Restriction on Reduced Volume applications

Tom Bals has raised the issue of reduced volume spraying with PSD, on which he would like to make the Forum aware:

“Since the discussion at the last Pesticides Forum meeting in February about problems with RPA/Cross Compliance I have discussed the issue with chemical companies, sprayer manufacturers and agronomists and it has become evident that there is a major problem regarding restriction of Reduced Volume applications due to the PSD position regarding PPE label warnings, with many agronomists/advisors now reportedly recommending adherence to full label volumes to avoid any risk regarding Cross Compliance payments. A situation is being created in which UK farmers are being denied the benefits of innovation (indeed innovation many of them were already using) with poorer timing of applications due to use of higher volumes potentially leading to the need for increased amounts of pesticides to be used and increased risks to the operator, bystanders and the environment. These outcomes surely cannot be desirable.

The AEA Chemical Applications Committee have asked me to write again to PSD to express our unhappiness at the current approach being taken by PSD NB as advised above the major issue is not actual 'incidents' with RPA but agronomists and advisers simply recommending high volume applications to avoid any potential problems with RPA.

The current advice regarding PPE restrictions on the website (Regulatory Update: 15/2007 issued on 1/5/07) appears to unfairly discriminate against Reduced Volume applications, particularly since PPE is deemed appropriate for handling the concentrate in mixing and filling procedures which can often lead to a high level of risk for the operator (indeed it has long been accepted that this is potentially the riskiest part of the spraying operation).

How can PSD justify the position that the use of engineering controls to replace PPE does not allow use of Reduced Volume applications if there is a PPE restriction?

I note that the section dealing with the 'contaminated surfaces' restriction now simply states regarding using the product with a lower volume of water - 'No' (!). Risk assessment is referred to only once in the Regulatory Update and then in the abstract ie there is no mention of the possibility of modified risk assessments as some registrants have undertaken and there is no practical guidance on risk assessment for advisors or farmers (I pointed out in my 1990s correspondence with PSD that a proper COSHH/risk assessment was difficult, if not impossible,
for advisors and/or farmers to carry out without detailed toxicological information). Can PSD advise exactly how advisors and farmers will be able to undertake their own risk assessment for Reduced Volume applications (as your e-mail of 23 March appears to imply they will be able to do since this e-mail states: ‘It is still open to users to reduce volumes at their own risk’)?

The introduction of label cautions regarding handling contaminated surfaces by PSD appears to directly contradict the assurances given by Dr Gilbert when the Reduced Volume guidelines were originally agreed that general label requirements for use of PPE would not become statutory requirements ‘unless it is absolutely necessary. The requirements for non-classifiable labels (good occupational hygiene practice) will not be statutory.’

As I have pointed out previously to PSD, the level of contamination of sprayer surfaces is far more likely to be determined by sprayer use, design and operating parameters rather than simply by the volumes applied. Please note that there is actual data eg see HSE Contract Research Report 440/2002 ‘Exposure to pesticide residues on agricultural spraying equipment’, that pesticide residues on sprayers vary widely with both sprayer design and product.

As I have also pointed out previously to PSD ANY spray deposit on sprayer surfaces (however dilute) will become more concentrated over time as the diluent evaporates.

Since your e-mail of 23 March advises that PSD cannot approve use of Reduced Volumes since PSD ‘cannot be sure that exposure of operators will not exceed acceptable levels’ I can only assume that PSD has data showing other factors and practices which can significantly alter risks when handling contaminated sprayer surfaces, do not result in exposure of operators exceeding acceptable levels.

Moreover, the Reduced Volume guidelines have been in operation since 1990 with many of the products now restricted by the ‘contaminated surfaces’ PPE requirement having previously been used at Reduced Volumes ie increased concentrations. Have there been any operator safety incidents in this period and/or is there any actual data showing increased levels of risk?

The approach adopted by PSD of only allowing registrants to allow use of Reduced Volumes by modifying risk assessments cannot be satisfactory since this means that use of Reduced Volumes will be dictated by whether there is an economic benefit to the registrant (likely to be only for the major arable crops), and ignores the potential benefits to UK farmers and growers (as well as society). It would mean that not all products will be dealt with in the same way, meaning that we will end up with a patchwork of product recommendations regarding allowable volumes which can only serve, as in the present muddle, to act as a general disincentive to use lower spray volumes. As stated this is potentially both
restricting Best Practice (denying the benefits of innovation to UK farmers) and increasing risks to the operator, bystanders and the environment.

The proposed approach should be contrasted with the LERAPs approach (which is not dependent upon individual registrants applying for buffer zone mitigation for specific products with particular drift reducing technologies). LERAPs is acknowledged to have provided a framework which greatly assisted the take up of drift reducing technology despite a significant degree of uncertainty about complying with label requirements eg spray quality is currently unknown when applying with air induction nozzles (and therefore theoretically air induction nozzles should not be used at Reduced Volumes at all since it is not known how to control spray quality - I note that PSD has not covered this issue in the current Regulatory Update!). The LERAPs approach meant PSD did not have to examine every product/product label afresh for buffer zone mitigation.

I also think it is wrong that PSD did not fully consult the Agricultural Engineers Association before giving advice that has potentially serious commercial implications for some sprayer manufacturers.

I think that there must be a broader discussion of how to resolve these issues. The Pesticides Forum would be an obvious choice, given its remit of considering and promoting best practice (with the Forum having recently discussed the role of application technology). Also, this issue was raised at the Pesticides Forum meeting in February (which led to the correspondence with PSD) and will be discussed further at the next Forum meeting on June 12. I have therefore forwarded a copy of this e-mail to the Secretariat of the Forum for circulation before this meeting and I look forward to a PSD response so that we can use these documents as the basis for our discussion. I would still appreciate a list of the PPE label phrases PSD consider restrict the use of Reduced Volumes since this would assist the discussion.”

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