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# Protocol for the evaluation of emergency authorisations of insecticides and acaricides submitted under Article 53 of Regulation (EC) No 1107/2009

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## Abstract

The protocol provides a structured approach for evaluating emergency authorisations of insecticides and acaricides under Article 53 of EU Regulation 1107/2009. It aims to standardise the evaluation of emergency authorisations, prioritise sustainable alternative solutions and ensure compliance with overarching EU strategies. Flowcharts were developed to harmonise the evaluation and to provide a structured evaluation process. A key aspect of the protocol is its flexibility to accommodate various emergency situations. The protocol includes provisions for more comprehensive evaluation in cases involving products with a less favourable profile, while considering the availability of alternative chemical and non-chemical control methods. It underscores the importance of transitioning from emergency authorisation to regular authorisation processes. Additionally, the methodology includes recommendations for repeated authorisations and the establishment of spatial and temporal conditions and restrictions of use.

A central focus of the protocol is on fostering sustainable, long-term solutions in case of repeated authorisation requests. By aligning with regulatory frameworks and integrating stakeholder feedback, the protocol aims to improve transparency and efficiency in addressing emergency situations that cannot be managed through other reasonable means.

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## Summary

Emergency authorisations<sup>1</sup> are critical tools allowing the time-limited use of pesticides in situations where the emergency cannot be managed by other reasonable means. This protocol offers a detailed framework for assessing emergency authorisations of insecticides and acaricides. It is designed to ensure that decisions are made consistently, transparently, and efficiently, while aligning with the European Union's broader strategies for sustainability and biodiversity in agriculture. The methodology of the protocol is built around flowcharts that guide competent authorities through the assessment process.

Criteria are set to examine the availability and suitability of alternative control methods, both chemical and non-chemical. Central to the protocol is its adaptability to various emergency circumstances in relation to the pest status and the hazard/risk and approval status of the examined PPP, tailoring the requirements on the specific context.

Alternative control methods are thoroughly assessed for their potential to serve as long-term solutions. The protocol provides a framework for evaluating their effectiveness and feasibility, noting that only those rated highly in both areas are considered suitable alternatives. The evaluation of eligibility is required to be performed at the national level due to the significant influence of local agro-environmental and socio-economic conditions. An EU-wide inventory of alternative solutions supporting the assessment is available as supporting information. Another essential part of the evaluation is the determination of whether other chemical control options are available. Emergency authorisation is only granted when no viable alternatives exist, or when existing solutions are unsatisfactory. The document details scenarios where emergency use may be granted for resistance management.

The methodology promotes transitioning to regular authorisation pathways. If regular authorisation is foreseeable, emergency approval can serve as an interim solution. The protocol addresses the management of repeated authorisations. When repeated emergency requests occur, applicants are expected to submit structured, time-bound action plans showing their commitment to long-term solutions. These plans should be monitored and adjusted as necessary to ensure a continuous progress. In cases where multiple emergency requests are submitted for the same emergency situation, an assessment by comparison is required to identify the most suitable solution; however, more than one grant may be accepted when the PPPs offer complementary benefits.

Authorisation decisions must define restrictions regarding the timing, location, and method of use. The protocol outlines additional conditions authorities may impose, such as implementation of non-chemical methods alongside emergency PPPs or the submission of post-authorisation monitoring data.

Overall, implementing this protocol is expected to strengthen the EU's capacity to respond to agricultural emergencies effectively and advance sustainable practices.

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<sup>1</sup> Granted under Article 53 of Regulation (EC) No 1107/2009.



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# 1 Introduction

## 1.1 Background and terms of reference

The European Commission has tasked EFSA PLANTS Unit with developing fit-for-purpose protocols to assess emergency authorisations granted under Article 53 of the Pesticide Regulation (EC) No 1107/2009 (details on the mandate see [EFSA-Q-2025-00117](#)). This initiative includes protocols for insecticides and acaricides, fungicides and bactericides, as well as herbicides, soil fumigants and nematicides. The protocols should ensure that emergency authorisations granted under Article 53 are not in contradiction with the goals of the EU Biodiversity and Farm to Fork strategies. In line with EFSA's commitment to openness and transparency, activities such as workshops and stakeholder events, either online or in person, were effectively organised. These initiatives collected feedback on the existing related protocols, gathered informed input concerning the criteria for assessing emergency situations and sought perspectives on the availability and applicability of alternative methods. The insights obtained are considered in the development of the current protocol.

## 1.2 Outline of the scope of the current protocol and the resulting benefits

The protocol is designed to offer guidance to MS when processing an emergency authorisation request. It articulates the provisions of the GUIDANCE ON EMERGENCY AUTHORISATIONS ACCORDING TO ARTICLE 53 OF REGULATION (EC) No 1107/2009 (SANCO/10087/2013 rev. 1), a document that is currently under review. The protocol is more explicit and specific in its detail than the corresponding guideline, establishing a more structured set of procedures leading to direct actions that can be followed by the competent authorities. The protocol utilises flowcharts which guide evaluators through specific steps towards a decision. Although its main focus is to provide assistance to MS, it is accepted that it can be a good starting point when an application dossier is prepared, as it offers valuable insights on the information that is required.

The protocol is expected to provide a clear and standardised framework for assessing emergency authorisation requests, ensuring that decisions are made in a timely, transparent and consistent manner minimising delays and uncertainties. Furthermore, the protocol will promote transparency by clearly outlining the criteria for emergency authorisation and the procedures for evaluating applications.

## 1.3 General principles considered in the development of the protocol

### 1.3.1 Consideration of alternative control methods and Integrated Pest Management

In the context of the current protocol, the transition to safer plant protection solutions is encouraged through the following methodological considerations:

- Establishment of an inventory with preliminary information on alternative to chemicals control methods tailored to specific crop protection needs against arthropod pests in several crops. The collected information serves as a reference point for competent authorities in the grading of available alternative control methods regarding effectiveness and feasibility.
- Adaptation of evaluation criteria within decision-making flowcharts for emergency requests, taking into account the profile of the examined product/active substance and the availability of low-risk active substances.
- Conditional granting of emergency authorisations, which may be associated with the implementation or development of specific alternative control methods.

### 1.3.2 The Importance of Time Efficiency in the Process

Often, the emergency authorisations are requested in response to urgent situations requiring prompt actions. To support the need for immediate intervention, the following procedural aspects have been integrated into the proposed methodology:

- Priority-based flowchart structure: The structure of the flowcharts gives priority to the examination of parameters and conditions that are most likely leading to definitive outcomes.
- Optionality of non-impactful information: Information that does not modify the outcome can be treated as optional.
- Situation-specific decision timelines: The time required for concluding the authorisation is tailored to the specific situation under examination e.g. fewer related steps for requests related to regulated pests.
- Preliminary evaluation (optional): Regulated quarantine pests require a distinct approach, as they often present one-time emergencies that necessitate immediate intervention. The same applies to common pests that normally do not pose a threat to crops but occasionally can cause a sudden outbreak and become a serious threat. In these instances, when time allows, it is useful to establish preliminary emergency pre-authorisations that can be enacted during an outbreak.
- Administrative completeness check (optional): Upon submission of an emergency authorisation dossier, Member States may choose to perform a preliminary administrative check to identify any missing information or insufficient justification.

## 1.4 Confines of the document

The protocol is intended for a structured process to evaluate whether an emergency authorisation is justified. Whether the identified pest qualifies as a 'danger which cannot be contained by any other reasonable means' in the specified situation, is evaluated in accordance with Article 53 of Regulation (EC) No 1107/2009. The document delineates most relevant agronomic and plant health considerations associated with the granting of emergency authorisations. Other aspects of concern, related to consumer safety and the protection of human and animal health or the environment, fall outside the scope of this protocol.

## 2 Methodology

### 2.1 Flowcharts for evaluation

The evaluation-support flowcharts are designed to guide competent authorities through the stepwise assessment process. The complete flowcharts are available in Appendix A. The evaluation procedure follows a structured sequence of steps, the number of which varies depending on the circumstances for which an emergency authorisation is examined. It is essential that the flowcharts are utilised in their entirety: partial or selective consideration of individual steps within the process is not recommended. The evaluation procedure may terminate at any step when conditions are not satisfied, resulting in the rejection of the application (i.e. no necessity to examine information pertaining to subsequent steps). The ordering of the steps within the flowchart prioritises those likely to lead to definitive conclusions. This ranking should not be interpreted as an indication of preference.

A summary table compiling applied criteria and examined aspects as well as the conditions and restrictions on emergency authorisation grants is provided in Appendix B. Detailed analysis is covered in Sections 2.4-2.10.

### 2.2 Recognition of the threat for which emergency authorisation is requested

The emergency situation must be associated with a specific pest or a narrowly defined group of pests with similar biological traits, which may belong to the same taxonomic group. The species within the group should be effectively confined using the same pest control tools. Broader taxonomic or non-taxonomic categories should be excluded. Examples of eligible and not eligible pest groups in emergency authorisations are presented in Table 1. Crop groups could also be considered, i.e. host plants of the target pest in case of a polyphagous pest such as *Drosophila suzukii*.

In case two (or more) distinct and unrelated pests are concurrently acknowledged as emergency situations within the same crop or crop group, each pest should be examined independently, even if both can be effectively contained by the same PPP.

**Table 1.** Eligible and non-eligible pest groups for consideration in emergency authorisation

Eligible pest groups	<ul style="list-style-type: none"> <li>○ Species of the same genus (spp.) for target pests that appear as a complex thus are not easy to separate in the field and cause the same type of damage on the host crop, e.g. <i>Agriotes</i> spp., <i>Agrotis</i> spp., <i>Cacopsylla</i> spp., <i>Liriomyza</i> spp.</li> <li>○ Stored product pests in case of a PPP for application in granaries-silos, containers</li> <li>○ Target pests in case of a PPP for seed treatments</li> <li>○ Target pests for phytosanitary control, containment of quarantine pests (e.g. sharpshooter leafhoppers (Hemiptera: Cicadellidae: Cicadellinae) as vectors of <i>Xylella fastidiosa</i>)</li> </ul>
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	<ul style="list-style-type: none"> <li>Species of the same Family can be exceptionally acceptable, provided that they have similar biology and cause the same type of damage, e.g. Elateridae, Pseudococcidae, Scolytidae</li> </ul>
Non eligible pest groups	<ul style="list-style-type: none"> <li>Families, with species diversity on biology/damage, e.g. Aphididae, Curculionidae, Noctuidae</li> <li>Taxonomic groups higher than family, e.g. Lepidoptera, Coleoptera</li> <li>General categories of pests, e.g. soil insects, wood borers, leaf miners, if there is not a special reasoning like the one mentioned in the eligible target groups</li> </ul>

## 2.3 Identification of the circumstances under which emergency authorisation is requested

The identification of the situation/circumstances for which an emergency request is applied for is prioritised within the evaluation framework for the selection of the suitable evaluation flowcharts. The aspects considered when identifying the circumstances under which emergency authorisation is requested are outlined below:

**Hazard/risk and approval status of the active substance:** Emergency authorisations may carry greater uncertainty than regular authorisations, as they are associated with a non-comprehensive evaluation process and decisions are relying on incomplete information. The magnitude of the uncertainty is associated with the status of the active substance in the PPP under evaluation. Within the framework of the present protocol, the active substances are categorised based on their approval and hazard/risk status, and different evaluation criteria are applied to each group. The level of required information and the robustness of the acceptability criteria follow this order: approved *low-risk active substances* → approved *active substances other than low-risk* → *non-approved active substances in the EU*. For non-approved active substances, the associated uncertainties may also vary depending on the level of information that is available when the decision must be reached, as this category includes both banned substances and substances still under evaluation. The non-approved active substances may include substances of unacceptably high-risk (e.g. previously approved active substances without renewal) or active substances with incomplete knowledge regarding their safety profile (e.g. newly introduced substances). In specific cases an active substance with a pending authorisation status can be treated as approved within the framework of emergency authorisation assessment i.e. upon the availability of sufficient information suggesting that no concerns are anticipated regarding the compliance with regulatory requirements. This applies for example when the evaluation at the EU level has been completed or is in an advanced stage, and no significant issues have been raised.

**Risk status of the pest:** Most emergency authorisations granted relate to common pests. However, the need to control the introduction or spread of a regulated pest<sup>2</sup> may be considered an emergency situation. In such case, the emergency authorisation is granted as part of a biosecurity contingency plan aiming at eliminating the high-risk pest and/or preventing its spread. Due to the urgency of the situation, the procedures followed should

<sup>2</sup> Under Regulation (EU) 2016/2031.

ensure a prompt resolution. In such cases, specific steps typically suitable for common pests are omitted.

**Intended use in organic farming:** Requests for emergency authorisations to be used only in organic farming, while not considered as a distinct situation within the current methodology, must nonetheless consider factors which are specific to this type of farming. For instance, chemical solutions are limited in organic farming while conventional farming has access to a broader range of options. A separate analysis may be required upon request for emergency authorisation of a PPP suitable for both conventional and organic farming.

## 2.4 Examination of the suitability of the product under evaluation to address the emergency situation

Scientific evidence or a rationale supporting that the product under evaluation can manage the identified threat is required in specific circumstances. The final decision on the suitability of the examined product is taken by the competent authorities, considering the evidence provided by the applicant and any other available information.

For products containing EU **non-approved** active substances, a reasoning grounded in solid evidence from field trials should be available, in case there is no previous experience with this active substance<sup>3</sup>. Data should demonstrate that the product can provide a satisfactory control of the target pest when applied as intended i.e. same application dose and method of application. The trials should originate from MS or other geographical regions with climatic conditions similar to the MS in which authorisation is sought<sup>4</sup>. Studies conducted under GEP status are preferable, but efficacy can also be addressed with non-GEP compliant studies. Evidence from open literature can also be accounted for. There is no minimum number of studies that applicant should submit to fulfil this requirement. The decision on the completeness of the presented data package lies with the competent authorities, which should take into consideration the following aspects when deciding on the adequacy of the information:

- Any previous experience with the PPP on the same target e.g. if a repeated authorisation is requested and whether monitoring of the performance of the product under examination supports the claims of effectiveness and absence of adverse effects on the crop or crop produce.
- Any evidence with the use of the PPP on other similar pests (or crops), where the product was used in the same way e.g. same application rate. The extrapolation of data should consider all related aspects e.g. similar biological traits of the target pests.

<sup>3</sup> Field trials are not required when the PPP for which emergency authorisation is requested has been previously (regularly) authorised in the MS for the specific use (same pest-crop combination) and following the same application scheme (e.g. dose, method of application).

<sup>4</sup> Climate suitability analysis can be conducted using different approaches depending on data availability and the purpose of the assessment. These may range from simple climate classification comparisons to more detailed modelling approaches. At EFSA, a commonly applied approach for an initial evaluation of climate suitability is the Köppen–Geiger climate classification approach, which has recently been updated by EFSA (EFSA, 2026, <https://efsa.onlinelibrary.wiley.com/doi/abs/10.2903/j.efsa.2026.9859>). EFSA has operationalised this approach through the SCAN-Clim tool (EFSA, 2022, <https://efsa.onlinelibrary.wiley.com/doi/abs/10.2903/j.efsa.2022.7104>), with a new version currently under development to incorporate the recent methodological updates. Relevant EPPO Standards to be considered are EPPO PP 1/241 and EPPO PP 1/269. For climate-independent uses (e.g. use in greenhouses and seed treatment) the entire EU is regarded as one zone.



Generally, the suitability of the product under evaluation associated with an EU **approved** active substance can be addressed relying on expert judgement and previous experience from the use of the product in the MS or in other regions with similar agronomic and climatic conditions. However, scientific data from field studies are necessary in the following situations:

- When a lower application rate is requested than standard/historic rate
- When the intended method of application differs from those previously considered.

For regulated pests, it can be accepted that data on effectiveness/phytotoxicity in the MS or in other MS may be limited or unavailable. In such cases, experience/expert judgement can be sufficient. Any relevant information deriving from a geographic area with different agronomic and climatic conditions can be acceptable.

## 2.5 Examination of availability and suitability of other PPP

The underlying principle for this part of the evaluation is that emergency authorisation may be substantiated only when no other PPPs are available, or the available PPPs are unable to provide a satisfactory control of the pest. The examination of the availability of PPPs may not be restricted to products available in the market at the time of application but can also encompass PPPs that may potentially become available shortly. The search for available PPPs can be EU-wide, where it is feasible. Given that regular authorisation is prioritised, the competent authorities may examine the possibility of mutual recognition (Article 40) of a product that is already authorised in another MS and investigate if other PPPs are presently undergoing evaluation as part of the regular authorisation process (i.e. under Article 33). A request for emergency authorisation can be declined in view of the anticipated availability of an appropriate PPP. The projected timeframe for the availability of the alternative PPP is the factor that drives the decision: if required, emergency authorisation may be granted for a restricted period until the alternative solution is available. It is highlighted, however, that exhaustive examination of alternative PPPs in other MS and checking of ongoing evaluations for authorisation may not be feasible. Thus, this step is set as optional and may be practised at a case-by-case basis.

In case PPPs authorised for the specific emergency situation are available, the examination of the **necessity** clause is triggered (see Necessity Chart in Appendix A). The necessity of emergency authorisation is established when the product under examination can potentially lead to more satisfying and consistent results compared to alternatives in relation with resistance management, beneficial attributes in effectiveness, the support of an established IPM programme. These considerations are detailed below.

### 2.5.1 Resistance management

The use of emergency authorisations as part of a contingency plan where resistance has already occurred/evolved can justify an emergency authorisation (reactive anti-resistance management). The use of emergency authorisations as part of a proactive anti-resistance strategy is not foreseen. The relevant justification should be based on up-to-date information and a complete resistance analysis.



Delaying the development of resistance by rotating PPPs with different modes of action is a recognised anti-resistance strategy. It is relevant when there is scientific evidence for a shift in the sensitivity of the pest towards commonly used PPPs, which is reflected in a failure of the available PPPs to achieve the expected level of control, or a need for an increased number of applications for effective control. An emergency authorisation can be requested to combat and slow down the evolution of pesticide resistance. The product under evaluation should have a different MoA with no cross-resistance to available PPPs and is of low or moderate risk for resistance development. Exceptionally, PPPs containing an active substance with a high potential for resistance development can be accepted, but this possibility is examined only when PPPs having a lower risk for resistance are unavailable.

Provided that the abovementioned conditions are satisfied, emergency authorisation covering the whole MS or only designated geographic areas where resistance has been confirmed may be issued. The final decision on the geographic extension of the grant is reached after a thorough risk analysis and consideration of all interconnected factors, e.g. the extent of utilisation of preventative non-chemical methods that act as resistance modifiers. The decision report should provide clear instruction on how the product could be utilised in the context of an anti-resistance management strategy. Restriction can be related to the timing of application or to the implementation of specific preventative methods, particularly those which are recognised as modifiers of resistance development. Post-authorisation obligations of the authorisation holder may include monitoring of pest populations<sup>5</sup> to assess the effectiveness of the PPP rotation strategy.

### 2.5.2 Examination of beneficial attributes in relation with effectiveness

The necessity of the PPP under evaluation may be substantiated by considering its potential to offer a distinct advantage over existing solutions i.e. higher or more consistent level of control and longer duration of protection<sup>6</sup>. To substantiate this potential, a scientific rationale incorporating all available information should be presented by the applicant upon submission of the request and reviewed by the competent authorities.

Other beneficial attributes, relevant only for low-risk active substances or when the eradication/control of a regulated pest is required include:

- targeting different developmental stages of the pest or crop growth stage compared to alternatives
- introduction of a novel method of application
- suitability of the PPP as a mixing or alternation partner to already available PPPs.

### 2.5.3 Product is a component in an established IPM programme

The emergency authorisation procedure must ensure that already established IPM programmes are not interrupted or negatively affected by the unavailability of a PPP, where relevant. An emergency authorisation of the PPP which is part of an established IPM framework is possible for a period deemed adequate to facilitate efforts in identifying a suitable replacement. The emergency authorisation is applicable solely within the

<sup>5</sup> Post-authorisation monitoring is set as optional. Refer to Section 2.11 for more details.

<sup>6</sup> Refer to Appendix B for more details.

geographical area where the IPM is implemented and exclusively for growers adhering to the specific IPM programme.

## 2.6 Examination of the eligibility of alternative control methods<sup>7</sup>

Although numerous alternative pest control methods have been explored globally, not all of them can be considered immediately operational. Alternative pest management tactics do not apply to all possible situations, meaning that there is no one-size-fits-all solution. An alternative control method (or array of interrelated methods or an effective IPM programme) can only be considered eligible when it is already practised by growers, or when the method has been experimentally validated for suitability under the specific environmental and agronomic conditions. Given the wide array of factors influencing the performance of alternative control methods, assessments concerning their effectiveness and feasibility are only meaningful when conducted at the MS level. A comprehensive analysis of the two aspects - effectiveness and feasibility - determining the eligibility of alternative solutions is presented in 2.6.2 and 2.6.3.

### 2.6.1 Inventory of alternative control methods that should be examined for their eligibility in managing the emergency situation

The examination of suitability of possible alternative control methods is a particularly laborious task. To prevent delays, the construction of an inventory of alternatives covering most frequently encountered pests in emergency authorisations in the EU was initiated as part of the current work, and the outcome of this search is considered an integral part of the current document. The inventory can serve as a reference for competent authorities in the establishment of the eligibility of the alternative control methods (in terms of effectiveness and feasibility) in their MS. The alternative control methods analysed, along with the respective outcomes, are available in Zenodo under this link: <https://doi.org/10.5281/zenodo.18336402>.

The decision on the suitability and feasibility of a given alternative control method (or a combination of methods or IPM programme) rests solely with the experts of the competent authority in the MS where the application was submitted. This is justified by the fact that both effectiveness and feasibility of each alternative intervention are heavily influenced by local agro-economic and climatic conditions. Moreover, the viability of these methods can depend on specific technical or socio-economic factors unique to each MS.

### 2.6.2 Effectiveness

The evaluation of the effectiveness of an alternative control method may be different from that of a conventional PPP as the effects may be slower to develop. The evaluation can be achieved through a consolidation of evidence-based information and expert judgement. This can be related to previous experience from practical use in the MS and in areas with similar agroclimatic conditions or on the outcomes of monitoring the diffusion and success of established IPM programmes. It is important to collect information on the effectiveness of the alternative solution under relevant conditions and avoid extrapolating from vastly different

<sup>7</sup> See definition of alternative control methods in the Glossary.

conditions. Experience from other countries may be a good indicator of the success of a control method in a specific region, but it is not a guarantee, and, thus, a case-by-case examination is required.

In the context of the current project, effectiveness of alternative control methods in this protocol is defined as the positive effects of the use of the method or the combination of methods in achieving the desired objectives (either control of pest or enhancement of crop growth or quantity improvement). The duration for which the method continues to be beneficial is considered a related feature. To facilitate the establishment of the level of effectiveness and ensure consistency in the decisions, four effectiveness levels are proposed (Table 2). Specific examples illustrating each effectiveness level are presented in Table 3. Level 1 is included to enable evaluation of all methods identified in scientific literature, even if this level has no practical importance.

Setting fixed quantitatively defined thresholds that can apply to all situations is considered impractical. Thus, association of each effectiveness level to percentage-based thresholds is not considered in this document. However, the quantitative approach could be explored by MS when feasible.

**Table 2.** Effectiveness index for alternative control methods based on the best available knowledge and expert judgement

Effectiveness index	Indexing criteria
Level 1	The alternative control method/combination of methods/IPM programme is not effective.
Level 2	The alternative control method/combination of methods/IPM programme has low effectiveness.
Level 3	The alternative control method/combination of methods/IPM programme has moderate and/or variable effectiveness.
Level 4	The level of control (or benefit) of the alternative control method/combination of methods/IPM programme is satisfactory and consistent.

**Effectiveness is considered as “not effective” – level 1** when the method/combination of methods/IPM programme has been tested in field conditions or in practice and failed to reduce the infestation level or the damage to the crop/crop product compared to no treatment.

**Effectiveness is considered as “low” – level 2** when the method/combination of methods/IPM programme has been tested in field conditions or in practice and showed a low reduction of the pest infestation level or of the damage to the crop/crop product compared to no treatment.

**Effectiveness is considered as “moderate” – level 3** when the method/combination of methods/IPM programme has been tested in field conditions or in practice and showed a moderate reduction of the level of infestation or of the damage to the crop/crop product compared to no treatment. Effectiveness would also be classified at level 3 when the method/combination of methods/IPM programme has been tested in field conditions and showed inconsistent effectiveness.

**Effectiveness is considered as “high” – level 4** when the method/combination of methods/IPM programme has shown a high and consistent level of control in field conditions compared to the PPP currently used in practice. High effectiveness may be reached with a single alternative control method or when alternative control solutions are combined within an IPM scheme.

**Table 3.** Examples of effectiveness levels 1-4\*

Level 1	-
Level 2	Wireworms (in Europe mainly the genus <i>Agriotes</i> ) are generalist herbivores that can cause damage (yield reduction, quality loss) to a wide variety of crops (e.g. potato, cereals, carrot, sugar beet) and therefore to almost any crop in crop rotation because of their broad host range as well as their multiyear larval stage <sup>8</sup> . Well-designed <b>crop rotation</b> schemes applied over a 3-5 year period before sowing/planting the susceptible crops, could be the case of a method of level 2 effectiveness, contributing to the reduction of infestation risk by wireworms <sup>9,10,11,12</sup>
Level 3	Some <b>Microbial</b> substances may have variable effectiveness in respect to the pest pressure and environmental conditions or specific prerequisites are required to reach max effectiveness.
	In case of <b>augmentative biological control</b> of an insect pest in field conditions a progressing additive effect is expected after the release of the natural enemy over time from one pest generation to the next with the establishment of the natural enemy.
	In case of <b>conservation biological control</b> by groundcover management in field alleys/margins, the impact on pest control/crop benefit can be affected by several parameters such as the floral/vegetation composition itself which can contribute with different natural enemies/alternative prey, the distance of the farms from natural/seminatural habitats, the size of the farm, the chemical applications in the farm, the distribution of organic-IPM farms in the area, etc. In case studies of various groundcover management of alleyways and field margins in apple orchards for conservation biological control of the codling moth <i>Cydia pomonella</i> , the results varied depending on the management and other parameters from level 1 to level 3 (increase of

<sup>8</sup> Atoosa Nikoukar and Arash Rashed (2022) Integrated Pest management of wireworms (Coleoptera: Elateridae) and the rhizosphere in agroecosystems. *Insects*, 13: 769. <https://doi.org/10.3390/insects13090769>.

<sup>9</sup> Fanny Barsics, Eric Haubruge and François J. Verheggen (2013). Management: An overview of the existing methods, with particular regards to *Agriotes* spp. (Coleoptera: Elateridae). *Insects*, 4: 117-152; doi:10.3390/insects4010117.

<sup>10</sup> Stéphanie Saussure, Manuel Plantegenest, Jean-Baptiste Thibord, Philippe Larroudé, Sylvain Poggi Management of wireworm damage in maize fields using new, landscape-scale strategies (2015). *Agronomy for Sustainable Development*, 35: 793-802; doi: 10.1007/s13593-014-0279-5.

<sup>11</sup> Claudia Meixner claudia.meixner@global2000.at Controlling wireworms in potato production Austrian Operational Group looking for alternative, environmentally friendly control methods. EIP-AGRI, Agriculture and Innovation. <https://ec.europa.eu/eip/agriculture/en/news/inspirational-idea-controlling-wireworms-potato.html>

<sup>12</sup> Hansueli Dierauer, Gilles Weidmann, Franziska Siegrist. Using crop rotation to control wireworms (abstract). OK-Net Arable project (2015-2018) <https://www.fibl.org/fileadmin/documents/shop/1062-wireworms-rotation.pdf>



	pest control, reduction of fruit damage but not adequate as a stand-alone method only for reduction of insecticide use).
	Preventive sprays with <b>kaolin</b> (physical control) on olive trees have frequently given very positive results as a deterrent of olive fruit fly ( <i>Bactrocera oleae</i> ) attack in several Mediterranean countries <sup>13,14</sup> . However, in some cases the results were not good due to various circumstances: very high pest densities, years or places with intense or/and frequent rains that wash off the protective layer of kaolin. Therefore, this is a typical case of efficacy level 3 as the results can be good if certain specific requirements are met.
Level 4	The combination of <b>mating disruption</b> of <i>Cydia pomonella</i> in pome fruit combined with <b>granulosis virus</b> , or with <b>Trichogramma releases</b> can lead to higher efficacy than when these methods are applied alone <sup>15,16</sup> .
	<b>Bait application</b> against the olive fruit fly <i>Bactrocera oleae</i> in olive (authorised attractants) applied in a region over consecutive year.
	<b>Mating disruption</b> (authorised semiochemicals) against Lepidoptera, e.g. the codling moth <i>Cydia pomonella</i> in pome fruit <sup>17,18</sup> , the European grapevine moth <i>Lobesia botrana</i> in grapevine applied in a region over consecutive years and Hemiptera, e.g. California red scale <i>Aonidiella aurantii</i> in citrus <sup>19,20</sup> .
	<b>Augmentative biological control</b> of insect and mite pests mainly of fruit vegetables by arthropod predators or insect parasitoids in greenhouse conditions, e.g. releases of the parasitoid <i>Encarsia formosa</i> for the control of the whitefly <i>Trialeurodes vaporariorum</i> .
	<b>Classical biological control</b> of the woolly whitefly <i>Aleurothrixus floccosus</i> by the parasitoid wasp <i>Cales noacki</i> in citrus (e.g. in Greece) <sup>21,22,23</sup> , the citrus

<sup>13</sup> [https://geco.ecophytopic.fr/web/guest/concept/-/concept/voir/http%253A%252F%252Fwww%252Egeco%252Eecophytopic%252Efr%252Fgeco%252Fconcept%252FAppliquer\\_D%25E2%2580%2599argiles\\_%2528kaolinite\\_Calcinee%2529](https://geco.ecophytopic.fr/web/guest/concept/-/concept/voir/http%253A%252F%252Fwww%252Egeco%252Eecophytopic%252Efr%252Fgeco%252Fconcept%252FAppliquer_D%25E2%2580%2599argiles_%2528kaolinite_Calcinee%2529).

<sup>14</sup> [https://datam.jrc.ec.europa.eu/datam/mashup/IPM\\_BEST\\_PRACTICES/index.html](https://datam.jrc.ec.europa.eu/datam/mashup/IPM_BEST_PRACTICES/index.html).

<sup>15</sup> Kutinkova, H., Samietz, J., & Dzhuvinov, V. (2010). Control of codling moth in Bulgaria with a combination of Isomate C plus dispensers and the baculovirus product Madex®. *Journal of Plant Protection Research*.

<sup>16</sup> Sigsgaard, L., Herz, A., Korsgaard, M., & Wührer, B. (2017). Mass release of *Trichogramma evanescens* and *T. cacoeciae* can reduce damage by the apple codling moth *Cydia pomonella* in organic orchards under pheromone disruption. *Insects*, 8(2), 41.

<sup>17</sup> [https://datam.jrc.ec.europa.eu/datam/mashup/IPM\\_BEST\\_PRACTICES/index.html](https://datam.jrc.ec.europa.eu/datam/mashup/IPM_BEST_PRACTICES/index.html).

<sup>18</sup> <https://biofruitnet.eu/resources/#practice-abstracts>.

<sup>19</sup> Vacas, S., Alfaro, C., Navarro-Llopis, V., & Primo, J. (2009). The first account of the mating disruption technique for the control of California red scale, *Aonidiella aurantii* Maskell (Homoptera: Diaspididae) using new biodegradable dispensers. *Bulletin of entomological research*, 99(4), 415-423.

<sup>20</sup> Vacas, S., Alfaro, C., Primo, J., & Navarro-Llopis, V. (2015). Deployment of mating disruption dispensers before and after first seasonal male flights for the control of *Aonidiella aurantii* in citrus. *Journal of Pest Science*, 88, 321-329.

<sup>21</sup> Katsoyannos, P., Kontodimas, D.C. and Stathas, G.J. 1998. The innudative release of *Cales noacki* Howard (Hymenoptera: Aphelinidae), for curative treatment of *Aleurothrixus fl occosus* (Maskell) (Homoptera: Aleyrodidae) on heavily infested citrus in Greece. *Annals del' Institut Phytopathologique Benaki*, (N.S.), 18: 121-134.

<sup>22</sup> Kontodimas, D.C., Papanicolaou, N., Milonas, P., Stathas, G.J., Beris, E., Bertsouklis, K. and Lagoudakis, E. 2005. Woolly whitefly on citrus in Greece, during 1991-2005. *Proceedings of the 11th Panhellenic Entomological Congress*, 11-14 October, Karditsa – Greece, pp 12-20 (in Greek).

<sup>23</sup> Stathas, N.G. Kavallieratos, L.N. Cheliotis, P.J. Skouras, M.V. Giakoumaki and P.G. Milonas (2023). New data on the parasitisation of *Aleurothrixus floccosus* (Maskell) (Hemiptera: Aleyrodidae) in Greece. *Hellenic Plant Protection Journal* 16: 79-82, 2023 DOI 10.2478/hppj-2023-0010.

	leafminer <i>Phyllocnistis citrella</i> by the parasitoid wasp <i>Citrostichus phyllocnistoides</i> in citrus, in Spain <sup>24,25</sup> .
	The use of <b>anti-hail nets</b> (physical control) in fruit crops has proved effective in preventing the attack of many pests: codling moth ( <i>Cydia pomonella</i> ) in apple <sup>26,27</sup> , European cherry fruit fly ( <i>Rhagoletis cerasi</i> ) and (spotted wing drosophila) <i>Drosophila suzukii</i> in cherry or Mediterranean fruit fly ( <i>Ceratitis capitata</i> ) and peach moth ( <i>Grapholita molesta</i> ) in peach varieties. This method is successfully used in high-value crops, in areas with serious risk of hail in various European countries.

\* Important note: Examples are prepared and integrated in the document to illustrate potential cases and promote common understanding between MS experts. They should not be considered as proposals for grading the effectiveness and feasibility of the existing alternative control methods by the MS.

The time required to reach complete protection or implementation of the alternative control method is a parameter that should be considered in the decision of the effectiveness of the alternative control method (Table 4). While PPPs typically work quickly and result in immediate control, non-chemical alternatives may necessitate longer time before reaching their full effectiveness. Given that emergency situations often demand prompt actions, this delay in reaching full effectiveness must be accounted for in any evaluation process. When time constraints apply, it is essential to consider emergency authorisation as a temporary solution: the emergency authorisation may serve to bridge the time gap between implementation of the non-chemical method and the full effectiveness. Thus, the duration of its authorisation and/or the frequency of repeated emergency authorisations shall be restricted to what is absolutely necessary.

**Table 4.** Time necessary for the alternative control method to become fully effective

Time index	Indexing criteria
Level 1	A certain time (months, years) is necessary to achieve complete protection.
Level 2	The method is expected to reach full effectiveness shortly after its implementation.

Specific **prerequisites** may be associated with the effectiveness of an alternative control method (Table 5). Alternative control methods may depend on parameters beyond the control of the growers e.g. coordination of pest management efforts by all growers on a broader spatial scale or real-time access to information related to the presence of a pest.

<sup>24</sup> Karamaouna, F., S. Pascual-Ruiz, E. Aguilar, M.J. Verdú, A. Urbaneja and J.A. Jacas (2010). Changes in predation and parasitism of the citrus leafminer *Phyllocnistis citrella* Stainton (Lepidoptera: Gracillariidae) populations in Spain following establishment of *Citrostichus phyllocnistoides* (Hymenoptera: Eulophidae). *Biological Control*, 52: 37-45.

<sup>25</sup> Mansoura, D., M. Pérez-Hedo, J. Catalána, F. Karamaouna, M. Braham, J.A. Jaques, Al. Urbaneja (2021). Biological control of the citrus leafminer 25 years after its introduction in the Valencia citrus growing area (Spain): A new player in the game. *Biological Control*, 155, 104529).

<sup>26</sup> <http://www.endureinformationcentre.eu/>.

<sup>27</sup> [https://datam.jrc.ec.europa.eu/datam/mashup/IPM\\_BEST\\_PRACTICES/](https://datam.jrc.ec.europa.eu/datam/mashup/IPM_BEST_PRACTICES/).

**Table 5.** Prerequisites to achieve satisfying level of effectiveness

Prerequisite index	Indexing criteria
Level 1	<p>Certain prerequisites must be fulfilled to achieve optimal effectiveness,</p> <p>e.g.1 The full effectiveness of a control method relies upon the availability of a real-time forecast and prognosis system, communicable early warning systems or area-wide pest scouting and monitoring to target IPM suppression strategies.</p> <p>e.g.2 The high effectiveness is reached only when the method is embraced and implemented in a large scale in the same geographic area (e.g. mass trapping), requiring adoption of the method by multiple growers in the region.</p>
Level 2	There is no prerequisite.

### 2.6.3 Feasibility

A wide array of variables and barriers for successful implementation of alternative control methods must be evaluated. The implementation obstacles may vary between geographical regions, and can be grouped as scientific, technical, economic, agronomic or regulatory (Table 6).

**Table 6.** Various aspects related to the feasibility of alternative control methods and strategies

Feasibility aspects	
Scientific	Optimisation may be needed for the successful broad-scale implementation. Scientific obstacles are often observed for technologically advanced solutions like drones, autonomous robots, automated traps, geographic information systems, precision agriculture or weather-driven computational models. Approaches involving digital technologies may need to consider adaptations in the concepts of economic thresholds, sampling, population forecast, injury identification, and ultimately the localised use of control tactics <sup>28</sup> .
Technical	Technical constraints can be the need for specific equipment, upgraded infrastructure or absence of training and technical support. Also, control may rely on practices which are labour-intensive and time-consuming, or the complexity of some practices increases the knowledge burden on the potential adopter. The compatibility with existing practices, i.e. how well the alternative control method

<sup>28</sup> Iost Filho, F.H., Pazini, J.D.B., Alves, T.M., Koch, R.L., Yamamoto, P.T. (2022). How does the digital transformation of agriculture affect the implementation of Integrated Pest Management ?. *Frontiers in Sustainable Food Systems*. 6. Doi:10.3389/fsufs.2022.972213.

	integrates with current farming practices and crop management strategies, should also be considered.
Economic	Alternatives to PPPs should not be so expensive that farmers suffer economic losses in the short-term. If the full implementation of a control method entails a high starting cost, it should be considered if the investment cost is recuperated within the foreseeable future. Any information on the costs of the different control options should be searched for. It should be taken into account that the economic disadvantage of an alternative control method may be recurrent over several years/crop seasons. Various costs should be considered in the cost-benefit analysis: the startup costs, the cost for the recurrent use of the control method (running costs). Some state-of-the-art tools are primarily suited for larger farms because of the high cost of investment. Market incentives to encourage farmers to adopt sustainable practices may differ between MS, and this should be taken into consideration. Also, MS may lack proper funding to support the use of alternative control strategies over a wide geographical area. Long-term economic benefits from the use of alternative control methods instead of PPPs could also be considered.
Agronomic	A control method may not be universally applicable to the same crop across various cultivation systems. It is recognised that not all non-chemical methods can be broadly implemented, as their effectiveness may be constrained by factors such as soil type, rotational cycles, seasonal variations, or local conditions, and they are often highly reliant on favourable weather conditions.
Regulatory	Certain alternative control methods may be inaccessible to farmers due to prohibitions within a MS (e.g. non-native biological control agents). Furthermore, low risk pesticides are required to undergo the standard authorisation process prior to being regarded as viable alternatives.

Analysis of information of the five abovementioned elements would give the overall score of the method/combination of methods. A grading system is proposed, where each of the five feasibility aspects (Table 6) is ranked based on the presence/absence and magnitude of implementation obstacles (Table 7). The feasibility level is derived from the integration of all relevant feasibility aspects, eliminating the necessity for separate classification of each aspect. The final score is determined by the lowest rating among the aspects, thus, the aspect with the lowest feasibility score drives the overall conclusion. Examples of each feasibility level are included in Table 8. The connection between the feasibility grade (Levels 1-3) and the final decision for withholding or permitting an emergency authorisation in view of the availability of an alternative control method is delineated in 2.6.4.

**Table 7.** Ranked index of feasibility of alternative control methods based on best expert judgement and current scientific knowledge

Feasibility index	Indexing criteria
Level 1	Significant implementation obstacles are identified. The alternative control method cannot be implemented under any circumstances.
Level 2	The alternative control method can be implemented under certain conditions, but not in all cases.
Level 3	The alternative control method can be implemented under most situations.

**Table 8.** Examples of Levels 1-3 of feasibility

<b>Level 1</b>	The application of <b>kaolin</b> (physical control) has been proven effective in preventing the attack of fruit flies in various crops, but it is not applicable <b>in the case of directly marketed fruits</b> such as cherries, because it stains the fruit, and it is not suitable for commercialisation (technical constraints). These preventive treatments would, however, be useful in the case of fruit destined for jams where the fruits can be washed.
<b>Level 2</b>	<b>Mass trapping</b> is often quite effective for fruit flies, but its cost is in many cases prohibitive due to the high density of traps required and the high cost of personnel for instalment and maintenance (economic constraints). For this reason, at least in olives in Spain, this method is only used in organic production where the extra cost is more acceptable and there are no other authorised and effective control methods.
	<b>Bait application</b> against the olive fruit fly ( <i>Bactrocera oleae</i> ) has been implemented over large areas in most of the olive producing areas/prefectures for quite a long period (since 1953; new legislation in 1996) in Greece. Throughout this period, the implementation of the method at a large scale was only feasible because of the coordination/management, technical and economic support of the Hellenic State (technical and economic constraints) <sup>29</sup> .
	Due to the high investment necessary in the implementation of <b>anti-hail/anti-insect nets</b> (physical control) as preventive of the attack of insect pests, it is only economically acceptable when the risk of hail is serious and/or in crops of high profitability (organic fruits or vegetables, fruits of high economic value). The method is currently practised in Italy

<sup>29</sup> <https://www.minagric.gr/for-farmer-2/crop-production/fytoprostasiamenu/dakoktonia-fytoprostasia>.

	against <i>Cydia pomonella</i> and <i>Halyomorpha halys</i> in perennial crops and the implementation cost is considered medium <sup>30</sup> . However, there is availability of public support for investment in anti-insect nets (available in some regional RDPs in Italy).
<b>Level 3</b>	Inoculative releases of <b>biological control agents</b> (parasitoids, predators) for the control of insect pests are generally applicable <b>in greenhouses</b> (compatible practice, economically manageable cost).

### 2.6.4 Thresholds for eligibility of the alternative control method

In the process of analysing the eligibility of alternative control solutions, it is essential to compile all pertinent information. A template intended to facilitate this compilation is not included within the protocol and should be developed at the MS level. Appendix C provides an example of what a completed data collection form may resemble. An alternative control method qualifies as eligible if its implementation can lead to a satisfactory level of control and can be applied under most circumstances. Thus, only methods rated with an effectiveness level 4 and feasibility level 3 are considered viable alternatives (Table 9). It is important to note that the procedure aiming at examination of the potential of the alternative control methods should focus on those methods anticipated to meet the eligibility criteria. Thus, a targeted rather than an exhaustive analysis of the alternative solutions is advisable. A high level of effectiveness, fulfilling the threshold for eligibility, can also be attained by integrating two or more alternative control methods, each of which may not be fully effective if applied independently, as they can act complementary to each other, e.g. when methods having a direct effect are combined with a preventative method<sup>31</sup>. However, it should be kept in mind that eligibility is substantiated by robust information deriving from practical use in the same areas or in areas with similar agronomic and climatic conditions. At no point should theoretical/anticipated outcomes from combination of methods be considered as adequate grounds for establishing eligible alternatives. The time required for maximum effectiveness to be reached, and the necessary prerequisites may modify the decision. The table presented below (Table 9) outlines all possible combinations of results along with the evaluation outcomes.

**Table 9.** Possible decisions depending on the outcome of the evaluation of the available alternative control methods

	<b>Effectiveness index</b>	<b>Feasibility index</b>	<b>Time required for maximum effectiveness to be reached</b>	<b>Prerequisites to reach full effectiveness</b>	<b>Decision</b>

<sup>30</sup> [https://datam.jrc.ec.europa.eu/datam/mashup/IPM\\_BEST\\_PRACTICES/index.html](https://datam.jrc.ec.europa.eu/datam/mashup/IPM_BEST_PRACTICES/index.html).

<sup>31</sup> Combination of more than one method may also affect the feasibility of the combination relatively to the methods when applied individually.

<b>Case 1</b>	Level 4	Level 3	Level 2	Level 2	The alternative control method is eligible. The emergency authorisation application should be rejected.
<b>Case 2</b>	Level 4	Level 3	Level 1	Level 2	Emergency authorisation may be granted as an interim solution; however, repeated authorisation should be restricted.
<b>Case 3</b>	Level 4	Level 3	Level 1	Level 1	The decision is dependent upon the fulfilment of the prerequisites and the alternative control method to become fully effective. Emergency authorisation should be granted in areas where these prerequisites have not been met and provided that a plan is established to ensure the prompt fulfilment of all prerequisites. Repeated authorisation should be restricted based on the time needed for full effectiveness.
<b>Case 4</b>	Level 4	Level 3	Level 2	Level 1	The decision is dependent upon the fulfilment of the prerequisites. Emergency authorisation should be granted in areas where these prerequisites have not been met and provided that a plan is established to ensure the fulfilment of all prerequisites.
<b>Any other case</b>	Level 1-3	Level 1-2			The alternative control method is not eligible. Emergency authorisation may be granted.

## 2.7 Examination of the potential for transitioning from emergency to regular authorisation

Regular authorisation is always preferred over emergency authorisation when addressing an emergency pest. Therefore, assessing whether the immediate need can be resolved in the short or long term through a regular authorisation is part of the evaluation procedure.

The competent authorities may withhold emergency authorisation and instead opt for mutual recognition under Article 40<sup>32</sup>. The timeframe required to complete the Article 40 authorisation process must be factored into the evaluation: if the mutual recognition process timeline overlaps with the time needed to address the threat, an emergency authorisation may be issued until the Article 40 procedure is completed. Emergency authorisations can be used as a temporary solution until regular authorisation procedures are finalised. A request for a repeated emergency authorisation is possible, depending on the time required for regular authorisations to be finalised. In situations where the pest is minor, the competent authorities should explore the possibility of granting authorisation under Article 51 of Regulation (EC) No 1107/2009.

## 2.8 Repeated authorisations<sup>33</sup>

### 2.8.1 Action plans

The flowcharts outline provisions for repeated authorisations and the conditions that should be fulfilled for consideration of such requests. The flowcharts begin by identifying the situation, and in the case of a repeated authorisation request, it redirects the evaluator to the additional conditions that must be satisfied. The conditions related to repeated authorisation, referred to as action plans, include any actions for transition to regular or mutual authorisation or for identifying permanent and sustainable solutions, for example within an IPM framework.

*Actions towards transition to regular/mutual authorisations:* The duration of this transitional period can vary and may be extended in cases where there are delays in the regular authorisation process or if additional experimentation is required over multiple seasons. The applicant can present a detailed plan describing the actions that will be taken. This plan should be approved and monitored by the competent authorities.

*A comprehensive plan to find permanent solutions* should focus on long-term solutions that involve the use of an alternative control method or combination of methods e.g. in an IPM programme. The plan should be realistic, clear and detailed, specifying the steps that will be followed by the applicant and indicating a time frame for completion. The plan and results should be constantly updated when a new request for repeated authorisation is submitted.

### 2.8.2 Conditions in repeated authorisation grants

Emergency authorisations are intended for 'special circumstances', as mandated in Article 53 of the Regulation (EC) No 1107/2009. To prevent emergency authorisations from becoming

<sup>32</sup> Assuming that the PPP is already registered in a MS for this use. The necessity for the active participation of the authorisation holder to the mutual recognition process is acknowledged.

<sup>33</sup> For the definition of the repeated authorisation in the context of the current document refer to the glossary.

a long-term regulatory workaround, procedures must be established to ensure transition to permanent solutions.

Instead of setting rigid thresholds, which are scientifically and practically difficult to justify, applicants<sup>34</sup> requesting repeated emergency authorisations should submit a structured, time-bound action plan outlining progress toward a sustainable solution. The number of possible repeated authorisations can thus be directly associated with the progress and finalisation of the action plan. These plans should typically be confined to a period not exceeding **five years**, unless extended based on robust scientific justification.

Monitoring and evaluation play a critical role in this approach. With each subsequent request for emergency use, authorities should assess the applicant's progress in implementing the action plan. The duration of an already established plan may be adjusted when necessary, depending on outcomes achieved or in light of unforeseen circumstances, such as adverse conditions for field trials or unexpected approval/authorisation delays.

In certain cases, particularly those involving minor pests/crops of limited economic return, additional flexibility in the duration and expectations of the action plan may be required. These uses often suffer from insufficient financial incentives to generate the data required for full authorisation of a PPP. Nevertheless, applicants should still be expected to demonstrate credible efforts to reduce reliance on emergency authorisations.

For repeated authorisations associated with regulated pests, the necessity for an action plan can be covered by any available national (contingency) plan under EU Plant Health legislation.

## 2.9 Concurrent applications for emergency authorisation associated with the same emergency situation

In cases where more than one request for the same emergency situation is received by the MS, a preliminary assessment by comparison of the proposed solutions is required. The primary criteria for this comparison are<sup>35</sup>:

- preference to PPP containing approved active substances
- preference to PPP leading to higher effectiveness/consistent control
- preference to PPP with a more favourable (eco)toxicological and environmental profile
- preference to PPP with lower potential for resistance development

Normally, one PPP should be sufficient to address the identified emergency need. However, exceptions are possible in cases where the utilisation of multiple products targeting the same pest is scientifically justified<sup>36</sup>. In such cases it is required that a higher or more consistent pest control is reached when the PPPs are combined (use in alternation or as mixing partners).

<sup>34</sup> The official submission of an action plan is the responsibility of the applicant. However, the necessity of collaboration among interested parties, is acknowledged and encouraged. Effective engagement may involve industry, research institutions, academic organizations, public entities, farmers' associations, and other relevant stakeholders.

<sup>35</sup> The order in which the criteria appear does not indicate priority. The relevance of each criterion can vary depending on the specific situation in which emergency authorisation is requested. Prior experience with the active substance or PPP (for example, demonstrated effectiveness against similar pests) may serve as an extra selection criterion; however, it should be regarded as less important than the four primary criteria outlined in the document.

<sup>36</sup> For example, situations where different products provide distinct benefits, such as targeting different pest stages or when label restrictions in the number of maximum applications do not allow for an effective control of the target pest.

A clear description of how the two (or more) PPPs should be combined to achieve the expected results should be presented by the applicant(s) and assessed by the competent authorities.

In the case that more than one PPP is required, each associated product should individually undergo the evaluation process described in points 2.1-2.10 of the document.

## 2.10 Range of implementation and restrictions/conditions of use in emergency authorisation granting

Authorisations should be complemented with a list of conditions and restrictions<sup>37</sup> of use, whenever feasible and justified. Restrictions of use can be spatial or temporal and may result from the analysis performed within the evaluation flowcharts.

The use of the product is restricted to areas within the MS where the emergency pest is encountered and where the severity of the threat justifies the use of the product. Thus, any decision made by MS must explicitly outline the zones/areas where the product can be utilised. Spatial restrictions should align with the reasoning for which authorisation is granted e.g. when justification is based on the appearance of resistant strains to a PPP widely used in a specific area. Spatial restrictions can also be associated with the availability of alternative solutions within the MS, potentially withholding authorisation in regions where a suitable alternative control method is practised.

All emergency authorisations are legally time limited for a maximum period of 120 days. However, this should not be viewed as the standard duration of an emergency authorisation, as the timeframe can be adjusted to less than 120 days to safeguard a balance between risk and benefits. Other potential restrictions may relate to the mode of application: when various application methods are possible, the method that most effectively minimises risk to human health or the environment should be selected. The possibility of restricting the use of the PPP exclusively as a mixing or alternation partner to other available solutions can be also examined. Detailed instructions on how the product can be integrated into an application strategy that includes other PPPs and, where applicable, non-chemical solutions is advisable, as this approach would potentially decrease the possibility of misuse.

By leveraging forecasting and pest monitoring data, pest management strategies can become more dynamic and responsive to real-time conditions. Authorisation granting conditions may include instruction on the minimum level of pest occurrence that justifies its use. This allows for adaptive management where PPP applications can be triggered or scaled down based on pest dynamics. When forecast predicts a peak in pest numbers within a certain timeframe, emergency authorisation could be time-limited to that specific window. Forecasting models can assess whether a pest threat is expected to escalate. Furthermore, the authorisation can be limited geographically when the model indicates that a PPP application is justified in high-risk zones. Likewise, if the surveillance shows a rapid decrease in pest populations in the areas where pesticides have been applied, the authorisation can be terminated early, preventing unnecessary pesticide use.

Lastly, limitations on authorisation granting may be associated with restricted use by limited end-users, such as organic farmers, if the necessity of the authorisation grant is grounded on

<sup>37</sup> In the context of this protocol, only conditions and restrictions related to agronomic factors are examined.

the unavailability of chemical solutions compatible with organic farming. In such specific cases, the access to end-users practising conventional farming must be denied.

## 2.11 Finalisation of the evaluation

Upon acceptance of an application for emergency authorisation, specific conditions or activities associated with the use of the PPP may optionally be requested by the competent authorities, after consideration of feasibility. The requirements/future activities may include:

*A list of alternative pests that can be controlled by the PPP:* The applicant may be requested to compile a list of potential pests that may be controlled when applications targeting the emergency pests are performed. This consideration safeguards excessive use of other PPPs. The list of pests controlled by an application aimed at the emergency pest must consider the conditions at the time of application, such as growth stage of the crop, application rate, frequency of applications and intervals between applications. The competent authorities are responsible for modifying and finalising this list.

*The implementation of specific non-chemical control methods by the end users:* Implementation of specific alternative control method(s) during the same period for which emergency authorisation is active can be requested by competent authorities. The selected alternative methods may enable an overall reduction in the reliance on the PPP in question e.g. by allowing for a reduction in the number of required applications. The use of low-risk active substances in alternation with the PPP under evaluation is an example of how these conditions are implemented. Furthermore, specific non-chemical methods may act as modifiers of the risk for resistance development. Preference should be on alternative control methods that growers may be less inclined to adopt due to unfamiliarity or labour intensity. A plan describing when and how these non-chemicals are combined with the PPP for which emergency authorisation was granted could be made available to the end users.

*A plan for monitoring of the success of the intervention:* The competent authorities may request applicants to provide specific information related to the success of the intervention in the implementation area. Such information may encompass the range of use of the PPP, the total quantity of product utilised, the frequency of use of the PPP and the overall success of the intervention.

## 3 Future revision of the protocol

It is crucial to ensure that certain parts of the protocol are kept updated. This relates specifically to the inventory of alternative solutions which should be aligned with any advances and newly acquired scientific knowledge. For instance, the effectiveness of the alternative control methods may change over time through adaptation of the methodology to local conditions. Similarly, previously unfeasible methods may become feasible due to technological advancements, shifts in growers' attitudes, or more experience with IPM programmes. Additionally, potential threats may differ, necessitating that the protocol be better tailored to situations where requests for emergency authorisations increase.

## Glossary

### Definition of terms in the context of this document

<b>Alternative method</b>	<b>control</b>	Any sustainable method or combination of methods, that can effectively address a particular crop protection emergency is considered an 'alternative' within the context of this protocol. This concept encompasses a wide range of non-chemical approaches with either protective or direct action <sup>38</sup> , as well as low risk pesticides such as botanicals and biopesticides. The definition also includes IPM programmes <sup>39</sup> .
<b>Repeated authorisation</b>		In this document, a repeated authorisation refers to the issuance of more than one (consecutive or non-consecutive) approval under emergency provisions, in response to a specific recurring or persistent threat. The total count of repeated authorisations reflects the total number of approvals for the control of the specific pest across various time periods, involving same or different products (same or different active substance), and same or different applicants.
<b>Approved, pending and non-approved substance</b>	<b>active</b>	The approval status aligns with EU active substance database.
<b>Number of available chemical solutions</b>		Refers to the total number of active substances available in the MS, including those which are provisionally available (e.g. in view of the provisions of Article 4(7)). The future unavailability of an active substance (e.g. the active substance is not expected to be renewed) is not a reason not to consider them as available solution.
<b>Emergency threat</b>		Refers to a specific pest that poses a danger to plant production or ecosystems and cannot be contained by any other reasonable means.

<sup>38</sup> e.g. biological, cultural, physical, mechanical methods.

<sup>39</sup> It is accepted that conventional chemicals are not excluded in IPM. However, since they are effectively paired with non-chemical methods in a way that leads to an overall reduction of dependency on chemicals, IPM can be included in the definition.

## Abbreviations

EPPO	European and Mediterranean Plant Protection Organisation
MS	Member State
IPM	Integrated Pest Management
MoA	Mode of Action
PPP	Plant Protection Product
GEP	Good Experimental Practice
RDPS	Rural Development Programmes

## Appendix A - Flowcharts for evaluation

### Instructions of use of the flowcharts

- The evaluation should always start from the first step of the introductory chart.
- Preferential/partial use of the flowcharts e.g. initiation from an advanced step in the chart is not possible.
- The flowcharts may direct the evaluator towards the assisting chart 'Necessity'. The evaluator should refer to this chart before selecting the appropriate option.
- The possible outcomes of the evaluation (highlighted in Bold and Italic in Charts A to D) are indicative and should be tailored to the specific context.
- The analysis following Charts A to D may be performed more than once to address varying circumstances encountered within the Member State. For instance, a separate analysis is relevant when the emergency authorisation request is associated with both organic and conventional farming or where the effectiveness or feasibility of an alternative control method is variable across different regions within the same Member State.
- Separate evaluation for each pest/pest group under the same emergency authorisation request is necessary in view of the difference in the availability of any means of control (chemical or non-chemical).

## Introductory chart - Conditions to be considered when emergency authorisations are requested

### 1. Application associated with one or more than one pest/crop combinations that should be controlled

- A. Specific pest/crop combination<sup>40</sup> → Go to 2
- B. More than one pest/crop combinations → *Separate evaluation for each pest/crop combination under the same emergency authorisation request is necessary*

### 2. EU approval status of active substance(s) of the PPP under evaluation

- A. Non-approved active substance or approval status is 'pending'<sup>41</sup> → Go to 3
- B. Approved active substance → Go to 4

### 3. Current status of the non-approved active substance

- A. Never been evaluated at EU level or the approval status is 'pending' - based on the analysis of available information there is strong indication that the substance is expected to fulfil the criteria set out in Reg. 1107/2009 → Go to 4
- B. Never been evaluated at EU level or the approval status is 'pending' - there is no clear indication of the safety of the active substance → Go to chart A
- C. Active substance was evaluated and criteria in Annex II not satisfied or there are serious concerns on the safety of the active substance to humans or the environment or any non-target organisms → Go to chart A

### 4. Status of the pest in the EU

- A. Regulated pest → Go to chart B
- B. Common pest → Go to 5

### 5. Risk status of the active substance

- A. Low risk substance → Go to chart C
- B. Active substance other than low risk → Go to chart D

<sup>40</sup> Refer to Section 2.2 of the protocol for eligible pest/crop combinations.

<sup>41</sup> At least one of the active substances when a PPP contains more than one.

## Chart A – Evaluation flow chart for PPP containing non-approved active substances

### A1. Number of emergency authorisation requests

- A. Request for repeated authorisation<sup>42</sup>, action plan is submitted → Go to A2
- B. Request for repeated authorisation, action plan not submitted → ***The request should be rejected***
- C. Initial request for emergency authorisation → Go to A3

### A2. Progress of the action plan

- A. Progress is considered satisfactory → Go to A3
- B. Progress is insufficient → ***The request should be rejected***

### A3. Scientifically sound rationale indicating that the PPP under evaluation can address the emergency situation

- A. Yes → Go to A4
- B. No → ***The request should be rejected***

### A4. Availability of other PPP authorised for this pest in the MS<sup>43</sup>

- A. Yes → Go to A5
- B. No → Go to A6

### A5. Scientifically sound reason indicating that the already available PPP(s) is/are insufficient in effectively controlling the pest

- A. Yes → Go to A6
- B. No → ***The request should be rejected***

### A6. Availability of sufficiently effective PPP authorised for this pest in other MSs<sup>44</sup> or ongoing authorisations in the MS (based on best available knowledge; comprehensive examination is not required)

- A. Ongoing in the MS and finalisation of the process (i.e. availability of the PPP) expected before the onset of the period for which emergency authorisation is requested → ***The application should be rejected***
- B. Ongoing in the MS and finalisation of the process (i.e. availability of the PPP) expected after the onset of the period for which emergency authorisation is requested → Go to A7
- C. A regular authorisation is granted in another MS and there is sufficient time for mutual recognition →

<sup>42</sup> Check definition available in the glossary before decision.

<sup>43</sup> Currently authorised according to Articles 33, 40, 51, those still available due to Article 4(7), including those which are not expected to be available in the future (e.g. in view of the non-renewal of the active substance). The effectiveness of the alternative PPP or the risk for development of resistance is not a reason to exclude a PPP from the list.

<sup>44</sup> The examination of authorisation grants in other Member States is optional. Given that a comprehensive review is not feasible, it should be conducted on a case-by-case basis, relying on the best available knowledge.

**Possibility for mutual recognitions is explored. If feasible, the request should be rejected**

D. A regular authorisation is granted in another MS but there is no sufficient time (or it is unclear if there is sufficient time) for mutual recognition → Go to A7

E. No submissions → Go to A7

**A7. Availability of alternative control methods (or combination of methods) to control this pest**

A. There is at least one eligible alternative control method or combination of methods or IPM programme (Level 4 effectiveness/Level 3 feasibility) → Go to A8

B. No → ***The application could be accepted. A complete plan to derive permanent solution(s) should be officially submitted. The competent authority may compile a list of mandatory non-chemical methods that must be implemented by growers utilising the PPP for which emergency authorisation is granted. The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP. The period of the emergency authorisation grant shall take into account any expected changes in the availability of effective chemical solutions***

**A8. Range of implementation and other restrictions**

A. The alternative control method can be implemented to all areas where the specific pest is encountered → ***The application should be rejected***

B. An alternative control method can be implemented in certain regions of the MS → ***The request could be accepted with restriction of use only in areas where the use of the alternative control method is not feasible. A complete plan for actions to derive permanent solution(s) should be officially submitted (or updated). The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP. The competent authority may request growers/end users to implement the alternative method upon utilisation of the PPP for which emergency authorisation is granted. The effective period of the emergency authorisation grant shall take into account any expected changes in the availability of effective chemical solutions***

C. Time is required for attainment of maximum effectiveness of the alternative method(s) → ***The request could be accepted; however, repeated authorisation should be restricted. The competent authority may request growers/end users to implement the alternative method upon utilisation of the PPP for which emergency authorisation is granted. The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP. The effective period of the emergency authorisation grant shall take into account any expected changes in the availability of effective chemical solutions***

D. Specific prerequisites are associated with effectiveness of the alternative method(s) → ***The request could be accepted for areas where these prerequisites are not met, provided that a plan is established to ensure the fulfilment of all prerequisites; however, repeated authorisation should be restricted. The competent authority may request growers/end users to implement the alternative method upon utilisation of the PPP for which emergency authorisation is granted. The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP. The effective period of the emergency authorisation grant shall take into account any expected changes in the availability of effective chemical solutions***

## Chart B – Evaluation flow chart for emergency authorisation granting of a PPP for the control of a pest regulated under Regulation (EU) 2016/2031 <sup>45,46,47</sup>

### B1. Availability of another PPP authorised for this pest in the MS

A. Yes → Go to B2

B. No → ***The request could be accepted***

### B2. Reasoning for the necessity of the PPP to contain/eradicate the regulated pest

(complete analysis is required – Chart: Necessity)

A. The PPP is required for satisfactory control of the regulated pest → ***The request could be accepted***

B. Opposite case → ***The request should be rejected***

<sup>45</sup> For repeated authorisations associated with regulated pests, the necessity for an action plan can be covered by any available national (contingency) plan under EU Plant Health legislation.

<sup>46</sup> Pests regulated under Regulation (EU) 2016/2031.

<sup>47</sup> The suitability of the product under evaluation to address the emergency situation should be examined in line with Section 2.4 of the protocol and Appendix B.

## Chart C – Evaluation flow chart for emergency authorisation granting of a PPP containing a low-risk active substance<sup>48</sup>

### C1. Number of emergency authorisation requests

- A. Request for repeated authorisation<sup>49</sup>, action plan is submitted → Go to C2
- B. Request for repeated authorisation, action plan not submitted → ***The request should be rejected***
- C. Initial request for emergency authorisation → Go to C4

### C2. Progress of the action plan

- A. Progress is considered satisfactory → Go to C3
- B. Progress is insufficient → ***The request should be rejected***

### C3. Availability of other PPP authorised for this pest in the MS<sup>50</sup>

- A. Yes → Go to C4
- B. No → ***The request could be accepted. The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP***

### C4. Reasoning for the necessity of the PPP for control of the emergency pest (complete analysis is required - Chart Necessity)

- A. The necessity is addressed → ***The request could be accepted. The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP***
- B. The necessity is not addressed → ***The request should be rejected***

<sup>48</sup> The suitability of the product under evaluation to address the emergency situation should be examined in line with Section 2.4 of the protocol and Appendix B.

<sup>49</sup> Check definition available in the glossary before decision.

<sup>50</sup> Currently authorised according to Articles 33, 40, 51, those still available due to Article 4(7), including those which are not expected to be available in the future (e.g. in view of the non-renewal of the active substance). The effectiveness of the alternative PPP or the development of resistance is not a reason to exclude a PPP from the list. For requests of emergency authorisation of a PPP to be used exclusively in organic farming, only alternative solutions which are compatible with organic farming should be taken into account.

## Chart D – Evaluation flow chart for emergency authorisation granting of a PPP containing an approved active substance other than low risk<sup>51</sup>

### D1. Number of emergency authorisation requests

- A. Request for repeated authorisation<sup>52</sup>, action plan is submitted → Go to D2
- B. Request for repeated authorisation, action plan not submitted → ***The request should be rejected***
- C. Initial request for emergency authorisation → Go to D3

### D2. Progress of the action plan

- A. Progress is considered satisfactory → Go to D3
- B. Progress is insufficient → ***The request should be rejected***

### D3. Availability of alternative PPP authorised for this use in the MS<sup>53</sup>

- A. Yes → Go to D4
- B. No → Go to D5

### D4. Reasoning for the necessity of the PPP for control of the emergency pest (complete analysis is required – Chart: Necessity)

- A. The necessity is addressed (Reasons 1 or 2) → Go to D5
- B. The necessity is addressed (Reason 3) → ***The request could be accepted with the restriction of use only on areas where the specific IPM programme is implemented. A complete action plan leading to the substitution of the active substance in the IPM programme is required***
- C. The necessity is not addressed → ***The request should be rejected***

<sup>51</sup> The suitability of the product under evaluation to address the emergency situation should be examined in line with Section 2.4 of the protocol and Appendix B.

<sup>52</sup> Check definition available in the glossary before decision.

<sup>53</sup> Currently authorised according to Articles 33, 40, 51, those still available due to Article 4(7), including those which are not expected to be available in the future (e.g. in view of the non-renewal of the active substance). The effectiveness of the alternative PPP or the development of resistance is not a reason to exclude a PPP from the list. For requests of emergency authorisation of a PPP to be used exclusively in organic farming, only alternative solutions which are compatible with organic farming should be taken into account.

**D5. Availability of sufficiently effective PPP authorised for this pest in other MSs<sup>54</sup> or ongoing authorisations in the MS (based on best available knowledge; comprehensive examination is not required)**

- A. Ongoing in the MS and finalisation of the process (i.e. availability of the PPP) expected before the onset of the period for which emergency authorisation is requested → ***The application should be rejected***
- B. Ongoing in the MS and finalisation of the process (i.e. availability of the PPP) expected after the onset of the period for which emergency authorisation is requested → Go to D6
- C. A regular authorisation is granted in another MS<sup>2</sup> and there is sufficient time for mutual recognition → ***Possibility for mutual recognitions is explored. If feasible, the request should be rejected***
- D. A regular authorisation is granted in another MS<sup>2</sup> but there is not sufficient time (or it is unclear if there is sufficient time) for mutual recognition → Go to D6
- E. No submission/No relevant information is available → Go to D6

**D6. Availability of alternative control methods (or combination of methods) for this use**

- A. There is at least one eligible alternative control method or combination of methods or IPM programme (Level 4 effectiveness/Level 3 feasibility) → Go to D7
- B. No → ***The application could be accepted. A complete plan to derive permanent solution(s) should be officially submitted (or updated). The competent authority may compile a list of mandatory non-chemical methods that may be implemented by growers utilising the PPP for which emergency authorisation is granted. The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP. The period of the emergency authorisation grant shall take into account any expected changes in the availability of effective chemical solutions***

<sup>54</sup> The examination of authorisation grants in other Member States is optional. Given that a comprehensive review is not feasible, it should be conducted on a case-by-case basis, relying on the best available knowledge.

**D7. Range of implementation and other restrictions of the non-chemical method**

A. The alternative method can be implemented to all areas where the specific pest is encountered → ***The request should be rejected***

B. The alternative method can be implemented in specific regions → ***The request could be accepted with the restriction of use only on areas where the use of the alternative control method is not feasible. A complete plan to derive permanent solution(s) should be officially submitted. The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP. The competent authority may request growers/end users to implement the alternative control upon utilisation of the PPP for which emergency authorisation is granted. The effective period of the emergency authorisation grant shall consider any anticipated changes in the availability of effective chemical solutions, related to the progress of any regular authorisation requests in the EU for the particular pest***

C. Time is required for attainment of maximum effectiveness of the alternative method → ***The request could be accepted; however, repeated authorisation should be restricted. The competent authority may request growers/end users to implement the alternative method upon utilisation of the PPP for which emergency authorisation is granted. The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP. The period of the emergency authorisation grant shall take into account any expected changes in the availability of effective chemical solutions***

D. Specific prerequisites are associated with effectiveness of the alternative method → ***The application could be accepted provided that a plan is established to ensure the fulfilment of all prerequisites. Emergency authorisation should be granted for areas where these prerequisites have not been met. The competent authority may request growers/end users to implement the alternative method upon utilisation of the PPP for which emergency authorisation is granted. The applicant may provide a list of other pests that can be sufficiently contained from the use of the PPP. The period of the emergency authorisation grant shall take into account any expected changes in the availability of effective chemical solutions***

## Necessity

### Low risk active substances

#### Na1. Management of resistance

A. Management of resistance that has already developed for an approved active substance which is predominantly being used in the control of the specific pest → **Necessity is established**

B. Any other case → Go to Na2

### All approved active substances other than low risk

#### Nb1. Management of resistance

A. Management of resistance that has already developed for an approved active substance which is predominantly being used in the control of the specific pest if the following conditions are met:  
 - The active substance has a different MoA compared to the already approved active substance(s) for which resistance has been developed  
 - The available solutions are considered not sufficient for a complete contingency plan → **Necessity is established**

B. Any other case → Go to Nb2

### Regulated pests

#### Nc1. Management of resistance

A. Management of resistance that has already developed for an approved active substance which is predominantly being used in the control of the specific pest if the following conditions are met:  
 - The active substance has a different MoA compared to the already approved active substance(s) for which resistance has been developed  
 - The available solutions are considered not sufficient for a complete contingency plan → **Necessity is established**

B. Any other case → Go to Nc2

Reason 1

#### Na2. Beneficial attributes that are not encountered in the available chemical solutions

A. It is expected that the PPP can provide a higher or more consistent level of control or a higher duration of protection → **Necessity is established**

B. Has a different pest or crop stage for application compared to alternatives → **Necessity is established**

C. A different application method compared to alternative chemical solutions is employed → **Necessity is established**

D. Any other case → Go to Na3

#### Nb2. Beneficial attributes that are not encountered in the available chemical solutions

A. It is expected that the PPP can provide a higher or more consistent level of control or a higher duration of protection → **Necessity is established**

B. Any other case → Go to Nb3

#### Nc2. Beneficial attributes that are not encountered in the available chemical solutions

A. Is it expected that the PPP can provide a higher or more consistent level of control or a higher duration of protection → **Necessity is established**

B. A different pest or crop stage is targeted compared to alternatives → **Necessity is established**

C. A different application method compared to alternative chemical solutions is employed → **Necessity is established**

D. The mixing or alternation of PPPs (under evaluation and already authorised) can increase the overall performance → **Necessity is established**

E. Any other case → **Necessity is not established**

Reason 2

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## Reason 3

**Na3. Component in an IPM programme**

A. The active substance currently under evaluation is an essential element of an existing Integrated Pest Management (IPM) programme implemented within the MS, and there is no information regarding any authorised PPP that could serve as a substitute for its necessity →

**Necessity is established**

B. Other case → **Necessity is not established**

**Nb3. Component in an IPM programme**

A. The active substance currently under evaluation is an essential element of an existing Integrated Pest Management (IPM) programme implemented within the MS, and there is no information regarding any authorised PPP that could serve as a substitute for its necessity →

**Necessity is established**

B. Other case → **Necessity is not established**

## Appendix B

Table describing the applied criteria and examined aspects as well as the conditions and restrictions on emergency authorisation grants depending on the specific circumstances for which authorisation is requested.

	Related to the active substance			Related to the pest
	Non-approved a.s.	Low risk a.s.	Other approved a.s.	Regulated pest
<b>Criteria considered in the assessment</b>				
<b>Establishment of the effectiveness of the PPP under evaluation</b>	Field data required <sup>55</sup>	Justification when required by the competent authority	Typically, expert judgement and justification may be sufficient. Field data required on specific occasions.	Justification when required by the competent authority
<b>Examination of availability of other chemical solutions within the MS</b>	Yes	Yes	Yes	Yes
<b>Reasoning of necessity when other PPPs are available</b>	<ul style="list-style-type: none"> <li>• PPP can provide a higher or more consistent control</li> </ul>	<ul style="list-style-type: none"> <li>• PPP can provide a higher or more consistent control</li> <li>• Inherent risk of resistance of the pest moderate or high</li> <li>• Different pest or crop stage for application</li> <li>• Different application method</li> <li>• Suitable as mixing/alternation partner</li> <li>• Key component in a IPM programme</li> </ul>	<ul style="list-style-type: none"> <li>• PPP can provide a higher or more consistent control</li> <li>• Resistance management strategy</li> <li>• Key component in a IPM programme</li> </ul>	<ul style="list-style-type: none"> <li>• PPP can provide a higher or more consistent control</li> <li>• Inherent risk of resistance of the pest moderate or high</li> <li>• Different pest or crop stage for application</li> <li>• Different application method</li> <li>• Suitable mixing/alternation partner</li> </ul>
<b>Examination of ongoing PPP authorisations in the MS</b>	Yes	-	Yes	-
<b>Examination of available PPP authorised for this use in other MS</b>	Yes	-	Yes	-
<b>Availability of alternative control methods</b>	Yes	-	Yes	-
<b>Conditions and restrictions on emergency authorisation grants</b>				
<b>Implementation of specific non-chemical methods by end users</b>	Possible	-	Possible	-
<b>Restrictions of use</b>	Possible (spatial and temporal)	Possible (spatial and temporal)	Possible (spatial and temporal)	Possible (spatial and temporal)

<sup>55</sup> Unless the PPP has been regularly authorised in the past for this use and the application specifications do not differ



<b>Request for a list of other pests covered by the application target on the emergency pest</b>	Possible	Possible	Possible	Possible
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## Appendix C

Example of compilation of the alternative control methods and evaluation of effectiveness/feasibility and other related parameters

Alternative control methods <sup>56</sup>	Effectiveness index	Time required for full effectiveness	Prerequisites for Level 4 effectiveness	Feasibility index	Main constraining factor for feasibility	Spatial extent of implementation	Eligible method
A	Level 1	Not examined	Not examined	Level 1	Economic	Not examined	<b>No</b>
B	Level 2	Not examined	Not examined	Level 3	Regulatory	Not examined	<b>No</b>
C	Level 1-3	Not examined	Not examined	Level 2	Not examined	Not examined	<b>No</b>
D	Level 1-3	Not examined	Not examined	Level 1-2	Not examined	Not examined	<b>No</b>
B+D	Level 4	Level 1	Level 2	Level 3	No constraints	Northern part of the country	<b>Yes (with restrictions)</b>
B+D	Level 4	Level 1	Level 2	Level 2	Technical	Southern part of the country	<b>No</b>
E	Level 4	Level 2	Level 2	Level 3	No constraints	All regions within the MS	<b>Yes</b>
A+D	Level 4	Level 1	Not relevant	Level 1-2	Technical	Not relevant	<b>No</b>
...							

<sup>56</sup> Specific method or combination of methods.



## Annex A

The outcome of the public consultation which was open from 19<sup>th</sup> September 2025 until 24<sup>th</sup> October 2025 is presented in Annex A. Annex A is available under the Supporting Information section on the online version of the scientific output.

## Annex B

Examples to illustrate the application of the protocol. The annex contains three fictitious examples of *Aleurocanthus spiniferus*, *Delottococcus aberiae* and *Drosophila suzukii*.