



Simon King – J Wharton (Agriculture) Ltd and Anglian Water

Metaldehyde products have played a key role as part of an integrated approach to slug control for several years. There is uncertainty over the availability of metaldehyde-based slug pellets going forward following the recent ban, then the revocation of the ban in July 2019. While



Kelly Hewson-Fisher and Assistant Farm Manager of J Wharton (Agriculture) Ltd, Simon King

metaldehyde remains available, farmers remain acutely aware of the need to use these products judiciously and to ensure their use has minimal impact on the environment.

The Metaldehyde Stewardship Group recommends that farmers adhere to stewardship guidelines to help protect drinking water sources. Enhanced guidelines were brought in, in 2017, to further protect small mammals and birds. Uptake of and engagement with these enhanced guidelines has been high and initial observations suggest that less metaldehyde was used in autumn 2017 and 2018. It is important that farmers continue to observe the metaldehyde stewardship recommendations.

forced on farmers, affecting individual farm businesses and the industry as a whole. However, because the use of metaldehyde came under closer scrutiny, it was important for farms to find alternative solutions to slug control.

The Great Eau is the catchment where J Wharton (Agriculture) Ltd is situated and where Anglian Water undertook the first year of the Slug it Out trial in 2017-2018. The Great Eau catchment feeds into the Louth Canal and water is then abstracted from the Louth Canal, held in Covenham reservoir and treated at the Covenham WTW before being put into domestic water supply.



Slug it Out

Metaldehyde, the active ingredient in some slug pellets, is difficult to remove at water treatment works. Anglian Water have been working with farmers on a campaign called 'Slug it Out', which incentivised farmers to stop using metaldehyde and look at the alternative slug control measures available. These alternative measures include using cultivations to reduce slug egg numbers and adult slug numbers and using slug pellets with an alternative active ingredient, ferric phosphate. It is unlikely that metaldehyde is a human health issue, but the regulatory level of metaldehyde stipulated by the European Union's Water Framework Directive is at 0.1 micrograms per litre (µg/l) in treated water. Failing to reduce metaldehyde levels in water could have resulted in additional regulation being

In order for the campaign to go ahead, every farmer in the catchment had to sign up and agree not to use metaldehyde for one season.

The financial incentivisation made to farmers was on the basis of them not using slug pellets with the active ingredient metaldehyde. Farmers were given a hosting fee at the beginning as a "thank you" for their time during the course of the campaign. A water quality bonus was offered if the water quality at the end of the season did not exceed 0.1 micrograms per litre, and in this catchment, it didn't. Kelly Hewson-Fisher, catchment adviser with Anglian Water, says that building a relationship with farmers and having individual credibility contributed massively to the success of the project in this particular catchment. However, she says with the limited resources and Lincolnshire being such a big area, it can be hard for her to get round to all farms and events.

Kelly says that there were 'definitely questions' from farmers using ferric phosphate to begin with and some farmers were reluctant to sign up initially, with concerns that ferric phosphate was not as effective at controlling slugs as metaldehyde. However, as many farmers started signing up to the campaign, others followed and the campaign saw all 92 farmers in the catchment sign up.

The loss of actives may seem like a positive thing to a water company, but Kelly does not agree. "If the agricultural industry only has a couple of actives and everyone is using them, there is more risk of those few actives being detected in our water sources. The more actives the industry has, the more choice farmers have and risk could decrease although with only small quantities of active being required to breach the 0.1µg/l drinking water standard, everyone must do what they can to prevent pesticides from reaching water sources". The Slug it Out campaign in this catchment was carried out for one year to see if Kelly could get all farmers on board, as this was the largest area Anglian Water had



Cover Cropping

J Wharton (Agriculture) Ltd also carries out other IPM practices, including cover cropping and direct drilling. This cover cropping has also been of benefit to the water company, as demonstrated in a trial that looked at nitrate losses on the farm. It had a lot of boreholes, groundwater sources and was high in nitrate levels. The farm looked at what mitigation measures they could put in and established that cover cropping was the most efficient. Cover crops have a great ability to scavenge nutrients and Water Company sampling showed reduced nitrate losses within cover crop trial plots.

In 2017, Anglian Water carried out a cover crop field trial in North East Lincolnshire. The trial included a number of large strips/plots across the field. One strip slightly cultivated, then allowed weeds to grow; one strip that had stubble leftover from the previous crop and then three different mixes were drilled (oats with mustard, radish with oats and a 10 seed mix). Porous pots were installed into the soil underneath all of the strips to allow the capture of nitrate and see which strip would reduce nitrate losses the most. It was found that, the stubble strip lost 90kg of nitrate/ha, which reduced to 10kg N/ha on the 10 seed mix and even the weeds were able to save losses of 30-40kg N/ha (see graph below for cover crop trial results).

worked in, and to ensure that bill payers' money was being used in the right way. All farmers within the catchment were keen for this to continue into a second year, but because of cost the campaign had to be revised. The campaign now focuses on engagement with the farmers. By producing regular newsletters on catchment news and water quality information and by organising a couple of key events with key speakers each year, Kelly can continue to work with the farmers and maintain the relationship she has developed.

Kelly believes that even without the financial incentive, farmers will still carry on using ferric phosphate as they have been made aware of the issues with metaldehyde if it gets into water and have realised there are other effective products out there and have now understood how ferric phosphate works and the benefit of using ferric phosphate; including a reduced number of applications due to its ability to withstand weather conditions. Assistant farm manager Simon King says, "Continuing the use of ferric phosphate was for the environmental benefits. As an alternative option is available, it should be used."

POLICY ASKS

- Make it practical 'on the ground'. Bridge that gap between research and what occurs in reality
- Disseminate the information well; make sure everyone is speaking from the same hymn sheet
- Clear messages – we all operate better when messages are simple and clear.

FOR FURTHER INFORMATION:

<https://www.getpelletwise.co.uk/home/integrated-pest-management/>

[working with farmers](#)

'Slug it Out'

<https://www.agricology.co.uk/resources/integrated-slug-control>

“Farmers want to do the right thing. Peers can provide proof of concept and there will always be a champion farm that pushes the boundaries, tries new things, finds the pitfalls and shows other people.”