

Response ID ANON-HGGH-91CS-X

Submitted to **Sustainable Use of Pesticides: Draft National Action Plan**

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Pre-Consultation Questions

1 Would you like your response to be treated as confidential (in accordance with the Confidentiality and Data Protection statement)?

No

If you have selected 'yes' above, please state clearly what information you would like to be kept as confidential and explain your reasons for confidentiality.:

2 What is your name?

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4 About yourself

Other - please specify in no more than 25 words

Other - please specify in no more than 25 words:

Representative of charity conducting conservation science and associated demonstration farm

5 The name of your organisation (if applicable)

Please add name of organisation and briefly highlight who the organisation represents:

Game & Wildlife Conservation Trust (www.gwct.org.uk)

The Game & Wildlife Conservation Trust (GWCT) is a leading UK charity conducting conservation science to enhance the British countryside for public benefit. For over 80 years we have been researching and developing game and wildlife management techniques. We promote our work to conservationists, including farmers and landowners and offer an on-site advisory service on all aspects of game and wildlife management, so that Britain's countryside and its wildlife are enhanced for the public benefit. The Allerton Project's (our demonstration farm) aims are to research the effects of different farming methods on wildlife and the environment, and to share the results of this research through educational activities.

Questions on Goal 1 - Better Regulation

1 In the context of maintaining current high levels of protection for human health and the environment, what can we do to make the regulatory system for pesticides simpler and more efficient?

Type your response in the field below:

2 What could we do to increase transparency about the way that evidence is used to inform decisions on the regulation of pesticides?

Type your response in the field below:

There is a need for consistency of implementation of scientific evidence and advice from the Expert Committee. The evidence presented behind product removal should be comprehensive and encompass the wider considerations of the risks of removal. In answer to Q3 we identify the failure of the current approvals system to consider the impact of a ban of one product on the usage levels of another and the consequences to environmental load and therefore highlight the need for the introduction of a comparative risk assessment. In addition, once a product is identified as having an environmental or human health risk and before regulatory changes occur, government should seek to work with manufacturers and users to develop mitigation measures whilst alternative solutions are developed. This would minimise the need for emergency use applications to mitigate the impacts of a sudden withdrawal of a product.

3 How can we best ensure that our regulatory systems keep up with innovation and scientific development including new technologies?

Type your response in the field below:

The EU interpretation of the Precautionary Principle did not include the balancing Innovation Principle. It is important that this principle is adopted as it encourages investment in innovation by increasing the confidence of innovators in the regulatory system. To complement this we favour a risk-based interpretation of the Precautionary Principle so that when there is a need to "follow the precautionary principle where there is uncertainty over levels of risk" risk mitigation and minimization, including considering the impact of action and inaction, are considered as part of a comparative risk assessment.

By adopting this approach concerns expressed in the consultation document that "crop protection practices are being increasingly influenced by withdrawals of, and restrictions on pesticides" could be addressed. We have long considered that one of the biggest challenges to sustainable pest management is the decline in the number of approved pesticides/active ingredients. Fewer choices mean increased reliance on the remaining products, which are used in greater quantities

and/or the need to rely on less effective products requiring more interventions – both of which can have a significant impact on the environmental load as well as risking the build-up of resistance. A good example is the ban on neonics seed dressings on oil-seed rape. This has resulted in increased use of pyrethroid sprays to control Cabbage Stem Flea Beetle larvae, which are very toxic to spiders, a natural predator of the Flea Beetle and a useful IPM component. Furthermore, included in the assessment should be an appraisal of the impacts, in this case, of sourcing vegetable oil from other farming systems for example palm oil from cleared rainforest. Off-shoring environmental damage must be considered in a global economy. We do not think adequate consideration was given to the impact on pollinators of the loss of such a significant source of early season pollen which oilseed rape provides, although some beekeepers have expressed concern about this. Little point we avoid poisoning bees if we simply starve them instead.

We believe that the proposed approach for the Emergency Authorisation for the use of neonic seed treatments for sugar beet sets a useful blueprint for future approaches, where the risk of infection is built in as a deciding factor. This allows decisions to be more rational and tailored to the magnitude of the threat. These are the impacts we need to better understand.

As suggested in answer to Q2 a phased process, which identifies those chemicals 'at risk' in order to develop solutions, combined with strong links with public and private research organisations to encourage development and innovation should also encourage an adaptive and ongoing review of regulation and guidance.

4 What actions could we take to expand and improve the current Biopesticides Scheme, to increase the availability of approved biopesticide products and better support potential users?

Type your response in the field below:

Clarity on the definition of bio-pesticides and the distinction between these and bio-stimulants, the costs of application (both in product cost and need for additional training in some cases) and concerns over consistency of efficacy are hurdles to bio-pesticide adoption. Whilst there maybe ecological attractions to their introduction (although this does not necessarily apply to all natural products) if they do not have the desired impact of addressing pest problems resulting in reduced yield and crop quality, the economic rationale for their adoption is lacking and therefore their contribution to IPM. Farmers need to have confidence in their application before these hurdles can be overcome. Consequently they need to go through the same demonstrable approvals process with supporting evidence of their application and efficacy. That said the approval should also allow for instances where the control is limited, i.e. there is some effect on the target population, as this could be supportive of IPM approaches. Limited control can ensure that the target population is reduced sufficiently to minimise economic damage without damaging the predator/prey relationship thereby allowing beneficial predators to survive and naturally control the pest population. Information relating to such situations needs to be included on the product label.

Last resort options also need to be available to farmers if due to unforeseen circumstances (weather is a risk for bio-pesticides) their application does not succeed.

5 What are the priorities for research to better understand the impacts of changes in regulation?

Type your response in the field below:

Monitoring the response to regulatory changes through new product uptake, cropping changes and through assessing the impact of alternative products employed following a ban will be important in assessing the ongoing environmental load. For example, the area of oilseed rape has dramatically reduced in the UK in recent years resulting in changes to crop rotations as it was a profitable 'break crop' in arable rotations, often as part of an IPM approach. As already stated a comparative risk assessment would ensure that regulatory changes assess the impact on farming systems as a whole where changes in one area impact many others, sometimes to the detriment of other environmental priorities.

It will also be important to assess how a products hazard can be mitigated – such as restricting usage, adopting safe handling techniques and through its formulation or precision application. See Q7 below.

6 What other suggestions do you have for improvements to the regulatory system for pesticides?

Type your response in the field below:

Given our status as a conservation charity we are well aware of the consequences of the widespread, continuous use of pesticides to both plant and insect communities. However our almost unique perspective at the Allerton Project (the GWCT's demonstration farm) of combining a commercial farming enterprise with science-led, practical conservation means we would like to emphasise the need for a balanced, adaptive approach to their regulation and use to ensure their sustainability. This means not only considering each product on a case by case basis but also considering their usage and regulation 'in the round' by considering all aspects of the process from production to field application, all aspects of usage from dosage to alternative products availability, efficacy and the likely consequences of their usage, as well as how the product integrates within IPM.

In answer to Q5 we alluded to the hazard v risk continuum. In our opinion it is important to focus on the risk rather than the hazard of a product as the latter can in many cases be contained or mitigated. This is important as if focus is just on the hazard, products that have relatively low risk, if used as intended, have been banned. A good example is Isoproturon - an effective residual herbicide with a 30 day half-life and moderate leachability. The product is a particularly effective herbicide against a pernicious grass weed which has become resistant to other herbicides in cereal crops, blackgrass. As a consequence of widespread use water quality was affected and the product banned. The hazard was caused by its widespread usage rather than the risk of the product itself. In this instance environmental damage could have been contained by reducing the dose or restricting usage. Cereal production in England has been impacted through yield loss following the withdrawal of the product.

Questions on Goal 2 – Promoting the Uptake of Integrated Pest Management (IPM)

7 How can we best develop and support management and advisory services to deliver an increase in the uptake of IPM?

Type your response in the field below:

GWCT experience is that accessible advice, appropriate training and demonstration are three important tools in achieving farmer engagement. We therefore support the intention to deliver these for IPM, but it is important that these are at regional or farming system 'scale' to reflect variations in approach.

The demonstration farms will be vitally important in showing the practical delivery of IPM in a farm system but we feel that these demonstration sites should embrace the comprehensive approach to pesticide use that we have outlined in our response. In other words, the example of the Strategic Cereal Farm in the consultation document we would like to see including demonstration of how IPM integrates not only with sustainable pesticide use ambitions but also biodiversity and net zero as well as costs of production and monitoring and forecast tools. Using other demonstration farms such as LEAF and VI Champions (see Q8) will also ensure a comprehensive approach.

We would endorse plans to include IPM in all relevant advisory programmes and assurance schemes.

The GWCT's Allerton Project runs courses on Pollinators and Integrated Pest Management and BETA Conservation Management which complement this approach (<https://www.allertontrust.org.uk>)

8 What else could we do to ensure that pesticide users are fully informed about the benefits and practicalities of IPM approaches?

Type your response in the field below:

The Voluntary Initiative (VI) should be used to encourage changes in farmer behaviour and to marry the need to support domestic production whilst encouraging IPM and its objectives. Consequently in addition to working with the VI in the formulation of IPM templates, the VI should also be used to disseminate information, run events (incorporating for example their Champion VI farmers as demonstration farm options) and formulate appropriate training.

We would also support the development of key pest control IPM plans that demonstrate to a farmer how, for example, he would combat BYDV using IPM principles. These approaches could be supported by SFI/ELM options – see Q11.

9 How can the promotion of recognised standards be used to encourage the uptake of IPM, in amenity, agriculture and more widely?

Type your response in the field below:

Assurance schemes and marques, such as LEAF, that promote IPM principles are important as they not only help disseminate information, thereby encouraging uptake, but also promote IPM in the context of other environmental ambitions. Government needs to encourage greater earned recognition of these schemes in farm regulation as well as the market place/supply chain as this would encourage adoption.

10 What suggestions do you have for a communications campaign to encourage more uptake of IPM?

Type your response in the field below:

In our opinion there are two key messages that should aid uptake. The first is to emphasise the rationale for IPM, as this informs farmers as to why they should be adopting it and the correct approach to take, and secondly to demonstrate that the application of IPM has been scientifically proven and is based on a 'lifecycle' approach to pest control (see answer to Q13 on Advanced IPM).

ELM could be part of explaining the rationale by identifying the IPM contribution that individual options make. Whilst the relevance of some options to IPM may be obvious to the practitioner, such as beetle banks or grass margins, other options which have a different principal objective may not, such as using crop rotations to prevent pest build up. The development of Figure 1 in the consultation document to include ELM options that support each step would be a start. We note however that Figure 1 does not accurately reflect the implementation of IPM as it does not refer to economic and ecological evaluation and is, therefore, not consistent with the accepted definition in the 2009 Framework Directive on the Sustainable Use of Pesticides.

In addition attention should be made to encouraging IPM in grassland systems.

11 How could we use financial support schemes to offset risks associated with IPM?

Type your response in the field below:

Given IPM involves prevention as much as control, ELM should support the widespread adoption of key options such as grass buffer margins and settlement ponds. This would provide farmers with the economic confidence to consider IPM, given its inherent risk.

Consequently it is important that IPM is included in the Sustainable Farming Incentive (SFI) component as this is designed to attract the greatest uptake amongst farmers. We favour not only including individual options that support IPM in other 'packages' such as beetle banks, grass margins, crop rotations (for prevention) etc but also the formation of an IPM option which brings together all the key elements of a successful IPM approach, as identified in Figure 1 in the consultation document, for different farming systems so that the key pests are addressed. This may not be possible at the outset as further research is likely to be necessary to ensure the outcomes of such an option are consistently achievable – see reference to Advanced IPM below. In addition the five layered pyramid graphic (figure 1) lacks reference to economic justifications for crop protection decisions (see also Q10). It is important that both economic and ecological evaluation is encouraged within ELM/SFI.

Consideration could be given to a pest monitoring option whereby the farmer is encouraged to use trapping methods to identify thresholds.

Adoption of IPM production methods could be rewarded via premiums for IPM grown crops supported via SFI and ELM and through working with the supply chain to increase public awareness of the benefits to environmental and human health.

In addition capital grant schemes could be used to introduce biobeds or bio-filters.

12 What should government do to facilitate research on the availability of effective methods of pest control?

Type your response in the field below:

Establishing effective methods of pest control includes establishing meaningful thresholds for action and so we would like to see coordinated research into this. See also answer to Q13.

13 What other suggestions would you make to improve uptake of IPM approaches?

Type your response in the field below:

We have answered Q12 and Q13 together as we feel improving the current approach to IPM would answer both questions – policy should focus on the development of Advanced IPM.

Currently IPM uptake is limited by concerns about its effectiveness due, largely, as the consultation document states, to “lack of knowledge ... and .. some farmers consider IPM as high risk in protecting their crops and economic return “. The solution is to approach IPM in the same way that other production barriers or conservation issues such as farmland bird recovery are addressed – through research into the lifecycles of the target pests and predators so that an IPM programme can be designed to include habitat provision and continuity for the natural predator. Natural pest control can be variable and unreliable but ensuring that the favoured habitat of the natural predator is available (both in type, season and distance from crop) allows for more consistent control. To give some examples – GWCT IPM research has found that the total area of semi-natural habitat in the landscape reduced the amount of aphid infestations in cereal crops and that where natural habitat was lacking agri-environment scheme options such as 6m grass margins increased ground dwelling predators. In addition we found that natural enemies were generally found around the outer 60m of the crop due to the presence of weeds and other over-wintering habitat. Beetles are considered one of the most important groups of predatory insects as they are numerous and active throughout the year and so their spread is encouraged across the field by introducing a beetle bank.

Validating methods for pest monitoring, prediction and modelling alongside the creation of ‘targeted’ habitat solutions would inform farmers as to the most appropriate intervention.

Funding IPM and IFM research on farm and in different farming systems is critical. This should include the quantification of the benefits and the risks associated with their adoption.

Questions on Goal 3 - Safe and Responsible Use

14 How should we raise awareness of the health, environmental and legal risks of using professional products without having the correct training and certification?

Type your response in the field below:

15 What would be the benefits and challenges of introducing a legal requirement for certification of pesticide advisors?

Type your response in the field below:

Given the success of NAP 2013 in increasing training and pesticide standards in agriculture we see no benefits to introducing a legal requirement for certification of pesticide advisors.

16 What more should retailers be doing to inform amateur pesticide users about the actions they can take to control pests more sustainably?

Type your response in the field below:

17 How can we best target inspection and enforcement to prevent unsafe and environmentally damaging pest management practices?

Type your response in the field below:

Earned recognition through assurance and other scheme membership should be used to target inspections.

18 What kinds of challenges need to be addressed in order to ensure safe disposal of unused pesticides and pesticide containers?

Type your response in the field below:

The GWCT was part of a unique partnership with the Pesticides Forum and BASF to re-design pesticide containers so that it would be quicker and safer to recycle, saving both energy costs and landfill space. The Government’s Pesticide Forum asked the GWCT to chair a Working Group to look at recycling issues which subsequently brought forward recommendations in eight different areas. A copy of that report with recommendations can be found here (<https://webarchive.nationalarchives.gov.uk/20150106000241/http://www.pesticides.gov.uk/guidance/industries/pesticides/advisory-groups/pesticides-forum/pesticides-forum-recommendations-report-2010.pdf>) The recommendations were acted upon by BASF a global supplier to the agricultural industry who launched the ‘Eco-Pac’ container. This was an immediate success among environmentally-aware farmers and stakeholders. The product won the Environmental Leadership Award in 2016 from the Chemical Industries Association.

The main recommendations of the Working Group (2010) were:

- i. The Voluntary Initiative (VI), in discussion with the Environment Agency should lead in the production of clear guidance for farmers and sprayer operators on how to handle foils and what is the best way to remove, wash and store. This is particularly pertinent when the foil doesn’t go back into the container. Guidance should also cover how the foil should be stored and disposed of, and whether triple rinsing of seals is both practical and sufficient to classify them as non-hazardous waste?
- ii. Chemicals Regulation Directorate should issue an ‘All Approval Holders’ letter encouraging the industry, where practical, to move away from foil seals to a system of self-sealing caps. The Crop Protection Association should also support this message to its member companies.
- iii. Chemicals Regulation Directorate should issue an ‘All Approval Holders’ letter encouraging companies to undertake an appraisal of all stackable containers to improve the draining of rinsed containers and to encourage a move to containers with a pouring point which when inverted drains to a single point. Wider openings appear to increase the speed of emptying, reduce gugging and make the container easier to rinse and drain.
- iv. Chemicals Regulation Directorate should consider issuing an ‘All Approval Holders’ letter encouraging companies to move to a single material, waterproof, washable label(s) which can be removed from the container and recycled.

- v. The Pesticides Forum should write to the British Plastics Federation asking companies using mixed plastic on their containers to examine means by which the plastics might be made separable.
- vi. The Pesticides Forum should write to the British Plastics Federation encouraging the adoption of the BPF voluntary scheme for labelling pesticide containers with the polymer type logo and to ask the BPF to look at the feasibility of agreeing a common location on the container for the logo.
- vii. The Environment Agency, the VI and Chemicals Regulation Directorate should continue to promote triple rinsing as best practice.
- viii. The Environment Agency should be asked to advise on new guidance for continuous stream washing procedures. This advice should be promoted by the VI organisations. This advice should also include guidance on how to wash those container lids that do not use foil seals.
- ix. Promotion of best practice for recycling.
- x. The Voluntary Initiative should seek to get continued cross-industry support and promotion of schemes which increase best practice in container disposal.
- xi. Advisor and operator training organisations such as BASIS and City & Guilds Land Based Services should include information from the recommendations in this Report in future operator training.
- xii. Chemicals Regulation Directorate should consider the recommendations of this Report in impending legislation and advice and amendment to the Code of Practice in light of the agreed National Action Plans.

See also reference to using capital grants to support the introduction of pesticide-contaminated treatment systems such as biobeds and bio-filters in Q11. These systems are often costly and require appropriate approval and waste exemptions to be in place before they are installed and commissioned.

19 How can we best make sure that members of the public know what to do when pesticide products are withdrawn from sale?

Type your response in the field below:

20 What further actions are needed to ensure that equipment used for application of pesticides complies with safety requirements?

Type your response in the field below:

21 What else should we do to ensure that pesticides are used safely and responsibly?

Type your response in the field below:

Please see reference to Environmental Information Sheets under our answer to Q27.

Questions on Goal 4 – Targets, Metrics and Indicators

22 What are the priorities for data collection and research on pesticide usage?

Type your response in the field below:

23 What are the priorities for research on the environmental impact of pesticides?

Type your response in the field below:

We believe that this review provides the opportunity to revisit some of the evidence that underpins the regulatory process inherited from the EU – particularly if the Polluter Pays Principle is to be adopted. We would like to see Government funded research identifying the correct level of 'damage' for differing key ingredients and for different species and habitats including air, water and soil biomes. Such data would go towards providing a stronger evidence base around the UK Pesticide Load Indicator, which includes "active substance-specific weights".

In addition improved application techniques could minimise environmental impacts. Research into the impact of spray conditions, methods and accuracy should be undertaken to establish the effect to which these can be optimised to improve the efficacy of pesticides and develop best practice application methods.

24 What are the priorities for research on the health impacts of pesticides?

Type your response in the field below:

In the consultation documentation it states that "...we will maintain current protections and will base regulation on the best available scientific knowledge" (our emphasis). At the moment pesticide levels in surface (and also ground) water are monitored by the Environment Agency: levels of individual pesticides should not exceed 0.1µg/l and total pesticides should not be above 0.5µg/l. These were established by the EU Drinking Water Directive and are not based upon scientific findings in relation to human health; 0.1µg/l was merely the limit of detection at the time it was set. A single figure also is rather crude as the level will differ between different active ingredients and aquatic plants and invertebrates and humans. Therefore we need a re-assessment of the maximum residue limits that apply to pesticide regulation including into potential 'cocktail' effects.

If legislation is introduced that restricts pesticide use with consequent impacts on domestic production this restriction should be reflected in import standards to avoid the export of negative impacts or competitive advantage.

25 What suggestions do you have for ways of measuring our progress against the goals set out in this NAP?

Type your response in the field below:

As stated in our response to the recent Pesticide Usage Survey review, a systematic approach should be introduced for the monitoring of the use of IPM techniques. Given the need to focus on sustainable usage, IPM techniques will increase in the future and as a consequence farmers and advisors will have to become more proactive in their management of antagonists using non-chemical techniques.

Compliance and monitoring data should be compiled from a variety of sources including VI IPM Plan, LEAF Sustainable Farming Review, LEAF Marque, Red Tractor, ELM/SFI etc. An online submission template could help harmonise metrics.

Concluding Questions

26 How can we best bring together stakeholders with diverse interests to support delivery of the NAP, working towards a common goal of sustainable pest management?

Type your response in the field below:

The Voluntary Initiative (VI) already performs this function; Government should embrace its successes to date and work with it to deliver NAP 2021. See also Q27.

27 Considering the NAP as a whole, what other comments and suggestions would you like to make in addition to those covered by previous questions?

Type your response in the field below:

In the first paragraph of our answer to Q6 we highlighted the need for a balanced approach to pesticide usage and regulation; this is important in order to achieve ecological ambitions whilst protecting domestic food production, and delivering on 25YEP and net zero ambitions. The GWCT believes that effective and integrated crop protection management using a range of techniques, such as crop rotation, cultivation, varietal choice as well as chemical controls is important in achieving these multiple aims. After all good crop husbandry and a healthy crop can ensure that pesticide use is minimised. At the Allerton project we use integrated crop protection management as the basis for all our crop management decisions.

Given this context we feel there are three areas that we would particularly like to highlight as we feel they should be considered as part of the re-drafting of the NAP:

1. Banning is not always best: We feel the focus on introducing blanket bans on pesticides such as neonicotinoids can have unintended consequences, such as farmers seeking alternatives or changing their cropping, and that behaviour change is more appropriate to ensure a pragmatic and balanced approach to their use. The Voluntary Initiative was set up to encourage partnership between government, farmers, NGOs and the manufacturers and distributors of crop protection products. Given that chemical regulations are now back under domestic control and there is a perceptible change in the mood of the industry to embrace further sustainable crop production methods, now is the time for government to use the Voluntary Initiative to change farmer behaviour and to marry the need to support domestic production whilst encouraging alternative solutions to minimising their overall environmental impacts.
2. Resource use efficiency: in order to place sustainable pesticide use and regulation in its full policy context i.e. food production, 25YEP and net zero ambitions, resource use efficiency should be considered. If the yield falls, the carbon footprint will increase, as the process for producing the crop remains largely unchanged (cultivations, fertiliser applications, harvesting etc). This is neatly encompassed in the recent decision to apply a derogation to the use of neonics on sugar beet where estimates were that yields were being reduced by 20-25%. In addition, a pest damaged crop will take up less fertiliser than that applied (which will have assumed 'normal' yields) and so there is the potential for the excess fertiliser not taken up by the crop to be leached from the soil, negatively impacting on water quality. Such considerations should be part of any regulatory process.
3. Environmental information sheets: the right product choice is important in ensuring that an effective and sustainable pesticide programme is adopted. Given farmers the relevant knowledge to ensure that they don't just use the cheapest option, which may compromise other approaches they are taking such as IPM, is one way of ensuring that this occurs. To provide this information the VI developed Environmental Information Sheets (EIS) with manufacturers but these were side-lined, as the code of practice strictly states that the Operator should always read the label, which contained the necessary environmental information. However given the need to encourage IPM adoption and the need for sustainability, we feel that their re-introduction would be welcomed. EIS provide the farmer with information on each product in terms of its ecological impacts divided into 6 sections, namely: Wildlife (mammals and birds), Bees, Non-target insects and other arthropods, Aquatic life, Soil and groundwater (including worms and soil micro-organisms) and Non-target plants. This information could be provided in a simple colour coded manner to aid ease of understanding.

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