

Slug it Out Trial A Success



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**.

Metaldehyde, the active in some **slug pellets**, is **not treated by the normal water treatment work processes** and therefore is an issue if this gets into our regions rivers and streams.

What did we do?

In 2015, Anglian Water began Slug it Out (SiO) which is the **UK's largest catchment scale trial** studying the practical implications, limitations and quantifiable benefits of 100% metaldehyde free catchments.

The **core tenet of the approach** is that regulatory compliant water (individual pesticide level below 0.1µg/l) can be achieved with less than complete exclusion of metaldehyde within a catchment.

SiO ran in 7 reservoir catchments and 1 pumped catchment covering **23,500ha of Arable land** and 213 holdings (Figure 1).

The SiO trial follows the **cropping season**, from mid July to the following June with SiO 2019/20 running between 1st July 2019 and 30th June 2020.

In the SiO catchments farmers were **paid to not use metaldehyde to control slugs** but were free to use another other slug control methods available to them. The payment structure of SiO is shown below.

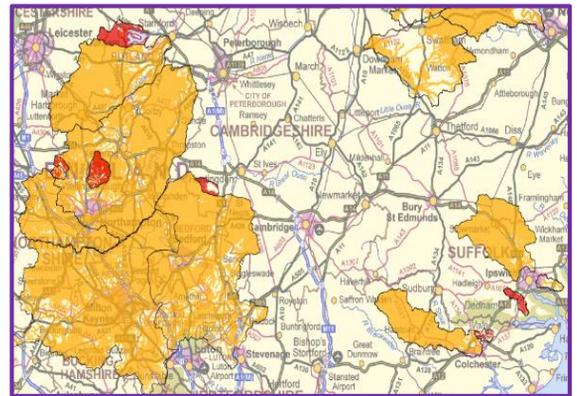
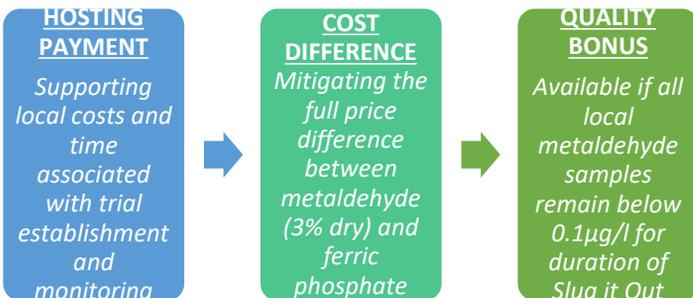


Figure 1 – Red areas denote the SiO trial areas.

The trial area consists of the natural catchments surrounding the reservoirs of:

- Pitsford
- Hollowell
- Ravensthorpe
- Grafham
- Rutland
- Alton
- Ardleigh

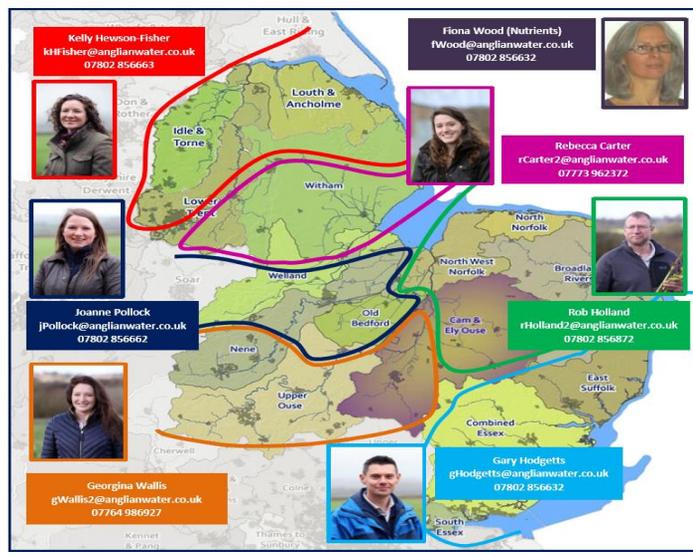
Modelling highlighted the **red** areas as high priority and being the land in the natural catchment where water naturally drains to the reservoir and the **orange** area is the wider catchment which will still impact water quality.

A trial was also run in the Covenham 1 catchment, South of Louth, Lincolnshire. The trial ran for 1 year (2017-18) and farmer engagement has continued.

How was the trial a success?

The SiO trial was successful as it led to:

- A **significant reduction in metaldehyde** levels in all natural catchments
- **No metaldehyde exceedances** being recorded in the five year SiO period in the **Grafham, Hollowell and Ravensthorpe Catchments** or during the **one year trial in the pumped Covenham 1 catchment**
- An **average of ~70% reduction in the number of metaldehyde exceedances** seen in these catchments compared to the average number of metaldehyde exceedances before the SiO scheme was introduced
- Farmers used cultural controls or ferric phosphate to control slugs on land outside of the SiO scheme, thus reducing the overall metaldehyde burden from agriculture entering our raw waters
- Developing **working relationships** with the farmers in the SiO catchments was vital to the trial success. **7 local Catchment Advisors** worked with the farmers and landowners in their catchments to develop these relationships via 1:1 visits, on farm trials, events, newsletters, phone calls and soil health sampling



For more information about catchment management please contact:

catchmentmanagement@anglianwater.co.uk or visit our website.

Key learnings from the trial

We learned a lot from doing the SiO trial which we will take forward in further farmer engagement.

- The importance of **positive and consistent communication between Catchment Advisor and farmers** within the catchment – supported by local data is vitally important to success
- Engagement with **local agronomists and other agricultural stakeholders** who help disseminate and validate messages while strengthening the **building trust of farmers is vital**
- **Providing farmers the financial backing to try something new** can lead to **positive changes after the payment ends or in areas where the payment does not apply** – for example some changes and new ways of thinking benefit the farm business resilience anyway
- **Smaller scale users of pesticides can be contributing to the catchment load** (depending upon their level of connectivity) thus there is a need to further engage with the amenity, equine and garden sectors.

All farmers in the SiO catchments received a drip tray to capture any spills or drips when filling the sprayer and cab stickers with key numbers on in case of a pesticide spill / emergency.



Overall, we are very proud of the success of the SiO trial.

Its success is down to the farmers willingness to participate and try something new, the agronomists who helped us make contacts and to our team of dedicated Catchment Advisors.



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Come rain or shine
Find out more at
AnglianWater.co.uk/farming

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