IGFA
THE IRISH GRAIN & FEED ASSOCIATION

Feeding the Food Chain

Impact of Russia's Invasion of Ukraine on the Feed Industry
MRLs and Supply Concerns
May 2022

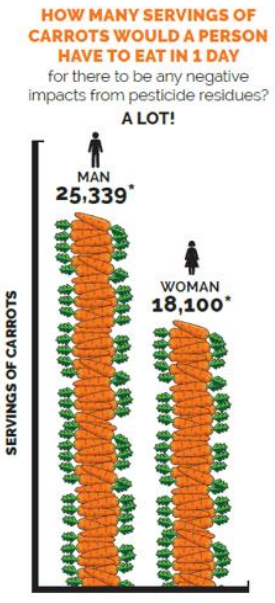
Background

Pesticides are chemicals used to protect crops against insects, weeds, fungi and other pests. Traces of pesticides can be left on crops following treatment and these traces are referred to as residues. The maximum amount of pesticide residue that is legally allowed to remain on a crop is referred to as a maximum residue limit (MRL). MRL's are often reported in parts per billion. This is a tiny amount - think one droplet of water in an Olympic-sized swimming pool or 3 seconds in a century. It is therefore important to keep in mind that simply detecting the presence of something does not mean it is a cause for concern.

In practice the main function of an MRL is as an indicator of the correct use of pesticides as specified on the label. MRL's are also used as trading standards for imported and exported food and when an EU MRL is set to facilitate trade, it is called and Import Tolerance (IT). When setting MRLs for pesticides, EFSA opinion will take account of particular characteristics of the pesticide that may allow it to transfer into the food chain.

When a residue is detected above the MRL, it does not automatically mean the level of residue found is a risk to people's health. MRLs are set at levels significantly below levels that would cause a problem. Where an MRL is exceeded, a consumer risk assessment is conducted by competent authorities using two key safety benchmark values which are set by the European Food Safety Authority (EFSA).

1. **Acceptable Daily Intake** (ADI), which is an estimate of the daily intake of the pesticide over a lifetime which would have no harmful or adverse toxicological effects. The ADI is set well below the level at which there would be a safety concern. This may be 100 times below the adverse effect level.
2. The **Acute Reference Dose** (ARfD), which is the amount of pesticide in food that can be ingested in one day without harmful or adverse toxicological effects.



In general, the levels of residues found on our food are very low. The Irish national pesticide monitoring programmes for 2019 showed that 99.3% of the 1,465 samples analysed were free of quantifiable residues or contained residues within the legally permitted levels. No residues were detected in 59.3% of the samples and another 40% of samples contained residues at levels which were in compliance with the EU regulation. Read more at the link to report.

Regulation

In the EU pesticides are approved under regulation (EC) 1107/2009 and MRLs for food and feed are set by regulation (EC) 396/2005. MRLs are set for raw agricultural products (e.g., oilseeds/oil fruits and whole cereals) and for processed products (e.g., vegetable oils). In the case of processed products, MRLs can be determined by applying a processing factor (reflecting the concentration or dilution caused by processing) to the MRL of the corresponding raw food commodity. There are no specific MRLs set for feed products (Section 12 of Annex 1, footnote 1) **but only** if it is clear

that the product is destined for feed only. This is due to a lack of resources at EU Commission level to do this work.

The footnote states

[1]MRLs do not apply to products or part of products that by their characteristics and nature are used exclusively as ingredients of animal feed, until separate MRLs are set in the specific category 1200000

The footnote provides some legal certainty to commercial operators when placing products which, by their characteristics and nature, are clearly destined for feed only on the market. Discussions on clarification on the footnote began as early as 2011 between the EU Commission and industry representatives FEFAC and COCERAL. At that time the EU Commission clarified that whole grain can be food as well as feed and therefore regulators must apply the food MRL even if the material is destined for feed. In 2016 the Commission further clarified that if an MRL breach was found in a feed material for an active ingredient which had been refused authorisation in the EU (i.e. banned in the EU) under the "cut-off criteria" for pesticides, the footnote would not apply unless a risk assessment was completed by the member state on the feed product.

Note -"Cut-off criteria" in essence means the approval process would not proceed further if the substance is Mutagenic, Carcinogenic, reproductive and endocrine disrupting.

Current Situation on the Footnote and Temporary MRLs

In light of the supply crisis we are now experiencing in the EU, the European feed chain represented by Coceral, FEFAC and Feediol has requested the Commission to make maximum use of the footnote 1. It has also requested that Article 18, paragraph 4 of the MRL Regulation (EC) 396/2005 is used. This article contains a provision to set/permit temporary MRLs under exceptional circumstances.

The Commission has indicated to member states that the only legal route is through setting of temporary MRLs by each member state. DAFM has, on request of the IGFA Feed Committee, reviewed the option of adopting temporary MRLs and are in a position to draft a Statutory Instrument (SI) to enact temporary MRLs. DAFM has also advised that based on completed risk assessments on our normal inclusion/feeding rates, the temporary MRLs as adopted by the Spanish and Portuguese authorities would be acceptable. These are outlined in the table below. DAFM has asked that importers provide them with more information with regard to the benefit of these MRLs and market information before they continue down this path or finalise and publish the SI.

Active	Current EU MRL (ppm)	Spain temp MRLs (ppm)	Portugal temp MRLs (ppm)
Chlorpyrifos methyl	0.01	0.02	0.02
Pirimiphos-methyl	0.5	1.11	3.0
Dichlorvos	0.01	0.02	0.02
Lambda-cyalothrin	0.02	0.04	0.05

In practise the implications of using these Temporary MRLs are as follows

A cargo arriving in Ireland testing in a commercial laboratory at or above 0.04 mg/kg (ppm) for Lambada – cyhalothrin must be alerted to the authorities. If the DAFM official results, with 50% margin of uncertainty applied, is less than or equal to 0.04 mg/kg, the cargo will be deemed compliant. Once the temporary MRL's S.I is published then no further risk assessment will be permitted and cargos testing above the published MRLs will be rejected.