Human Health Recommendations for the UK 'Revised National Action Plan for the Sustainable Use of Pesticides' (NAP)

Key recommendations for inclusion in the final NAP:

- Pesticide use and risk reduction targets, focussed on eliminating the use of pesticides with the most significant impacts on human health.
- Support and development of genuine and comprehensive Integrated Pest Management (IPM) in the agriculture sector.
- A phase-out and ultimate ban on the use of all amenity pesticides (including urban pesticides).
- The introducing of buffer zones to prevent pesticides from being sprayed close to homes and public buildings such as schools and hospitals.
- Mandatory prior notification and access to spray records for the public.
- An effective human health and exposure monitoring and reporting system.

Pesticides do not only affect the environment but can be a cause of severe human health harms. The 2013 UK National Action Plan for the Sustainable Use of Pesticides states its purpose as "*reducing the risks and impacts from pesticides on human health and the environment*" (1) but failed to put in place the measures required to drive a significant decrease in pesticide-related health harms. The current consultation on the 'Revised National Action Plan for the Sustainable Use of Pesticides' is the perfect opportunity to introduce more stringent health protections.

Impacts of pesticides on human health

Beyond residues in food (which is not covered by the NAP), different groups of UK citizens are exposed to pesticides in a variety of ways;

- ***Farmers and farmworkers*** **-** Farmers, farmworkers and their families are one of the groups most vulnerable to both the long-term and short-term impacts of pesticide exposure due to their daily proximity to the many different types of pesticide used in mainstream agriculture. Numerous studies have shown higher incidence of pesticide-related ill health among this group including depression, a variety of cancers and Parkinson's disease. (2) (3) (4)
- ***Rural residents*** **-** Rural residents can be subjected to repeated, long-term exposure to pesticides as a result of spray drift from nearby fields. As crops are often treated with numerous different pesticides in one growing season, rural residents are regularly exposed to cocktails of pesticides. Pesticide mixtures have been associated with a range of health problems including obesity, impaired liver function, the creation of cancer cells and disruption of the endocrine system, even when the doses of individual chemicals are below the safety levels set by regulators.(5)
- ***Urban residents*** **-** People that live, work, study or play in our towns and cities are also directly exposed to pesticides on a regular basis. Councils and other land managers spray pesticides in parks, playgrounds and other green spaces, road verges, pavements and around shopping centres, care homes and schools mostly to deal with unwanted vegetation. Pesticides used in UK urban towns and cities include developmental and reproductive toxins, neurotoxins and possible carcinogens.(6)
- ***Children and pregnant women*** **-** Breastfeeding and expectant mothers are particularly vulnerable to the impacts of certain pesticides which can affect the health of unborn babies. Similarly, children are more at risk from pesticides because they have higher exposure rates than adults and are more vulnerable to their effects. Incidents of pesticide exposure that would be tolerated by adults, can cause irreversible damage to foetuses, infants and adolescents whose brains and bodies are still developing.(7)

Recommendations

- ***Setting ambitious pesticide reduction targets***
  The most effective way of reducing human exposure to pesticides and their subsequent harms is to reduce their use. Setting a reduction target is neither a new nor novel concept and has in fact been shown to drive reductions in the use of pesticides in a number of other countries.(8)

  The current draft NAP includes a commitment to *"…establish a set of clear targets to support the reduction of risk associated with pesticide use by the end of 2022"*. It's crucial that the UK Government sets ambitious targets which take into account both the amount of pesticide used and the risk/toxicity, or "toxic load". Tackling both is

important as a risk reduction target will ensure that the most harmful pesticides to human health or the environment are prioritised for reduction. Meanwhile, a target for cutting overall use will ensure that indirect and poorly understood effects from pesticides are reduced.

- ***Strong measures for development, support and dissemination of genuine Integrated Pest Management (IPM)***
  Given that the majority of pesticides are used for agriculture, any effort to reduce pesticide-related harms must include a package of support for UK farmers to adopt genuine IPM systems based on agroecological principles. This must be based on an emphasis on growing a robust crop, with pesticides used only as a last resort if at all.(9) While it is positive to see IPM featured so heavily in the draft NAP, some of the measures required to drive pesticide reduction in UK farming are missing. These include but are not limited to:
  I. the creation of an independent advice and research facility for farmers and agronomists, to include an increase in funding for research into agroecological farming systems (including organic farming), in order to provide farmers with an alternative and reduce the reliance on chemicals.
  II. the adoption of a clear definition of what constitutes IPM and what practices cannot be counted as IPM.

- ***Phase out and ban on the use of amenity pesticides (including urban pesticides)***
  Given that most amenity pesticide use is purely for cosmetic reasons, there is almost no justification for using pesticides outside of agriculture. In fact, there are a growing number of effective, affordable alternatives and many councils and other land managers throughout the UK have already gone pesticide-free as have many cities across Europe, North America and beyond.(10) In particular, urban pesticides tend to be used in areas frequented by children such as parks, playgrounds and schools. Given that children are one of the groups most affected by exposure to pesticides, protecting their health should be a priority for inclusion in the NAP. The current draft NAP does not contain any commitments to introduce measures to phase out this unnecessary exposure to pesticides for millions of UK citizens.

- ***Introducing buffer zones around public buildings and homes***
  Currently, pesticides can be sprayed right up to homes and other public buildings, thereby increasing the exposure of rural residents, and the current draft NAP does nothing to address this. The revised NAP should introduce mandatory buffer zones which prevent the application of a pesticide for agricultural or horticultural purposes near any building used for human habitation, any building or open space used for public recreation or any public or private building where members of the public might be present such as schools and hospitals.(11)

- ***Introduction of mandatory prior notification for the public and access to spray records***
  The public has a right to know which pesticides are being sprayed and when but this information is not currently available in the UK. According to best practice guidance (12), members of the public should receive prior notification before spraying takes place but this rarely happens. The NAP should introduce a requirement for all professional users of pesticides to notify surrounding residents before spraying.

  In addition, the public should have access to spray records upon request. If someone suspects that they have been exposed to pesticides it is vital that they know which specific pesticides have been used. Adoption of such a basic measure could aid in the swift diagnosis of a health problem following a pesticide exposure incident. The current draft NAP says nothing about prior notification nor access to spray records.

- ***A human health reporting and monitoring system***
  The current exposure and monitoring system (13) for pesticides is not fit-for-purpose. Acute poisoning incidents are dealt with inadequately and there is no attention paid to chronic impacts. The current draft NAP states that the Government will *"… consider the potential for development of a human biomonitoring programme…"*. However, this is too loose a commitment, and does not go nearly far enough in terms of providing victims of pesticide poisoning with access to relevant information or redress.

  PAN UK is calling for the NAP to include a complete overhaul of the current reporting and monitoring system to make it; easier to access and use by both professionals and the general public; require less detail from poisoning victims; and faster in terms of conducting investigations and publishing findings.

  If we are to gain a thorough understanding of the human health impacts of pesticides it is essential that there is an effective reporting and monitoring system in place which not only captures acute poisoning incidents but also tracks long-term (chronic) health impacts of pesticide exposure. There are examples of monitoring systems available which could be applied to pesticides, most notably linked to the use of pharmaceutical medicines.

This briefing has been prepared and signed up to by the following organisations:

References:

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(9) PAN UK, Putting Integrated Pest Management at the heart of UK agriculture, 2018, https://www.pan-uk.org/ipm-and-uk-agriculture/

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(11) See Lord Whitty amendment (Lords Amendment 11) to Agriculture Bill which passed the Lords but was defeated by the Commons, 2020, page 4, https://publications.parliament.uk/pa/bills/cbill/58-01/0191/en/200191en.pdf

(12) "Code of practise for using plant protection products", DEFRA, 2012 - https://www.hse.gov.uk/pesticides/using-pesticides/codes-of-practice/code-of-practice-for-using-plant-protection-products.htm

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