Pesticide Harmonised Risk Indicators (HRI's) – Ireland

Sales of Pesticides

Pesticide sales data in Ireland is collected annually, transmitted to Eurostat and published on the Department of Agriculture, Food and the Marine (DAFM) website. This can be viewed here: Pesticide Statistics. This data demonstrates the volume of pesticides used in Ireland is relatively low, at 0.62kgs/ha UAA (2022 data). This level compares with the EU-27 average of 2.08 kgs/ha UAA (2020 data). It can also be compared to the OECD average of 0.93kgs/ha UAA (most recent data available 2016).

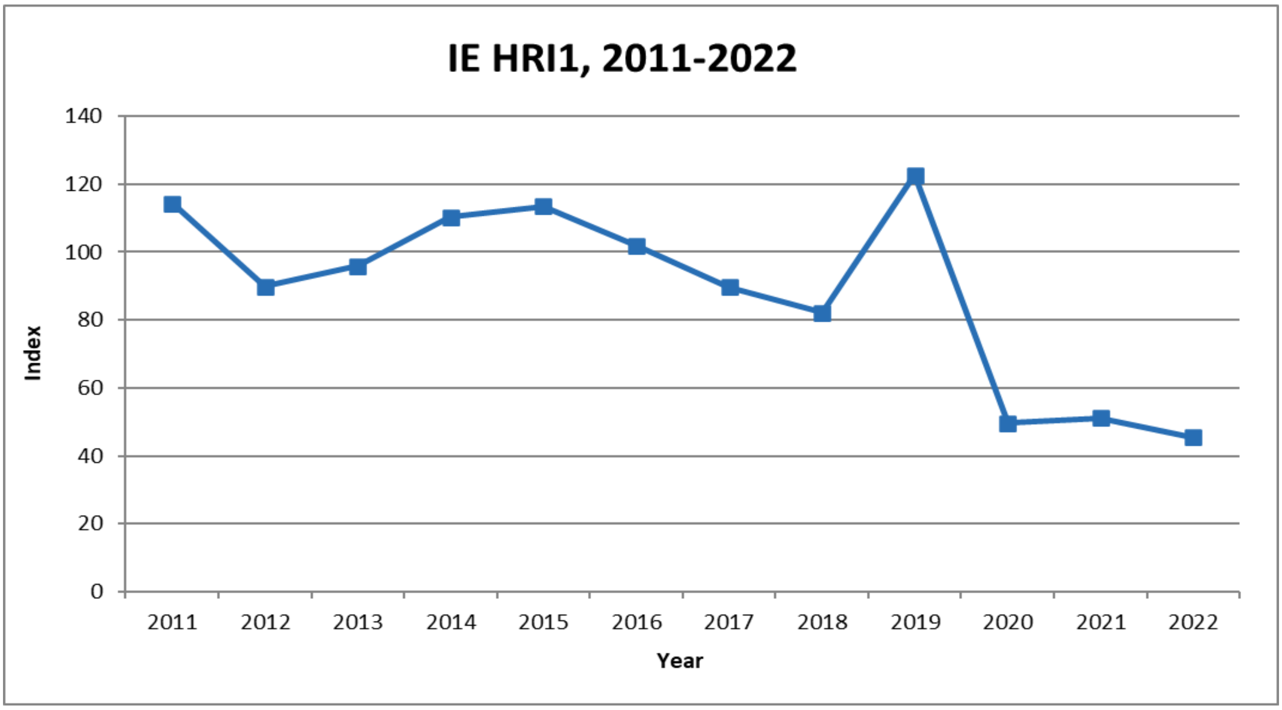
Harmonised Risk Indicators

In 2019, Commission Directive (EU) 2019/782 establishing Harmonised Risk Indicators (HRI's) was adopted with the intention to estimate the trends in risk from pesticide use. Further details on the establishment of these harmonised risk indicators can be found here: Hazard Risk Indicators

Harmonised Risk Indicator 1

HRI 1 is calculated using the quantities of pesticide active substances that are placed on the market, with a weighting applied that is based on the classification of the active substance, in accordance with Regulation EC No 1107/2009.

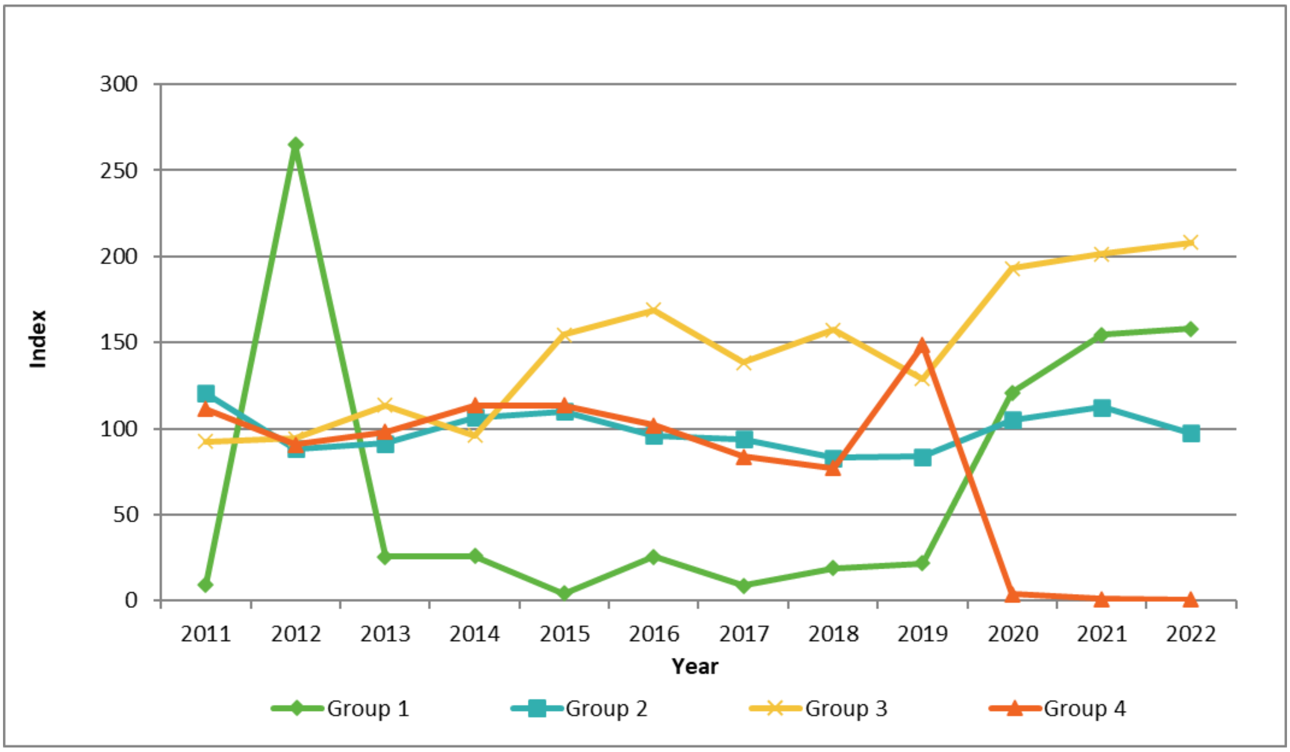
Figure 1. HRI 1 trendline for the years 2011 - 2022. Baseline = 100 (average for the period 2011 - 2013)



The above trendline correlates generally with the trend lines for groups 2, 3 and 4 as detailed below in Figure 2. The trendline is declining in 2016, 2017 and 2018 which reflects the overall reductions in quantities of pesticides placed on the market in these years and particularly the reductions in group 4 substances in 2017 and 2018. Some active substances were non-approved at EU level in 2020 and moved from Group 2 to Group 4, and as a result, were recategorised to Group 4. Therefore, there was an increase in sales in 2019 and decrease in sales in 2020, which continued up to 2022, after these active substances were removed from the market.

Figure 2 below shows the total sales of pesticides for active substances in groups 1-4 for the years 2011-2022. The average sales for the period 2011-2013 are established as the baseline and set at 100.

Figure 2. Sales of active substances by group during 2011-2021. Baseline = 100 (average for the period 2011 – 2013).



Group 1/green: low-risk active substances.

In 2012, there is a significant increase in sales, and further analysis of the data shows that this is solely attributable to increased sales of ferric phosphate. Similarly, group 1 sales increase in 2020 on a continued upward trend which is due to ferric phosphate sales.

Group 2/blue/turquoise: approved active substances not falling into any other category.

This group represents the majority of the overall weight (90% approximately) of active substances placed on the market in Ireland and has been relatively stable over the period with a downward trend for the years 2016, 2017 and 2018. It is noted that there was a further decrease in the sales of actives in group 2 in 2020 up to 2022.

Group 3/yellow: approved active substances which are candidates for substitution.

This group represents less than 10% of the overall weight of active substances placed on the market in Ireland. There has been an overall increase in this grouping in the period 2015-2018 compared to the period 2011-2014. There was a reduction in the weight of active placed on the market for this group in 2019. However, it increased in 2020 and continued this upward trend until 2022. This is attributable to an increase in sales of the active substance pendimethalin.

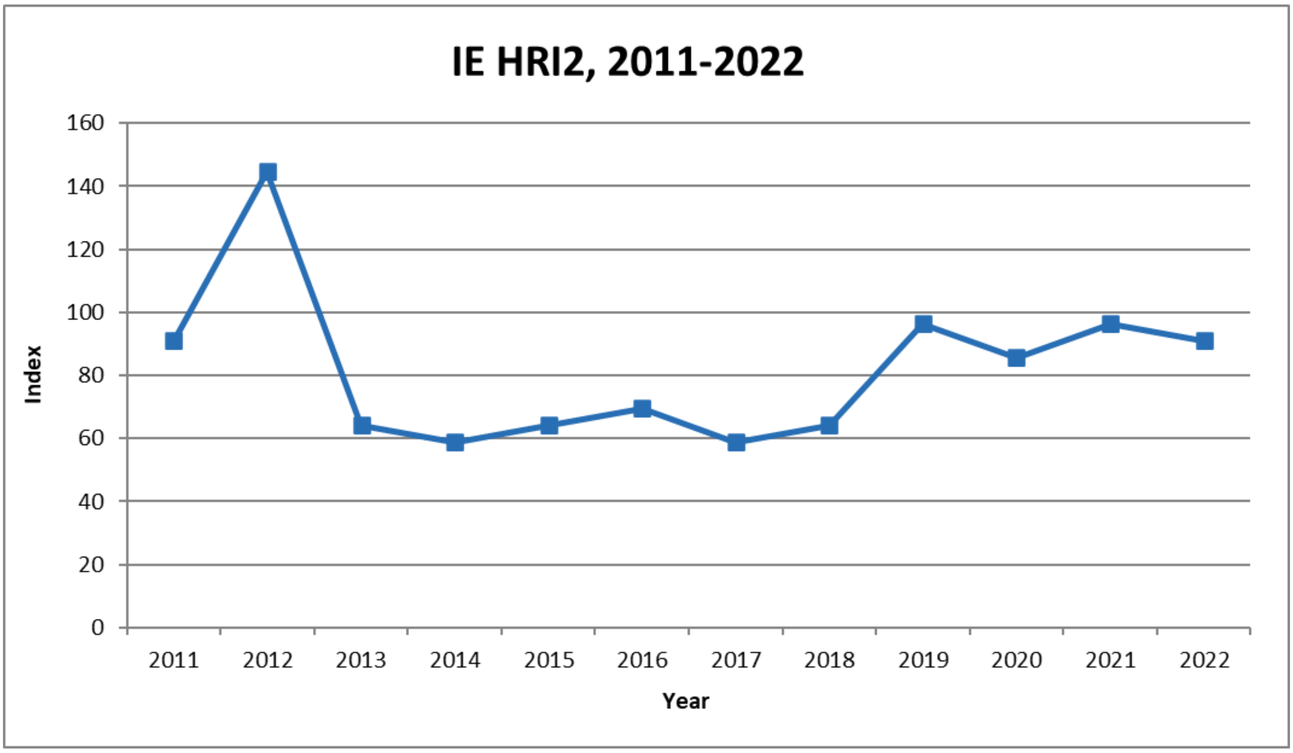
Group 4/orange: active substances which are not approved.

This line represents active substances which are not approved under Regulation (EC) 1107/2009 and therefore not listed in the Annex to Regulation (EU) 540/2011. However, it should be noted, that, at the time of their use, they were approved but were subsequently removed from the Annex. The decline observed in 2012 can be attributed to a reduction of the active substance isoproturon that was placed on the market. The drop in 2017 and 2018 is as result of the non-renewal of isoproturon in 2016 and non-renewal of linuron and iprodione in 2017. The trendline is similar from 2019 to 2022 where additional actives such as Chlorothalonil were not renewed.

Harmonised Risk Indicator 2

HRI 2 is calculated by combining the number of emergency authorisations granted in any one year in accordance with Article 53 of Regulation EC No 1107/2009. Emergency authorisations are only granted in specific circumstances for limited and controlled uses. Emergency authorisations are weighted according to the classification of the active substance and combined to calculate HRI 2. The trendline for HRI 2 for the year 2011 to 2022 is show below in Figure 3.

Figure 3. HRI 2 trendline for the years 2011-2022. Baseline=100 (average for the period 2011-2013).



In Ireland, the number of emergency authorisations granted annually is low and ranges from 2 to a maximum of 6 during the period 2011-2022.