owner could then fill in the outline
Indicators	THE FOLLOWING: List of structures and contact persons THE FOLLOWING: List of needs received/Number of projects received annually THE FOLLOWING: Template/encoding interface (according to criteria) THE FOLLOWING: Number of needs received that have been addressed/analysed in the document THE FOLLOWING: Guidance document (updated annually) THE FOLLOWING: Percentage of needs leading to the implementation of a project

Target audiences Beneficiaries	THE FOLLOWING: SPW ARNE (CIAE, RD, Quality and Animal Welfare) THE FOLLOWING: Agriculture, horticulture and green spaces, tourism and	
Deadline	January 2023 – December 2027	
Budget	EUR 50.000	
Human resources	**Chief from project**	CORDER
	Project team	Pilot centres Other structures techniques/of research framing the Walloon sectors
	Stakeholders	CRA-W Universities

Strategic objective 4	(TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	**Priority**	2.2
Operational objective 4.2	DEVELOP FURTHER RESEARCH AND DEVELOPMENT IN RELATION TO THE CHALLENGES OF THE PESTICIDE FRAMEWORK DIRECTIVE-FRAMEWORK		
Measure 3.4.2.2	OBJECTING TO THE ISSUES NECESSARY FOR STRATEGIC DECISION-MAKING		
ACTION 3.4.2.2.1	Define multi-sectoral agricultural transition scenarios at regional level		

Objectives	THE FOLLOWING: Carry out a preliminary review of prospective studies by sector available at regional level and supplement any shortcomings relating to the sectors. considered significant THE FOLLOWING: Integrate studies by individual sector in a multi-pathway perspective: mapping existing rotations at regional level and assessing the evolution of these rotations rotations in recent years, and analyse the impact of rotations on input levels used. THE FOLLOWING: Define, in a participatory approach with the actors concerned, multi-sectoral agricultural transition scenarios at regional level THE FOLLOWING: Estimate quantitatively and temporally the likely effects on the quantities of chemical inputs for each scenario

Stages	THE FOLLOWING: Carry out a preliminary inventory of prospective studies for each of the fields available at the regional scale and possibly complement the shortcomings in the sectors considered to be significant ▪ Mapping existing rotations at regional level, assessing the evolution of these rotations in recent years and analyse the impact of rotations on input levels used ▪ Define multi-sectoral agricultural transition scenarios at regional level ▪ Estimate quantitatively and temporally the likely effects on quantities chemical inputs for each scenario ▪ Identify the specific bottlenecks and levers for the implementation of each of the scenarios
Indicators	THE FOLLOWING: Communication of the various deliverables to the Monitoring Committee THE FOLLOWING: Communication of the final report

Target audiences Beneficiaries	THE FOLLOWING: Agriculture THE FOLLOWING: Agricultural trade unions THE FOLLOWING: SPW ARNE THE FOLLOWING: CRA-W, ISSeP, SPGE, SWDE, IWEPS	
Deadline	18 months	
Budget	EUR 150.000	
Human resources	**Chief from project**	To be defined (contract)
	Project team	Search Assistants Profiles
	Stakeholders	Approach participatory: the whole of acteur.rice.s concerned relevant for in particular, the development of assumptions and scenarios will be included in the approach. The Monitoring Committee may also be extended at the request of the members of the Committee.

Strategic objective 4	(TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	**Priority**	2.2
Operational objective 4.2	DEVELOP FURTHER RESEARCH AND DEVELOPMENT IN RELATION TO THE CHALLENGES OF THE PESTICIDE FRAMEWORK DIRECTIVE-FRAMEWORK		
Measure 3.4.2.2	OBJECTING TO THE ISSUES NECESSARY FOR STRATEGIC DECISION-MAKING		
ACTION 3.4.2.2.2	Estimating the costs and benefits of different agricultural transition scenarios at regional level		

Objectives	This study should make it possible to have an objective, comprehensive and systemic view of the financial implications of the various transition options available to Wallonia and to make it easier to choose the.euse.s and stakeholders in this area (which accompanying measures to propose, what mechanisms to strengthen or reduce, etc.). On the basis of the scenarios developed in the context of the multisectoral foresight study (see fiche 3.4.2.2.1): - Carrying out (participatory process) a macroeconomic study estimating the costs and (financial) benefits of each of the transition scenarios, for the professionals in agriculture and for the rest of society - Qualitative estimation of the more indirect costs and benefits of each of the transition scenarios, for agricultural professionals and for the rest of the company Drawing up proposals for measures and/or mechanisms to be strengthened, reduced or developed to remove the obstacles identified.

Stages	This study will examine the socio-economic implications of the implementation of the various transition scenarios developed in the context of the multisectoral foresight study (see fiche 3.4.2.2.1). With these two complementary components, the.eu Decisionswill therefore be able to know the different technical options available to them (and the related brakes and levers), but also what these different options entail in terms of socio-economic aspects and solutions to implementation obstacles. Estimates of figures and non-figures will make it possible to meet a recurring demand (in particular from the agricultural sector) to have a clear and as precise as possible view of what the transition will cost and to whom, and to be able, on the basis of this objective information, to draw up concrete measures to overcome these difficulties collectively (sectors, public authorities and other actors identified as relevant).
Indicators	THE FOLLOWING: Communication of the final report to the Monitoring Committee and publication THE FOLLOWING: Number of concrete measures developed enabling the agricultural transition at scale regional

Target audiences Beneficiaries	THE FOLLOWING: Agriculture THE FOLLOWING: Agricultural trade unions THE FOLLOWING: SPW ARNE THE FOLLOWING: CRA-W, ISSeP, SPGE, SWDE	
Deadline	14 months	
Budget	EUR 125.000	
Human resources	**Chief from project**	To be defined (contract)
	Project team	To be defined in the specification when it is drawn up; economist profiles specialising in (agricultural) statistics and foresight
	Stakeholders	The administration (SPW ARNE) and the relevant UAPs (CRA-W, ISSeP, etc.) in the monitoring committee

Strategic objective 5	(TRANSVERSAL) DISSEMINATE KNOWLEDGE AND SKILLS	**Priority**	2.28
Operational objective 5.1	DEVELOPING TRANSPARENT, SIMPLIFIED, POSITIVE AND INCLUSIVE COMMUNICATION		
Measure 3.5.1.1	COMMUNICATION STRATEGY		
ACTION 3.5.1.1.1	Develop a communication strategy on PWRP 3 in the broad sense (for the various target audiences)		

Objectives	Develop a transparent, simplified, positive and inclusive communication strategy on the wider PWRP 3 to the various target audiences in order to promote the dissemination of good practices and limit health and environmental risks

Stages	▪ Establishment of a communication working group PWRP 3 in a broad sense by the enlarged Communication Oriented Accompanying Committee ▪ Develop a communication strategy with the various partners for the different target audiences ▪ Validation of the communication strategy (by the Enlarged Accompanying Committee communication and political positioning) and content (Directorate SPW- CREA-Cabinet) ▪ Update existing communication materials and create those needed for communication plan validated, with validated content (website, social media, leaflets, etc.) ▪ Identify a site manager who shall, inter alia: o Improving referencing o Link to the web pages and social media of the PWRP 3 partners (in particular during any PWRP 3 communication to partners and vice versa) o Check the adequacy of the editorial line of the PWRP 3 site and the media social security with SPW instructions ▪ Launch the 1st communication campaign via the partners of the coupole ▪ Maintaining continuous news on the PWRP 3 website and social media and updated communication materials + adaptation as needed (evaluation, surveys to partners and target audiences) where appropriate ▪ Provide communication support for various PWRP 3 projects for the dissemination of tools or results
Indicators	THE FOLLOWING: Validation of the communication plan and content by COMAC, SPW and the policy THE FOLLOWING: Finalised communication materials THE FOLLOWING: Increase in the number of visits to the various sites THE FOLLOWING: Number of publications and leaflets distributed THE FOLLOWING: Impact and link between knowledge of the topic and actual reduction of the topic percentage of pesticide use

Target audiences Beneficiaries	THE FOLLOWING: General public THE FOLLOWING: Professional user.le.s of PPPs or alternatives THE FOLLOWING: DEE-CIAE, DEMNA-DEE, DEMNA-DAEA, DFA-CREA, DEMNA- CPES,... THE FOLLOWING: CRA-W, ISSeP, SPGE, SWDE,... THE FOLLOWING: Federal Administration (NAPAN)	
Deadline	2023-2027	
Budget	EUR 585.000	
Human resources	**Chief from project**	SPW-ARNE
	Project team	SPW-ARNE (DEE-CIAE, DEMNA-DEE, DEMNA-DAEA, DFA-CREA, DEMNA-CPES, etc.) Coupole (Corder, Adalia, Protect 'Water'and PreventAgri) according to target audience + other partners (CRA, ISSeP, etc.)
	Stakeholders	All PPP users (futur.e.s detenteur.rice.s phytolicence, non-professional PPP users, farmers, etc.), citizen.ne.s, companies, associations, Wallonia, CRA-W, information relays to the general public (press, social networks, etc.), etc.

Strategic objective 5	(TRANSVERSAL) DISSEMINATE KNOWLEDGE AND SKILLS		
Operational objective 5.1	5.2 DEVELOPING AND STRENGTHENING A NEUTRAL AND INDEPENDENT COUNCIL AND THE DISSEMINATION OF RESEARCH RESULTS		

Objectives	The subject of the Independent Council is already dealt with in the broader context of the implementation of the new AKIS-SCIA system linked to the Common Agricultural Policy. From the as part of the AKIS, the topic “pesticides” is prioritised as a pilot for the implementation of the new system. As regards the dissemination of research results, this is one of the core tasks of the SPW-ARNE DRD. It also provides a framework for projects financed under the three-year research plan. In these projects, particular attention is paid to the dissemination and dissemination of project results.

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	**Priority**	2.3
Operational objective 6.1	REPAIRING THE BASIC DATA AND PUTTING THE PREREQUISITES FOR THE DEVELOPMENT OF SPECIFIC MEASURES		
Measure 3.6.1.1	Inventories		
ACTION 3.6.1.1.1	Introduce monitoring of risks related to pesticides in the environment (water, air, soil, agricultural production)		

Objectives	THE FOLLOWING: Measuring, detecting pesticides in the environment (water, air, soil, agricultural production) and collecting data THE FOLLOWING: Improve knowledge of pesticide contamination of environmental matrices THE FOLLOWING: Improve the assessment of the health and environmental risks associated with the presence of pesticides in the environment THE FOLLOWING: Assess the effectiveness of the reduction measures put in place on the presence of pesticides in the environment THE FOLLOWING: Implementation of monitoring of pesticides in the soil compartment, not currently evaluated

Stages	THE FOLLOWING: Benchmarking of monitoring of risks from pesticides in the environment: o the review of existing monitoring networks will also be carried out for: assess the improvements and/or development to be carried out, o analysis of analytical capabilities will help to assess possible methods to: develop to analyse a wide range of pesticides THE FOLLOWING: Preliminary and prospective screening of pesticides THE FOLLOWING: Development of analytical methodologies THE FOLLOWING: Operational organisation of the pesticide monitoring programme THE FOLLOWING: Implementation of pesticide sampling and analysis THE FOLLOWING: Production of the report presenting the results
Indicators	THE FOLLOWING: Number of areas analysed for preliminary screening THE FOLLOWING: Number of analyses carried out THE FOLLOWING: Establishment of an observatory on soil contamination by pesticides THE FOLLOWING: Establishment of an observatory on air contamination by pesticides

Target audiences Beneficiaries	THE FOLLOWING: Agriculture, horticulture, green spaces, tourism and leisure,... THE FOLLOWING: Agricultural ASBL, managers of spaces visited by vulnerable groups (schools, nurseries, hospitals, retirement homes, etc.) THE FOLLOWING: Managers of public spaces (municipalities, provinces, IC, INFRABEL,...)	
Deadline	2023-2027	
Budget	EUR 1.029.202	
Human resources	**Chief from project**	ISSEP – Directorate for Chronic Risks – Environmental and Health Unit (ESC)
	Project team	ISSEP – Directorate for Analyses Laboratories (DLA) CRA-W – Department of Agriculture and Natural Milieu
	Stakeholders	Agricultural federations (ex.FWA, FUGEA) Citizens' Representation (ex.IEW)

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	**Priority**	1.6
Operational objective 6.1	REPAIRING THE BASIC DATA AND PUTTING THE PREREQUISITES FOR THE DEVELOPMENT OF SPECIFIC MEASURES		
Measure 3.6.1.1	Inventories		
ACTION 3.6.1.1.2	Identify sensitive areas where pressure in plant protection products is high through the development of an indicator of PPP loads and propose measures to avoid or mitigate PPP pressures on these areas		

Objectives	Further develop the Walloon PPP pressure indicator and cross it with the areas to be protected due to their sensitivity to PPPs Analyse the importance of areas of high pressure and their distribution in Walloon territory Propose measures to reduce pressures on exposed areas Replicate the high pressure area indicator for previous years and analyse the evolution of the situation over time in order to understand the impact of changes in practices in the agricultural parcel and land use changes due to urbanisation, on the location and importance of areas of high pressure

Stages	▪ Identify the biodiversity hazards of PPP spraying and how represent territorially ▪ Study the feasibility of producing a pesticide pressure map layer due to the volatility and/or overall dispersion of pesticides in the atmosphere (small and large distances) ▪ Construction of a spatial map layer of areas to be protected from the point of view of biodiversity (link to action 3.2.1.1.1 and 3.1.2.1.1) ▪ Locate sensitive biodiversity areas where the application of pesticides is prohibited by regulating and recovering protected areas from the point of view of vulnerable groups (file 3.2.1.1.1) ▪ Construction of a PPP pressure map layer based on drift pesticides (some tens of metres) based on the work developed in SIGEnSa and ELEnSa ▪ Construction of a pressure layer reflecting the overall dispersion of pesticides capture ▪ Creation of an indicator of high pressure on pesticides that characterise pressure on localised areas (public and biodiversity) ▪ Spatial analysis of the high pressure indicator on the different types of areas: importance of the areas concerned, distribution within municipalities, possible evolution according to current trends, etc. ▪ Based on the analysis of the high pressure indicator, the project aims to list proposals for reduction measures to reduce the number of areas under high pressure and/or the value of the index on those areas
Indicators	THE FOLLOWING: Number of mapping layers of biodiversity types made THE FOLLOWING: Detailed methodology for the implementation of the area indicator THE FOLLOWING: Development of a PPP load indicator for sensitive areas THE FOLLOWING: Decrease in the number of areas under high pressure in the future

Target audiences Beneficiaries	THE FOLLOWING: Communes THE FOLLOWING: SPW (CPES, DEMNA, desu, DESo, DNF, DATU) THE FOLLOWING: CRA-W, ISSeP, SPGE, SWDE THE FOLLOWING: Citizen.ne.s riverain.s in areas for application THE FOLLOWING: Farmers'.rice.s and other sectors using of pesticides THE FOLLOWING: Managers of spaces used by	
Deadline	2023-2027	
Budget	EUR 153.750	
Human resources	**Chief from project**	ISSEP – Directorate for Chronic Risks – Environmental and Health Unit (ESC)
	Project team	ISSEP (SIGEnSa, CQA, Ecotoxicology project) corder – CRA-W – DEMNA – Natagora
	Stakeholders	SPW, CIAE, College of Producers, Natagriwal, PROTECT'water, other environmental and biodiversity protection organisms

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	**Priority**	2.09
Operational objective 6.1	REPAIRING THE BASIC DATA AND PUTTING THE PREREQUISITES FOR THE DEVELOPMENT OF SPECIFIC MEASURES		
Measure 3.6.1.1	Inventories		
ACTION 3.6.1.1.3	Draw up a position paper on observed incidents and the use of protective equipment		

Objectives	THE FOLLOWING: Quantify the incidents (acute intoxications) caused by the use of PPPs in order to better identify the health risk of users. THE FOLLOWING: Develop recommendations for users and stakeholders (public authorities, support structures for PPP users, etc.)

Stages	THE FOLLOWING: Robustness analysis of the sample size that will respond to the survey. THE FOLLOWING: Search for partners to reach a significant number of registrants by sector of activity. THE FOLLOWING: Consultation with the partners involved in the action in order to optimise the process the survey and the transmission of data. The final objective is to set the instructions for the survey partners. These instructions will be included in a guide which will be sent to them in order to make it easier to take charge of the investigation. THE FOLLOWING: Establishment of an annual survey THE FOLLOWING: Communicating Results publicise the results of the survey among the professional user.le.s, partners and all stakeholders and relay prevention recommendations related to the interpretation of results. THE FOLLOWING: Development of a field advisory service for: ○persons who have declared a poisoning and wish to be together with a safety improvement approach, check the possible origin of the poisoning;
Indicators	THE FOLLOWING: Operation of the investigation THE FOLLOWING: Analysis with partners on the optimisation of the survey THE FOLLOWING: Conduct of an annual survey THE FOLLOWING: Number of field visits to accompany users. reduce the risks to their health caused by their phytos practices THE FOLLOWING: Production of an annual report with key figures by sector of activity

Target audiences Beneficiaries	T T H E	All sectors using PPPs Managers space public benefiting from a derogation for the use of PPP (municipalities, provinces, INFRABEL,...) SPW – Federal Authorities

Deadline	2023-2027	
Budget	EUR 32.000	
Human resources	**Chief from project**	PreventAgri
	Project team	PreventAgri Phytolicence continuing training centres or structures accompanying of professional user.le.s
	Stakeholders	CPES Poison centre Professional and trade union associations Structures accompanying of PPP users Health prevention bodies (external prevention services, welfare monitoring services at work) FPS-HSFCE

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	**Priority**	1.86
Operational objective 6.1	REPAIRING THE BASIC DATA AND PUTTING THE PREREQUISITES FOR THE DEVELOPMENT OF SPECIFIC MEASURES		
Measure 3.6.1.1	Inventories		
ACTION 3.6.1.1.4	Evaluate the implementation of integrated management		

Objectives	THE FOLLOWING: Take stock of the implementation of integrated control measures among professionals. THE FOLLOWING: Anticipating the obligation of the future integrated management register

Stages	THE FOLLOWING: Drawing up a work plan and a strategy for the implementation and dissemination of investigation THE FOLLOWING: Drawing up a list of professional users to be targeted and defining the routes contact to reach them (in 2020, 37 % of those who were not certifi.e.s VEGAPLAN). THE FOLLOWING: Preparation and launch of the survey THE FOLLOWING: Processing and analysis of the results obtained THE FOLLOWING: Publication of the report and communication on the results of the survey THE FOLLOWING: On the basis of the results obtained, development of a monitoring strategy for the years subsequent PWRP 3 + connection with CIIW for the development of MPI monitoring indicators in Wallonia
Indicators	THE FOLLOWING: Number of responses to the survey THE FOLLOWING: Number of farm/horticultural/business visits (Protect'water, PreventAgri, Natagriwal...) THE FOLLOWING: Number of advice given to farmers not practising integrated management THE FOLLOWING: Number of items distributed THE FOLLOWING: State of play of the implementation of IPM in Wallonia

Target audiences Beneficiaries	THE FOLLOWING: Farmers, horticulturalists and others professional user.le.s THE FOLLOWING: Agricultural/horticultural ASBL, management and agencies advice THE FOLLOWING: Managers space public	
Deadline	2023-2027	
Budget	(EUR 50.000 – budget foreseen in Action 3.6.2.1.1)	
Human resources	**Chief from project**	CORDER
	Project team	SPW-ARNE-DDRCB-Directorate for Quality and Animal Welfare Natagriwal, PROTECT'water, PreventAgri – > relays for farm visits
	Stakeholders	Members of the COMAC of the Committee Unit asbl corder PHYTO region Consultation platform of the Regional Committee Asbl corder phyto

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	**Priority**	1.58
Operational objective 6.1	REPAIRING THE BASIC DATA AND PUTTING THE PREREQUISITES FOR THE DEVELOPMENT OF SPECIFIC MEASURES		
Measure 3.6.1.1	Inventories		
ACTION 3.6.1.1.5	Assess the consultancy skills of staff involved in the sale of PPPs to individuals		

Objectives	THE FOLLOWING: Take stock of the knowledge of the.euse.s and of the information given to customers, through a survey THE FOLLOWING: Analyse the needs of the target audience in order to create a vademecum THE FOLLOWING: On this basis, inform and/or train the target audience according to identified needs THE FOLLOWING: Improve the quality of advice given to individuals at points of sale of amateur PPPs

Stages	THE FOLLOWING: Identify points of sale for amateur PPP in Wallonia and carry out a field survey as a 'shadow customer' in a sample of targeted shops (time finding '0'). This poll is used to detect poor information perceived by clientele.e.s. THE FOLLOWING: Drafting of the survey and determining how to communicate the form to the contact points. THE FOLLOWING: Collect and analyse the results of the survey in order to identify the needs of the public targeted and propose actions to address them. THE FOLLOWING: Creation of a Vademecum (if relevant). THE FOLLOWING: Depending on the results of the survey: ○ Updating and development of specific NP training courses on needs/topics identified: alternatives to PPPs, legislation, good use. ○ Offer specific training courses, guides, or other available tools. THE FOLLOWING: Survey to assess the effectiveness of the action.
Indicators	THE FOLLOWING: A time survey '0' carried out THE FOLLOWING: Rate of participation in the point-of-sale survey THE FOLLOWING: Guide drafted and updated or creation of specific NP training courses (if applicable) THE FOLLOWING: An "evaluation of the action" survey carried out THE FOLLOWING: Satisfaction of.euse.s/counselers.ère.s after the training THE FOLLOWING: Percentage of the number of points of sale that received information

Public targets Beneficiaries	T Conseiller.ère.s/vendeur.euse.s in the signs of sale of PPPs for individuals T The shops in question	
Deadline	2023-2027	
Budget	EUR 140.000	
Human resources	**Chief fro**	Adalia 2.0
	Project team	Corder and Adalia 2.0
	Stakeholders	PPP sales signs, COMEOS, ABJ

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	**Priority**	2.3
Operational objective 6.1	REPAIRING THE BASIC DATA AND PUTTING THE PREREQUISITES FOR THE DEVELOPMENT OF SPECIFIC MEASURES		
Measure 3.6.1.1	Inventories		
ACTION 3.6.1.1.6	Objectiving the exposure of professional users of pesticides to these products		

Objectives	THE FOLLOWING: Look for the presence of the most relevant pesticides in this specific population in Wallonia and compare the levels of impregnation with the reference values of the Walloon population THE FOLLOWING: Complete the Biomonitoring Wallon (BMH) data with these data THE FOLLOWING: Compare results with similar studies from other regions and countries

Stages	THE FOLLOWING: Identify the target audience and develop a sampling plan THE FOLLOWING: Identify the most relevant molecules to be searched, based on knowledge of the ground, foreign experiences and protocol of the BMH THE FOLLOWING: Conduct analyses THE FOLLOWING: Compare results to baselines and results of others regions and countries THE FOLLOWING: Drafting of a report containing the results and recommendations
Indicators	THE FOLLOWING: Number of study participants THE FOLLOWING: Number of molecules sought THE FOLLOWING: Report presenting the results of the analyses and comparisons THE FOLLOWING: Communication of results (to be defined:

Public targets Beneficiaries	T Professional users T Federations and trade unions in the sectors T Public authority	
Deadline	2023-2024	
Budget	EUR 25.000	
Human resources	**Chief fro**	Scientific Institute of Public Service (ISSeP)
	Project team	ISSEP and SPW
	Stakeholders	Users professionals, federations agricultural professionals and trade unions

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	**Priority**	1
Operational objective 6.1	REPAIRING THE BASIC DATA AND PUTTING THE PREREQUISITES FOR THE DEVELOPMENT OF SPECIFIC MEASURES		
Measure 3.6.1.2	Prerequisites for further development of specific measures		
ACTION 3.6.1.2.1	Harmonise Walloon and federal regulations in relation to the implementation of the PWRP 3 through the thematic WG on these issues		

Objectives

THE FOLLOWING: Communicate in a harmonised and clear way on existing legislation on the use of PPPs to the different target audiences in Wallonia
THE FOLLOWING: Promoting coherent regulations that take into account the realities on the ground

Stages	▪ Creation of a Walloon PPP Legislation Working Group and its method of operation ▪ State of play of the brakes to comply with the legal requirement ▪ Setting up of consultation meetings ▪ Procedure for validating proposals for harmonisation, consultation, amendments to legislation and, where appropriate, implementation of interpretative and explanatory circulars ▪ Archiving the history of exchanges and final decisions ▪ Communication of a harmonised and clear message at Walloon level for the agencies from mentoring and therefore, for the user.rice.s professional.le.s/non professional.le.s Walloon PPP
Indicators	THE FOLLOWING: WP "PPP legislation" active and ROI carried out ▪ Changes in the number of questions from users of PPPs and management bodies ▪ Number of interpretative and explanatory notes drafted ▪ Common FAQs available for consultation by the various advisory bodies and management ▪ Changes in calls, emails, requests various to clarify the points on the legislation in place ▪ Changes in the number of infringement reports during the DPC and/or FASFC inspections specific to PPP themes

Target audiences Beneficiaries	THE FOLLOWING: Agricultural user.rice.s and not PPPs agriculture THE FOLLOWING: Pilot centres, advisory and mentoring bodies THE FOLLOWING: Space managers public THE FOLLOWING: SPW ARNE (CIAE, RD, Quality and animal welfare, CPD) THE FOLLOWING: FPS-SCAE, FASFC	
Deadline	2023-2027	
Budget	/	
Human resources	**Chief fro**	CORDER
	Project team	SPW (pesticide focal points) PROTECT'water
	Stakeholders	SPW, SPF, control bodies (DPC, FASFC), NTF, GT pesticides, CT IPM, WG phytolicence, COMAC of conventions stakeholders, Consultation Platform of the PHYTO Regional Committee

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	**Priority**	1.64
Operational objective 6.1	REPAIRING THE BASIC DATA AND PUTTING THE PREREQUISITES FOR THE DEVELOPMENT OF SPECIFIC MEASURES		
Measure 3.6.1.2	Prerequisites for further development of specific measures		
ACTION 3.6.1.2.2	Identify the feasibility of access by individuals to suitable weed control equipment (via a loan structure or through a purchase premium)		

Objectives To carry out a feasibility study to identify the most appropriate form of access to weed control equipment adapted to the type of material and according to the citizens' request. lending through appropriate structures and/or setting up a purchase premium

Stages	▪ Identification of needs with stakeholders: production and dissemination of a survey of local authorities, citizens' associations, PCDN, PCDR, etc. in order to identify their needs in relation to weed control and to identify appropriate structures ▪ Benchmarking: analysis of similar experiences (loan of equipment or purchase premium) in Wallonia and elsewhere ▪ Collection and analysis of survey results: identification of Actors interest.e.s (appropriate structures), preferred formulas (loan or premium) and preferred types of tools or materials (mulches) ▪ Presentation of the results to interested bodies ▪ Estimated budget for implementation (purchase of tools and machines; staff engagement, training, etc.): the implementation of a network of loan structures is not foreseen in this project. Implementation will depend on the results of the feasibility study and, if necessary, be the subject of a second project.
Indicators	THE FOLLOWING: Rate of response to the survey of local actors. THE FOLLOWING: Analysis report of the survey carried out THE FOLLOWING: Production of a report summarising the various results enabling the structures to choose the most appropriate system

Target audiences Beneficiaries	THE FOLLOWING: Citizens affected by weeding, PCDN, PCDR,... THE FOLLOWING: Loan companies, etc. THE FOLLOWING: Local associations, river contracts, LAGs, parks	
Deadline	2023-2024	
Budget	EUR 135.000	
Human resources	**Chief from project**	Adalia 2.0 asbl
	Project team	Adalia 2.0 asbl and PreventAgri
	Stakeholders	Municipal authorities, loan companies, households, local associations, river contracts, PCDN, PCDR, nature park, etc.

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	**Priority**	1.58
Operational objective 6.1	REPAIRING THE BASIC DATA AND PUTTING THE PREREQUISITES FOR THE DEVELOPMENT OF SPECIFIC MEASURES		
Measure 3.6.1.2	Prerequisites for further development of specific measures		
ACTION 3.6.1.2.3	Set up a PWRP 3 indicator cell bringing together expertise developed in Wallonia		

Objectives	THE FOLLOWING: Create an integrated indicator cell of the PWRP 3 in order to take stock of the indicators, harmonise the concepts used in the various projects, put in place day existing indicators and develop new ones

Stages	THE FOLLOWING: Create the CIIW and define its mode of operation THE FOLLOWING: Interconnect the different projects and develop synergies/support between projects: THE FOLLOWING: take stock of completed or ongoing research projects aimed at: develop indicators that could be used for monitoring the PWRP 3 THE FOLLOWING: take stock of indicators developed in Wallonia and Belgium THE FOLLOWING: harmonise the concepts and bases used in the various existing projects THE FOLLOWING: Animation of the CIIW THE FOLLOWING: On the basis of requests and needs, improvement or development of indicators
Indicators	THE FOLLOWING: Responses to indicator needs THE FOLLOWING: Panel of indicators for monitoring the PWRP 3 THE FOLLOWING: Update of the indicators of the Walloon Environmental Scoreboard THE FOLLOWING: Review of the PWRP 3

Target audiences Beneficiaries	THE FOLLOWING: Pilot centres, advisory bodies and management THE FOLLOWING: SPW ARNE (CIAE, DRD, Animal Quality and Welfare) THE FOLLOWING: Partners (CRA-W, ISSeP) THE FOLLOWING: Walloon Government	
Deadline	2022-2027	
Budget	EUR 610.000	
Human resources	**Chief fro**	CORDER
	Project team	CRA-W, ISSeP, Managers
	Stakeholders	SPW, SPF, Consultation Platform of the PHYTO Regional Committee, NTF

Strategic objective 6	(TRANSVERSAL) EVALUATE AND FOLLOW	
Operational objective 6.1	REPAIRING THE BASIC DATA AND PREPARING THE INFORMATION FOR DEVELOPMENT **Priority** FINDER OF SPECIFIC MEASURES	1.58
Measure 3.6.1.2	Prerequisites for further development of specific measures	
ACTION 3.6.1.2.4	Study the feasibility of an electronic register for the use of PPPs by agricultural and non-agricultural professionals at pilot level Set up the electronic register in certain pilot areas (depending on the results of the feasibility study)	

Objectives	THE FOLLOWING: Respond to the new European Regulation on Agricultural Statistics (SAIO) involving the implementation of the PPP usage register in electronic format; including at least the name of the PPP applied, the application rate and the main area and culture where the product was used THE FOLLOWING: Addressing the lack of data for agricultural and non-agricultural professionals THE FOLLOWING: Encourage electronic and centralised registration of professional uses of PPPs by the various sectors of activity and in particular by sectors with little or no represented in DAEA's agricultural accounts: focus on fruit production sectors (orchards and small fruits) and green sectors (park companies and gardens)

Stages	THE FOLLOWING: Definition of test sectors THE FOLLOWING: Surveys to define needs and realities on the ground THE FOLLOWING: Development of a prototype register: develop a registration tool for uses of PPPs for identified sectors, analyse it with identified partners THE FOLLOWING: Test the tool and evaluate the increase in received data from the sectors poorly represented in the DAEA sample THE FOLLOWING: Cost-benefit analysis ▪ Validation of the tool: select a representative sector from the sample farms in the DAEA to assess the reliability of the results obtained ▪ Promotion to sectors: develop a strategy to stimulate the maximum voluntary adoption of the digital user data registration system ▪ Data collection and cost/benefit analysis ▪ Monitoring and analysis of records and evolution of OAD aspects of the tool
Indicators	THE FOLLOWING: Use of the user register prototype THE FOLLOWING: Number of users.rice.sand from data harvested THE FOLLOWING: Effectiveness of the digital register THE FOLLOWING: Persistence of use from the register digital THE FOLLOWING: Cost-benefit analysis ▪ Adherence of the targeted sector to the use of the electronic registration tool ▪ Level of knowledge of the targeted sectors in their PPP uses

Audiences Beneficiaries	THE FOLLOWING: Professional user.le.s of PPP THE FOLLOWING: Agricultural ASBL, agricultural unions	
Deadline	2023-2027	
Budget	Via the EQPP project already subsidised	
Human resources	**Chief from project**	Corder asbl – Indicators Cell (CORDER- EQPP)
	Project team	CIIW Accompanying Committee and meetings
	Stakeholders	SPF (NAPAN and Approval Committee, DGS) SPW (DEMNA, CIAE, DAEA,) Centres pilots and other agencies management of Wallonia CRA-W, ISSeP

Strategic objective 6 **Operational objective 6.2**	(TRANSVERSAL) EVALUATE AND FOLLOW MONITOR INDICATORS	**Priority**	1.77
Measure 3.6.2.1	Assess the effects of PWRP 3		
ACTION 3.6.2.1.1	Develop methodologies for assessing behavioural changes in certain areas of the PWRP 3 Carrying out impact surveys among the various target audiences identified by the methodologies developed		

Objectives To propose a methodology (s) to assess the effects of certain measures of the PWRP 3 encouraging behavioural changes and to assess the impact of PWRP 3 measures through the methodologies developed

Stages	THE FOLLOWING: Bibliographic research on existing methodologies for assessing the behavioural change in agriculture, sustainable development, health... (linked to PWRP 3 measures) THE FOLLOWING: Identification of situations that can be transposed to PWRP 3 measures THE FOLLOWING: Development of evaluation methodology (s) THE FOLLOWING: Definition of target audiences and topics/measures to be investigated through the methodologies developed THE FOLLOWING: Preparation of survey questionnaires (with the collaboration of partners from the PWRP Coupole 3) THE FOLLOWING: Subcontracting of surveys or implementation by partners THE FOLLOWING: Analysis of the results obtained
Indicators	THE FOLLOWING: Number of existing methodologies for assessing change effects behaviour selected to meet the objective THE FOLLOWING: Number of surveys carried out THE FOLLOWING: Proposal for a methodology (s) for assessing the effects of the PWRP 3

Target audiences Beneficiaries	THE FOLLOWING: Green sector: agriculture, horticulture and green spaces, tourism, leisure, sports THE FOLLOWING: Managers of public spaces	
Deadline	2023-2027	
Budget	EUR 714.000	
Human resources	**Chief from project**	ASBL CORDER
	Project team	Members of the coordinating coupole of the PWRP 3 CIIW
	Stakeholders	Eco-Council Institute

The priority was determined through the partners of the PWRP 3 Coupole by answering the question: “Does this action achieve the main target (50 % reduction by 2030)?”. If the answer is *certainly*, then the code is approaching 1. If the answer is *probably but rather indirectly*, then the code is approaching 2. If the answer is *not directly linked to the objective*, then the code is approaching 3.

Annexes

Annex 1: Detailed list of measures resulting from the other Walloon Plans and Programmes, contributing to achieving the objectives of the PWRP 3

Titled	Description of the plan and its relationship with the PWRP
Plans defined at Wallonia level	
River basin management plans	The River Basin Management Plans drawn up for the Water Framework Directive (2000/60/EC) provide for several measures to avoid pollution of surface and groundwater by PPPs. See: http://eau.wallonie.be The 3 RBMP measurement projects (2021-2027) directly or indirectly linked to PPPs are as follows (MB = baseline measure/MC = complementary measure): • Measure 19.2 (MB): Reduction of diffuse pollution (specific pollutants and substances EQS including pesticides) • Measurement 24 (MB) Link between the RBMP and the CAP Strategic Plan (see below) • Measurement 25 (MB) 4 000 km of hedges = > impact on reduction of PPP drift towards surface water (ESU) • Measurement 26 (MC) Support for organic farming (see below) • Measurement 28 (MC) Risk crops = > impact at area level sensitive to PPP (e.g. capping)/replacement of herbicides with mechanical weeding and link to PWRP 3 measurements • Measure 29 (MB): implementation of the SVC (permanent vegetation cover) along the courses water = > impact on PPP drift reduction to USEs • Measure 30 (MC): adjustment of agricultural control = > indirect impact via better compliance with existing legislation • Measure 32 (MB): Implementation of PWRP 3 (link between RBMP 3 and PWRP 3) • Measure 33 ((MC): Installation of INDIC'water indicator = > indirect impact on the

	• Measure 37 (MB): Catchment and track-side contracts = > Direct and indirect impacts on the reduction of PPP quantities and risks
Strategic Plan – Common Agricultural Policy 2023-2027	The Strategic Plan sets out the measures planned for the implementation of the CAP for the period 2023-2027. The impact on PPP reduction targets is at several levels in this plan: A. <u>Good Agricultural and Environmental Conditions (GAECs)</u> • GAEC 4: buffer strips along watercourses = SVC = > direct impact on the reduction of PPP risks for ESU • GAEC 5: soil management (erosion prevention) = > indirect impact on decrease of PPP risks • GAEC 6: soil cover = > indirect impact on decrease in quantities and PPP risks • GAEC 8: Non-productive elements (at least 4 % of the arable land of the holding, 7 % if CIPAN is taken into account) = > direct impact on the reduction of PPP quantities and risks B. <u>Ecoregimes (ER)</u> • Long soil cover: o min.70 % of coverage rates up to 90 % o no chemical destruction o from EUR 15/ha to EUR 45/ha o target: 635.501 ha (2023 to 2026) = > direct and indirect impacts on PPP quantity and risks. • Environmentally friendly crops: o Max. 30 % of the arable land of the holding (1-50 ha) o Insecticides spraying prohibited and seed coating prohibited except in 2023/2024 variant 2 o EUR 300/ha o Target: from 15.532 ha (2023) to 23 299.5 ha (2026) = > more direct impacts on PPP quantities and risks. • Ecological mesh size:

	○EUR 300/ha (200 to 400) ○Target: from 36.932 (2023) to 40.855 (2026) ha "environmental" = > Indirect impacts on PPP quantities and risks. • Reduction of chemical inputs: ○ Target: intervention allows the maintenance or introduction of modes of production less dependent on plant protection products, which contributes to reducing the use of plant protection products. ○ Surfacic-type, farmers must comply with a ban for the application of certain products on the parcels of Terres Arables (except permanent grassland and areas made of Christmas trees) and permanent cultures ○"Candidates for substitution" PPPs (linked to the second objective Farm to Fork) ○Not cumulative with Bio, MAEC, Natura 2000 aid ○From EUR 16/ha to EUR 150/ha depending on the scenario chosen (uniform amount: EUR 80/ha) ○Target: 76.700 ha = > direct impacts on PPP quantities and risks. • Permanent grassland: ○Permanent grassland is not treated or very little treated ○Basis: EUR 40/ha + top-up depending on the decrease in LU/ha ○Target: 280.199 ha = > Indirect impacts on PPP quantities and risks. C. <u>Coupled payments</u> • Protein crops (soya, protein peas, beans and field beans) ○Planning at 15.000 ha by 2030 ○EUR 300/ha ○Target: 2.000 ha (2023) to 10.000 ha (2026) = > Indirect impacts on PPP quantities and risks. D. <u>Agri-environment-climate measures</u> (AECM) • Developed parcels (312): ○Minimum surface area: 2.000 m² ○EUR 1600/ha ○Target: 600 ha (2023) to 5.000 ha (2027) = > direct and indirect impacts on PPP quantity and risks. • High Biological Value (313): ○No plant protection treatment

	o The targets: from 1.080 ha (2023) to 7.000 ha (2027)/In Natura 2000: of 1.280 ha (2023) to 8.000 ha (2027) = > direct impacts on PPP quantities and risks. • Natural meadows (314): o No plant protection treatment (except chardon and rumex) o EUR 220/ha o Target: from 2.192 ha (2023) to 12.800 ha (2027) = > direct impacts on PPP quantities and risks. • Grass curves (315): o Minimum surface area: 2.000 m² (per 200 m²) o No plant protection treatment (except chardon and rumex) o EUR 1100/ha o Target: from 584 ha (2023) to 5.000 ha (2027) = > direct impacts on PPP quantities and risks. • Soil management (317): o Average compensation: EUR 93,5/ha (depending on Corg content) o Target: from 7.734 ha (2023) to 34.803 ha (2027) = > Indirect impacts on PPP quantities and risks. • Agri-environment action plan (318) = > direct impacts on PPP quantities and risks. • Fodder range (319): o No plant protection treatment (except chardon and rumex) o EUR 60/ha of permanent grassland if < 1,4 LU/ha (EUR 30/ha if < 1,8 LU/ha) o The targets: from 44.000 ha (2023) to 52.000 ha (2027) (for < 1,4 LU/ha)/from 18.000 ha (2023) to 22.000 ha (2027) (for < 1,8 LU/ha) = > Indirect impacts on PPP quantities and risks. E. <u>Support to organic farming</u> • See strategic plan for details (including aid tables) • Target: from 37.000 ha (2023) to 146.000 ha (2027) = > direct impacts on PPP quantities and risks. F. <u>Natura 2000</u> • Highly constrained grassland (EUR 460/ha – objectives: 10.500 ha) • Extensive strips along rivers (EUR 1.100/ha – objectives: 200 ha) = > direct and indirect impacts on PPP quantity and risks. G. <u>Aid for productive investments</u>

	• Purchase of new equipment (e.g. mechanical weeding, etc.) • Observation or warning systems for integrated management • Basic rate: 10 % (if purchased alone) or 20 % (CUMA) + a whole series of super-credits (young person, ZCNS, grass, etc.) • Max. 40 % or EUR 200.000 = > direct and indirect impacts on PPP quantity and risks. H. Aid for non-productive investments • From EUR 1.000 to EUR 30.000 • E.g.: excavation of ponds or retention ponds, clamping of drains, etc. = > Indirect impacts on PPP quantity and risks.
Plan from development from the production organic in Wallonia by 2030	A strategic development plan for 2030 was approved by the Walloon Government in June 2021. The target is to reach 30 % of UAA in organic farming by 2030. In 2019, 11.5 % of Walloon UAA is already in organic farming. Details on: https://agriculture.wallonie.be/plan-2030 = > Direct impact on PPP quantities and risks.
Wallonia's recovery plan	The Recovery Plan merges the measures resulting from Get Up Wallonia, the Regional Policy Declaration and the Recovery and Resilience Facility (initiated by the European Union). All of these measures have been integrated along the 5 axes defined by the Strategic Council: • Focus on Wallonia's youth and talent • Ensuring environmental sustainability • Amplifying economic development • Supporting well-being, solidarity and social inclusion • Ensuring innovative and participatory governance In March 2022, 42 priority projects were identified Details on: Wallonia's recovery plan[33] Axis 2 "Ensuring environmental sustainability" includes an Agroecology Action Plan (which contains 8 actions):

33 https://www.wallonie.be/fr/plans-wallons/plan-de-relance-de-la-wallonie?msclkid=a5702ff3cf8011ec87c4263f1004218d

	1. Project 209: Benchmarking of agro-ecological practices and construction of a benchmark (public contract published on 11/02/2022) 2. Project 209: Development of farm and landscape wide functional biodiversity assessment expertise (public contract published on 11/02/2022) 3. Project 208: Communication platform in Agroecology (environmental, economic and social aspects) (public contract not yet launched) 4. Project 208: Network of farms in agroecology and educational support (public contract not yet launched) 5. Project 209: Participatory action research in real life situation (call for projects to be built in 2022) 6. Project 207: Feasibility study on the remuneration of farmers for environmental services rendered (transition support and just price) (public contract published on 11/02/2022) 7. Project 206: Development of the compensation tool for environmental services (Decide) (internal procurement with CRA-W 2022-2024) 8. Remuneration for environmental services rendered (transition support and just price) (public contract with AWAC to be defined in 2022) = > Direct and indirect impacts on the reduction of PPP quantities and risks.
Walloon Environmental and Health Plan – envies	The Plan comprises 5 axes and 79 actions: • Axis1 ADDRESSING RELATED HEALTH CHALLENGES TO THE ENVIRONMENT • Axis2 TRAIN, INFORM AND RAISE AWARENESS • Axis3 SUPPORT RESEARCH AND EXPLOIT ITS RESULTS • Axis4 DEVELOP MANAGEMENT TOOLS • Area 5: ENSURE COLLABORATION, TRANSVERSAL AND IMPLEMENTATION COHERENCE The Plan envies (2019-2023) provides in its 1st axis of 'addressing environmental health challenges' and addresses the issue of dangerous substances, in particular pesticides. Its objectives in this area are to increase knowledge on exposure to pesticides, reduce contamination of housing and nearby public places, support alternatives to pesticides and ensure the correct application of Walloon legislation in this area (restriction of use, disposal of containers, etc.). Details on: http://environnement.sante.wallonie.be/home/expert/plan-envies.html

	Several action fiches are likely to have a direct or indirect link with pesticide reduction: • Action fiche I-3-1: Monitoring the evolution of exposure to pesticides atmospheric (2021-2022/Budget: EUR 300.000/continuation of the EXPOPESTEN study) • Entry Action I-3-2: Developments in the Regulation surrounding pesticides as a result of ongoing studies (2019/Etude PROPULppp) • Action fiche I-3-5: Information actions on endocrine disruptors (2019-2024/ Cost: EUR 100.000) • Action fiche I-4-6: Revision of the field book as user.rice professional PPP (2019-2023/lien with measures proposed in PWRP3) • Action fiche I-4-13: Analysis of pesticides in recovery tanks rainwater (2019-2023/Budget: EUR 50.000) • Action fiche III-1-4: Design and run a biomonitoring programme in Wallonia to monitoring the exposure of citizens to chemicals and their effects on health (2019-2023/Budget: EUR 5.000.000) = > Indirect impacts on the reduction of PPP quantities and risks.
Walloon Sustainable Development Strategy Action Plan (SWDD) + **Walloon Sustainable Food College (Alliance Environment employment on food)**	SDG 15: Preserving and restoring terrestrial ecosystems, ensuring their sustainable use, sustainable forest management, combating desertification, halting and reversing land degradation and halting biodiversity loss. Details on: http://developpementdurable.wallonie.be/la-strategie-wallonne-de-developpement-sustainable https://developpementdurable.wallonie.be/actualites/college-wallon-alimentation-durable-known composia At AEEA level, two fiches can have an impact on PPPs: • Sheet 13: OPTIMISE THE COUNCIL THROUGH PRODUCTEUR.RICE.S IN ORDER TO: PROMOTING ADOPTION FROM PRACTICES ENABLING FROM REDUCER THE USE OF PPPS AND CHEMICAL FERTILISERS • Sheet 14: INCREASING THE FUNCTIONAL HETEROGENEIT OF LANDSCAPES AGRICULTURAL HOLDINGS AT DIFFERENT LEVELS OF AGRICULTURAL HOLDING = > Indirect impact on PPP quantities and risks.

Air-Climate-Energy Plan (PACE) 2030	The 2016-2022 PACE contains 142 measures to reduce emissions of greenhouse gases and other air pollutants, improve air quality and adapt to the impacts of climate change. The different sectors of activity are concerned: agriculture, industry, transport, residential, etc. Details on: Plan PACE – AWAC – Walloon Air and Climate Agency[34] = > No impact on the reduction targets of the PWRP 3.
Flood Risk Management Plans (FRMPs)	Flood Risk Management Plans encompass all aspects of flood risk management, focusing on prevention, protection, preparedness, and post-crisis repair and analysis, including flood forecasting and early warning systems, and taking into account the characteristics of the river basin or sub-basin under consideration. Flood Risk Management Plans may also include encouraging sustainable land use patterns, improving water retention, as well as controlled flooding of certain areas in the event of a flood event. The first FRMP was adopted in March 2016. Detail on: https://inondations.wallonie.be/home/directive-inondation/plans-de-gestion-des-flood risk/pgri-2022-2027.html = > No direct impact on PPPs. = > Indirect impact on PPP risks by limiting run-off.
Walloon Plan of Resources	This plan aims at coordinated waste management in Wallonia (in terms of waste prevention, collection, recovery and disposal). It is therefore clear that this plan has direct and indirect implications for the management of PPP waste (packaging, tank bottom, expired products). The Walloon Waste and Resources Plan was adopted by the Walloon Government on 22 March 2018. Details on: https://sol.environnement.wallonie.be/pwd-r.html = > No impact on the reduction of PPP quantities. = > Leger impact on risk reduction (through improved collection of UNPP and packaging).

34 https://awac.be/wp-content/uploads/2021/11/PACE-2030.pdf

Biodiversity Strategy 360° to 2050	A lot of reflection was carried out in Wallonia as part of the Biodiversity Workshops in 2018-2019. It should lead to a policy paper “Biodiversity Strategy 360° to 2050”. The document “Biodiversity Strategy 360°” has not yet been validated (see: [Biodiversity Strategy 360°: a vision for 2050 (Wallonie.be](https://www.wallonie.be/fr/actualites/strategie-biodiversite-360deg-une-vision-pour-2050)[35]). According to the available action fiches (not yet definitively validated), 18 actions could have a direct or indirect impact on the objectives of the PWRP 3: ● Action 1.2.2.2: Ensure integrated management of ripisylve, which preserves and restores its biological interest ● Action 1.2.2.4: Strengthening the multifunctional role and increasing biodiversity of areas temporary immersion (ZIT) and storm basins ● Action 1.2.3.2: Develop the network of hedges and tree alignments ● Action 1.2.3.3: Encourage the application of management methods for the surroundings of the tracks biodiversity-friendly communication ● Action 1.2.3.4: Strengthening the environmental network on private domains in perimeters active land development ● Action 1.2.4.3: Enhancing biodiversity on regional agricultural goods ● Action 1.2.4.4: Ensure specific management of areas of high biological value present in the areas of communication channels ● Action 1.2.4.5: Implement a land planning tool targeting biodiversity ● Action 2.3.1.1: Support the creation of green spaces, including for adaptation climate change ● Action 2.3.3.1: Support and support public managers for more management green spaces ● Action 2.4.1.1: Encourage and support public owners in the integration of environmental clauses in their leasing leases for agricultural land ● Action 2.4.2.3: Promote and develop agro-ecological cultivation practices for preserving biodiversity and restoring ecosystem services ● Action 2.4.2.4 Provide farmers with a diagnostic tool environment integrating biodiversity ●

35 https://www.wallonie.be/fr/actualites/strategie-biodiversite-360deg-une-vision-pour-2050

	• Action 2.6.1.1: Introducing biodiversity-friendly clauses in contracts supply • Action 3.2.3.1: Maintain, valorise and develop awareness of biodiversity through environmental and nature awareness initiatives • Action 3.2.3.2: Develop and implement a communication plan on
Other Plans	
PCDN	The voluntary Common Nature Development Plans aim to maintain, develop or restore biodiversity at municipal level. Therefore, these plans have an impact on the use of PPPs. Details on: Common Nature Development Plan | Agir | Biodiversity in Wallonia[36]
	The NDPs are now grouped together with Plan Maya, Week de l'Arbre et Cimetières Nature in a single BiodiverCité grant (see Subsidy BiodiverCité | Agir | Biodiversity in Wallonia[37]). The 2011 catalogue of projects contains a series of actions at local level that touch upon different topics (e.g.: agriculture, protection of species, greening, protection and restoration of sites, awareness-raising, etc.) and which may have a direct or indirect impact on reducing the quantities and risks associated with PPPs.
Natural park management plans	Managers of nature parks are required to draw up and implement management plans with the objectives of nature conservation, environmental protection and spatial planning. Therefore, these management plans are likely to have an impact on the use of PPPs. Details on: https://www.parcsnaturelsdewallonie.be/ Projects carried out by the Naturels Parcs include the Generation Terre project, which aims to improve the sustainability of farms in Wallonia by reducing the use of plant protection products while maintaining a certain level of profitability.

[36] http://biodiversite.wallonie.be/fr/pcdn.html?IDC=3158
[37] http://biodiversite.wallonie.be/fr/subvention-biodivercite.html?IDC=6394

Titled Wallonia wide programmes	Description of the programme and its relationship with the PWRP
River contract action programmes	The aim of these programmes is to reconcile the multiple uses and functions of rivers, their surroundings and the water resources of the catchment area. They shall set out the objectives which must be achieved within a reasonable period of time and ensure that they are implemented. The measures implemented in these programmes aim to restore, protect and enhance the water resources of the basin by integrating all the characteristics specific to the river. There are 14 contracts in Wallonia. Details on: http://environnement.wallonie.be/contrat_riviere = > Indirect impact on the reduction of risks associated with PPPs through local measures to protect the aquatic resource.
Natura 2000 programme	This programme, which implements the EU Birds (1979) and Habitats Directives (1992), aims to maintain the conservation status of certain habitats and populations of species threatened or representative of biodiversity in Europe. The Natura 2000 programme covers 220.000 ha in Wallonia. The link between the Natura 2000 Programme and the PWRP 3 is close as several measures protecting Natura 2000 sites directly concern the ban on the use of certain types of PPPs. Details on: http://biodiversite.wallonie.be/fr/natura-2000.html?IDC=829
LIFE-Nature programmes	These programmes, aimed at restoring Natura 2000 sites and various habitats, in particular specific species (pearl mussel, otter, etc.), have an impact on the use of PPPs, in particular through the improvement and long-term conservation of the habitats of the species concerned. Details on: http://biodiversite.wallonie.be/fr/le-programme-europeen-life.html?IDC=3261
Action programmes on leachers for an integrated and sectorised approach (PARIS)	The PARIS aim at integrated river management, taking into account all functions of the river: economic, environmental, tourist and hydraulic, giving priority to each homogeneous length of the river (or sector). The PARIS are part of the broader context of the management plans imposed by the Water Framework Directive and the Floods Directive (see RBMP and FRMP above). Details on: http://paris.spw.wallonie.be/portal/accueil

Annex 2: Correlation table between PWRP actions and NAPAN 2023-2027 themes

Theme NAPAN	Sub-topic NAPAN	WALL PROGRAMME ACTIONS	PESTICIDE REDUCTION 3 (2023-2027): STRATEGIC AND OPERATIONAL OBJECTIVES, MEASURES AND			
1 – training of professionals working with PPPs	1.2 – access to adequate training (initial and complementary)	OS.4 (TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	OO.4.1 IMPROVE APPROPRIATE TRAINING, INCLUDING PHYTOLICENCE	Measure 3.4.1.1 Existence of an initial training system	ACTION 3.4.1.1.1	Develop an initial training system based on the combination of face-to-face training and e-learning for the different types of phytolicence.
		OS.4 (TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	OO.4.1 IMPROVE APPROPRIATE TRAINING, INCLUDING PHYTOLICENCE	Measure 3.4.1.2 Visibility of training related to the reduction and/or proper use of PPPs	ACTION 3.4.1.2.1	Increase the visibility of all training related to the reduction of pesticide use in Wallonia. Set up a platform with a common agenda for all training courses, including phytolicence.

2 – sale of PPP	2.1 – general information available in points of sale of amateur PPPs	OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND PUT THE REQUIREMENTS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.1 Inventory of the premises	ACTION 3.6.1.1.5	Assess the ability of staff to advise in connection with the sale of PPPs to individuals

3 – information and general awareness on	3.1 – provide balanced information on pesticides and their alternatives	OS.1 REDUCE THE IMPACTS ON THE ENVIRONMENT	OO.1.1 AMELIORATE THE AIR QUALITE	Measure 3.1.1.1 Monitoring pesticides around specific crops	ACTION 3.1.1.1.1	Assess the exposure to PPPs of populations bordering specific crops and assess the effectiveness of the protective measures used

pesticides and their alternatives		OS.2 MITIGATING IMPACTS ON SANTE	OO.2.1. PROTECTING THE SANTE OF RIVERAIN.E.S	Measure 3.2.1.1 Development of tools	ACTION 3.2.1.1.1	Develop a tool for locating areas in which spraying of pesticides is prohibited and make it available to professional users of PPPs, enabling them to take better account of compliance with local communities and vulnerable groups.
		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.1 State of play	ACTION 3.6.1.1.6	Objectiving the exposure of professional users of pesticides to these products
	3.2 – systems for collecting information on cases of poisonemen t	OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.1 State of play	ACTION 3.6.1.1.3	Draw up a position paper on observed incidents and the use of protective equipment
		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.2 Prerequisites for further development of specific measures	ACTION 3.6.1.2.4	Study the feasibility of an electronic register for the use of PPPs by agricultural and non-agricultural professionals at pilot level. Set up the electronic register in certain pilot areas (depending on the results of the feasibility study)

6 – protection of the aquatic environment		OS.1 REDUCE THE ENVIRONMENTAL IMPACTS	OO.1.2 AMELIORATE THE WATER QUALITE	Measure 3.1.2.1 Integrated Council for the Protection of Water	ACTION 3.1.2.1.1	Set up a multi-stakeholder advisory service, mobilising advisory bodies already active in Wallonia and the tools already available, in order to offer farmers targeted solutions to limit PPP transfers to surface water.
		OS.4 (TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	OO.4.2 DEEPENING THE RESEARCH AND DEVELOPMENT IN RELATION TO THE CHALLENGES OF THE	Measure 3.4.2.1 Establishment of a guidance document	ACTION 3.4.2.1.1	Draw up a guidance document identifying needs in order to select research to be funded as a matter of priority in Wallonia

			FRAMEWORK DIRECTIVE PESTICIDES			
7 – protection of targeted areas	7.1 – areas used by the general public or by vulnerable groups	OS.2 MITIGATING IMPACTS ON SANTE	OO.2.1. PROTECTING THE SANTE OF RIVERAIN.E.S	Measure 3.2.1.1 Development of tools	ACTION 3.2.1.1.1	Develop a tool for locating areas in which spraying of pesticides is prohibited and make it available to professional users of PPPs, enabling them to take better account of compliance with local communities and vulnerable groups.
		OS.2 MITIGATING IMPACTS ON SANTE	OO.2.1. PROTECTING THE SANTE OF RIVERAIN.E.S	Measure 3.2.1.1 Development of tools	ACTION 3.2.1.1.2	Develop a toolbox of means and techniques to mitigate exposure of river.s to PPPs and a decision support tool to select those that are most appropriate according to the situations encountered.
		OS.2 MITIGATING IMPACTS ON SANTE	OO.2.2. IMPROVE THE COHABITATION BETWEEN AGRICULTURAL ACTIVITY AND OTHER LAND USES	Measure 3.2.2.1 Reducing problematic exposures to off-crop drifts and enhancing information sharing related to exposure risks	ACTION 3.2.2.1.1	Continue to improve dialogue, exchange of information between farmers and competitors and put in place voluntary measures to mitigate and prevent risks associated with the application of PPPs
		OS.3 REDUCING PRODUCT DEPENDENCY SYNTHETIC PHYTOPHARMACEU	OO.3.2 DEVELOPING AND STRENGTHENING METHODS OR TECHNIQUES FOR SUBSTITUTION OF SYNTHETIC PPPS	Measure 3.3.2.2 Facilitate the implementation of Zero phyto – non-agricultural public already in zero phyto	ACTION 3.3.2.2.1	Propose concrete solutions to develop a system of shared management of alternative weed control machines at municipal level
		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND PUT THE DETAILS FOR DEVELOPMENT	Measure 3.6.1.1 Inventory of the premises	Action 3.6.1.1.1	Introduce monitoring of risks related to pesticides in the environment (water, air, soil, agricultural production)

			FINDER OF SPECIFIC MEASURES			
		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.1 State of play	ACTION 3.6.1.1.2	Identify sensitive areas where pressure in plant protection products is high through the development of an indicator of PPP loads and propose measures to avoid or mitigate PPP pressures on these areas

9 – integrated Pest Management (IPM)		OS.1 REDUCE THE ENVIRONMENTAL IMPACTS	OO.1.3 PRESERVING AND RESTORING BIO-DIVERSITY	Measure 3.1.3.1 Search and creation of tools	ACTION 3.1.3.1.1	Identify technical routes that favour both a decrease in PPPs and an increase in functional biodiversity
	9.4 – boosting the implementation of Integrated Pest Management in line with key sector-specific guiding principles	OS.3 REDUCING DEPENDENCE ON SYNTHETIC PPPS	OO.3.1 DEVELOPING AND ENHANCING THE USE OF INTEGRATED PEST MANAGEMENT AND OTHER VEGETARY	Measure 3.3.1.1 Development of tools to facilitate the implementation of integrated management	ACTION 3.3.1.1.1	Create observation and warning networks made up of farmer-form.s, capable of refining warning systems by multiplying the points of observation
	9.3 – strengthening the general principles of integrated pest management	OS.3 REDUCING DEPENDENCE ON SYNTHETIC PPPS	OO.3.1 DEVELOPING AND ENHANCING THE USE OF INTEGRATED PEST MANAGEMENT AND OTHER VEGETARY	Measure 3.3.1.1 Development of tools to facilitate the implementation of integrated management	ACTION 3.3.1.1.2	Improve agricultural/horticultural knowledge and improve the APPI application
	9.2 – create the necessary conditions to promote the implementation of Integrated Pest Management	OS.3 REDUCING DEPENDENCE ON SYNTHETIC PPPS	OO.3.1 DEVELOPING AND ENHANCING THE USE OF INTEGRATED PEST MANAGEMENT AND OTHER VEGETARY	Measure 3.3.1.1 Development of tools to facilitate the implementation of integrated management	ACTION 3.3.1.1.3	Strengthening the deployment and implementation of agri-environment-climate methods (AECM) as integrated management tools

OS.3 REDUCING DEPENDENCE ON SYNTHETIC PPPS	OO.3.2 DEVELOPING AND STRENGTHENING METHODS OR TECHNIQUES FOR SUBSTITUTION OF SYNTHETIC PPPS	Measure 3.3.2.1 Developing levers towards reducing PPPs – agricultural public	ACTION 3.3.2.1.1	Develop one network of operator.e.s model in the area of reducing the use of PPPs
OS.3 REDUCING DEPENDENCE ON SYNTHETIC PPPS	OO.3.2 DEVELOPING AND STRENGTHENING METHODS OR TECHNIQUES FOR SUBSTITUTION OF SYNTHETIC PPPS	Measure 3.3.2.1 Developing levers towards reducing PPPs – agricultural public	ACTION 3.3.2.1.2	Encourage investment in the purchase of equipment to reduce the use of PPPs and encourage joint purchasing of such equipment
OS.4 (TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	OO.4.2 DEEPENING RESEARCH AND DEVELOPMENT IN RELATION TO THE CHALLENGES OF THE PESTICIDE FRAMEWORK DIRECTIVE	Measure 3.4.2.1 Establishment of a guidance document	ACTION 3.4.2.1.1	Draw up a guidance document identifying needs in order to select research to be funded as a matter of priority in Wallonia
OS.4 (TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	OO.4.2 DEEPENING RESEARCH AND DEVELOPMENT IN RELATION TO THE CHALLENGES OF THE PESTICIDE FRAMEWORK DIRECTIVE	Measure 3.4.2.2 objecting to the issues needed for strategic decision-making	ACTION 3.4.2.2.1	Define multi-sectoral agricultural transition scenarios at regional level
OS.4 (TRANSVERSAL) ENHANCING KNOWLEDGE AND SKILLS	OO.4.2 DEEPENING RESEARCH AND DEVELOPMENT IN RELATION TO THE CHALLENGES OF THE PESTICIDE FRAMEWORK DIRECTIVE	Measure 3.4.2.2 objecting to the issues needed for strategic decision-making	ACTION 3.4.2.2.2	Estimating the costs and benefits of different agricultural transition scenarios at regional level
OS.5 (TRANSVERSAL) DISSEMINATE THE KNOWLEDGE & SKILLS	OO.5.2 DEVELOPING AND STRENGTHENING A NEUTRAL AND INDEPENDENT COUNCIL AND THE EXTENSION OF RESEARCH RESULTS	The topic of independent advice is already dealt with in the broader context of the implementation of the new AKIS-SCIA system (AGRICULTURAL KNOWLEDGE AND INNOVATION SYSTEMS – Agricultural Knowledge and Innovation System) linked to the Common Agricultural Policy. Under the AKIS, the topic "pesticides" is prioritised as a pilot for the implementation of the new system. As regards the dissemination of research results, this is one of the core tasks of the SPW-ARNE Directorate for Research and Development.		

				DDRCB. It also provides a framework for projects financed under the three-year research plan. In these projects, particular attention is paid to the dissemination and dissemination of project results.		
		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.1 State of play	ACTION 3.6.1.1.4	Evaluate the implementation of integrated management
		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.2 Prerequisites for further development of specific measures	ACTION 3.6.1.2.2	Identify the feasibility of access by individuals to suitable weed control equipment (via a loan structure or through a purchase premium)

10 – indicators		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.2 Prerequisites for further development of specific measures	ACTION 3.6.1.2.3	Set up a PWRP 3 indicator cell bringing together expertise developed in Wallonia
		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.2 Prerequisites for further development of specific measures	ACTION 3.6.1.2.4	Study the feasibility of an electronic register for the use of PPPs by agricultural and non-agricultural professionals at pilot level Setting up the electronic register in certain pilot areas (depending on the results of the feasibility study)
		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.2 MONITORING INDICATORS	Measure 3.6.2.1 Assess the effects of PWRP 3	ACTION 3.6.2.1.1	Develop methodologies for assessing behavioural changes in certain areas of the PWRP 3

						Carrying out impact surveys among the various target audiences identified by the methodologies developed
11 – management and monitoring of the plan		OS.5 (TRANSVERSAL) DISSEMINATE THE KNOWLEDGE & SKILLS	OO.5.1 DEVELOPING TRANSPARENT, SIMPLIFIED, POSITIVE AND INCLUSIVE COMMUNICATION	Measure 3.5.1.1 Communication strategy	ACTION 3.5.1.1.1	Develop a communication strategy on the wider PWRP (towards the various target audiences)
		OS.6 (TRANSVERSAL) EVALUATE AND FOLLOW	OO.6.1 RECOLTER THE BASIC DATA AND SET THE SPECIFICATIONS FOR THE DEVELOPMENT OF SPECIFIC MEASURES	Measure 3.6.1.2 Prerequisites for further development of specific measures	ACTION 3.6.1.2.1	Harmonise Walloon and federal regulations in relation to the implementation of the PWRP 3 through the Thematic Working Group on these issues

Annex 3: Contact points by topic and/or sector

By topic

1. Training for professionals working with plant protection products (PPPs) For Wallonia:
    - SPW-ARNE-DEE-CIAE – Phytolicence focal point – Aurore Nicolas – Tel. 081/336307 – aurore.nicolas@spw.wallonie.be
    - Corder asbl – Phytolicence & Scientific Support Cell – Tel. 010/473754 – corder@uclouvain.be — https://www.corder.be/fr/phytolicence

    In the Federal Republic of Germany:
    - FPS Public Health, Food Chain Safety and Environment: Wouter WILLEMS – Tel. 02/5247283 (wouter.willems@health.fgov.be)

2. Sale of PPPs – General information available at points of sale of PPPs for non-professional use For Wallonia:
    - corder asbl – PHYTO Regional Committee Cell – Tel. 010/473754 – corder@uclouvain.be – https://www.corder.be/fr/crphyto
    - Adalia 2.0. asbl – Tel. 081/390619 – info@adalia.be – www.adalia.be

    In the Federal Republic of Germany:
    - FPS Public Health, Food Chain Safety and Environment: PRPB Coordinator – Vincent VAN BOL – Tel. 02/5247275 (vincent.vanbol@health.fgov.be)

3. Information and general awareness-raising on pesticides and their alternatives

    For Wallonia:
    - corder asbl – PHYTO Regional Committee Cell – Tel. 010/473754 – corder@uclouvain.be – https://www.corder.be/fr/crphyto
    - Adalia 2.0. asbl – Tel. 081/390619 – info@adalia.be – www.adalia.be
    - Ecoconso – Tel. 081/730730 – info@ecoconso.be – www.ecoconso.be
    - Permanent Environmental and Health Unit (CPES): POL GOSSELIN – Tel. 081/335197 (pol.gosselin@spw.wallonie.be)

    In the Federal Republic of Germany:
    - FPS Public Health, Food Chain Safety and Environment: PRPB Coordinator – Vincent VAN BOL – Tel. 02/5247275 (vincent.vanbol@health.fgov.be)
    - Poisons control centre – Tel. 070/245245 – www.poisoncentre.be

4. Inspection of the equipment for applying PPPs

    For Wallonia: CRA-W – Nathalie VAN DE WALLE – 081/875312 – servicepulverisateur@cra.wallonie.be

5. Protecting aquatic environment

   For Wallonia:

   - For surface water: SPW-ARNE-DEE-DESu: Guillaume PIAZZALUNGA – Tel. 081/335088 (guillaume.piazzalunga@spw.wallonie.be)
   - For groundwater and drinking water: SPW-ARNE-DEE-DESO: Céline rentier – Tel. 081/336362 (celine.rentier@spw.wallonie.be)
   - Reference Laboratory for Water Analysis: ISSEP – Xavier VEITHEN – Tel. 04/2298371 (x.veithen@issep.be)

6. Protecting targeted areas

   For Wallonia:

   - Collection protection areas:
     THE FOLLOWING: See above 'Groundwater and drinking water'
     THE FOLLOWING: SPGE and CRA-W: Diagnostic cell 'Pesticides – Captions': Florence WILLISCOTTE – Tel. 081/874006 (f.williscotte@cra.wallonie.be)
   - Natura 2000 areas: ASBL Natagriwal – - www.Natagriwal.be

7. Handling/storage of plant protection products and their packaging/residues

   For Wallonia:

   - corder asbl – PHYTO Regional Committee Cell – Tel. 010/473754 – corder@uclouvain.be – https://www.corder.be/fr/crphyto
   - PROTECTE'eau asbl – Tel. 081/728992 – armelle.copus@protecteau.be
   - Mission wallonne des Secteurs Verts – PreventAgri – Tel. 065/611370 – www.preventagri.be

   In the Federal Republic of Germany:

   - Federal Agency for Food Chain Safety (FASFC) – www.afsca.be

8. Integrated Pest Management (IPM)

   For Wallonia: SPW-ARNE-DDRCB-DQBEA: Hélène KLINKENBERG – Tel. 081/649598 (helene.klinkenberg@spw.wallonie.be)

9. Indicators

   For Wallonia: SPW-ARNE-DEMNA-DEE: Christine Cuvelier – Tel. 081/335161 (christine.cuvelier@spw.wallonie.be)

   In the Federal Republic of Germany: FPS Public Health, Food Chain Safety and Environment: Pierre NADIN (pierre.nadin@health.fgov.be)

10. Management of and follow-up to the plan

   For Wallonia:

   - Representatives to the NAPAN Task Force:
     THE FOLLOWING: SPW-ARNE-DEE-CIAE: Denis GODEAUX – Tel. 081/336389 (denis.godeaux@spw.wallonie.be)
     - SPW-ARNE-DDRCB-DRD: Philippe DELAUNOIS – Tel. 081/649619 (philippe.jeanpierre.delaunois@spw.wallonie.be)

- Coordination of the PWRP:
    - SPW-ARNE-DEE-CIAE: Méllissa DEPREZ – Tel. 081/335089 (melissa.deprez@spw.wallonie.be)

In the Federal Republic of Germany:

- FPS Public Health, Food Chain Safety and Environment: PFRP Coordinator – Vincent VAN BOL – Tel. 02/5247275 (vincent.vanbol@health.fgov.be)

By sector

1. Federal Public Service – Public Health, Safety of the Food Chain & Environment
    - Official Phytoweb website: www.fytoweb.be/fr
    - Federal Agency for the Safety of the Food Chain: www.afsca.be
2. Wallonia Public Service – Agriculture, Natural Resources and Environment
    - Focal point "Pesticides & Environment": Denis GODEAUX – Tel. 081/336389 (denis.godeaux@spw.wallonie.be)
    - Focal point "Pesticides & Agriculture": Philippe DELAUNOIS – Tel. 081/649619 (philippe.jeanpierre.delaunois@spw.wallonie.be)
    - Phytolicence focal point: Aurore Nicolas – Tel. 081/336307 (aurore.nicolas@spw.wallonie.be)
    - Coordination of the PWRP: Méllissa DEPREZ – Tel. 081/335089 (melissa.deprez@spw.wallonie.be)
3. Authorities and bodies of the Flemish Region
    - Vlaams Milieumaatschappij (VMM) – Campaign "Zonder is gezonder" – www.zonderisgezonder.be
    - Vereniging voor Ecologisch Leven en Tuineren (VELT) – www.velt.be
4. Authority of the Brussels-Capital Region

- Brussels Institute for Environmental Management – Brussels Environment – www.environnement.brussels

5. Agriculture

   - Corder asbl – PHYTO Regional Committee Cell – Tel. 010/473754 – corder@uclouvain.be – https://www.corder.be/fr/crphyto
   - Pilot centres: see the list at https://centrespilotes.be/
   - Warning services: see pilot centres
   - Walloon Mission of the Greens – PreventAgri – Tel. 065/611370 – www.preventagri.be

6. Municipalities – Public administrations – Green areas

   - Corder asbl – PHYTO Regional Committee Cell – Tel. 010/473754 – corder@uclouvain.be – https://www.corder.be/fr/crphyto
   - Adalia 2.0. asbl – Tel. 081/390619 – info@adalia.be – https://www.adalia.be/soutien-technique
   - Protein'eau asbl – Tel. 081/728998 – armelle.copus@protecteau.be
   - Walloon Mission of the Greens – PreventAgri – Tel. 065/611370 – info@secteursverts.be – www.preventagri.be

7. Individuals

   - Adalia 2.0. asbl – Tel. 081/390619 – info@adalia.be – www.adalia.be
   - Natagora asbl: https://reseaunature.natagora.be/
   - Nature & Progress asbl: www.natpro.be

8. Drinking water producer

- Diagnostic cell “Pesticides – Catches”: Florence WILLISCOTTE – Tel. 081/874006 (f.williscotte@cra.wallonie.be)

9. Education and awareness training

- Corder asbl – PHYTO Regional Committee Cell – Tel. 010/473754 – corder@uclouvain.be – https://www.corder.be/fr/crphyto
- Walloon Mission of the Greens – PreventAgri – Tel. 065/611370 – info@secteursverts.be – www.secteursverts.be
- Protein’eau asbl – Tel. 081/728998 – armelle.copus@protecteau.be
- Adalia 2.0. asbl – Tel. 081/390619 – info@adalia.be – https://www.adalia.be/formations-0
- Federation of Young Farmers (FJA) – Tel. 081/627441 – http://www.fja.be/page/formation-introduction

10. Industry sector

- Phytofar, Belgian association of the asbl plant protection products industry - www.phytofar.be

Annex 4: List of acronyms and glossary

Acronym/Abbreviation	Meaning
ABJ	Belgian garden centre association
ADISA	Aid for development and investment in the agricultural sector
SWOT (SWOT)	Strengths, Weaknesses, Opportunities, Threats
FASFC	Federal Agency for the Safety of the Food Chain
AGW	Walloon Government Decree
AKIS-SCIA	Agricultural Knowledge and Innovation Systems
APPI	Integrated Plants Protection Application
AWAC	Walloon Air and Climate Agency
GAEC	Good Agricultural and Environmental Conditions
BelCAM	Belgian Collaborative Agriculture Monitoring – Collaborative Agricultural Monitoring Platform
CePiCOP	Cereals and Oleo-Proteaginous Pilot Centre
CETA	Centre d'Etudes Techniques Agricole
CIAE	Integration Cell Agriculture & Environment
CIIW	Integrative cell Wallons Indicators
CIPAN	Intermediate crop Nitrates trap
COMAC	Support Committee
CPES	Standing Environment-Health Cell
CRA-W	Walloon Agricultural Research Centre
CREA	Communication on Natural Resources, Environment and Agriculture
TC	Technical Committee
DAEA	Directorate for Agricultural Economic Analysis
DATU	Department of Spatial Planning and Urbanism
DCE	Water Framework Directive
DCP	Pesticides Framework Directive
DECIDE	decision support tool for your farm's greenhouse gas, energy and ammonia balances
DEE	Department of Environment and Water
DEMNA	Department of the Study of Milieu Naturel and Agricole
DESo	Direction of Souterraine waters
Desu	Surface Water Directorate

DFA	Functional and Support Directorate
DGS	Directorate-General for Statistics
DNF	Department of Nature and Forestry
DPR	Regional Policy Declaration
DRD	Directorate for Research and Development
EFSA	European Food and Safety Agency
ELEnSa	Study of the environmental health links
FC	Continuous training
F2F	European Farm to Fork Strategy
FUGEA	Fédération Unie de Groupements d'Eleveurs et d'Farmers (Unie de Groupements d'Eleveurs et d'Farmers)
FWA	Federation Wallonne de l'Agriculture
GAL	Local Action Grouping
GbxABT	Gembloux AgroBioTech (ULiège)
WG	Working Group
IC	Inter-municipal
IEW	Inter-Environment Wallonia
INSERM	National Institute for Health and Medical Research
IPM	Integrated Pest Management
ICCS	Standard Active Substances Index per Culture
ISSEP	Scientific Institute of Public Service
MRL	Maximum Residue (of pesticides) limits
MAEC	Agri-environment-climate measures
MESU	Mass of Surface Water
NAPAN	Nationaal Actie National Action Plan
Natagriwal	non-profit association (asbl) whose main task is to inform, advise and supervise farmers, foresters and public or private owners in the implementation of the agri-environment programme and the European ecological network Natura 2000.
NP	Non-professional.
NTF	NAPAN Task Force
OAD	Decision Support Tool
SDO	Sustainable Development Goals

ONE	Office of Naissance and Children
OO	Operational objective
OPW	Wallon Payer Organisation
BONE	Policy objective
PAC	Common agricultural policy
PCDN	Municipal Nature Development Plan
P & j	Parks and Gardins
RBMP	River Basin Management Plan
PL	Phytolicence
UNPP	Plant protection product not usable
PPP	Plant protection
PWRP	Walloon Pesticides Reduction Programme
REEW	Report on the state of the Walloon environment
KING	Internal Order Regulations
RWDR	Walloon Rural Development Network
HIS	Active substance
SAIO	Statistics on Agricultural Inputs and Outputs
UAA	Utilised agricultural area
SIGEnSa	Geographical Information System in Environmental and Health
SOCOPRO	Operational structure of the Committee of Producers
SOFICO	Walloon infrastructure finance company
FPS-HSFCE	Federal Public Service – Public Health, Safety of the Food Chain & Environment
SPGE	Public Water Management Company
SPW-ARNE DDRCB DEE DEMNA DPC	Wallonia Public Service – Agriculture, Natural Resources & Environment Department of Development, Rurality, Water Courts and Animal Welfare Department of Environment and Water Department of the Study of Natural and Agricultural Milieu Department of Policing and Inspections
TCPY	3,5,6-trichloro-2-pyridinol (metabolite of chlorpyrifos)
UCL	Catholic University of Leuven
UVCW	Union of Cities and Municipalities of Wallonia
ZT	Buffer zone

Glossary

Benchmarking: Set of research and analysis procedures helping to assess and compare its projects, methods, services or products to those of partners or competition. It makes it possible to identify good practices and best methods in the identified sector in order to identify ambitious actions and improvements.

Soil and ecological context: Set of characteristics, factors and conditions affecting the balance of ecosystems observed in a particular environment. Altitude, topography and soil types are the main environmental factors that will influence how ecological processes will be able to provide a number of basic functions. Interactions between these factors stem from a wide variety of very different ecological conditions in Wallonia. Over a few kilometres, the soils can be deep and have a strong capacity to produce cereals, be very superficial and allow only the development of calcareous grasslands or clear forests or be drained with water in valleys or in peat areas. These factors and their combinations determine possible land use and often explain the structure of human-shaped landscapes. They also influence the ability of present ecosystems to deliver ecosystem services. https://services- ecosystemiques.wallonie.be/fr/contextes-ecologiques.html?IDC=5838

Ecorégime: CAP Pillar I environmental measure to remunerate the environmental services provided by farmers.

Managers of public spaces = municipalities, provinces, inter-municipal authorities, INFRABEL, SNCB, etc.

Gradient of practices: variation in the diversity of practices

Phytogreen guide: a guide covering the topics covered by phytolicence training and providing assistance to trainers.

Deliverable: Tangible result of a project (e.g. report)

EFSA template: Calculation model developed by the European Food Safety Agency to assess the risks of active substances in the context of their authorisation by the European Union.

Screening: selection, evaluation

VEGAPLAN standard: Independent certification according to strict standards published in private specifications recognised by the Belgian authorities to verify compliance in terms of food safety, traceability and integrated control

Trade-off: a compromise, a decision that involves lowering or losing quality in return for gains in other aspects