



# Effective Slug Control #2



## What is the problem?

Water destined for drinking water must adhere to the drinking water standards which say that no individual pesticide will exceed 0.1µg/l (0.1ppb). This is an extremely small amount and can be equated to:

- 1 stem of hay in 111,000 bales
- 1 grain of wheat in 390 tonnes
- 1 second in 320 years
- 1p in £100million

## What is the Issue?

Anglian Water sees levels of metaldehyde in raw waters (used to abstract from) which exceed the drinking water standard of 0.1µg/l (ppb).

The problem is that there is no effective treatment to remove metaldehyde and therefore whilst in the Autumn of 2019 over 300mm of rain fell in Lincolnshire, Anglian Water were not able to take advantage of this, and store this water in reservoirs due to the high levels of metaldehyde in the Rivers. A hugely frustrating time for both industries.

However, water companies and the agricultural sector can work together on this challenge. Ferric Phosphate is an alternative pesticide, **BUT** does it work? Do you have to use slug pellets at all – can cultural controls work to reduce slug numbers and therefore crop damage?

## Background

In Autumn 2015, Kelly Hewson-Fisher, Catchment Advisor with Anglian Water conducted a field scale trial in winter oilseed rape looking at slug control.

The trial consisted of 3 farmers/fields each using a different slug control; metaldehyde based slug pellets, ferric phosphate based slug pellets and cultural controls only.

## The Trial

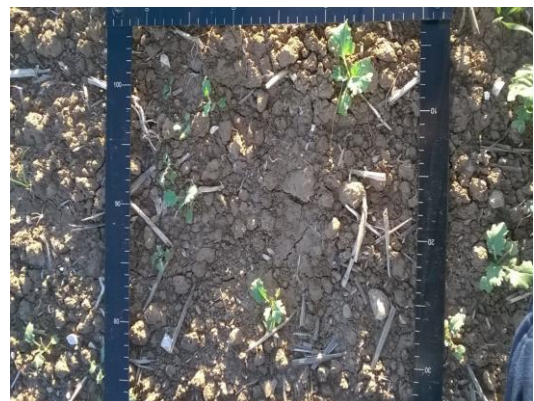


Oilseed rape was drilled in all three fields between the 23<sup>rd</sup> and 28<sup>th</sup> August 2015.

The cultural control field was drilled on the 28<sup>th</sup> August, the variety was Nikita. The field was previously winter wheat and the straw had been bailed and carted off the field.

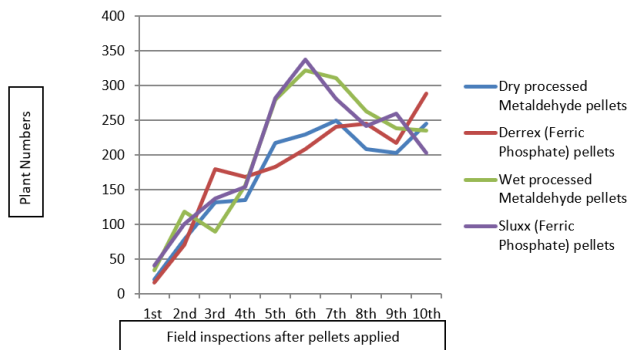
The field had a number of operations undertaken, it was disced, sumo subsoiled to 15", pressed twice before being drilled and then rolled twice.

Slug trapping was undertaken and results made available to the farmer and the agronomist. Cultivations and product decisions were made at their call. 10 x 1m<sup>2</sup> inspection plots were assessed at regular intervals across the field, assessing the number of plants, the number and intensity of plant damage, the number of pellets visible and the integrity of the pellets.



## Trial Results

The graph below shows both active control slug numbers. In any trial there will be small differences in numbers due to the fact that no two patches in a field are the same. Farmers and agronomists involved in these trials felt that the efficacy of Ferric Phosphate has been proven.



The field which did not use any slug pellets did not do so for the whole season and plant numbers were comparable with those in the other 2 fields. The farmer says “farming in a catchment where I know water is used to supply drinking water I have not used slug pellets for many years. I know there are Ferric Phosphate pellets out there but I try to create a good consolidated seedbed to deter the movement of the slugs which allows the plant to get away”. “Having worked with Kelly over the years, I am now more aware of the problems pesticides can cause for Anglian Water and it’s great to see how we can all work together to find solutions”.

## For further information:



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More information about Anglian Water’s work in catchment to improve the quality of our drinking water can be found at

<http://www.anglianwater.co.uk/environment/our-commitment/our-plans/catchment-management.aspx>

Twitter: @AWCoastCountry

## IPM and Slug Control

Many of the measures listed below, are well known and used to some degree on the farm;

- Creating good seedbed conditions to reduce spaces between soil aggregates that slugs will move through
- Rolling reduces the chance for slugs to move below the soil surface
- Delayed drilling for blackgrass control is a positive for slug control. It provides a wider window for cultural slug control measures
- Drills that press at an angle will seal the seed slot and reduce seed hollowing by slugs
- With OSR it may be a quick turnaround therefore this requires prompt and active care. Look at N in furrow and early control
- Increasing beetle numbers. The trial conducted showed an increase in beetle numbers in the cultural control, 29 compared to 19 and 13



*Carabid Beetles. Source: AHDB*

Steve Ellis, Entomologist, Manager Pest Evaluation Services, ADAS says “Suffice to say we think rape can withstand considerable loss of green leaf area and there is also a suggestion that wheat can lose quite a few plants and still reach potential yield”.

For further information on slug control visit

<https://ahdb.org.uk/slugs>



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Come rain or shine  
Find out more at  
[AnglianWater.co.uk/farming](http://AnglianWater.co.uk/farming)

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