Glyphosate – the importance in UK agriculture

Background

Glyphosate, the active substance in wide spectrum herbicides such as Round-up, is used extensively within the UK and internationally in the amenity, home and garden sectors. Within European agriculture, the fundamental application of glyphosate is for weed control at pre-planting or pre-emergence stages upon stubble fields.

In the UK, glyphosate is also used before harvest to improve the harvesting process by helping ripen the crop, control weeds and to curb the emergence of weeds in the following season (desiccation). Crops managed with these pre-harvest methods include oilseed rape and cereals.

Glyphosate - Key facts

According to ADAS figures;

- Losing the ability to use glyphosate in the UK on winter wheat, winter barley and oilseed rape would see a reduction in value of production of €633m per year.
- The loss of glyphosate would reduce UK production of winter wheat and winter barley by 12% and oilseed rape by 10%.
- The loss of glyphosate would require 49% more man hours per year for crop establishment.
- Higher production costs and reduced yields as a result of losing glyphosate would negatively impact commodity prices; consequently influencing food security, availability and the competitiveness of UK produce in a global market.

Glyphosate renewal process

EU legislation governing the regulation of pesticides dictates that the active substances present in these products must be assessed in terms of their safety for humans, animals and the environment at least once every decade. The review of the approval is necessary to take account of progress in science and technology and experience gained since the active substance was last reviewed.

The European Parliament does not have an official role in the reauthorisation process, this sits with the Commission. In November 2015 the European Food Safety Authority (EFSA) circulated its final assessment report to all Member States. Based on the final EFSA conclusion, the European Commission has prepared a Review Report and Regulation that proposes the re-approval of glyphosate to the Standing Committee for Food Chain and Animal Health (SCoFCAH). This committee includes representatives from relevant ministries of all member states and delivers its opinion by means of qualified majority voting

- A vote against the Commission’s current proposal sets a dangerous precedent of ignoring the scientific advice of the Commission’s own scientific advisory body EFSA.
- A vote against the Commission’s current proposal will only further politicise the issue around plant protection products putting European agriculture at a competitive disadvantage when compared with our international colleagues.
Glyphosate is a vital resource in modern agriculture. It can be attributed to reducing soil erosion by facilitating weed control in conservation tillage regimes and, as a wide spectrum herbicide, contributes to reduced soil compaction by limiting the number of herbicide applications. The loss of glyphosate has the potential to drive many producers from best practice of soil management, perhaps encouraging a return to annual ploughing or an increased number of shallower passes. Furthermore it would necessitate the increase use of non-selective herbicides, which would lead to poorer weed control.

British farmers have an exceptional level of good stewardship in using crop protection products through engagement with programmes such as the Voluntary Initiative, Campaign for the Farmed Environment and Catchment Sensitive Farming. Each farm is annually audited by Red Tractor to ensure standards in crop protection, grain storage are understood and applied correctly on each farm. This includes testing of crop sprayers and regular operator training, checking records and dedicated stores for keeping crop protection products. Farmers are also encouraged to complete Integrated Pest Management Plans to demonstrate due diligence and compliance with the Sustainable Use Directive.

As the number of active ingredients registered for use within the EU steadily decline and the plant protection toolbox narrows, herbicide resistance is a significant concern. Currently, there are no known examples of weed resistance to glyphosate within the UK. It is vital for UK producers to maintain and showcase the good stewardship which has prevented resistance developing thus far.

Glyphosate and Human Health

The studies from the International Agency for Research on Cancer (IARC) which have attracted recent attention do not assess risk of glyphosate being linked with cancer, and contradicts those of its parent organisation, the World Health Organisation (WHO) and the Food and Agriculture Organisation (FAO). Both of these organisations state glyphosate is ‘unlikely to present a public health concern or carcinogenic risk to humans.’

The European Food Safety Authority (EFSA) assessment of glyphosate in November 2015 concluded glyphosate is unlikely to pose a carcinogenic hazard to humans (see here for details). Despite its conclusions, the EFSA report has made several recommendations; including redefining acceptable exposure limits. EFSA’s conclusion will now be used to inform the European Commission in the approval process, the subsequent assessments of plant protection products by the Member States, and the revision of maximum residue levels in food by the EFSA.

Contamination

Glyphosate residues have been identified in food, such as bread, and have become a focal point for NGO’s advocating a ban on glyphosate application. Despite calls for a ban on glyphosate application, particularly as a pre-harvest desiccant, experience has shown by adhering to Good Agricultural Practice, any residues in the grain are well below those that would be expected by regulators, such as MRLs. Typically, glyphosate is found in less than 1% of processed water samples as approximately 95% of residues are removed via the simple processing stages of chlorination. Therefore, it is vital to showcase the exceptional PPP stewardship upheld by UK producers.