Ecophyto Strategy 2030

A national strategy for the reduction of the use and risks of plant protection products, for the reduction of effects on human health and the environment and for the adaptation of crop protection techniques

This document has been drawn up in the framework of an inter-ministerial task force Ecophyto 2030[1], 40 stakeholder hearings conducted between July and September 2023 and a consultation phase of various bodies (Ecophyto II + Steering and Strategic Monitoring Committee, Higher Council for Guidance and Coordination of the Agricultural and Food Economy, National Water Committee and National Biodiversity Committee). It also draws on the various reports (Parliament, General Inspections, Court of Auditors, Parliamentary Inquiry Committee) published in recent years on the policy of reducing the uses and risks of plant protection products.

[1] Composed of the departments of the Ministry of Agriculture and Food Sovereignty, the Ministry of Ecological Transition and Territorial Cohesion, the Ministry of Labour, Health and Solidarity, the Ministry of Higher Education and Research and the Ministry of the Interior and Overseas, and led by the General Secretariat for Ecological Planning.

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Introduction

With the Ecophyto 2030 strategy, France has a threefold agricultural ambition:

- Safeguarding public health and environmental health in a 'One Health' approach;
- Supporting the economic and environmental performance of farms;
- Maintain a high level of crop protection by adapting the techniques used.

This strategy recognises a change in methodology. It sets targets for reducing risks and uses of plant protection products consistent with our European and international commitments to combat climate change and preserve biodiversity, while empowering all farmers to make this transition, by developing alternative methods and strengthening their support for changing practices.

With this strategy, France is pursuing its objective of reducing the use and overall risks of plant protection products in accordance with the following principle: 'No prohibition without solution' and with significant means for the development and adoption of non-chemical alternatives as a matter of priority. This principle gives concrete expression to:

- The organisation from March 2024 of a round of meetings dedicated to "solutions and alternatives to prohibited plant protection products". This approach aims to address the difficulties faced by farmers in terms of crop protection since the 2024 marketing year, per molecule and per use. These meetings must enable transitional measures to be taken to respond to these difficulties and to create economically sustainable alternatives. Specifically, the Commission on Orphan Uses (CUO) and its Operational Technical Committee (CTOP) have been mandated to address the difficulties in the various sectors and to identify measures to address them. This work will also make it possible to align the French and European banning schedules.
- The implementation since May 2023 of the plan to anticipate the potential for European withdrawal of active substances and the development of alternative techniques for crop protection (PARSADA), which aims to prepare for the future transition and avoid new technical deadlocks, with significant resources (EUR 146 million). This plan capitalises on the experience gained in previous action plans (neonicotinoids/beet and Phosmet/rapeseed) and extends the work carried out with the fruit and vegetables sector to other sectors to draw up the sovereignty plan.

This new Ecophyto 2030 strategy is part of a European alignment perspective, which is necessary for the coherence of public policies at European level in order to combine fair competition with environmental ambition. This must be reflected in the pursuit of the objectives of reducing the risks associated with the use of plant protection products and in the future timetable for re-evaluation of substances at national and European level.

This new strategy confirms the target of reducing plant protection consumption by 50 % compared to the three-year average 2011-2013. This decrease will be measured by the Harmonised Risk Indicator 1 (HRI1), calculated by the European Commission, which allows the evolution of the use of active substances to be measured by their hazard statements. This indicator will replace the NODU ('Number of units'), calculated at national level, which makes it possible to measure the dependence of agricultural practices on plant protection products but does not incorporate a product-specific concept of risk. A series of additional monitoring indicators will be published regularly by the Government.

Why a new Ecophyto 2030 strategy?

The development of plant production has accelerated with the use of fertilisers and plant protection products (mainly insecticides, fungicides and herbicides). The widespread use of these products has been effective in protecting crops and increasing productivity, but it has negative consequences for human health and the environment as a whole (fauna, flora, fungi, lichens, aquatic environments and water resources, etc.).

A plant protection product is composed of active substances and co-formulants and is intended for one of the following uses:

- Protecting plants or plant products against all harmful organisms or preventing the action of such organisms, unless the main purpose of these products is considered to be for reasons of hygiene rather than for the protection of plants or plant products;
- Influencing the vital processes of plants, such as substances, other than plant nutrients or biostimulants, which have an effect on their growth;
- Preserving plant products, in so far as such substances or products are not subject to special Community provisions on preservatives;
- Destroying undesired plants or parts of plants, except algae unless the products are applied on soil or water to protect plants;
- Checking or preventing undesired growth of plants, except algae unless the products are applied on soil or water to protect plants.

Therefore, biocidal products used for agricultural and non-agricultural purposes may use the same active substances as plant protection products, but may respond to management strategies that complement Ecophyto.

The impacts of plant protection products are now well documented in particular by recent collective scientific expertise carried out by INRAE, IFREMER, IPBES and INSERM[2]. These studies concluded that there is a strong presumption of a link between occupational exposure to plant protection products and six diseases: non-hodgkinian lymphomas, multiple myeloma, prostate cancer, Parkinson disease, cognitive disorders, chronic obstructive pulmonary disease and chronic bronchitis. In the Antilles there is a strong presumption of a link between exposure to chlordecone in the general population and the risk of prostate cancer. Human biomonitoring studies[3] in the European Union also show that a significant number of chemicals are found in human blood and tissues, including plant protection products, heavy metals, plasticisers, flame retardants, etc. In addition, expert reports[4] have also shown that plant protection products contaminate all environmental matrices and are the main cause of the degradation of groundwater chemical status: plant protection products were found at least once in 80 % of the groundwater monitoring points. Plant protection products are also persistent in soils: despite its ban in agricultural use since 1998, residues of lindane, a substance toxic to humans and dangerous to the environment, remain in metropolitan soils due to its low mobility, reinforced by a period of degradation of more than forty years. The same applies to chlordecone in the Antilles.

[2] *Pesticides and health, new data*, INSERM, 2021 and *Impacts of plant protection products on biodiversity and ecosystem services*, INRAE and IFREMER, 2022 – *Assessment report on pollinators, pollination and food production,* IPBES, 2016 – see also the work of ANSES

[3] https://cordis.europa.eu/project/id/733032/fr

[4] Report *"The Environment in France – 2019 edition", Focus Environment and Health,* Commissariat général au développement durable.

The use of plant protection products is also identified as one of the direct drivers of biodiversity erosion, in particular pollinators, and also causes indirect impacts on biodiversity, such as the reduction of food resources or the loss of habitats for animal species.

However, few figures are available for these impacts, as some effects, in particular on ecosystem services or cocktail effects, are still poorly documented: two reports by the Commissariat général au développement durable (CGDD) published in 2011 and 2015 assessed the expenditure on potabilisation of local authorities caused by the presence of plant protection products in water tables and rivers in a range of between EUR 260 million and EUR 360 million per year in France.

These impacts are compounded by the emergence of resistances, which reduce the effectiveness of these products and lead to the consideration of the need to avoid these synthetic products in the long term. This major development needs to be anticipated and planned. This is a major concern for our citizens.

Launched in 2008, the first Ecophyto Plan aimed at reducing the use of plant protection products. It was part of the EU Directive 2009/128 on the sustainable use of plant protection products (SUD), which provides that " *Member States shall use national action plans to set quantitative objectives, targets, measures, timetables and indicators to reduce the risks and effects of the use of plant protection products on human health and the environment and to encourage the development and introduction of integrated pest management and alternative methods or techniques to reduce dependence on the use of plant protection products".*

The Ecophyto plans that have been deployed since have demonstrated, in many cases, the existence of efficient cultivation systems in synthetic products[5] that are compatible with maintaining food sovereignty. However, these results are struggling to spread and there are still deadlocks.

The action taken by the Government since 2017 and the Ecophyto II + plan have made it possible to record for the first time since 2009 a decline in the use of synthetic plant protection products. There are two trends in sales of active substances since the beginning of Ecophyto II +:

- A downward trend in sales of active substances (excluding organic farming and biocontrol), with a withdrawal of 20 % in 2022 compared to the 2015-2017 average.
- A continuous increase in sales of authorised substances in organic farming or biocontrol with an increase of 55 % compared to the 2015-2017 average.

In addition, the overall target of a 50 % reduction in uses has now been achieved in order to:

- Non-agricultural uses (public green areas, sports grounds, amateur gardens, etc.), which accounted for only 0.2 % of sales of plant protection products in 2022, following the successive bans laid down in the Labbé Law.
- As regards agricultural uses, the active substances most dangerous to health (carcinogens, mutagens and reprotoxic category 1 (CMR 1), i.e. proven or presumed), which have gradually been withdrawn from the market and whose sales have decreased by 95 % since 2015 and by 98 % since 2009. Non-CMR 1 substances may have impacts on health or the environment, for example

[5] See in particular 'DEPHY network closures: 10 years of results', Ecophyto National Cell, 2023

through their presence in groundwater which may affect the quality and availability of drinking water.

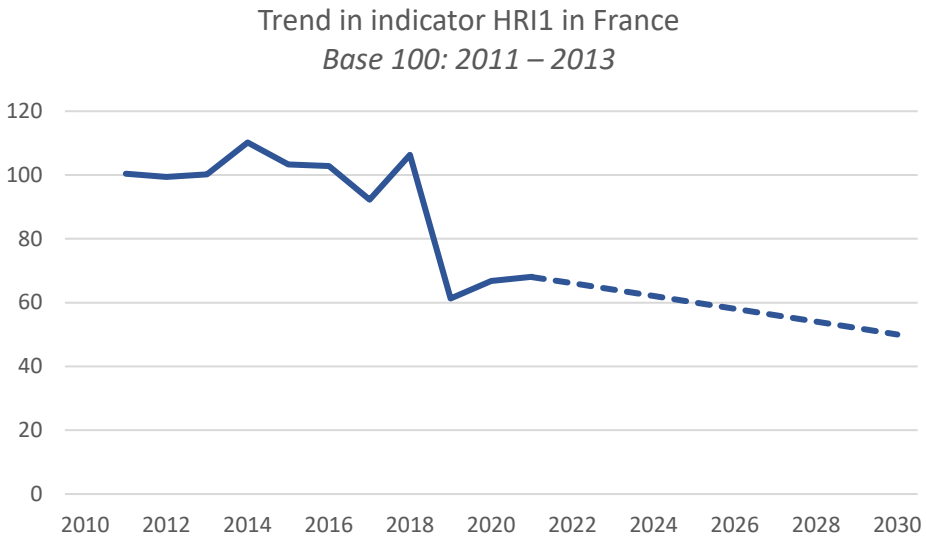
Crop protection is a major topic for France's food sovereignty. A change of method towards greater anticipation in the development of alternative methods and better support for farmers is essential.

Objectives

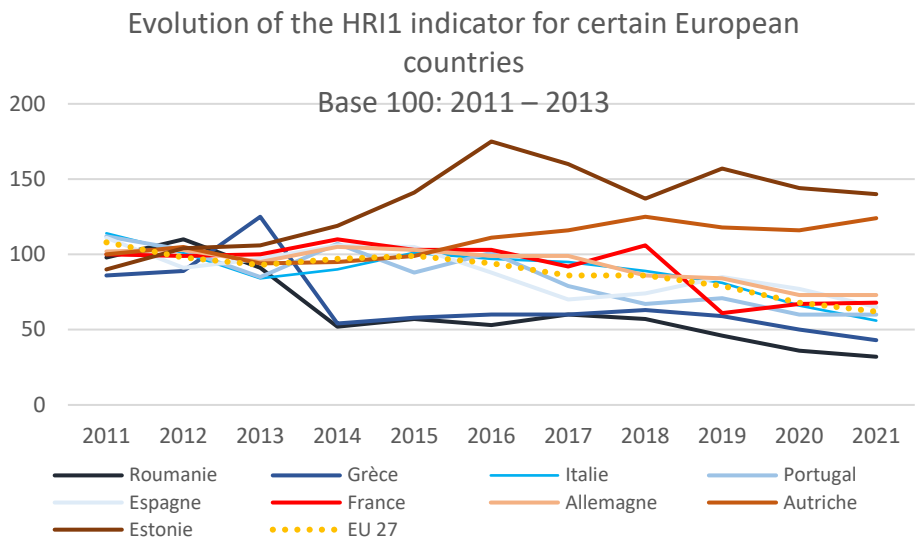
In February 2023, the Government announced the drawing up of a new Ecophyto 2030 strategy, in accordance with the 2009 SUD Directive, which provides for the revision of national plans every five years, and in line with the various ecological planning projects relating to agriculture, in particular the water plan, the decarbonisation pathway, the national biodiversity strategy and the national strategy for food, nutrition and climate (SNANC), and in connection with European work.

Three levers can be highlighted: the availability of new alternatives, the extension of the approach to actions of a different nature (anticipation, experimentation, deployment and transfer) and the reinforcement of the relevant appropriations in ecological planning.

The objective of the Ecophyto 2030 strategy is to reduce overall use and risks by 50 % by 2030 compared to the period 2011-2013 (corresponding to the 100 basis of indicator HRI1), and the focus on this work is to leave no farmer without solution, with an approach based on anticipation, innovation, the development of non-chemical alternatives and more support resources, while offsetting our requirements by protecting them internationally, in particular through mirror clauses at European level.



Sources: European Commission



Source: European Commission[6]

At European level, France will continue its work to promote alignment with the existing practices it promotes in France, with a view to ensuring fair competition between Member States and the effective implementation of mirror clauses vis-à-vis States outside the Union, in accordance with the principle of reciprocity promoted by the Government. On the subject of the approval of organic alternatives, France undertakes to push for a rapid resumption of a discussion in order to set up a fast-track approval system for products. In order to achieve the objective of reducing the overall use and risk of plant protection products by 50 % by 2030, this Ecophyto 2030 strategy must therefore:

- Provide for measures to secure this trajectory, as well as additional and proactive measures specific to crop protection policy, such as the privileged use of non-chemical alternatives, in particular biocontrol, and the redesign of production systems with the spread of agro-ecological practices;
- Provide farmers with clear perspectives on their working environment and the solutions at their disposal;
- Build on a food policy that incentivises and accompanies the demand for less consumer plant protection products. As pointed out in the reports on the7 subject, it is the training of the whole of agriculture and the food market that will make it possible to achieve the objective, even though a number of successful solutions have already been tested in full scale in the DEPHY farm network.

The use of plant protection products is inextricably linked to general choices on the agricultural model (rotation, changes in areas and assets, mechanisation, dependence on fertilisers, etc.) and on food. Ecophyto policy must be part of a holistic approach to our agri-food system. One of the conditions for success is to put in place a comprehensive, cross-cutting strategy, shared with professional representatives, to replace the Ecophyto II+ plan.

The aim is to develop, or redesign, production systems and technical routes in order to ensure crop protection under technical conditions compatible with economic requirements, through the use of methods or inputs with a favourable benefit-risk balance in terms of health and environmental impact, and by aiming at sobriety of inputs. These developments will require the mobilisation of

[6] https://ec.europa.eu/eurostat/databrowser/view/aei_hri/default/table?lang=en

[7] M.Meynard, A. Messéan, A. Charlier, F. Charrier, M. Farès, M. Le Bail, M.B. Magrini, I. Savini, 2013. *Brakes and levers to crop diversification. Study at farm and sectoral level*

agronomy to move from a substance substitution logic to the mobilisation of one but a number of crop protection levers. This redesign shall:

- Build on the development of alternatives to existing methods;
- Be part of a cross-sector approach;
- Deploy on different scales: the parcel, the agricultural holding, the territory and the region.

Research and innovation will be at the heart of these discussions, in particular through the mobilisation of INRAE and agricultural technical institutes (scientific and technical framework), inter-branch organisations (economic framing), enterprises (development of alternatives) and agricultural development bodies, including the Chambers of Agriculture (accompanying the plot). Specifically, it will be necessary to extend the work carried out under the Sovereignty Plan for the fruit and vegetables sector[8] to all sectors in a proactive, cross-cutting approach that can be operationally broken down by sector.

This transition requires the commitment of businesses, professional representatives and should not be affected where insufficiently anticipated bans can leave room for a lack of solutions. French producers should not feel less favourable than in other Member States.

The effort to research, innovation, training and capitalise on the knowledge acquired with a view to its dissemination will be very important and represents a challenge that irrigates each of the thematic axes of the strategy. In order to promote the cross-cutting nature and coordination of the work planned in this area in these different axes, the governance arrangements set out in axis 4 will incorporate an overall vision and ensure that they are properly coordinated.

All measures in this strategy are part of the recommendations of the 2019 General Inspections Report with[9] a particular focus on anticipating the potential withdrawals of substances and on the widespread dissemination of proven solutions.

This strategy is intended to be broken down territorially and by sector, in particular at regional COPs.

A meeting point of the strategy is planned at mid-term to enable:

- Adjust where necessary the levers to be implemented;
- Link this strategy with progress on decarbonisation projects, the water plan and the national biodiversity strategy;
- Examine the need for biomass and nitrogen and phosphorus cycles, in particular by comparing the trend decline in livestock in recent years and the necessary increase in organic farming yields. The availability of organic fertilisers must not hinder the development of agro-ecological systems, including organic farming. The development of these systems, in turn, must be consistent with the objective of food sovereignty.

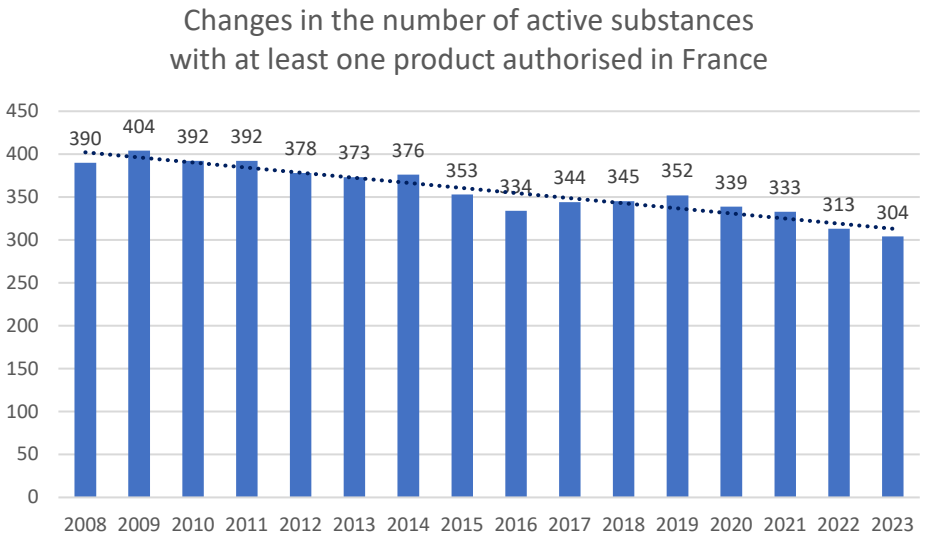
[8] https://agriculture.gouv.fr/plan-de-souverainete-pour-la-filiere-fruits-et-legumes

[9] CGAAER, CGEDD, IGF, 2021, *Evaluation of the financial actions of the Ecophyto Programme*

Area 1: Speed up the search for alternatives to prepare for the reduction of the number of active substances authorised

State-of-play

The number of active substances approved at European level for plant protection uses has been steadily decreasing for 5 years as a result of many factors (improving knowledge of impacts on health and the environment and changing the European regulatory framework, emergence of resistance, difficulties in identifying new chemical modes of action). Around 500 substances are approved today in Europe, half of which need to be reassessed by 2025. Due to the diversity of French, metropolitan and ultramarine cultures, France has a marketing authorisation in 2023 for products containing 304 of these substances, the 4rd EU country in terms of the availability of chemical solutions, as can be seen from the following graphs:



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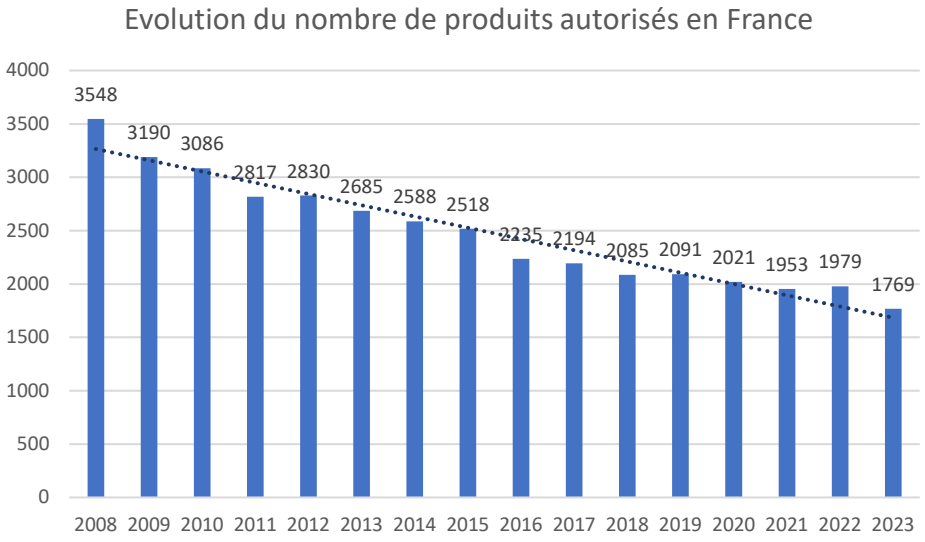

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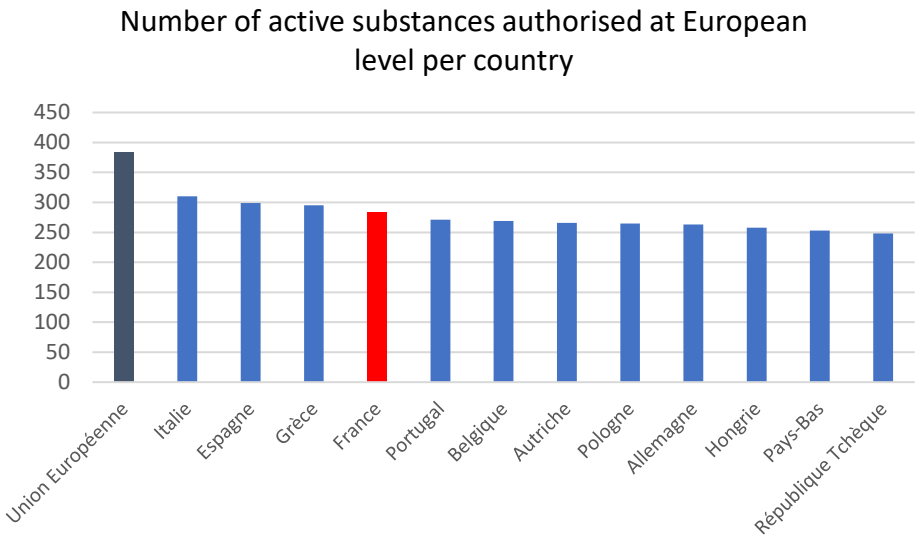


Source: European Pesticides Database[10]

As the number of active substances approved is tending to decrease, there is an urgent need, for a number of uses for which only few modes of action remain, to speed up research programmes for non-chemical alternatives to ensure France's food sovereignty, in the face of global changes, particularly climate change, and the decline in biodiversity. The challenge is to maintain effective crop protection and to improve the resilience of the agricultural production system with better respect for human health and the environment.

In order to achieve these objectives, it is necessary to move away from the logic of substitution of one active substance by another, in order to favour combinations of agronomic and biocontrol solutions under a use based approach. Otherwise, the use of one prohibited product is likely to be simply replaced by the use of another with similar uses, or even impacts, which will not lead to a decrease in the overall level of use of plant protection products, and without necessarily having positive effects on the environment and health through a concentration of use on a few molecules. This, above all, will not allow farmers to anticipate further withdrawals of the approval of active substances as a result of new scientific data: the global approach is the one that ensures the development of upstream solutions.

[10] https://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/start/screen/active-substances, extraction: February 2024

1.1 Plan in stages, with channels and by use, the search for non-chemical and chemical alternatives[11]

State-of-play

In May 2023, the Ministry of Agriculture and Food Sovereignty launched a plan to anticipate the potential European withdrawal of active substances and the development of alternatives (PARSADA). The first phase of this plan was to identify experts which are likely to be withdrawn from the market at European level within 3 to 5 years, or whose uses could be restricted, and then to identify uses in tension, i.e. where solutions are lacking in order to guide R & D programmes aimed at finding alternatives.

In this search for alternatives, all the general principles of integrated crop protection (PCI) listed in Annex III to Directive 2009/128/EC must be used. These include the strengthening of prevention methods through digital tools, the use of suitable agroequipment, the preference for biocontrol or physical methods over chemical plant protection methods, the use of resistant cultivars, and the balanced use of fertilisation practices. The chemical alternative should only be considered as a last resort.

Measures proposed

The strategic action plan for anticipating the European withdrawal potential of active substances and the development of alternative crop protection techniques, known as PARSADA [12] , is being implemented. It follows in particular the work carried out with the fruit and vegetables sector to draw up the food sovereignty plan for this sector[13]and draws on the experience gained. It gives concrete expression to the principle of leaving no farmer without solution in crop protection.

The additional work undertaken to optimise and simplify procedures (in particular authorisations to place plant protection products on the market by extension of minor use or by mutual recognition, updating the national catalogue of plant protection uses, developing assessment models that take account of the specific characteristics of the environment, optimising the timetables for issuing marketing authorisations in line with the cultivation schedules, etc.) will be extended to make available to producers crop protection levers compatible with the objectives of this strategy.

We need to work collectively to put all available chemical and non-chemical alternatives into perspective and aim to widen the range of solutions available to farmers. Basic work must be carried out to find solutions of all kinds, primarily non-chemical (pharmacopoeia analysis, biocontrol alternatives, agroequipment, innovative cultivation, seeds, etc.) to meet the short-, medium- and long-term challenges. It is also important not to exclude anything in this approach, including solutions such as precision farming for the alternatives to be deployed. The aim is to identify the range of available

[11] Chemical methods are defined as plant protection products (PPPs) other than biocontrol products. Non-chemical methods cover all agronomic levers and techniques to control a pest or prevent its occurrence, which is not based on synthetic PPPs: micro-organisms (PPPs based on fungi, bacteria or entomopathogenic viruses, and entomopathogenic nematodes), macro-organisms (arthropodes predators and parasitoids of insects or crop-pests), chemical mediators (sexual and aggregation pheromones, kairomones, food appetisers), physical methods, genetic methods, cultivation methods, etc.

[12] https://agriculture.gouv.fr/plan-daction-strategique-pour-lanticipation-du-potentiel-retrait-europeen-des-substances-actives-et

[13] https://agriculture.gouv.fr/plan-de-souverainete-pour-la-filiere-fruits-et-legumes

solutions in the face of stalemate risks, focusing on identifying the key factors for their possible deployment.

These solutions will take the form of projects in response to action plans drawn up by the sectors. These projects will be evaluated scientifically and technically by a committee of experts (the Scientific and Technical Committee). The aim is to fund research projects to develop reliable and socio-economically acceptable alternatives.

The organisation chosen is based on the establishment of an inter-sectoral committee involving representatives of the sectors (interprofessions and technical institutes) and all the ministries concerned.

Eight sectoral task forces have been set up (arable crops, fruit and vegetables, aromatic and medicinal perfume plants and hops, Vine, Horticulture, seed, ultra-sea flats, biological differences) and are run by the teams of the Ministry responsible for agriculture. The aim is to address all short-, medium- and long-term crop protection issues in each sector.

The aim of these task forces is to guide the various sectors so that they are able to:

- Identify cases in which withdrawals of active substances will call into question uses or groups of uses and identify the most urgent cases to be dealt with at sector level;
- Give an initial overview of possible alternatives, indicating for each major type of non-chemical method (agronomic, physical, genetic, etc.) the urgent uses potentially concerned;
- Identify the first priorities for use, which have the greatest socio-economic impact and are vital for culture;
- Establish the priorities for action by means of a comprehensive '360°' diagnosis of the alternative chemical and non-chemical (including biocontrol) knowledge and methods available for each of these priorities by identifying the research, development and deployment support needs needed to make them operational;
- To build a shared action strategy on all subjects in the short/medium/long term to manage the technical deadlocks identified, taking into account the impact of changes in production methods linked to the implementation of non-chemical methods;
- To build technical reference routes to manage the technical deadlocks identified, taking into account changes in production methods linked to the implementation of non-chemical methods.

This work must lead to the designation for each sector:

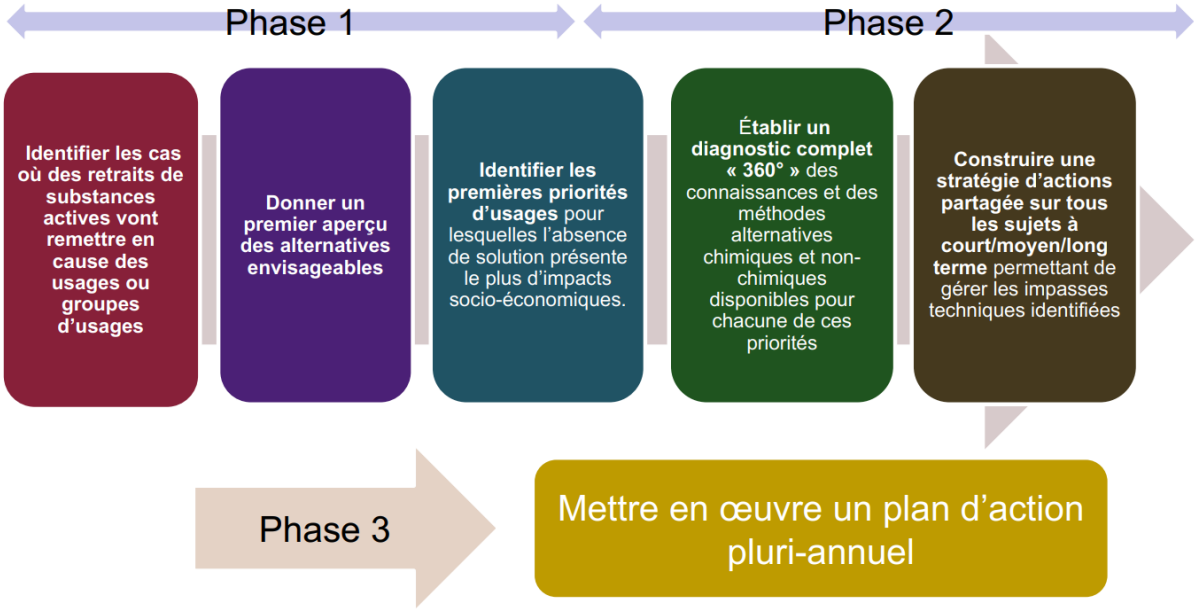
- Action programmes for research, development and deployment of non-chemical alternatives, to be presented to the Task Force and then to the Intersectoral Committee;
- "Meta projects" transverse to the different sectors to pool resources and knowledge: non-chemical weed control with various innovations, natural regulation, storage insecticides, removal of interrow herbicides, etc.;
- Indicators for monitoring the implementation of these programmes.

Specific cross-sector governance is defined at two levels:

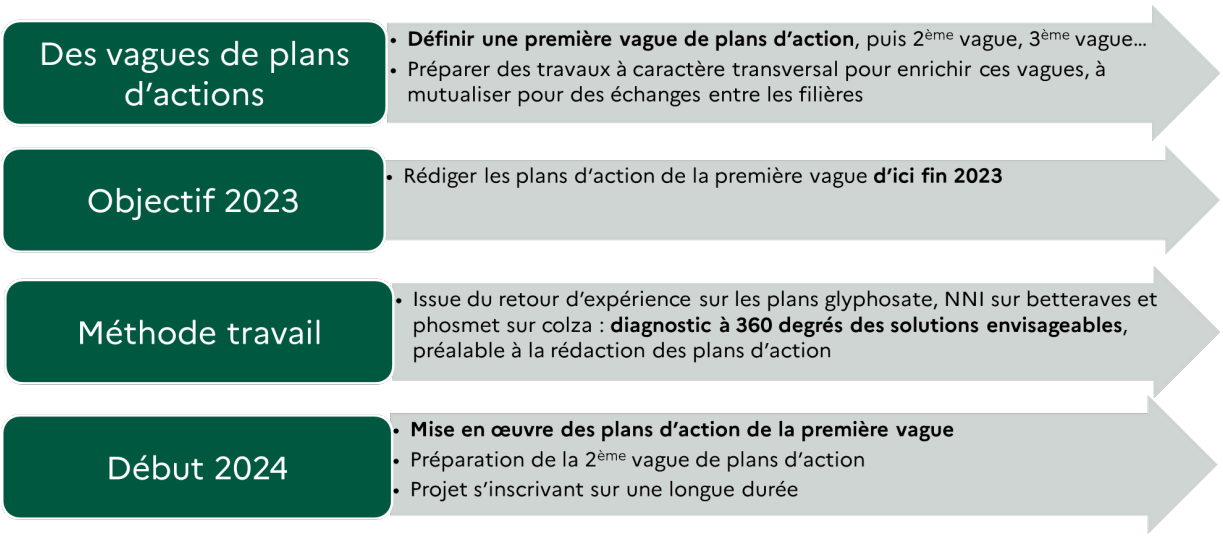
- Strategic under the chairmanship of the Minister for Agriculture **(the list of members of the cross-sector committee is attached);**
- Technical at expert level, involving representatives of production sectors, technical institutes, ministries and their operators (INRAE, CIRAD, ANSES, OFB, IRD).

Priorities are being defined in terms of short-term urgency, for each use, so as to organise the work in waves [14]. Strategic guidelines were drawn up in 2 023 in the framework of three inter-sector committees chaired by the Minister for Agriculture.

The phases of the plan are as follows:

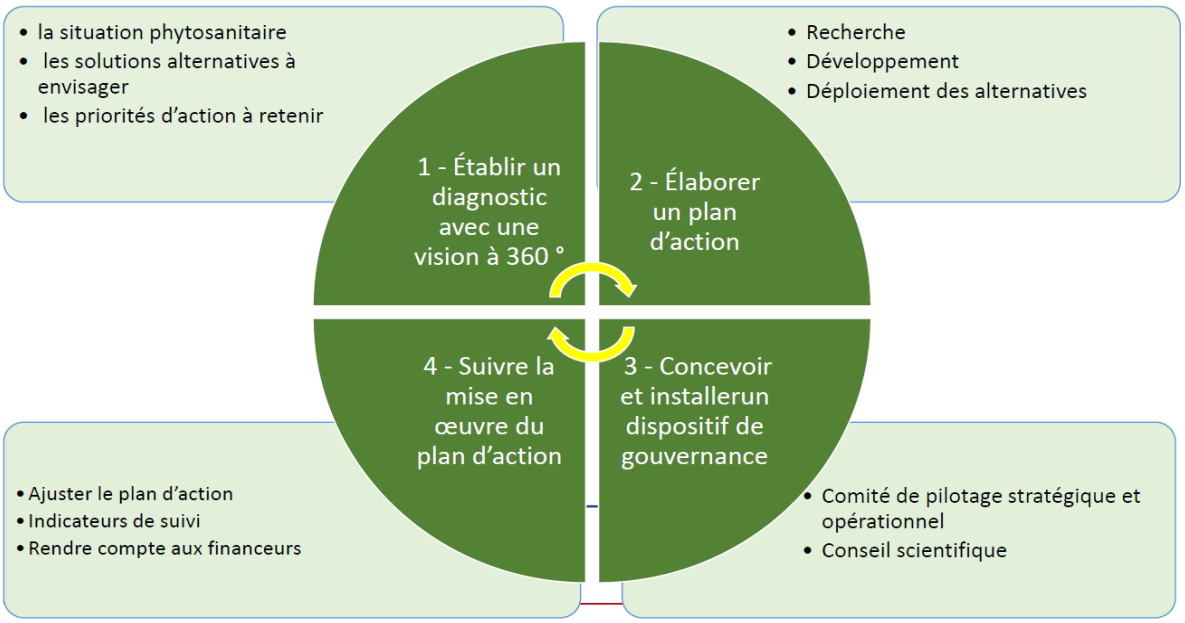


Phase 2 of the plan was validated at an inter-sector committee in December 2023:



Each sector works on a collective and coherent project:

[14] https://agriculture.gouv.fr/plan-daction-strategique-pour-lanticipation-du-potentiel-retrait-europeen-des-substances-actives-et



Subjects specific to overseas and organic farming (research for alternatives to copper in particular) will be dealt with in specific groups with dedicated budgets; alternative solutions deployed in organic farming may be presented in the task forces by sector. All solutions may also be shared with non-agricultural users (JEVI) where relevant.

The 2rd phase requires consideration to be given to extending the framework for exchanges to private actors in crop pest management. This is all the more necessary as some of these actors have very important R & D programmes, while others are essential for the deployment of innovations on the ground. As of 2024, it is therefore proposed to share the results of this approach to finding alternatives with all the players in the value chain (production, cooperatives and trading, processing and distribution), as well as with those placing plant protection products on the market in order to ensure that all the conditions are met for the best possible deployment of alternatives, in particular where adjustments to the specifications (for example, to take account of additional costs in price formation), cultivation practices (changes in crop rotation or farming practices) or investments and agroequipment are needed and require their support (research into new key products or to promote low input chains.

The State will devote to this measure an annual budget of EUR 146 million for projects and EUR 50 million for agri-equipment from 2024, for ecological planning and France 2030.

The support arrangements will be implemented in the context of targeted projects proposed by the agricultural technical institutes responsible for sectoral action plans, cross-cutting projects supported by INRAE, and projects in response to a call for projects managed by FranceAgriMer, which will be opened at the beginning of April 2024. Multiple partnerships are encouraged for these projects. These projects should lead to a reduction in dependence on synthetic plant protection products and speed up the development and deployment of concrete, if possible innovative, alternative solutions that will show ongoing disruptions (e.g. management of soil microbiota to protect mildew vines or chemical ecology aimed at controlling insects through the 'olfactory landscape'). They will focus on the research and production of operational and viable solutions or, where relevant, the initiation of medium-term actions that will strengthen the range of solutions offered to farmers. Particular attention should be paid to project promoters on the territorialisation of actions and the deployment of solutions among farmers.

In consultation with the sectors, pathways for each sector may be developed as alternatives are identified (see axis 5) and their deployment. The cross-sector committee for plant protection will ensure that the results of the various task forces are cross-cutting.

In terms of communication on PARSADA's actions, MASA will communicate annually on the action plans launched and in progress and on the deployment of alternative solutions (in particular the indicators for monitoring the National Strategy for the Deployment of Biocontrol (SNDB)).

As a follow-up to this work, the Ministry of Agriculture launched in March 2024 a round of meetings on "solutions and alternatives to banned plant protection products" to complement the actions undertaken and address the difficulties faced by farmers in relation to crop protection when faced with already existing deadlocks.

In practical terms, the Orphan Uses Commission, which brings together experts from the State services and the profession, will be given the task of objecting to stalemate situations raised by farmers and finding rapid solutions.

Two types of answers may be given depending on the situation:

- **Regulatory**, be it in the form of marketing authorisation (MA), mutual recognition or application for extension of use for existing marketing authorisations. These meetings will also explore the possibility of having marketing authorisations of limited scope to manage risk where possible, or to assess possible targeted derogations;
- **Agronomic** methods, by speeding up the sharing and dissemination of, sometimes unfamiliar, virtuous use techniques.

1.2 Strengthening and adapting the European framework for risk assessment and marketing authorisation

State-of-play

The feedback from widespread chlordecone pollution in the Antilles[15], where authorisation decisions taken half a century ago still have effects on health and the environment, has shown the importance of the quality of the scientific expertise on which these decisions are based.

In the field of active substances and plant protection products containing them, the risk assessment framework is developed at European level and implemented by European and national agencies. In France, ANSES carries out these assessments and issues marketing authorisations for France for products containing active substances approved at European level. This framework needs to be regularly updated in the light of the progress of knowledge and feedback from vigilance, which follows, records and analyses the effects of the use of products on the ground.

Proposed measures

France will put forward several proposals for the development of the European framework in European discussions:

[15] See in particular Plan chlordecone IV, 2021-2027

- Improve the risk assessment framework on biodiversity and associated trophic chains, based on ecosystem services provided by different ecosystems, such as pollinators, wetlands, grasslands or mangroves, including the EFSA review of the risk assessment guide for domestic and wild bees. Methodological progress should be made to better take into account in the assessment procedures for cocktails effects, effects of adjuvants and co-formulants, secondary metabolites, as well as transfer processes;
- Adapt evaluation methods to the specificities of low-risk substances used in biocontrol, such as pheromones, and more broadly propose a specific definition and approval framework for these substances;
- Develop the use by Member States of comparative assessment studies of substances, as France has done on glyphosate (see 1.5), S-metolachlor and prosulfocarb and seek convergence on the implementation of the findings of these studies;
- Work on harmonising the marketing authorisation regime for active substances and plant protection products under the next European mandate.

France will promote at European level the principles of national rules on biocontrol, in particular the definition of these methods with a closed list of the products concerned and the improvement of the evaluation framework.

In order to speed up the placing on the market of biocontrol products, ANSES has introduced a prioritisation of the treatment of dossiers relating to marketing authorisation applications for biocontrol products, through a specialised committee of experts on biocontrol substances and plant protection products, which is associated with a permanent working group on plant protection products, which assesses the conclusions of each marketing authorisation application assessment, thereby reducing the time taken to investigate. To strengthen this momentum, the French authorities will make proposals to the European Commission to set *up a fast track* on low-risk substances, including micro-organisms. In addition, it will be necessary to better identify biocontrol substances at European level, from the outset of the approval process, in order to enable the Commission to reduce the approval time.

In general, it would be important to encourage greater coherence between European chemical assessment frameworks, including active substances, and harmonisation of the criteria for selecting the work selected by the agencies so that academic studies are better taken into account in risk assessment. Clarifying these criteria will make the process of expertise as transparent and objective as possible.

1.3. Promote the adoption of mirror measures to eliminate distortions of competition with non-European production with regard to health standards

State-of-play

French productions, and more broadly European ones, are in the short term subject to competition from productions which do not have the same level of requirement in the risk assessment of authorised products.

The European Union (EU) is committed to the transition of its agricultural, food and forestry sectors, making them safer and more sustainable, more environmentally-friendly and animal-friendly, in order to respond to the major challenges of our times.

In order to succeed in this indispensable transition, economic actors will need to be supported. However, there is a risk of insufficient financial support alone.

EU policies must also prevent the negative externalities of this necessary transition – in particular those linked to 'environmental and climate leakage' – which could reduce its effectiveness. It is therefore necessary to be able to ensure the coherence of the objectives of three policies that are essential for the construction of the European Union, its prosperity and its ability to meet the challenges of the future:

- The Common Agricultural Policy as a safeguard for food security in Europe and globally;
- The European Green Deal, which is the European roadmap to address the challenges posed by climate and environmental emergencies;
- Trade policy, based on the defence of multilateralism based on shared rules, a factor of global stability.

In certain circumstances, WTO rules allow regulatory measures, including restrictions on imports, to achieve a legitimate policy objective such as the protection of health, the environment or public morals, provided that they are non-discriminatory and do not constitute a disguised restriction on trade, are necessary to achieve the objective pursued, are scientifically based and have an effect on global balances.

The EU thus has levers to raise the environmental and health standards applying to access to the European market and to ensure that products placed on the EU market guarantee the same level of health and environmental protection for European consumers. This strategy proposes to continue French actions within the European Union bodies to further develop mirror measures.

In December 2023, the Committee of Inquiry into the causes of France's failure to achieve the objectives of the successive plans to control the impact of plant protection products on human and environmental health and in particular on the conditions for the performance of the tasks of the public authorities responsible for health safety[16] highlighted the need to give precedence to rules based on reciprocity for trade with third countries. This point is shared by the French authorities, which stress the need to introduce reciprocal measures in order not to import products which are less distant from production standards, which would compete with the production of European farmers.

Proposed measures

The possibility of banning at EU level imports of food that has been produced using products containing plant protection active substances banned in the EU is essential to ensure a level playing field between EU and non-EU producers. The amended Article 44 of the Law of 30 October 2018 on the balance of trade relations in the agricultural and food sector, known as EGALIM, pursues this objective.

Other levers may be used at European level to address the issue of reciprocity, such as the request to review the maximum residue limits (MRLs) and import tolerances (IT) of plant protection active substances (e.g. automatic zeroing of MRLs and IT where substances are banned), or in the context of agricultural practices or pathways, in particular when an active substance is no longer authorised in the EU. The tool of free trade agreements, in particular through the sustainable food systems (*SFS) chapter*included in the new agreements, can also be mobilised.

On the overall issue of reciprocity of standards, in an operational way, it will be necessary to maintain a strong French position, ensuring that all available tools are mobilised (MRLs, mirror clauses in free

[16] 14/12/2023 – report No 2000 on the causes of France's failure to achieve the objectives of successive plans to control the impact of plant protection products on human and environmental health and, in particular, on the conditions for the performance of the tasks of the public authorities responsible for health safety

trade agreements, measures banning imports of products from sectors using prohibited products, etc.).

In addition, the European Chemicals Strategy presented by the European Commission in October 2020 promotes safe and sustainable chemicals management globally. To achieve this objective, the Commission intends to introduce into EU legislation a ban on the production for export of certain chemicals banned in the EU due to their hazardous properties and/or unacceptable risks to human health or the environment. Such a prohibition would de facto apply to plant protection products containing active substances prohibited in the EU.

If it is not a reciprocity measure as such, it can be understood as an exemplary measure for the European Union, facilitating negotiations with third countries, including free trade agreements. In operational terms, it will be necessary for France to monitor these negotiations and to support, in this context, the ban on the export of plant protection products containing active substances not authorised in the European Union, in accordance with Article 83 of the Egalim Law No 2018-938 of 30 October 2018.

The particularities of the overseas departments and regions will be taken into account in this work with third countries, both in the Pacific area and in the Atlantic/Americas.

1.4. Continue innovation and increase the dissemination of biocontrol solutions and natural preparations of low concern (PNPP)

State of play

Biocontrol refers to a set of plant protection methods based on the use of natural mechanisms (macro-organisms, micro-organisms, chemical mediators such as pheromones, or substances of natural plant, animal or mineral origin) to regulate populations of bioaggressors.

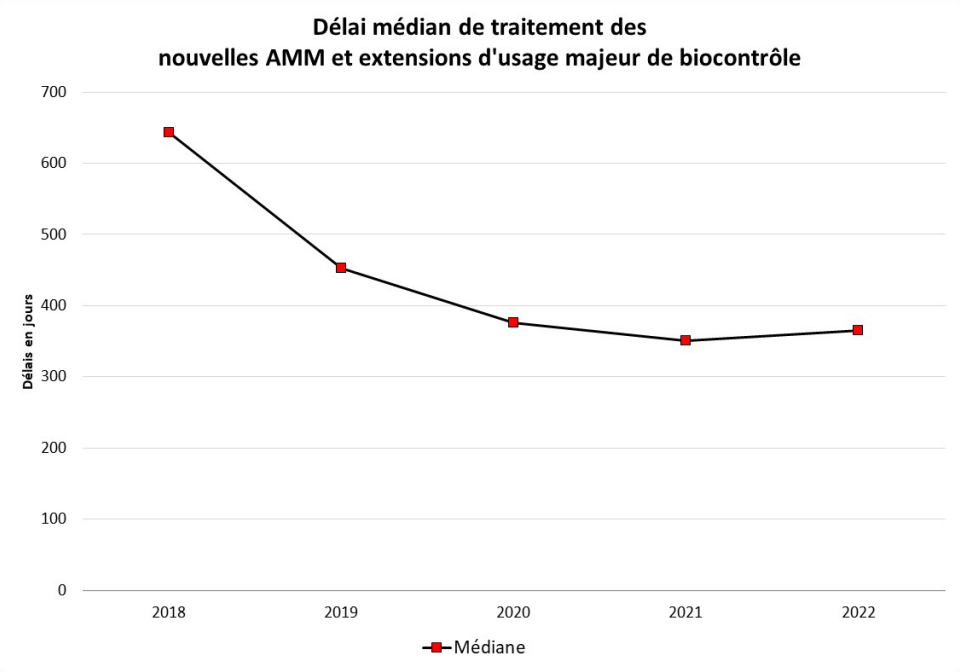
Natural preparations of low concern (PNPP) are defined as simple and easily accessible methods for end users (plant purins, decoction, food products, etc.) and which are capable of stimulating plant resistance to biotic and abiotic constraints. They are mostly empirically tested and their use is based on the transfer of traditional knowledge. Although deployed on a limited number of farms, the use of these preparations is associated with the design of alternative technical routes that may no longer use chemical inputs.

These techniques, alone or combined with other means of plant protection, are based on the mechanisms and interactions that govern the balance between species in the natural environment.

These methods are the subject of specific national legislation in France, which is considered to be one of the most advanced in Europe, following the future law for agriculture, food and forestry of 13 October 2014.

The National Biocontrol Deployment Strategy published on 10 November 2020 by the Ministries responsible for Agriculture and Ecology encouraged the dissemination of these methods with first encouraging results on sales of these products, and prioritising the treatment of the relevant marketing authorisations by ANSES, but stakeholders raise challenges related to European assessment methodologies, designed for chemicals and not always adapted to certain categories of biocontrol products, including pheromones.

The commitment made in the Ecophyto II + plan to reduce the time taken to examine authorisations to place biocontrol products on the market was met with the introduction of an accelerated procedure.



Sources: ANSES

Measures proposed

Innovation in this area will be supported by various measures described in part 4.1, in particular in connection with the programme 'Grand Challenge Biocontrol and Biostimulants' in the context of France 2030.Communication to professionals and training on the use of these products, particularly in agricultural secondary schools and in general in higher education establishments will be supported under this strategy; in the case of biocontrol methods methods, the DGAL will investigate the possibility of accelerated treatment of the approved CEPPs (certificate of savings in plant protection products).

The use of biocontrol solutions requires a change of practice, sometimes in depth at farm or even territorial level. It is necessary to provide support for the purchase of equipment adapted to these new solutions and specific measures to accompany deployment and massification, described in Part 2.2, 2.6, 4.2 and 5.1.

- The improvement of technical routes in networks of pilot farms and the exploitation of results among users;
- The purchase of equipment adapted to these new solutions;
- The economic value of production from these technical routes which are efficient in plant protection products;
- Support to businesses for the production of plant protection solutions currently not produced in France and identified as strategic for agri-food sovereignty by the Ministry, following work on Axis 1 of this plan and GDBB;
- Integration of the use of biocontrol and PNPPs into training devices (initial and continuous) and advisory reference systems, linked to the dissemination of relevant ADOs;

- Encouraging dynamic local animation on the use of biocontrol and PNPPs, in particular through the animation programmes of the Chambers of Agriculture, in conjunction with the DRAAF.

1.5. Implementing the benchmarking approach for the substitution foreseen by the European framework

State of play

Comparative assessment for substitution is a procedure for withdrawing or restricting the authorisation for the use of a substance of concern where an alternative, chemical or non-chemical, which is significantly safer for health or the environment, is available or in common use.

Benchmarking and substitution are a potential lever to reduce the risks and impacts of the use of plant protection products. Where the circumstances are met, they make it possible to withdraw from a marketing agent the right to market a product which may satisfy the minimum authorisation criteria. They do not necessarily lead to a reduction in the quantities of products used, but help to reduce overall the risks arising from their use.

Regulation 1107/2009 provides for two modalities for the implementation of benchmarking for substitution:

- A mandatory modality for plant protection products containing a candidate for substitution ("candidate for substitution"), which can be conducted at any time. Candidates for substitution meet certain hazard criteria laid down in Regulation 1107/2009 and are listed in an EU regulation. There are currently around 60 such substances that are approved and represent around 1/5 of the approved chemical synthesis substances;
- An optional modality, for products that do not contain a candidate for substitution, but which "in exceptional cases" may nevertheless be substituted for a non-chemical common use alternative that has no major economic or practical disadvantage. However, substitution of these products can only be implemented at the time of renewal of marketing authorisations for plant protection products. This procedure was followed in France for glyphosate after the renewal of its approval in December 2017.

This procedure has been implemented in France only twice for the mandatory and once for the optional one.

Measures proposed

Taking into account the good results of the comparative analysis on glyphosate and the benefits of this approach to determine the uses for which this substance can be substituted by non-chemical alternatives, as well as the work on S-metolachlor and prosulfocarb, the Ministries of Agriculture, Health and Environment seized INRAE and ANSES in July 2023 to continue the comparative analysis for substitution, extending them to two other herbicides (chlortoluron and diflufenicanil) and one fungicide and insecticide.

In view of the limitations of the substance-by-substance approach highlighted by INRAE, a parallel discussion is underway on the desirability of a more cross-cutting analysis of groups of substances with similar uses, including for biocontrol products. The resources of these operators will be adapted to successfully scale up this comparative analysis work.

The benchmarking unit set up within INRAE will be maintained for the duration of the strategy to continue this work according to a timetable to be agreed with the three ministries.

At the same time, in view of the ineffectiveness of the mandatory comparative assessment, the European Commission, together with EFSA, launched work to revise the arrangements for that assessment. ANSES, representing France in the working group set up for this purpose, will make concrete proposals based on national experience, leading to a revised, more operational procedure.

Area 2: Accelerate the deployment of agro-ecological solutions on all farms

State of play

One of the challenges of the previous plans was to extend the use of plant protection products to all farms, which were successfully tested without deterioration of economic indicators, in particular in the context of the DEPHY farm network. Several tools had been put in place for this purpose (groups 30 000, certificates of savings in plant protection products, strategic advice required twice in 5 years for each holding, etc.) without the target being considered to have been achieved, despite some local successes.

The success of this massification is all the more important now that we are on the eve of a major generational renewal in the agricultural sector.

But it is also essential, in order for this large-scale distribution to take on board the operators of the order, up to the final consumer, and not just those involved in production.

2.1 better knowledge of uses of plant protection products

State-of-play

In EU legislation, the register of plant protection products is subject to several obligations:

- ***European Regulation SAIO*** *(Agricultural Statistics), adopted in 2022*: Member States are obliged to submit statistical data on the use of plant protection products with **an increased frequency** (change from five-year to annual reporting) and with **an extended scope** (one sector per year historically compared to 21 crops under the transitional regime and 95 % of the uses covered by SAIO's definitive regime).
- ***Implementing act for Article 67 of Regulation (EU) No 1107/2009****, adopted in 2023:* users of plant protection products **in all sectors** will be required, as of **1 January**[2026], to hold the information in their PPP register (provided for in that regulation) in **electronic format**.

Finally, usage data are also used by several national schemes beyond statistical obligations, in particular for the management of CAP support, and beyond, they are of interest to different audiences, such as drinking water abstraction managers or the scientific community to carry out studies linking use and exposure of people or environmental pollution.

Proposed measures

In view of the regulatory framework set out above and in connection with the importance of data on the use of plant protection products for the steering of public policies and certain national measures, it is proposed, in the context of the France Roadmap for Digital Green Nation:

1/De carry out a communication campaign "Ecophyto 2030" for users of plant protection products to ensure that they have a good knowledge of the regulatory requirement for electronic format of the register from 1 January 2026, including overseas territories.

2/De to develop by 2026 a public framework open to all stakeholders to respond to it and allow users of plant protection products who so wish to have a paperless, interoperable and regulatory information system.

3/De then carry out a campaign to deploy the electronic register to accompany users of plant protection products under this new obligation.

To be used by farmers, this tool could be developed, for example, in the form of a digital platform with individual identification on which a user of plant protection products could provide information on his or her regulatory obligations, either directly or by transmitting the data they provide in private software.

Work on the development of the spatial BNVD, which allows the use to be modelled in the municipality, will continue.

France Nation Verte's draft digital roadmap also set itself the objective of establishing a common benchmark for plant protection products and maintaining and improving the production and enhancement of the national bank of sales made by distributors of plant protection products (BNVD). It will serve as a reference for data on plant protection products at the level of territorial areas of interest (sub-national, often sub-regional, or even trans-regional) for research and support for public policies (type of AAC action plan, Natura-2000 management plan, etc.).

2.2 strengthen andreaffirm tools to support users of plant protection products and their ecosystem to change production systems

Measures proposed

Previous plans have created various tools to support the transition, including the strategic advice (on farmers) and the Plant Protection Product Saving Certificates or CEPP (which covers distributors of plant protection products). While these tools have contributed to the reduction in usage described above, they need to be redirected to achieve the objectives of this strategy and effectively accompany the agricultural transition.

They should make it possible, in particular, to promote solutions based on the combination of levers linked to biological processes, to develop plant diversity (longer rotations, diversity of crop rotation and the presence of uncultivated diversity), and to accompany and multiply the siting of hedges, vegetation and trees in intra parcellar agroforestry in order to encourage the design of complex and diverse landscapes. They will also be able to integrate these challenges into the wider environmental transition of agriculture (greenhouse gas emissions, adaptation to climate change, input sobriety, biodiversity).

2.2.1 Strategic advice and advice specific to the use of plant protection products

The separation of the activities of advising on the use and sale of plant protection products, as well as the obligation for users of such products to hold regularly updated strategic advice, are derived from the EGALIM Act of 2018.

However, the difficulties in deploying the strategic board led the Prime Minister to announce the abolition of the strategic phytosanitary council in its current form in February 2024. Pending the introduction of the new system, an instruction and a decree in the Conseil d'État (Council of State) making it possible to extend the expired certiphytos by one year should be operational on[1] May 2024 and for one year.

The new advisory activity may include the issues of integrated crop protection and management of bioaggressors, but also environmental transition in the broad sense (which may include topics of decarbonisation, fertilisation, water use, etc.).

The work to be undertaken in conjunction with all stakeholders, including those involved in initial and continuing training, will have to be completed by the end of 2024, with implementation in 2025.

2.2.2 Savings certificates for plant protection products

The system of certificates for saving plant protection products (CEPP), for which the obligation relates to product distributors, created in 2016 as a pilot project such as energy EWCs and then made permanent in 2019, is slowly growing, with 124 action sheets now approved by the Ministry of Agriculture. In view of the effectiveness of the EWC system, a system of financial penalties in the event of inadequate completion of certificates, as in the case of EWCs, has been reintroduced. This financial penalty is essential in order to secure the CEPP system, as it was in the case of the EWCs. Once the framework has been stabilised, it is normal that the ramp-up is gradual over several years.

This could make it possible to test the relevance of certain insurance schemes to yield.

In the case of biocontrol methods, the DGAL will investigate the possibility of accelerated processing of the approved CEPFs in the case of biocontrol methods.

2.2.3 networks of reference farms

These reference networks (DEPHY farms or DEPHY expelled, groups 30 000 or EEIG, the Durable Territories project implemented by CIRAD and the association Contract for Solutions) produce useful references17, the challenge of which is now the transfer to all farms.

The financing of the DEPHY network will be conditional on results objectives, in particular in terms of dissemination of proven solutions. As regards biocontrol, a particular effort will be made to improve technical routes in pilot farm networks and to exploit the results among users.

Work will be undertaken on Groups 30 000 and EEIG to improve the readability of the various groups, by continuing to support other types of collective action such as CIVAM or GRAB.

The network of innovative experiments (testing systems) called Dephy Expé will be maintained and the quality of dissemination of the results will be appreciated in the selection process. It will integrate agricultural education farms as much as possible.

2.2.4 Offer farmers an integrated offer of solutions

The diversity and even fragmentation of the offers to support farmers mentioned above call for a more integrated offer. This will create more direct links with the various collaborative websites, including Ecophyto PIC-GECO. Formalisation and sharing of actionable knowledge are major challenges for the farming community, with the ultimate need to align all existing tools. In response, it is proposed to

[17] See in particular 'DEPHY network closures: 10 years of results', Ecophyto National Cell, 2023

take action to this end: led by MASA, it will aim to make publicly funded knowledge actionable, i.e. usable on the ground, so that farmers succeed in all the transitions of their operating system.

In addition, innovation among farmers will be strengthened in order to capitalise on farmers' know-how and business innovations, including production tools such as agroequipment: this census role could be considered in conjunction with the chambers of agriculture in particular.

2.2.5 relying on the tools of users of plant protection products to encourage transitions

Agroequipment and decision support tools contribute to reducing the use of plant protection products, ranging from product economy through localised application to full substitution of plant protection products. They can also help simplify administrative procedures for farmers.

Efforts will continue to be made to develop innovative plant protection products in order to take account of the protection of workers and environmental issues.

The Ecophyto strategy will thus support farmers in modernising their stock stock, in particular through the establishment of investment support desks, through measures provided for by the MASA as part of ecological planning.

2.3 prepare for the mid-term review of the National CAP Strategic Plan (NSP) to improve inter alia its coherence with ecological planning objectives

State of play

Various general inspection reports 18 highlight the major role of the Common Agricultural Policy, which is reflected in France in the National Strategic Plan (NSP), in guiding agricultural practices. However, these missions did not analyse in detail the NSP currently in force, which was adopted in 2022 and needs a mid-term review in 2025 for implementation in 2026.

This revision will have to be prepared in 2024, on the basis of the review of the first year of payments (2023), to propose the changes needed to achieve the objectives of ecological planning and its numerous projects.

Measures proposed

In order to best prepare for this mid-term review, it is proposed that a review be drawn up in the course of 2024:

- Payments for the first year of application of the NSP (CAP 2023 marketing year) in the light of the objectives pursued, in particular as regards the dynamics of organic farming, the development of agro-ecological infrastructure such as hedgerows, grasslands or grasslands;
- The contracting of agri-environment-climate measures (AECMs), in particular those which contribute to the reduction of the use of plant protection products, so as to examine, where necessary, the revision of their specifications or the creation of new AECMs.

These elements will help fine-tune the evaluation work to be carried out with a view to a mid-term review of the NSP in order to contribute to the achievement of the strategic objectives set. The evaluation will cover, in connection with the problems linked to the Ecophyto plan, and in an overall examination of all the objectives to which the NSP must respond, in particular the identification of AECMs which are not sufficiently prescriptive in order to understand their causes, and, if necessary, adapt the specifications and the level of remuneration if necessary, the various levels and routes of the ecoregion and support for organic farming. Similar work will be carried out on the financing tools for agricultural policies specific to overseas territories (POSEI in particular).

2.4 specific support for the development of low-input sectors, including organic farming

State-of-play

State support for organic farming (the only method of production without synthetic plant protection products) has been translated into successive generations of the Organic Ambition Programmes, which have set ambitious objectives for the development of organic farming for more than 15 years and involve all stakeholders in carrying out measures to remove technical, economic and regulatory barriers to the development of organic farming. These programmes promote a range of financial resources linked to public policies (both national and European) dealing with various issues (Ecophyto,

[18] IGF, CGAAER, CGEDD 2021 on the evaluation of the financial actions of the Ecophyto Plan and IGEDD, IGF of 2022 on the financing of the National Biodiversity Strategy

PNDAR, education to be produced otherwise, CAP, national food programme, water agency programmes, organic future fund, etc.).

Proposed measures

The objective of cultivating 21 % of agricultural land under organic farming in 2030, while today we are just under 11 % (3 % in overseas countries), requires strong measures to be taken now, both in terms of communication to consumers and to support producers and processors, given the current difficulties in the sector, without waiting for the Ambition bio 2027 plan, and in addition to the emergency aid being deployed in 2023.

In addition to the analysis referred to in point 2.3, aid for organic farming under the NSP with a view to the mid-term review of the NSP, the following measures may be implemented in the framework of Ecophyto 2030:

- A general inspection mission IGF, CGAAER and IGEDD to study possible options for compensating organic or low-input producers affected by batch destruction linked to contamination from neighbouring fields (e.g. volatile prosulfocarb) or soil pollution by persistent molecules; transitional avenues should be explored;
- A line of funding for studies and testing campaigns to remove obstacles to the development of organic farming (e.g. on fertilisation methods that could be accepted in organic farming to reduce the difference in yields with conventional farming);
- An increase in aid for low-input sectors put in place by the water agencies (logistics and first processing) to help secure these sectors (hemp, miscanthus by example), in conjunction with the aid implemented by the regions under the second pillar of the CAP. The emergence and development of low-input diversification sectors will also be supported and aid will be granted for practices and equipment to save plant protection products;
- Within the framework of the National Strategy for Food, Nutrition and Climate, strengthen and support territorial food projects with a view to supporting local transitions and food sovereignty, particularly with a view to promoting the economic and environmental resilience of the place-based sectors so as to ensure healthy, sustainable and accessible food for all. This will strengthen the support of local and regional authorities and economic actors towards certified approaches to reducing inputs;
- In the overseas regions, the possibility for the OFB, in addition to studies, to finance aid for low-input water sectors in the same way as water agencies in metropolitan France;
- A significant increase in funding for organic labelling promotion campaigns carried out by the organic agency, in conjunction with interbranch organisations and professional organic stakeholders, given the current decline in demand. Since the bio-reflection campaign has shown initial results, with a budget of between EUR 500 and EUR 1.2 million depending on the years, communication could be significantly expanded on the mass media by increasing its budget to EUR 5 million over several years, as announced by the Minister for Agriculture in September 2023.

In addition to these measures, the Ambition Bio 2027 programme is intended to bring together and publicise all the financial resources coming from the various public policies, which the organic sector can mobilise.

Low-input chains experiment on a large scale with cultivation solutions that can be shared with all farmers, even if not interested in converting on their entire farm.

It is therefore important to promote porosity between the systems so that good organic practices can benefit as many people as possible and to support mutual knowledge between organic and

conventional farming (meeting of organic and conventional farmers, such as the "Tech & bio" meetings organised by the network of chambers of agriculture, joint research projects, the PNDAR Inter-ITA programme "Synergies Bio/non – Bio", mix in groups (Bio, HVE and conventional), particularly in the DEPHY Farm Groups, Ecophyto-30 000 and GIEE). This could encourage the transfer of solutions in Bio to conventional agriculture, but also solutions from other types of PPP efficient agriculture such as HVE farms.

Territorial diagnostics (Axis 5) will thus be based on the identification of these initiatives to identify the pilot actions to be carried out on a larger scale in their territory in order to leverage their results.

2.5 Objective and disseminate information on the risks of spreading diseases and pests and reducing treatments, by renovating the plant health bulletin

State-of-play

The Plant Health Bulletin (BSV) is a tool for observing and forecasting disease and pest behaviour that is made available to farmers free of charge through the Ecophyto Plan. It responds to a real need for objective information on this subject made available by the State, but its effectiveness is sometimes disputed, in particular because it could lead to more treatment than strictly necessary.

Measures proposed

As part of the Ecophyto 2030 strategy, it is proposed to renovate the BSV in line with the recommendations of the 2020 CGAAER/CGEDD report on the epidemio-surveillance network, in order to allow everyone to adjust chemical treatments according to their situation to the minimum necessary, or even to free themselves from treatment. Landscape information could be integrated and progressively more personalised data could be provided on request, with recommendations to avoid unnecessary treatments.

In the context of some plant protection firms also developing decision-making tools, the BSV is an objective source of information for farmers (and their advisers) which complements the monitoring they carry out on their parcels. This reference, drawn up on the basis of weekly field observations on a representative number of parcels, supported where appropriate by data from epidemiological forecasting models, produces a risk analysis for a given bioaggressor, at a given moment, thanks in particular to a risk cursor.

To date, 200 different crops are monitored in France, representing almost 1 000 plant pests under surveillance, out of 15 000 parcels observed every week.

In addition, in connection with ACTA and CDAF, DGAL is carrying out the project of a common epidemiological modelling platform, harmonisation and simplification of national observation protocols and deep renovation of the information system (SI) that allows data collection and valorisation. It will then be necessary to better coordinate the modelled emerging forecast (insects and fungi) with field observations and risk analyses produced in the BSV2.0.

The BSV could be supported by, inter alia, the following improvements:

- Rewriting of national observation protocols (work started but will take several years), including new observation data on auxiliary activity (not only presence/absence), inclusion of new auxiliaries

in protocols (certain beetles, choptera, etc.) and, if possible, biodiversity data (partnership with MNHN);
- Increase in the number of farmers but also non-farmers observers (JEVI). Encouraging direct observation by the trader will avoid systematic applications of plant protection products;
- Reduce the time between observation and dissemination of information;
- In conjunction with the information on alternative methods, further develop the BSV by making operational recommendations and deepen the diagnosis to encourage learning of low-value PPP practices.

At the same time, research of co-funders (sectors, local and regional authorities, *etc.*) will be carried out in order to prevent the programme from being financed solely on Ecophyto 2030 with the aim of making it possible to maintain the monitoring of crops considered to be the least priority (because it is less important to reduce the use of PPPs). This monitoring is essential in order to prevent the introduction of emerging organisms and to secure exports. These additional financial resources will finally make it possible to secure locally grown production.

Reflections will be carried out to launch a renovation of the financing of health care, which will aim, on the one hand, to define a doctrine of use shared by all stakeholders and, on the other hand, to improve the current financing system to limit the impact of crises, in particular by implementing preventive measures and improving the resilience of the sectors.

2.6 empowering the whole value chain, from production to consumption

State of play

The responsibility and economic risk involved in reducing the use of plant protection products cannot be carried out by farmers on their own, even if supported by public funding.

The transition to more diversified systems is a risk-taking for farmers. Like conversions to organic farming, such transitions involve engaging in innovative and more complex practices, which can lead to financial losses during the adaptation phase. It is therefore appropriate for risks to be shared with the endorsement, which must also be supported and accompanied in its processing in order to improve the value of production.

The national strategy for the development of plant proteins, launched in December 2020, aims to encourage the introduction of legumes into crop rotation, reaching 2 million hectares in 2030, or 8 % of French agricultural land. This strategy contributes to addressing the challenges raised by the Ecophyto 2030 strategy. Including legumes in crop rotation, main crop or associated crop contributes to sobriety in inputs, in particular nitrogen fertilisers. With regard to reducing the use of plant protection products, the lengthening of crop rotation through the integration of a legume makes it possible to discontinue the reproduction cycles of certain pests naturally, reducing the need for use of plant protection products. More generally, the effort to reduce plant protection products must be shared by all sectors, involving more upstream, processing and distribution companies. This is why it is particularly important to get involved in this process in order to ensure that everyone takes part in the risk and costs:

- Producers of plant protection solutions in their diversity, seed producers and manufacturers of agricultural machinery,
- Cooperatives and, more broadly, trading and distribution operators, particularly large retailers,
- Processing actors (agro-food industries),

- Public actors, whether the State or local authorities managing canteens, and private catering actors, who, through their procurement decisions, contribute to Ecophyto policy,
- And to end consumers who, through their choice, for example on the appearance of food products (such as fruit and vegetables) or by favouring products with a low level of plant protection products, have a decisive role to play.

Measures proposed

In order to overcome these obstacles, which limit the development of these sectors and the integration of legumes into crop rotation, the recovery plan for plant proteins had an allocation of EUR 50 million to finance downstream projects and ecological planning will mobilise most of its envelope (EUR 70 million) in the development of the supply chain downstream of the supply chain and encourage contractualisation of products at fair prices, in order to stimulate systemic transformation. In 2024, a measure on upstream risk and massification 2030 will aim to accelerate the deployment and massification of alternatives to plant protection products by accompanying the transition from applied research to the deployment of commercial methods.

As regards the Ecophyto 2030 strategy in particular, the players involved in trading, processing and distribution will be involved in the work of Axis 1 (search for alternatives) and Axis 5 (target contracts), in order to contribute to the economic valorisation of production from these technical routes which are low in plant protection products and in particular those using biocontrol solutions. The technical institutes will be mobilised in all sectors and in intersectoral sectors to reduce plant protection products, incorporating technical and economic work including risk taking place on an annual basis.

The system of certificates of savings in plant protection products will be strengthened as set out in 2.2.2.

In order to support diversification strategies and the introduction of plant proteins into rotations, the creation of an agri-food innovation fund will be evaluated with a view to promoting these crops on the market, in conjunction with all sectoral investment funding, including the French 2030 calls for projects.

The establishment of company-specific support for the production of plant protection solutions currently not produced in France and identified as strategic for agri-food sovereignty by the Ministry, following the work on Axis 1 of this strategy and the Grand Bio-Control and Biostimulants will be explored.

Actions relating to consumer information and food controls will be dealt with in SNANC.

The ministries responsible for agriculture, industry and consumer affairs will engage in a dialogue with agri-food companies and distributors on the various labels and specifications, including requirements on plant protection products.

In connection with the expected new EU regulation on geographical indications, which provides for a measure on enhancing sustainability, producer groups may be encouraged and accompanied in the inclusion of requirements for the reduction of plant protection products in the specifications of SIQOs.

Finally, work on the study of a risk coverage mechanism across the whole value chain will be relaunched, with a call for projects calling for local experiments on the subject, in conjunction with agricultural and insurance stakeholders.

Area 3: Better knowledge and reduction of risks to health and the environment from the use of plant protection products

The 2021 update of the collective scientific expertise of the Inserm entitled '*Pesticides: health effects*' was based on data from available scientific literature, including more than 5300 documents based on querying different databases. This expertise has highlighted or confirmed the links of strong presumptions between certain diseases and exposure to plant protection products, pointing out that these links must direct public action towards better protection of the population.

This work was complemented in 2022 by the INRAE IFREMER collective expertise on the impacts of plant protection on biodiversity and ecosystem services, which was based on 4 000 scientific references, and which highlighted environmental contamination leading to direct and indirect effects that are responsible for the decline of terrestrial and aquatic invertebrates and birds, but also the alteration of certain ecosystem services.

This important work, together with the feedback from chlordecone pollution in the Antilles, calls for continuous monitoring of exposures and the strengthening of preventive measures.

3.1: Monitoring pollution and assessing the exposure of the population

State of play

Exposure monitoring involves measuring the presence of substances in the different compartments: air, water, food, soil, wildlife, contact with products during handling and treatment. This monitoring is not specific to plant protection products, but builds on existing schemes which are gradually expanding to plant protection products: monitoring of surface, groundwater and coastal water by water agencies, raw water intended for drinking water supply and drinking water itself by the ARS, air by the AASQA (approved air quality monitoring associations), foodstuffs by the DDETSPP, checks by the labour inspectorate.

Since 2012, Ecophyto has developed a biovigilance network entitled '500 ENI network': 500 fixed plots in metropolitan France, made available by voluntary farmers, are monitored annually to study the non-intentional effects (ENI) of agricultural practices on biodiversity. The regional animation of the network is carried out by the Chambers of Agriculture and FREDON, in particular, with a national animation by the National Museum of Natural History. The data collected in this way are analysed by a multidisciplinary scientific group, the ENI Working Party 500.

The assessment of the overall exposure of the population is based on data from this monitoring and behavioural surveys, in particular through major tools such as the Agrican cohort (farmers and cancers, 180 000 people monitored since 2005), PESTIRIV (vineyard residents) and ESTEBAN (future Albane) studies.

Measures proposed

In2024, the competent administrations (DGAL, DGEC, DGS, DEB, DGOM, DGOM, DGRI, DGPR) will take stock of the various arrangements for monitoring plant protection products in the environment (outdoor air – surveillance in place since 2021 – and interior, water and soil), building on the recent work carried out by INSERM, INRAE and Ifremer to identify possible ways of progress, including for substances that are no longer used but still present in the environment, as well as substances processing products in the environment. This state of play will be drawn from the recommendations for monitoring of PPPs (air, water and soil).

The development of future strategic guidelines for vigilance, led by Anses, will also be used to put the identified avenues into practice.

Work on assessing exposure to plant protection products and its effects in the general population, targeting in particular the most vulnerable (children, pregnant women) and agricultural workers will be continued, gradually developing a holistic approach to exposure. Manyareas still need to be investigated and deepened, such as cocktail effects, co-formulants' effects, impacts on ecosystems (see Axis 4).

A collection of notifications of acute intoxications related to exposure to plant protection products will be put in place.

It will be possible to rely on the spatial BNVD to conduct exposure assessment studies.

3.2: Protection of agricultural workers

State of play

Different situations may expose professional users to plant protection products: when preparing mixtures, filling or emptying spraying machinery tanks, processing (including field operations), cleaning work equipment and personal protective equipment (PPE), re-entering the treated cultures and handling of dirty waste.

Article 70 of the Social Security Financing Act (LFSS) for 2020 established the Pesticide Victims Compensation Fund (FIVP). Its introduction is based on a desire to guarantee flat-rate compensation for the damage suffered by all affected persons (including children exposed during the prenatal period) whose disease is linked to occupational exposure to plant protection products.

The FIVP is financed by both the annual contributions from the branches of accidents at work/occupational diseases (AT-MP) of the general scheme, the Agricultural Employees Scheme (ATSA), the Agricultural Self-Employed Scheme (Atexa) and the Alsace-Moselle AT/MP scheme, as well as a tax on plant protection products (set at 0.9 % of the amount of sales of plant protection products, excluding biocontrol products). In 2022, the FIVP's total compensation amounted to more than EUR 6.7 million. There has been an increase in the amount of compensation due to an increasing number of files filed. Each year the FIVP produces a highly supplied activity report detailing, in particular, data on the recognition of occupational diseases caused by exposure to pesticides[19]. Better knowledge of occupational exposures, as well as of the effectiveness of the means of protection, should strengthen prevention actions, effective protection measures and ultimately reduce the occurrence of accidents at work and occupational diseases linked to exposure to plant protection products. The High Commission for Occupational Diseases in Agriculture (COSMAP), which is responsible for proposing the drawing up or revision of schedules of occupational diseases, also seeks to update them regularly or

[19] https://fonds-indemnisation-pesticides.fr/

create new ones, taking account of developments in scientific knowledge. Thanks to the constructive spirit of COSMAP members, social partners, victims' associations and scientific and medical experts, several tables on exposure to pesticides have been created or revised in recent years.

Agricultural and forestryPPE (personal protective equipment) (gloves, masks, clothing, suits, etc.) intended to protect people handling plant protection products are in fact very little worn. In order to encourage their use, the Ministry of Agriculture had helped to promote voluntary standards seeking a difficult balance between protection and ergonomics: a standard on protective clothing (EN ISO 27065) was adopted in 2017. However, 5 years after its adoption, there has been little progress in the use of PPE. Moreover, the level of protection afforded by this standard is insufficient in the light of recently published studies, including that20 carried out by the National Institute for Research and Safety for the Prevention of Accidents at Work and Occupational Diseases (INRS) at the request of the ministries responsible for agriculture and labour. As the normative process provides for the possibility of revising the standards every 5 years, the ministries responsible for agriculture and labour submitted a reasoned request for revision in early 2023, which was followed by French stakeholders. France has thus officially obtained the opening of work to revise this 'clothing' standard at European and international level. The aim is to achieve a standard that makes it possible to improve the ergonomics of PPE while ensuring sufficient protection for users. Reconciling the effectiveness and ergonomics of PPE is a key issue for their acceptability and thus their actual use by agricultural workers.

Measures proposed

On the basis of the first positive results of the actions carried out and similar to what existed in the Ecophyto II + plan, the national and regional call for projects (AAP) scheme to improve knowledge specific to occupational exhibitions and workers' protection will be renewed, in conjunction with Axis 4 of this strategy.

In particular, these projects will:

- Assess the effectiveness of current preventive measures in order to improve them and strengthen and accompany the assessment of emerging risks: facilitating the traceability of practices to better quantify exposures and risks, taking into account and integrating emerging risks (nanoparticles, endocrine disruptors, cocktail effect, cumulative effect, indirect effect, new genomic techniques, etc.), taking into account the specific situation of seasonal workers;
- Assess and improve the design of work equipment and personal protective equipment by ensuring that it is effective in protecting it, but also that it is adaptable to current and future cultivation practices and occupational constraints (ergonomics, acceptability, availability, interoperability, etc.), and its actual use by workers, in order to effectively reduce their exposure for all activities subject to such exposures.

The possibility of making mandatory information to the potentially affected patient on schedules of occupational diseases related to exposure to plant protection products, during medical consultations carried out in the context of urban medicine, and in hospitals will also be explored. The impact in terms of training of liberal doctors (general practitioners and/or specialists) and any amendments to the corresponding medical agreements will be addressed by the Ministry responsible for health.

[20] INRS, Gants and protective clothing against plant protection products: reorienting standardisation, December 2022: https://www.inrs.fr/media.html?refINRS=NO%2036

As part of the control priorities of the Labour Inspectorate for the period 2022-2025, particular emphasis will be placed on preventing chemical risk on farms. A review of these checks will be carried out and made public in 2026.

France will actively support the revision of the PPE standard at European level, making sure that the equipment is as ergonomic as possible and efficient.

As part of the Regional Occupational Health Plans (PRST4) covering the period 2021-2025, many pedagogical actions will be progressively deployed in the regions: communication to sellers, sensitisation in agricultural secondary schools, coordination of the various inspection bodies, etc., similar to what is already being done in the Antilles as part of the chlordecone plan. A follow-up and review of these actions will be carried out to decide on their renewal and/or evolution in the next generation of Prst.

At national level, 'Chemical risks in agriculture' training is provided to labour inspectorates by INTEFP (National Institute for Labour, Employment and Vocational Training). Support documents produced at regional level will be consolidated at national level and supplemented by tools on specific provisions and the legal tools that can be mobilised.

Lastly, checks on the compliance of plant protection products (formulation, labelling, verification of the existence of a marketing authorisation, etc.) by the customs and fraud prevention services, as well as by the National Veterinary and Phytosanitary Investigation Brigade of the Ministry responsible for agriculture, will continue with particular attention to internet sales and to the categories of products with the highest rates of non-compliance.

3.3: Reduce uses and risks, particularly in priority territories

3.3.1: On drinking water catchment areas

State of play

Of the 1000 priority abstractions identified at the Grenelle de l'environnement (2009) [21] and subsequently at the environmental conference (2012):

[21] Since Grenelle de l'Environnement and the 2013 Environmental Conference, 1 000 abstractions whose quality of raw water is most degraded by diffuse agricultural pollution on nitrates and pesticides parameters have been identified as a priority target for public action to regain their quality. Additional prioritisation criteria relating to the population served, the strategic nature of the resource collected or the desire to regain the

- 87 % have a demarcated feeding area in 2023 (85 %) or in the process of validation (2 %);

- 75 % are subject to a validated (60 %) or ongoing action plan (15 %). 20 % did not initiate the development of an action plan. The 2019 water basises set the target of 100 % of priority abstraction with an action plan by the end of 2021, which is therefore not achieved. [22]

Abstractions from overly polluted resources can be closed[23] when there is no alternative supply option, or lead communities to set up increasingly expensive processing units (where technology exists), which risks gradually increasing the tension on the resource already aggravated by climate change, and increasing the price of water.

The water plan presented by the President of the Republic on 30 March 2023 provides for a new phase in the Ecophyto 2030 strategy to protect abstraction:

- The planning of the use of plant protection products (Ecophyto 2030) will reflect the approach to limiting the use of inputs in catchment areas. (...)
- If the quality requirements for water intended for human consumption are exceeded by a pesticide which is still in use, management measures to mitigate the risk will be put in place automatically by the prefect, in addition to the measures set out in the public water safety management plan. ’

At the same time, the regulatory framework for drinking water quality is evolving, with the implementation of EU Directive 2020/2184, in application of the Water Framework Directive (WFD) 2000/60/EC and the so-called SUD Directive, which provides for:

- Sensitive sampling points are defined in national law. This concept, introduced by the Ordinance transposing the Drinking Water Directive in December 2 022 in conjunction with the WFD, must now be clarified by laying down the arrangements for entering and leaving this category of ‘sensitive sampling points’ on the basis of available quality measurements in raw water intended for human consumption at the sampling point. These arrangements will be established after work in the National Capture Group with stakeholders. This work will be based on an assessment of the water quality of abstraction. The definition of sensitive abstraction will be the subject of an inter-ministerial order in 2024 pursuant to Article L. 211-11-1 of the Environmental Code.
- That the person (public or private) responsible for the production or distribution of water (PRPDE) must carry out a water safety management plan (PGSSE) on the catchment area and on the part of the water production or distribution system for which he or she is responsible. The ESMP applied to the catchment area involves, inter alia, a risk assessment and the definition of appropriate management measures, which will be implemented, within the limits of the competence of the person responsible for water production (PRPDE).
- For these sensitive sampling points, the person responsible for the production of drinking water will have to draw up a specific action plan for the protection of the resource, which will be the resource component of the PGSSE, and must make a proposal for the demarcation of the abstraction supply area. The action plan will also contain proposals for preventive measures which may, if necessary, be made compulsory by the Prefect under the Environmental Code in accordance with the procedures governing areas with environmental restrictions (ZSCE). The

abandoned resource have also been mobilised by the departments. They are designated as priority abstractions in SDAGE.

[22] August 2023, Directorate for Water and Biodiversity

[23] According to data on the Ministry of Ecological Transition and Territorial Cohesion, 3000 abstractions had to be closed to date for various reasons, including pollution to plant protection.

deadline for completion of the ESMPs for the catchment area of all French abstractions (sensitive and non-sensitive) is set at 12 July 2027.

Measures proposed

Following an update of the list of priority and sensitive abstraction, in particular in the light of the latest data on the measurement of plant protection products and their residues in raw waters in relation to basin prefects, the competent ministries will draw up a risk management guide setting out guidelines and drawing on:

- As regards the involvement of local and regional authorities, on the latest legislative developments (transposition of the EU directive on drinking water with the implementation of action plans and PGSSE – Water Safety Management Plan, right of pre-emption on agricultural land, mobilisation of ERO contracts – real environmental obligation). A working group will also be launched to simplify and broaden local authorities' means of action on the subject;
- As regards State intervention, particularly in the event of difficulties on the part of local authorities, on the prefectural decree system known as areas with environmental restrictions (ZSCE).

This guide will be developed in consultation with all stakeholders as part of a reactivation of the National Collection Group and published before the end of 2024. This work will be based on an assessment of the water quality of abstraction; accompanying measures will also be worked on in this context (see below). Once it has been completed, it will be circulated by means of an instruction addressed to the prefects.

It will provide for situations in which the ZSCE system will be activated by the prefects and the criteria leading to restrictions on use for the most risky situations.

These measures will be supported financially by mobilising additional appropriations for the relevant AECM and PES, conversion to AB, etc. It is important that the triggering of mandatory regulatory measures should not hinder aid for those who had previously voluntarily committed themselves and to support the change in farming practices. These accompanying measures will be addressed as part of the work of the above mentioned National Capture Group (CNG). The Committee for the Renovation of Agricultural Standards will be asked in advance of this work to ensure proper coordination with agricultural stakeholders, who are also members of the CNG.

As a first step, and before SCEAs with mandatory provisions are put in place, the resources available will support some of the voluntary components of SECAs or even ESSPs. The existing incentives will make it possible to create momentum around the PGSPs so that local and regional authorities develop them and thus commit to a stronger protection of water resources, by means of a trajectory for reducing or even removing problematic plant protection products. In addition, a financial envelope will be mobilised from 2024 under Ecophyto to support local authorities which have to set up treatment units to potabilise water in the face of pollution caused by pesticides and their metabolites.

Within the framework of the Guidance Pact for generational renewal in agriculture, the development of tools for conveying land and capital will be promoted in order to support the investments needed to redesign production systems.

Institutions that invest in the agro-ecological use of agricultural land can be supported in this context (portage fund) to trigger the momentum.

In the context of Measure 28 of the Guidance Pact for Generational Renewal in Agriculture, the priority rules for structural control will also be amended in order to favour farm projects implementing agro-

ecological practices on wetlands and priority catchment areas (Bio, HVE, extensive livestock farming, etc.) and to encourage the maintenance of land under organic farming if it is already used in organic farming. These changes in the control of the structures must not adversely affect the installation, and in the first instance it will be the new farms that will be preferred.

Tools to visualise the pollution status of abstraction (such as the Vigie-eau application on drought orders, or the Neaurmandie tool) and help with decisions to prioritise action according to crop rotation and farming practices will be developed and made available to public decision-makers and farmers. They will be able to rely in particular on the electronic register of plant protection uses on the parcel when it is deployed (see axis 2) and, in the meantime, on the spatial BNVD.

Abstraction contracts, like a few existing local initiatives, can usefully bring together all the potential funders and actors involved in these measures (state via water agencies, representatives of producers, water authorities and/or local food projects, traders and cooperatives, agri-food companies, sellers of plant protection products, etc.).

Experiments making it possible to secure local outlets for low-input production (organic farming, etc.) in the catchment areas, particularly in canteens, by adapting the rules on public procurement or by providing direct funding for the structuring of the sectors will be supported.

In order to model and anticipate from monitoring data the level of degradation of water bodies in particular when they are used to produce water intended for human consumption, a call for research project is envisaged (example of the follow-up to the MELASSE project led by BRGM) (see axis 4).

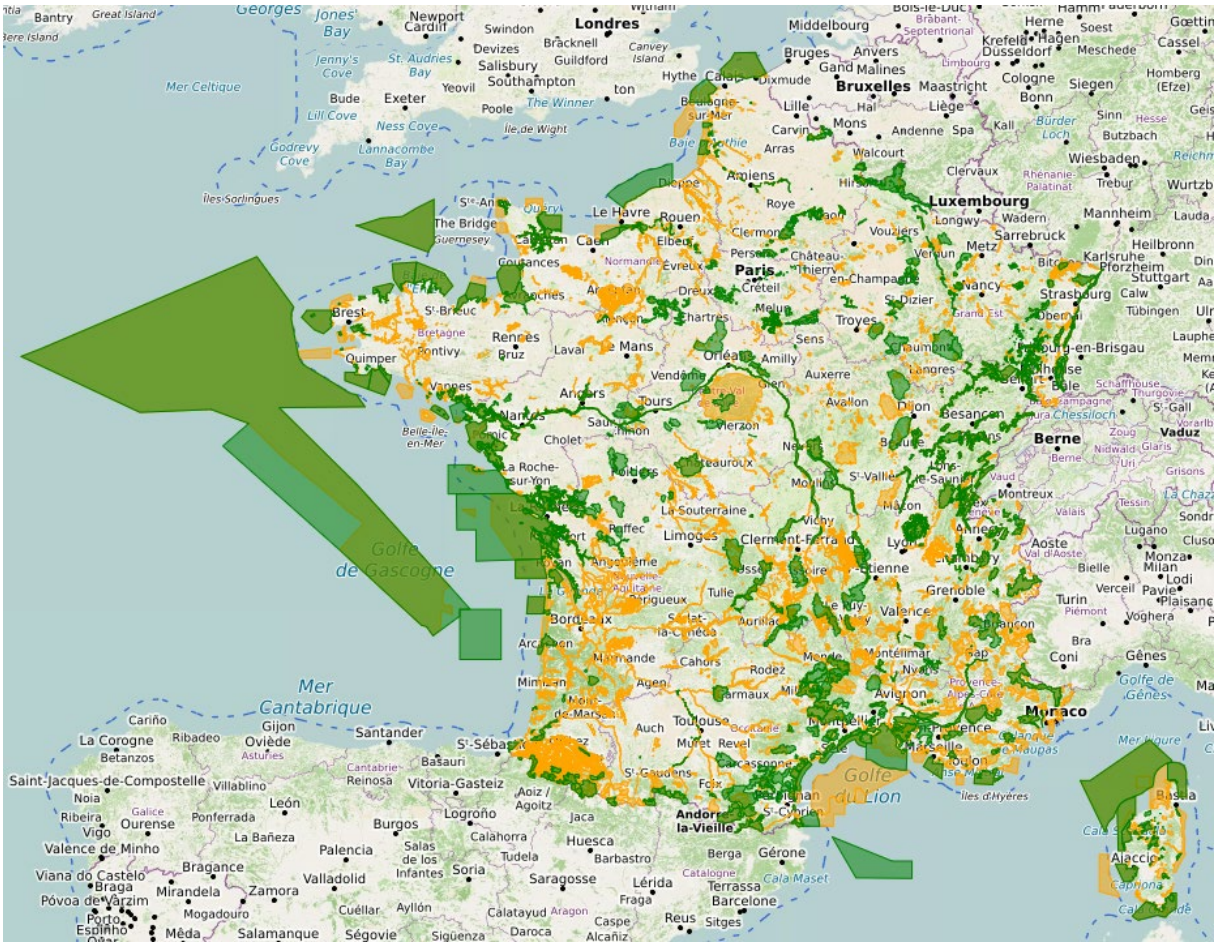
Finally, France will support work that could be undertaken between the European Commission and the World Health Organisation (WHO) on the harmonisation of lists of relevant molecules under the EDCH Regulation, for example, but also on taking into account contamination of media during the substance approval procedure.

3.3.2: In territories at stake for biodiversity

State of play

The INRAE-IFREMER collective scientific expertise “Impacts of plant protection products on biodiversity and ecosystem services” published in 2022 confirms that all terrestrial, aquatic and marine environments are contaminated by plant protection products, the latter having direct and indirect impacts on ecosystems and their constituent organisms.

Building on the Birds Directive 2009/147/EC and the Habitats Directive, Faune, Flore No 92/43/EEC, the European Natura 2000 network is a fundamental tool of European biodiversity policy. With more than 1756 sites on French territory, covering almost 13 % of its metropolitan land and 11 % of its exclusive metropolitan economic zone, this network aims to better take account of biodiversity issues in human activities. The utilised agricultural area (UAA) in these sites amounted to 3,45 Mha in 2020, or 10 % of the national UAA, of which 10 % is under commitment “Biological Agriculture” (AB) and 20 % under the commitment “Agri-environment and climate measure” (AECM).



Map of French Natura 2000 sites classified under the Habitats Directive (yellow) and under the Birds Directive (green). Source: MapGeoData

In its decision of 15 November 2021, the Conseil d'État (Council of State) held that the regulatory provisions in force did not ensure that the use of plant protection products was restricted or prohibited in accordance with Article 12 of Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of plant protection products. It urged the government to take the necessary measures for Natura 2000 terrestrial sites. The purpose of Decree No 2022-1486, adopted on 28 November 2022, is to comply with that order, by revising the framework for the use of plant protection products in Natura 2000 sites.

In addition, the National Biodiversity Strategy provides for 10 % of the national territory to be under strong protection by 2030. Decree No 2022-527 of 12 April 2022 adopted pursuant to Article L. 110-4 of the Environmental Code defines the concept of strong protection[24] and the arrangements for its implementation. Some of the high protection areas thus defined are subject to pressures from the use of plant protection products, which must in fact be removed or significantly reduced.

[24] A strong protection area is recognised as a geographical area in which the pressures caused by human activities liable to jeopardise the conservation of environmental issues are absent, prevented, removed or severely limited, in a permanent manner, through the implementation of land protection or appropriate regulation, combined with effective control of the activities concerned.

Measures proposed

Asregards Natura 2000 areas, an instruction and a guide were sent to the prefects for the implementation of the Decree of 28 November 2022 on the framework for the use of plant protection products in Natura 2000 sites. These documents specify the work to be carried out by the prefects in order to ensure that the use of plant protection products in Natura 2000 areas is regulated. Emphasis will be placed on amplifying the contractual model of the Natura 2000 policy in France (COPIL, DOCOB, contracts and charters). The limitation of the use of plant protection products may be prioritised at the sites at stake, with a gradual response:

1. Studies and tools to help change practices:

    - Better characterise the impacts of plant protection products at the level of Natura 2000 sites[25], in connection with the work carried out by the Museum National d'Histoire Naturelle (NHN) and PatriNat. An analysis specific to areas treated exclusively with biocontrol products and agents will be carried out. These analyses may cover the species most sensitive to plant health issues resulting from the Natura 2000 report and referred to in Annex 1 to the Natura 2000 phytos Guide.
    - Draw up a guide to environmental agricultural investment, in collaboration with the regional councils, which will make it possible to reduce the use of plant protection products by substitution or better targeting.

2. Support for the revision of objective documents dealing with plant health issues and supporting Natura 2000 site managers through networking and provision of methodological support. In particular, this will include:
    - Mobilise the *OFB's Natura 2000 Resource Centre to* develop a toolkit for Natura 2000 site managers to take better account of the plant health issue (integration of the issue in the DOCOB, federation of local actors, mobilisation of contracts and charters, etc.);
    - Support the SINAPCE *project ("Adapting human activities to ecological challenges: the network of innovative sites in protected areas')* to specifically target the farms most exposed to plant protection issues.

3. Deploy and expand the means of supporting the reduction of pesticides in all protected areas, encouraging contracting by AECM and/or ESP as soon as possible.

For strong protection areas as defined by the Decree of 12 April 2022, the pressures associated with the use of plant protection products will be eliminated or significantly reduced, including when their use is located outside these areas:

- For areas 'automatically' recognised as having strong protection under Article 2.1 of the [26] Decree, it will be necessary to encourage the achievement of the objective set, following a case-by-case analysis, by mobilising existing tools, drawing up ZSCE action plans or any other effective measures such as regulating the use of products in the classification of such protected areas.

- For areas recognised as strong protection after a case-by-case analysis under Article 2.2 of the Decree, an analysis of the pressures referred to above must make it possible to verify, prior to the recognition of strong protection, whether all the measures implemented will ensure the absence, removal or significant reduction of those pressures. If this condition is

[25] For example, through calls for expression of interest for the evaluation of Natura 2000 management measures.

[26] Core areas of national parks, nature reserves, biological reserves and protective orders.

not met, it will be necessary to encourage the implementation of additional measures in these areas (regulatory texts, modified management plans, ZSCE tool, etc.) before considering recognition in strong protection.

The Ecophyto plan will also support research to improve knowledge of natural habitats favourable to pollinating insects (endangered species, endemic species, areas with a high pollinator deficit, etc.).

The work carried out by the Committee for the Census of Axis 6 of the Pollinators Plan, 'Sharing agricultural practices favourable to pollinators', led by INRAE and the association 'Contract of Solutions', will be promoted and disseminated on a large scale.

Finally, other territories accompanying the reduction of the use and risk of plant protection products may be highlighted, such as NRPs. In addition, 'territories committed to nature' will be invited, via a guide to good practice developed by the OFB, to test zero phytos solutions wherever possible.

3.4: Protection of local residents

State-of-play

Since 2019, the Government has adopted a regulatory framework for the protection of local residents of agricultural and non-agricultural areas treated with plant protection products. This system provides, in the vicinity of residential areas and workplaces, for minimum distances without the application of plant protection products to be respected by users of those products, depending on the type of crop and the equipment used. It also provides for the adoption, at local level, of charters of commitments aimed at creating a dialogue between local residents and users. At the same time, published or ongoing studies aimed at better assessing the exposure of the population and the effects on human health of plant protection products have multiplied in recent years (collective scientific expertise 2021 Inserm, Geocap-Agri study, PestiRiv study, etc.), highlighting health impacts on exposed populations.

Measures proposed

The priority challenge associated with the above context means mobilising all the competent local authorities, using all the existing levers that can be mobilised (in particular regulatory tools) and, where appropriate, strengthening existing measures to provide a better framework for the use of plant protection products in vulnerable areas and close to residential areas, workplaces and places for vulnerable people (in particular schools and health facilities). The particularities of the overseas regions will be integrated into the definition of vulnerable areas of non-treatment and restricted treatment

areas (in particular because of the close proximity or even interlinked nature of agricultural and habitat areas).

In order to provide a better framework for the use of plant protection products in vulnerable areas and, *ultimately*, to strengthen the protection of the health of the population (residents and vulnerable people), the Ecophyto 2030 strategy includes the following measures:

1/Déployer throughout the national territory, including Overseas Sea, an information tool on exposure to plant protection products. These arrangements make it possible, in particular, to ensure a harmonised response on regional territory, to respond to all our fellow citizens and to contribute more broadly to the implementation of measures (prevention, training, monitoring, etc.);

2/Sensibiliser healthcare professionals addressing occupational diseases related to the use of plant protection products and the issue of exposure of local residents and vulnerable people;

3/Envisager, following a feasibility study led by the Ministry of Health, the possibility of implementing and financing a compensation scheme for residents or even other categories of people who have contracted a non-occupational disease, in connection with prolonged and repeated exposure to plant protection products; this will involve considering a different mechanism from the one in place since 2020 for the treatment of professional victims under the Pesticide Victims Compensation Fund (FIVP A, for example, the presumption of imputability provided for in the schedules of occupational diseases will not, by definition, be applicable in a non-professional context);

4/Étudier the follow-up, including regulatory if necessary, to the results of the most recent studies, such as the Geocap-Agri (2023) and PestiRiv (2025) studies, at national (riparian package) and European level (evolution of EFSA risk assessment guidelines);

5/Intégrer the Monitoring Committee of the national studies on plant protection products and health, led by the Directorate-General for Health, on the governance of Ecophyto 2030 and give it a more comprehensive dimension (*One Health*approach). This monitoring committee may be linked to the overall steering of R &I and the CSO R &I, as envisaged in Axis 4:

6/Renforcer checks on the compliance of sprayers, including drift risks.

3.5: Risks related to non-agricultural uses

State of play

The use of plant protection products (excluding biocontrol products, products used in organic farming or low-risk products) in non-agricultural areas concerns Jardins, Vegetable Spaces and Infrastructure, also known as JEVI. These uses were regulated by the Labbé Law in 2014, by its successive developments and by the Potier Law in 2017. This led to a global ban on these products in the JEVI: the ban extends to places where the public is welcome, private property, places with sensitive audiences (schools, medical and social places) and workplaces.

The results in terms of reducing the use of plant protection products as a result of these regulations are very conclusive. Between 2009 and today, more than 95 % of non-agricultural uses have been stopped.

These uses in non-agricultural areas have become very minor compared to agricultural use. There are few uses left:

- By 1 January[2025], plant protection products may still be used in large playgrounds, hippodromes and tennis terrain on turf, access to which is regulated, controlled and restricted to users; golf practices and golf practices (departures, greens and fair ways only);
- From 1 January[2025], residual uses outside agricultural areas shall be: compulsory control, areas which are difficult to access for a question of the safety of maintenance personnel, combating a health danger threatening the sustainability of historical or biological heritage which cannot be controlled by any other means, and certain uses listed by the Ministries of Sport and the Environment for which no alternative technical solution can achieve the required quality in official competitions. Some areas not accessible to the public are not affected by regulation, such as linear infrastructure, industrial areas, military land, and private forests.

The JEVI sectors have made great efforts and have been voluntary in reducing the use of plant protection products. They state that they have achieved their maximum capacity for improvement in view of the advances in the alternatives and techniques at their disposal.

It is important to support the JEVI sectors in these efforts. This enhances the protection of human health, biodiversity and resources (e.g.: drinking water abstraction). In addition, facilitating the maintenance of the JEVI is important in order to limit the contamination of other media by bioaggressors (the JEVI can be gates for certain bioaggressors), to promote pleasant living environments in France and France, and to encourage the vegetation of urban areas.

Measures proposed

On the basis of these findings, it is proposed to encourage JEVI stakeholders by supporting them in their efforts to continue this momentum and maintain the positive momentum.

This could include:

- Support in the search for accessible and efficient alternatives to the use of plant protection products and alternatives in terms of management of the JEVI so as to give rise to the overall and ecological management of these media, and to supplement the accessible data on the conditions of use and the effectiveness of biocontrol substances. This research into alternatives is also beneficial for farming and can be deployed more widely in the future;
- Support in terms of resources by maintaining and encouraging the organisation of the Ecophyto-pro website, which informs JEVI professionals about the rules, solutions, different management methods and existing alternatives;
- Financial support, maintaining the same financial contribution as in previous Ecophyto strategies.

It is proposed to continue awareness-raising and information campaigns among individuals, JEVI professionals and local authorities to inform about regulation and disseminate good practices in terms of plant protection and the use of plant protection products. The aim is to avoid misuse and protect the health of the environment and users of products. These missions may be carried out by the OFB, as well as Plante & Cité, by continuing to run the Ecophyto-pro site.

Axis 4: research, innovation and training

4.1 a dedicated research and innovation programme

State of play

The landscape of support schemes for research and innovation in agriculture may seem complex, with several branches and programmes which include agro-ecology components in the France 2030 programme (acceleration strategies 'Sustainable and health-friendly food' and 'Sustainable agricultural systems and agricultural equipment contributing to the ecological transition', in particular the agroecology and digital PEPR), the sustainable territories programme promoted by CIRAD in the DROM, the PPR 'cultivate and protect otherwise' from the 3 AIP, projects supported by the PNDAR, etc.

The research budgets devoted directly or indirectly to reducing the use of plant protection throughout these programmes change nationally between EUR 30 and EUR 60 million a year following the years (financed mainly from the PNDAR, Ecophyto R and I, PIA and more recently France 2030).

The challenge of the transversal steering "Ecophyto R and I" in this context, in relation to the more thematic windows, is to ensure that these various programmes are consistent with each other and that all the measures of the Ecophyto strategy are accompanied by a research and innovation approach to prepare for the future. This involves, for example, dealing with the global challenges of system transformation and redesign, which also does not prevent it from being part of the 'solution search' approach which has been implemented, for example, in the context of the NIRP beet or the exit plan for the Netherlands, and which chairs the research into alternatives under axis 1 of this strategy (taking as a starting point the existence of a deadlock reported by users). The aim is also to feed into studies on linking the different routes of exposure to humans and ecosystems and the health and environmental impacts for the different crop protection techniques, with the latest data from research on crop protection techniques and to carry out work to find solutions to reduce these risks and impacts.

This transversal steering involves the CSO-RI (Scientific Steering Committee for Research and Innovation of the Ecophyto Programme), which has produced a review document for its 2019-2022 term of office 'CSO-RI Heritage'.

There is also a European dimension of research and innovation around the challenges of reducing the use of plant protection products, their risks and impacts, and renewing crop protection practices. These include, for example, the dynamics under the Horizon Europe programmes, the EIP Agri, the*Partnership on agroecology living labs and research infrastructures,* collective research initiatives such as that initiated by INRAE (European Research Alliance "0 Pesticides"), and the networks that are developing on these issues, in particular through the Action Cost T0P-Agri-Network. These dynamics will need to be mobilised both to benefit from what is done elsewhere in Europe in the field of research and innovation and to contribute to the European agenda.

Measures proposed

It is proposed to renew the 'Ecophyto R and I' transversal steering arrangements, ensuring that users are better integrated into the CSO RI, ensuring that the results are coordinated with other support schemes by constructing a national Ecophyto research and innovation strategy and by ensuring that results are transferred more actively to all users, first and foremost farmers.

In general terms, rather than setting up a new coordination body for the various departments, it is proposed that the ministries responsible for research, agriculture and the environment present once a year in SOC the various calls for projects or counters under way and ensure that information is properly disseminated to the various parties likely to respond to them (academic research, agricultural technical institutes, development and transfer actors, agricultural education, etc.).

The R & I strategy will respond to the needs of the different axes: transformation and redesign of production systems, research into alternatives to PP in support of PARSADA, reduction of risks and impacts of PP on human health and the environment as a whole. The general guidelines may cover:

- The production of knowledge in the various fields that can accompany the development of science-based solutions in order to meet the ambitions of the Ecophyto strategy;
- The production of knowledge on bioaggressors and their impacts (in particular with regard to climate change) and their natural regulations, and the methods and tools for their monitoring and evaluation, from a prophylactic perspective;
- The development of non-chemical alternatives (see in particular the programmes under Axis 1):
    - More fundamental research into new levers of protection,
    - Ripening of these levers, and validation,
    - Integration of these levers into combined systems, and testing these combinations for validation (technical, socio-economic, health and environmental aspects).
- The design of insurance systems related to the use of low-input farming practices;
- The levers for redesigning systems and assessing their sustainability;
- Studying the attitudes and organisations of the various actors (farmers, stakeholders in the sectors and territories, consumers) to deal with these risks and the needs of transitions, and the behaviour to be adopted in accordance with different welfare criteria for society;
- Designing incentives (fiscal, regulatory and non-economic) for behavioural change;
- Studying the changes and impact of these "social innovations" in the short and long term;
- Improving knowledge of health and environmental risks and impacts, in particular overseas areas, and possible ways of remedying. For biocontrol products, a programme to acquire references on the risks (ecotoxicology, toxicology, exposure, biological invasion, etc.) related to the use of biocontrol organisms and substances and the benefits for biodiversity (compared to systems grown with conventional PPPs) will be put in place. It will start with a mapping of existing methodologies and tools and recommendations for experimentation allowing a better understanding of the conditions for successful biocontrol carried out under Axis 1. The national testing programme will also be mobilised for testing biocontrol products for orphan or potential uses.

The steering of the Ecophyto R and I programme is based on 4 ministries: agriculture, health, ecology and research, accompanied by a scientific committee, the CSO and I. Ministries will make it easier for users and operators of applied research, such as technical and development institutes, either within the CSO R and I or in a dedicated body. Local coordination of overseas research will be established in conjunction with the Ministry responsible for overseas affairs and the research part of the chlordecone plan, in particular for the sustainable territory project carried out by CIRAD.

The monitoring committee for national studies on plant protection products and health can be brought closer to the CSR and I. In general, ministries will ensure that exposures to plant protection products are taken into account in the various national studies and cohorts on environmental and occupational health.

The transfer of research results to all users is one of the objectives to be strengthened, such as the 'European agriculture without plant protection products in 2050' foresight carried out by INRAE, the publication of works and the drafting of accessible thematic summaries, the organisation of at least annual seminars for the return of works and the setting up of communication operations. In particular, these research results will be regularly shared with the network of advisors referred to in

2.2.1 (strategic advice). A review of the activities of the Research, Innovation and Transfer Unit (RIT) created in 2018 and bringing together INRAE, ACTA and CADF skills will be carried out in 2 024 in order to redirect or strengthen its work if necessary, as well as for the Outre-Mer RITA.

4.2 initial and continuing training

Initial and continuing training issues are of particular importance in the run-up to a major generational renewal in the agricultural world, and of all the projects involved in the agricultural, energy, green and digital transition.

Following the first "Teaching to produce alternative" plan 2014-2018, which was an essential component of the agro-ecological project for France, the current plan "Teaching to produce otherwise, for transitions and agroecology", EPA2 2020-2024, aims to build on France's support for transitions and agro-ecological projects, along with the tasks of agricultural education.

This is why the government committed in May 2023. together with all stakeholders, the development of a new Agricultural Pact, which will include an important training component, with a particular focus on the agricultural transition in the Employment and Skills Strategy for Ecological Planning, currently being developed. One example is the measure provided for in the Pact on Accelerated Training for Agri-ecological and Climate Transitions for 50 000 agricultural professionals in France, in order to create a "skills shock". It is also worth noting the increase in recruitment to schools of agricultural engineers: 20 % of staff between 2017 and 2023, with a target of + 30 % for the period 2017-2030, with a view to having the pool of specialists essential for the agro-ecological transition.

The proposals below are therefore a first pillar which needs to be complemented by this future work.

4.2.1 the Certiphyto system and the link to training

State of play

The Ecophyto II + plan modernised the Certiphyto individual certification scheme, based on the following 3 sectors of professional activity: advice, use, distribution and sale of plant protection products. This certificate shall be accessible as appropriate *via*:

- appropriate training (alone or combined with a knowledge assessment),
- or an evaluation alone,
- or on the basis of the possession of a diploma, if the specific skills involved are taught.

The Certiphyto makes it possible, through authorised training and assessment bodies (by MASA/DRAAF), to provide professionals with useful knowledge to reduce the use of products and to secure their use in order to protect people and the environment, by promoting alternative methods derived from R &D; in addition to the other measures of the Ecophyto Plan (in particular BSV and DEPHY network).

The content of these training courses, as well as the trainers' training, are therefore to be adapted and updated, in order to consolidate them by transferring the achievements of recent R &Din in the field.

Furthermore, the development of new skills appropriate to technological and scientific developments is part of continuous vocational training, accessible to all professionals in accordance with the Labour

Code. These training courses are complementary to the certificate and are aimed primarily at reducing the use, risks and impacts of plant protection products and may, if they are labelled, allow the certificate to be renewed (VIVEA device).

Almost 422 000 individual certificates were issued, of which around 50 % relate to farm managers, between 2016 and 2023.[27]

Proposed measures

Ministries and operators will pay particular attention toupdating and adapting Certiphyto training courses for the various professional activities covered, and the training of trainers to meet the challenges of the agro-ecological transition; in particular: ensure that the training of farm council professionals is adequate (system approach, management of change, knowledge of the territorial ecosystem, etc.) and ask how the Certiphyto Council can access (remove the test alone, consolidate training, etc.).

4.2.2 further mobilisation of agricultural education

Another strand of the Ecophyto plans was to increase the mobilisation of agricultural education farms (250 out of 20 000 ha) in partnership with agricultural research and development operators, as a platform for demonstrating innovations in non-chemical alternatives for users (including learners, future users) and advisers. Training learners, as part of a project pedagogy, are involved in this work, including the redesign of the production systems of these farms.

Following the Educa'Ecophyto project (2017-2020), which sought, for the ten institutions involved, to capitalise on innovative educational situations enabling future players in the agricultural world to develop the knowledge and methods of reasoning needed for the agro-ecological transition, the Ecoplant'Ter scheme (2019-2023) was born. The aim of this scheme is to extend the action taken at Educa'Ecophyto to to 33 agricultural education establishments, while at the same time sheltering the agricultural community in the regions.

In 2022, for the 192 farms in the EPLEFPA/public agricultural secondary schools (figures for the private sector are not available, as the secondary schools in question rarely have a own agricultural holding):

- 80 % are in zero glyphosate,
- 62 % participate in a network (DEPHY, group 30000) or in a Ecophyto project,
- 48 % experiment with steps towards zero phyto;
- 45 % are HVE (High Environmental Value) certified;
- 32 % of the UAA for public agricultural education is certified in organic farming.

In their regulatory tasks to demonstrate and run the regions, farms in agricultural secondary schools relay the dynamics of redesigning systems to farmers.

Measures proposed

[27] Source: MASA-DGER and FAM

Within the framework of the Ecophyto 2030 strategy, ministries and operators, including chambers of agriculture and agricultural education establishments, but also ESR establishments providing training in agriculture, will pay particular attention to:

- Strengthen the technical and pedagogical skills of teachers and trainers to teach redesign, in particular by regionalising the Ecol'Ter scheme, which aims to support and equip the teaching teams to teach agroecology and, more broadly, the redesign of crop systems, including a specific component for training in the use of biocontrol solutions, and by mobilising regional delegates in the DRAAF for continuous training;
- Systematise farm redesign of agricultural education institutions to serve as best practice demonstrators for learners, farmers and advisors in each territory: target of 100 % of farms in public agricultural secondary schools engaged in these redesigns. A contractual or regulatory incentive scheme could be proposed for private institutions, with a quantitative objective as for public institutions;
- Continue the mandatory integration of the challenges of the agro-ecological transition and up-to-date knowledge (including organic farming and biocontrol) in the context of the cyclical renovation of the agricultural education certification benchmarks and in the training of teachers in these updates;
- Mobilise agronomic higher education institutions, through the animation of a specific network, in order to develop the skills of teaching and researchers, to make agronomist a reference throughout the redesign chain to strategic advice, to encourage the emergence and incubation of starter'up in response to the challenges of Ecophyto 2030;
- Setting targets for agricultural educational establishments to reduce the use of plant protection products and certification in organic farming, so as to make all establishments, public and private, models in terms of agroecology;
- Identify and mobilise innovative farmers to host agricultural education trainees;
- Encourage establishments to register their holdings in collective approaches (such as EEIG, groups 30 000, etc.) aimed at redesigning systems;
- Involve agricultural education institutions in research projects and partnerships – deployment focusing on high TRL alternatives;
- Expand the demonstration network for non-chemical alternatives, in particular biocontrol, for farmers, advisers and learners, by mobilising all 250 farms in establishments (20 000 ha);
- Involve in this process other higher education and research institutions, which are also future players in the field.

4.2.3 continuing training

Training fund operators (OPCO) through their strategic guidelines plans and priorities defined by their boards of directors contribute, in addition to training related to the mandatory certificate, to the sustainable reduction of the use, risks and impacts of plant protection products, in particular through the adaptation of production systems. In particular, they aim to develop enhanced strategic skills among farmers and entrepreneurs for the evolution of production systems and the implementation of innovative technical routes. These training activities, carried out by the training funds (in particular those accompanying system changes and the reduction in the use of plant protection products), were hitherto likely to be the subject of calls for projects by the ministries responsible for agriculture and the environment. Some of these training courses, subject to prior validation of their contribution to the objectives pursued by the Ecophyto II + Plan, may be taken into account when renewing the certificate (VIVEA labelled training courses).

Measures proposed

In the framework of the Ecophyto 2030 strategy, ministries and operators, including chambers of agriculture and agricultural education institutions, will pay particular attention to:

- Develop training and advice for farmers and employees (initial and continuing training, advice and demonstrators enabling proof of concept) to speed up the availability and ownership of technical solutions and agro-ecological practices among as many people as possible. From this point of view, generational renewal in the agricultural sector is both a challenge and an opportunity;
- To support the increase in competence of farm council stakeholders to support the redesign of agricultural systems, through continuous training, through the creation of areas for the exchange of practices;
- Mobilise the OPCOs (VIVEA, OCAPIAT) to develop and update the offer of non-graduate vocational training for operators and the training of advisors.

Axis 5: Territorialisation, governance and evaluation

5.1. National governance

State of play

The governance of the Ecophyto programme is based on:

- An 'operational co-pilot' shared between the Ministry of Agriculture and the Ministry of Ecological Transition and an extended 'strategic co-pilot' to the Ministry of Health and the Ministry of Research;
- A Strategic Guidance and Monitoring Committee (COS), chaired by ministers and established by decree; it meets approximately once a year;
- The General Secretariat for Ecological Planning responsible for inter-ministerial animation and coherence of ministerial action;
- A Scientific and Technical Council (STC), responsible for the evaluation of results and impacts, set up in 2021;
- A Scientific Steering Committee for Research and Innovation (CSO-RI) dedicated to the transversal steering of research and innovation programmes.

Although there are many governance bodies, stakeholders nevertheless express the need for closer and more frequent consultation at technical level between the plenary meetings of the SOC, which are considered very formal and are not sufficient to ensure such consultation. Similarly, a number of stakeholders would like to see the membership of the CSO-RI more open to actors on the ground such as technical institutes, and for greater visibility of the CST's work.

The latest General Inspection Report on Ecophyto published in 2021 recommends tightening of inter-ministerial steering.

Measures proposed

5.1.1 governance of Ecophyto 2030 and strategic steering

The Strategic Orientation and Monitoring Committee (COS) has been renewed and is the governance body for the Ecophyto 2030 strategy. The members of the SOC will meet at least once a year in plenary session, in order to return the results achieved and to maintain the mobilisation of stakeholders at the highest level. The SOC will be chaired by the Ministers responsible for agriculture, the environment, health and research. This chair may be delegated to the strategy coordinator.

5.1.2 operational steering of the Ecophyto 2030 strategy

An Operational Steering Committee (OPC) will be set up to coordinate and monitor the implementation of the actions. This committee will be chaired by the Ecophyto strategy coordinator, appointed by the Prime Minister, responsible for ecological planning.

This steering committee will, in particular, develop the Strategy into an action plan setting targets for monitoring deployment, funding and results. It will meet at regular intervals. The ministries steering the Ecophyto strategy activities and the public institutions responsible for their implementation will be involved in the meetings of this steering committee:

- Ministries responsible for agriculture, environment, health, research, overseas and economic affairs;
- General Secretariat for Ecological Planning;
- General Secretariat for Investment;
- The following public establishments: FranceAgriMer, Office Français de la Biodiversity, Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail.

The various axes of the strategy will be steered by a central administration, involving, where necessary, other ministries to steer certain actions under the axes:

- Axis 1: pilotage MASA (DGAL) – *co-pilot of certain MTECT actions (DGPR)*;
- Axis 2: pilotage MASA (DGPE) – *co-pilot of certain MASA (DGAL), MTECT (CGDD) and MTECT (DEB) actions*;
- Area 3: MTECT pilotage (DEB-DGPR) – *co-pilot of certain actions: MTSS (DGS), MASA (DGPE)*;
- Area 4: pilotage MASA (DGER) – *co-pilot of certain actions: MTECT (CGDD), MTSS (DGS), MESRI (DGRI and DGESIP).*
- Area 5: coordination of the plan – *co-pilot of certain actions: MASA (DGAL), MTECT (DEB, CGDD), MIOM (DGOM)*

The implementation of the actions will be based on working groups involving more limited number of SOC stakeholders (up to 30 participants), involved over time on topics requiring further development. These groups will return the progress of their work in COS.

The follow-up to Axis 1 (search for alternatives) will thus take place within the framework of the Intersectoral Committee, with the aim of promoting inter-sectoral and inter-overseas cooperation, as well as cooperation between research centres and with technical institutes and in connection with the overall steering provided for in Axis 4, mobilising the CSO-RI (Scientific Steering Committee for Research and Innovation of the Ecophyto Programme). The work of the cross-sector committee will include working groups extending to the whole chain, including producers of plant protection products, agricultural machinery and downstream (cooperatives, distribution).

The monitoring of Axis 2 will be defined by the MASA as part of the operationalisation of the strategy.

The work under Axis 3 may include progress points for the NAC and the CNB for topics relating to water and biodiversity areas. The National Collection Group will contribute to the work on the abstraction.

With regard to JEVI and health issues concerning residents and agricultural workers, the existing technical bodies will also contribute to this work.

The Scientific Steering Committee for Research and Innovation of the Ecophyto Programme (CSO-RI) will be mobilised as part of the transversal steering of the research and innovation programmes under the different axes of the strategy and will continue its work to steer resources dedicated to the implementation of Axis 4.

5.2 the territorialisation of the strategy and the mobilisation of local actors

State-of-play

The metropolitan and ultra-marine territory is quite different, particularly with regard to a diverse soil and climate landscape and, as a result, diversification of agricultural crops, with considerable annual variations, such as by the economic and socio-technical organisation, upstream and downstream, of which these products form part or by the challenges of water protection, which may be quite different from one basin to another. However, in order to mask changes in practice, reference data need to be available and updated, but also more demonstrator projects are needed to engage all actors in the transitions.

Given this diversity of production areas, the mobilisation of local stakeholders, particularly in areas with priority issues such as catchment areas (see Axis 3), is obviously a key factor in the success of the strategy. Regional roadmaps had been carried out as part of the Ecophyto II + plan, but their monitoring over time seems uneven.

It is now essential to develop dynamic and shared approaches to move from parcel and producer to land and industry. Furthermore, it is essential that the territorialisation of the Ecophyto strategy is built taking into account the challenges of decarbonisation and adaptation to climate change.

Proposed measures

It is proposed that the regional prefects, supported by the DRAAF (DAAF in the Outer Sea), and with the support of DREAL (DEAL Outre-Mer) and the ARS, and in conjunction with the regions if they so wish, organise in 2024 within the framework of the Regional Agri-Ecology Commissions (CAE), or any other body deemed most relevant, the production of a progress report on the regional roadmap and the compendium of proposals for its possible reorientation. To this end, the result indicators will be presented to stakeholders, based on a definition of indicators to be proposed by 2024 by the Ministry of Agriculture and Food Sovereignty.

At the same time, as early as 2024, it would be proposed that voluntary regions (if possible involving at least one overseas region), supported financially and technically by the central administration, should carry out a more detailed territorial diagnosis so as to identify priority areas for the action (which may include the areas referred to in axis 3, such as catch-feeding areas, or as certain pilot areas in sectoral projects – Cap Agronomie, Vitirev, etc.) in view of the quantities used, the reduction potential, the mobilisation of stakeholders and the health and environmental issues in these areas:

- Examine the alternatives, difficulties, locks and levers on which planning can be based;
- To choose specific, precise, quantified and measurable objectives at the right scales (e.g. catchment areas within the meaning of SDAGE) and to prioritise appropriate means and actions;
- Build on relevant actors in the territory to initiate and accompany changes;
- Evaluate the results at territorial level and with relevant stakeholders.

These territorial diagnostics will build on the work carried out under axis 1 to take account of the priorities identified for each sector; and vice versa, this work will contribute to the work under Axis 1 as it progresses.

At the end of the territorial diagnosis, territorial action plans will be put in place, with precise and limited objectives, quantified and associated resources. These territorial plans, the objectives of which are to reduce the use and risk of plant protection products, will have to be linked to other territorial initiatives, such as territorialisation of ecological planning or transfer plans drawn up for the period 2022-2026.

Under the guidance of the prefects of the Region, these territorial action plans must be coordinated with all the local stakeholders in order to ensure that: these plans could include differentiated reduction targets for areas and crops.

An inventory of the actions and levers available to local and regional stakeholders that can be mobilised in different ways in the plans would be useful.

These plans must also make it possible to transfer and disseminate within the territories the alternative solutions identified in the work of the sectoral task forces (axis 1), as well as the solutions developed through research and innovation in the context of the other axes where they are quite mature (redesign of production systems, reduction of risks and impacts on human health and the environment, in particular through the use of biocontrol solutions alone or in combination).

For these exercises, theprefects of the region will be able to rely on the DRAAF organised and mobilised accordingly, with the support of the DREAL, and at departmental level on DDT (M). The involvement of local public bodies (water agencies, ARS, chambers of agriculture, OFB, ODEADOM, etc.) is also essential and should be coordinated and consolidated in the target contracts and roadmaps between these operators and the State. These target contracts and roadmaps should all include a section dedicated to Ecophyto policy.

In large and heterogeneous regions from an agricultural point of view, it could be envisaged that all or part of the approach be carried out on a more relevant sub-regional scale but always under the aegis of the prefect of the region, who could delegate to a coordinating prefect.

Regional authorities, water authorities, GEMAPI or those responsible for territorial food projects, and beyond professional agricultural bodies, marketing and processing operators, environmental and consumer associations would naturally be involved.

Once the methodology has been tested on the voluntary regions, it can be deployed as a second step, starting in 2025, at national level, so as to have appropriate regional objectives and trajectories for the Ecophyto strategy.

In order to monitor the implementation of this action, it is proposed that:

- a full-time experienced manager as a policy officer Ecophyto 2 030 in charge of territorial steering in DRAAF,
- means to be identified and prioritised within the departments of the DRAAF (SRAL, SRISE, SAE-FAM) and DREAL, water agencies, OFB and Chambers of Agriculture.

These regional approaches will be linked to the place-based approaches to ecological planning and the Varenne de l'eau and adaptation to climate change, in accordance with the arrangements to be agreed by regional stakeholders.

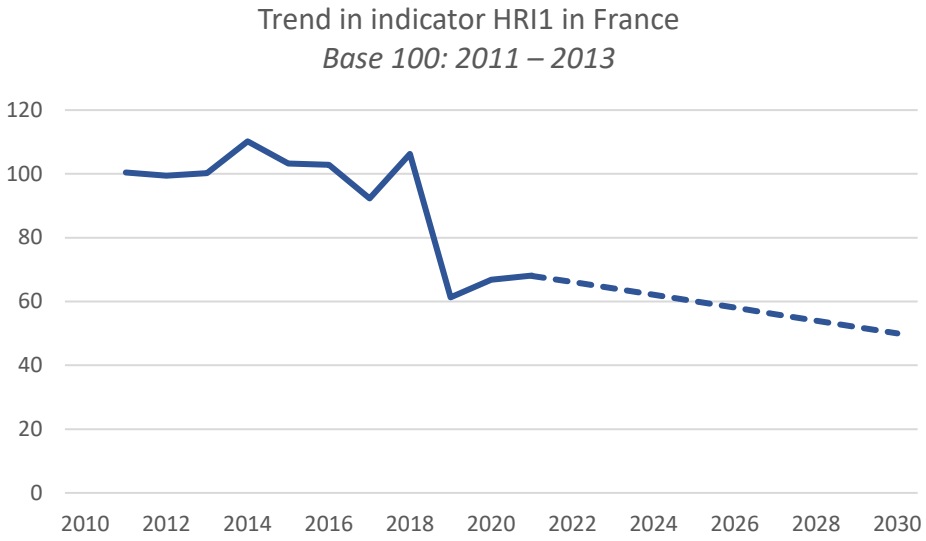
In a comprehensive manner, specific overseas governance would be put in place with the support of the DGOM and the pilot ministries. This governance requires the appointment of a leader to lead the Ecophyto network in the territories and encourage mobilisation and consultation with the various overseas stakeholders.

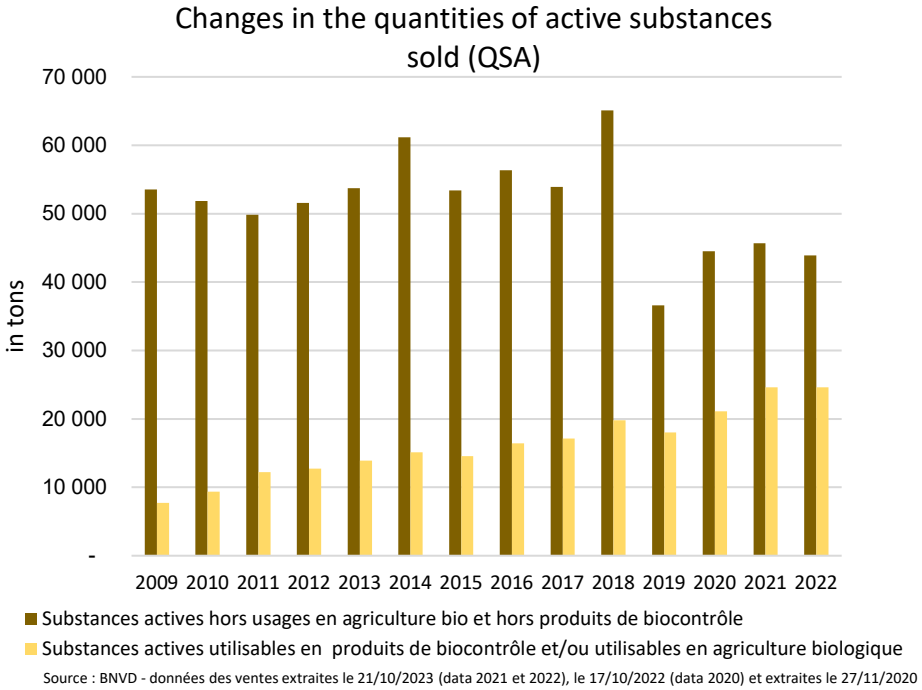
5.3 objectives, indicators and evaluation: towards a shared trajectory of 50 % reduction in use and overall risks by 2030

State of play

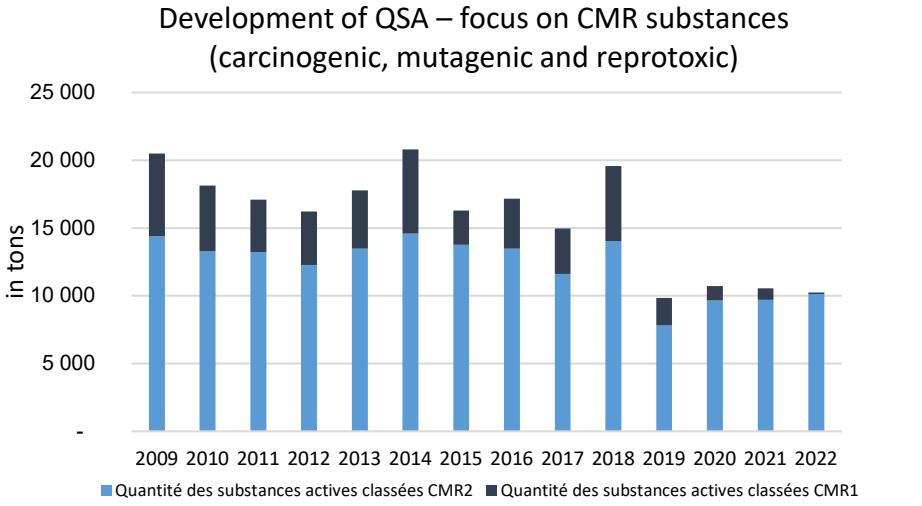
The 50 % reduction target for plant protection uses has been constant since Grenelle de l'environnement, but the associated calculation method has varied over time. Initially based on the tonnage sold, it evolved with the creation of the NODU indicator, developed by ministries in consultation with all stakeholders in order to avoid a number of trend analysis bias, particularly when a substance is substituted by a substance that is less hazardous but used at higher doses. The new strategy confirms the target of reducing plant protection consumption by 50 % compared to the three-year average 2011-2013. This decrease will be measured by the European Harmonised Risk Indicator 1 (HRI1), provided for in Directive 2009/128, as the sole indicator for monitoring the achievement of the Ecophyto 2030 objectives. This indicator makes it possible to take greater account of the concept of risk associated with the use of plant protection products and will also allow comparison at European level.

The graphs below show the evolution of these various indicators since the first Ecophyto Plan.





Source : BNVD - données des ventes extraites le 21/10/2023 (data 2021 et 2022), le 17/10/2022 (data 2020) et extraites le 27/11/2020 (data 2009 à 2019). Traitements : OFB, SDES, 2023.



Source : BNVD - données des ventes extraites le 21/10/2023 (data 2021 et 2022), le 17/10/2022 (data 2020) et extraites le 27/11/2020 (data 2009 à 2019). Traitements : OFB, SDES, 2023.

The 2019 General Inspection Report and the comparison with the different European approaches show the need to complement the overall historic 50 % use reduction target with one or more targets on reducing risks to health and the environment. This can be understood in a comprehensive way at national level (through a target focusing, for example, on reducing sales of the most toxic active substances for humans and species) or at local level, in the most sensitive areas, such as drinking water catchment areas, where differentiated reduction targets can be adapted to the issues at stake (population served, state of the resource, strategic nature for the future protection of this resource). Ecophyto II + had planned the development of such risk indicators, but the process was not completed.

The Ecophyto Plan Scientific and Technical Council (CST) has started work in this direction, as well as an analysis of the main determinants of the evolution of sales (first and foremost regulatory developments).

Source: Sources: BNVD – sales data extracted on 02/06/2023 (data 2020 to 2022) and extracted on 27/11/2020 (data 2009 to 2019). Treatments: OFB MTECT/SDES, 2023

Finally, several stakeholders consulted stressed the need for longer-term visibility, similar to INRAE's work by 2050[28], which identifies three framework scenarios for a reduction in pesticide use in agriculture.

Proposed measures

5.3.1 objective of the Ecophyto Strategy 2030

The SUD requires Member States to set quantitative targets and a timetable for achieving them (Article 4).

Thus, the national objective of the Ecophyto 2030 strategy is to halve the use and overall risks of plant protection products in 2030 compared to the period 2011-2013, the reference period of the HRI1 indicator.

5.3.2 monitoring progress towards Ecophyto 2030

The monitoring of the reduction path will be carried out with the European indicator HRI1. This indicator is expressed as a base index 100 (base 100 corresponding to the 2011-2013 average) and measures the evolution of the use of active substances by weighting them by their hazard statements.

The active substances are divided into 4 categories, each of which corresponds to a weighting factor:

- **Category 1** – coefficient 1: low-risk substance
- **Category 2** – coefficient 8: all other active substances which do not fall into the other categories
- **Category 3** – coefficient 16: candidates for substitution
- **Category 4** – coefficient 64: unauthorised substances

In addition to this European indicator, other indicators will also be followed to provide a more comprehensive analysis of the evolution of risks and uses of plant protection products. Each ministry, in its area of responsibility, will feed into the monitoring of these strategy steering indicators.

As part of a process of continuous improvement and greater European convergence, INRAE will be entrusted with scientific and technical expertise, in conjunction with other European research institutes, to propose ways of improving the methodology for calculating this indicator and their acceptability to the Member States. This work will make it possible to bring forward to European level a proposal for the methodology for calculating the amended HRI1.

5.3.3 reporting on the trajectories of the pathways

In order to report on the progress of each sector, the results of the statistical surveys carried out in accordance with the SAIO Regulation will be made visible in Ecophyto 2030.

5.3.4 follow-up of Ecophyto 2030 Strategy actions and deployment

The SOC will be responsible for the strategic steering and monitoring of the indicators of the Ecophyto 2030 strategy.

Each administration will also propose, for the measures for which it is piloting, the relevant monitoring indicators to measure progress in implementing the strategy. The monitoring of these indicators will be carried out in the framework of the Operational Steering Committee described in 5.1.2.

[28] Foresight: European agriculture without chemical pesticides in 2050, INRAE, November 2023.

An annual progress report on the implementation of the strategy will be presented to stakeholders.

5.3.5 launch of a cost/benefit study on the use of plant protection products in France

An overall impact study updating and complementing the available figures on the costs and benefits to society of the use of plant protection products will be carried out at national level and tools for local implementation of this study may be proposed to local decision-makers. Research will be carried out upstream in order to generate the necessary knowledge on the effects of plant protection products on ecosystem services and to allow for quantification integrating the best scientific knowledge.

5.3.6 the Scientific and Technical Committee of Ecophyto 2030

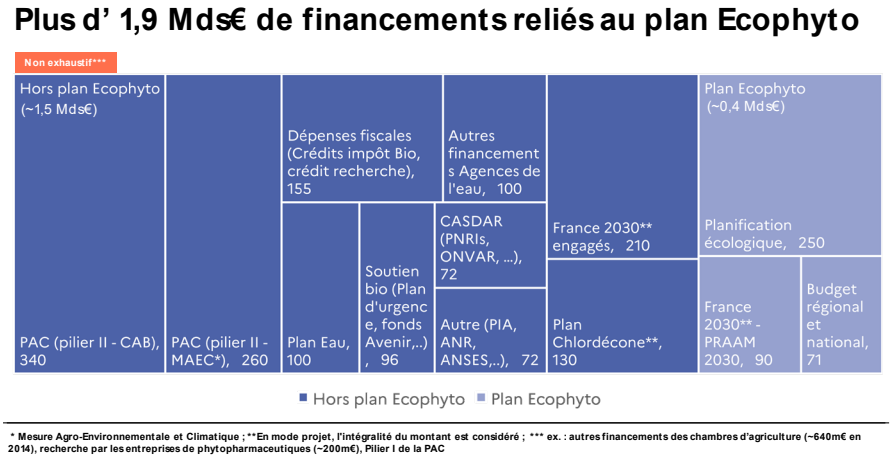
The Ecophyto Scientific and Technical Committee was set up in 2020 and will report to the COS. It shall act as an independent body. It is not excluded from adjustments to its composition in agreement with the ministries involved.

A detailed multi-annual work programme will be adopted in 2024 and presented to the members of the SOC. Its work and annual activity reports will be published on the website of the Ministry of Agriculture.

5.4 financial steering

State of play

Work carried out in the framework of the inter-ministerial task force has made it possible to estimate the amount of funding contributing directly to Ecophyto policy at EUR 1.9 billion.



The origin of this funding comes only from the taxation of plant protection products (charge for diffuse pollution, known as DPR), the product of which is approximately EUR 180 million per year. It should be noted that the financing linked to the water agencies exceeds EUR 71 million under the Ecophyto programme and is estimated at EUR 230 million on average (including EUR 120 million for MAECs, including organic farming).

This census follows on from the general inspection report on the financial evaluation of Ecophyto measures published in 2021 and the Court of Auditors' report of November 2019 on the report on the Ecophyto plans proposes several measures to improve the financial management of Ecophyto policy,

such as giving stakeholders multiannual visibility on the programming of the national Ecophyto envelope (EUR 41 million).

Measures proposed

An overall financial steering including the financing of the French 2030 schemes will be carried out as part of the operational steering of the strategy. Each ministry and public institutions involved in the strategy will contribute to this monitoring by reporting the commitments made on the appropriations for which it is responsible.

The management of the Ecophyto mock-up, which is drawn up every year by the ministries to manage the EUR 41 million of the Ecophyto national programme, will be improved as from 2024, in particular by means of a multiannual programme for the financing of structural measures, carried over from one year to the next, which could be accompanied by result objectives, and thematic calls for projects. These thematic calls for projects should be linked to other schemes, including calls for research projects. EUR 30 million will continue to be allocated to the regional envelope via the Water Agencies.

In addition, it is proposed to update in 2024 the full picture of Ecophyto policy funding, once the first year of contracting the new CAP has been completed and as recommended by the Court of Auditors.

In addition to the extension of Ecophyto policy funding, two additional budgets will be mobilised from 2024 to finance the actions of this strategy:

- a budget of EUR 250 million per year for ecological planning appropriations, in particular to finance the search for alternatives and their transfer and deployment, to support users of plant protection products through investments. This envelope may be reprogrammed according to needs and perspectives;
- almost EUR 300 million for France 2030 to finance research and innovation, transfer and deployment of alternative solutions, including a measure to support risk-taking with a budget of EUR 90 million in 2024. France 2030 funding is multiannual.

As indicated, financial monitoring will be carried out in the light of the results achieved. The operationalisation of the strategy will formalise the targets associated with funding.

The SGPI will provide, within the framework of the inter-ministerial COPIL, a summary of the financial follow-up. The ministries will ensure the commitment and monitoring of their respective budgets in this area and will collectively endeavour to give multiannual visibility to the commitment of the EUR 41 million in the 'national Ecophyto mock-up', by means of a letter setting out the ministers to the OFB operator concerning the measures to be financed over an initial period of 3 years, for example, each financing being committed by the operator following consultation of its bodies (intervention committee or board of directors).

5.5 public information and citizen engagement

State-of-play

According to the IRSN Barometer 2023 on the perception of risks and safety, the subject of plant protection products is the one on which the French have the least confidence in the authorities' action to protect them (with a rate of 'mistrust' of 53 %). However, according to the Fédération nationale de

l'agriculture biologique (Fédération nationale de l'agriculture biologique), French consumers switch less frequently to organic products than its average European counterpart, and the share of French consumers who are attentive to organic, HVE or non-residues of plant protection products fell further in 2022, with sales of these products falling in the context of inflation. Some refer to 'the jungle of labels' and a difficulty in identifying each person's real added value.

At the same time, campaigns to promote 'unconventional' fruit and vegetables struggle to change behaviour and consumer information remains to be strengthened on the consequences of their choices regarding the consumption of plant protection products, in particular.

There is therefore an important challenge to increase consumer information on the scope of the various labels and transparency on the checks carried out, in connection with the guidelines laid down by SNANC on information, awareness-raising and education, in a context where the necessary changes to our diet lead to a trend increase in the share of fruit and vegetables.

The Ecophyto II + plan provided for an inter-ministerial public communication strategy which could not be fully completed.

The aim of this action is, therefore, to broaden the scope of the Ecophyto plan in a system approach that is downstream, with the aim of considering the phytosanitary issue at the level of the food system. Responsibility for reducing the use of plant protection products cannot rest solely on farmers.

Proposed measures

The environmental display of food products, as provided for in the Climate and Resilience Act, must provide consumers with simple and transparent information on the environmental impact of products. A draft methodology for calculating the environmental impact score for food products was presented by the government in March 2023: the base for Life Cycle Analysis (LCA) is complemented by indicators designed in particular to take into account the positive externalities of certain low-input production systems, which are currently poorly covered by LCA. Technical work is ongoing to prepare the decree implementing the law.

- The results of the plans for monitoring the presence of residues of plant protection products in products of plant origin marketed in France will be made public annually;
- The DGCCRF will, as of 2024, strengthen the control of environmental claims on food products to sanction misleading approaches, and will consult the National Consumer Council on guidelines on this issue;
- France will take an ambitious position in the European discussions on the draft Green Claims Directive, published by the European Commission in March 2023, aimed at regulating the use of environmental claims and labels, thus combating greenwashing or greenwashing practices.

In general, as regards information to the public on data relating to the use of plant protection products and pressures on the environment, a number of weaknesses have been identified:

- Water quality data are insufficiently accessible and valued, particularly among the general public;
- A set of actors collects, produces and develops tools, potentially overlapping work on similar topics;
- Existing data repositories need to be consolidated, made interoperable and accessible to as many people as possible;
- A common glossary of these data must be constructed, particularly with regard to the problem of abstraction.

It is therefore proposed to set up an inter-ministerial project team whose objectives would be to develop the mapping of data actors around PPPs, to identify the legal and technical barriers that block the operational deployment of certain projects, and to propose a roadmap of actions to be taken by 2030 to allow for a comprehensive and integrated steering of public policies to reduce PPP uses, including in the territories, linked to the pre-existing governance of these data, the BNVd Quality WG and the French Nation Verte Digital Roadmap.

Annex 1 – List of structures of the cross-sector committee

Structures of the cross-sector committee
MASA
MSP
MEASURE
MTECT
MIOM
CGAAER
Representative of the DRAAF
SGPI
SGPE
France AGRIMER
ANSES
ODEADOM
INRAE
CIRAD
OFB
CDA France
Intercereals
INTERFEL
UNILET
CNIPT
GIPT
Land Univia
CIPALIN
AIBS
Valhor
INTERHOUBLON
UNICID
CNIV
CIHEF (Interprofessional Committee of French Essential Hubs)
PPAM of France: the Union of Plants' Professionals in Parfum, Aromatics and Medicinal Products
MR ANIFELT
SEMAE (Interbranch seed and seedlings)
ArmeFLHOR (Reunionese Association for the Modernisation of the Fruit, Vegumer and Horticulture Economy)
IT2 (Tropical Technical Institute)
Arvalis (Plant Institute)
ACTA
ASTREDHOR (Institute of Plant Professionals)
CTIFL (Interprofessional Technical Centre for Fruit and Vegetables)
IFPC (French cider production institute)
IFV (French Institute of Vine and Wine)
ITAB (Technical Institute of Organic Farming)

Structures of the cross-sector committee
ITB (Institut Technique de la Betterave)
ITEPMAI (Inter-professional Technical Institute for Perfume Plants)
FNPPPT
Land Univia ET Inovia
Inovia (Interprofessional Technical Centre for oilseeds, protein crops and hemp)
Land Inovia
ARIFEL
Armeflhor
Guadeloupean Interbranch Association of Fruit and Vegetables and Horticulture (IGUAFLHOR)
Banamart
Guadeloupe and Martinique Banana Producers' Group
Technical Centre for Sugar cane – Guadeloupe
Technical Centre for Sugar cane – Martinique
Centre Technique Interprofessionnel de la Canne et du Sucre and Agricultural Director of TEREOS
eRcane
MR IGUACANNE
IFIVEG FRENCH GUIANA
IT
RFCS
Interministerial delegate OM
UGPBAN and IT22

Appendix 2 – List of structures belonging to the 2030 Ecophyto Strategy Guidance and Monitoring Committee

SOC Structures
Assembly of the Communities of France (ADCF)
Organic Agency
Water Agency
Association of Mayors of France (AMF)
AMLP
ANIA
ANSES
ANSP
Chambers of Agriculture France (CDAF)
Association Contract of Solutions
AXEMA
CFDT-FGA
CFE-CGC
CFTC
CGT
CIRAD
Paysanne Confederation
Consumption of housing and living environment (CLCV)
Rural coordination
CST Ecophyto

SOC Structures
Rural families/UNAF
FCD
Fisheries Federation – FNPF
FNA
FNAB
FNCUMA
FNE
FNEDT
FNH
FNSEA
FO-FGTA
FranceAgriMer
Future generations
Humanity and biodiversity
IAVFF-AGREENIUM
INRAE
INSERM
National Cancer Institute (INCA)
International Biocontrol Manufacturers Association (IBMA)
Inter-branch organisation – CLIA UNILET
ITSAP
Young farmers (JA)
Agricultural cooperation
LPO
MASA/DGAL
MASA/DGER
MASA/DGPE
MASA/SG
MACP/DB
MEIN/DGCCRF
MESR/DGRI
MOM/DGOM
MSA
MTSS/DGS
MTECT/CGDD
MTECT/DEB
MTECT/DGPR
ODEADOM
Water Office
French Biodiversity Office (OFB)
PCIA
Phyteis

SOC Structures
Physical Victims
Chair of the CSO RI
Regions of France
CIVAM network
Health Environment Network
SNCF Network
UFC-QueChoisir
UFS
UNEP
UPJ
WWF

Annex 3 – Global financial package

Use of appropriation	Amount 2024, including freezes, plants and management costs (EUR million)
Ecophyto programme (EUR 71 million)	
National Ecophyto mock-up	41
Regional Ecophyto mock-up	30
Appropriations from ecological planning (EUR 250 million)	
MASA budget:	
PARSADA	146
Agri-equipment desk	50
Biological surveillance of the territory including the renovation of the plant health bulletin	10
Support for territorialisation	16
Support for PPP users	8
Budget for local and regional authorities:	
Water treatment	20
Appropriations from France 2030 (EUR 300 million)	
New CEI and AAP 'Amont Aval risk taking and massification carried out by the Bank of Territories in connection with MASA and FranceAgriMer	90
Projects relating to the reduction of dependence on plant protection products in the framework of AMI/AAP d'ores-et-et-already launched (Great Robotics Challenge, Grand Bio-Control Challenge and Biostimulants, etc.)	210