

# OPEN SESAME™



*Clayton Hall Farm's Biogas Site*

## Opens up otherwise “indigestible” fibres

Clayton Hall Farm's new product is a biological additive which promotes the growth of cellulose-digesting bacteria. This allows for much more efficient digestion of straw, grass, rye and maize.

- Trials have increased gas yield by c. 33% - this equates to 25% less feedstock – and 25% less digestate
  - No capital costs, and so is easy to trial and has minimal effect on feeding routine or workload
  - Increase gas yields from feedstock you already use
  - Option to increase output or decrease feedstock usage
- Reduced need for expensive and time-consuming pre-treatments
  - The same trials demonstrated half the time required to produce the same gas, allowing for capital costs to be reduced or throughput increased
  - Increased sustainability of AD by allowing use of feedstock such as straw
  - Quicker process offers less wear and tear per KWE
  - Consultancy offered, but system can be managed for maximum benefits
  - Smooths digestate, and thus eases post-digestion treatment

Easily take your AD plant to the next generation.

We provide personalised dosage rates and bespoke consultancy advice for our product.

Please contact us for a quote and estimated benefits.

 [@claytonhallfarm](https://twitter.com/claytonhallfarm)

[Clayton Hall Farm Biogas Products Ltd.](https://www.claytonhallfarm.co.uk)

Clayton West, Huddersfield, West Yorkshire HD8 9QE, United Kingdom

+44 1484

862387 | [neil@claytonhallfarm.co.uk](mailto:neil@claytonhallfarm.co.uk) | [www.claytonhallfarm.co.uk](https://www.claytonhallfarm.co.uk)

## Biorenewables Development Centre Testing Report

### Biomethane potential analysis

Figure 1 illustrates the biogas output comparing the feedstock with and without the addition of the bugs. The results show that the addition of the bugs has a beneficial effect on gas output from early in the test up to day nine. The most dramatic increase is seen after day nine, which is the point of the second addition of feedstock. There is a rapid rise in the gas output from day nine up to day 20 at which point the rate slows down.

In the sample without bugs, from day nine onwards there is a steady increase in gas output which is slower than with the addition of bugs up to day 20. At this point the rate for the sample without the bugs would appear to be slightly ahead of the sample with bugs and is closing the gap in cumulative gas produced. However, the sample without bugs does not catch up throughout the experiment and, in fact, at day 19 the plus bugs samples had reached a higher overall gas volume than the minus bugs sample reached by the end of the experiment (day 38).

As the test reaches the end the sample without the bugs begins to tail off, whereas the sample with bugs still continues to produce gas.

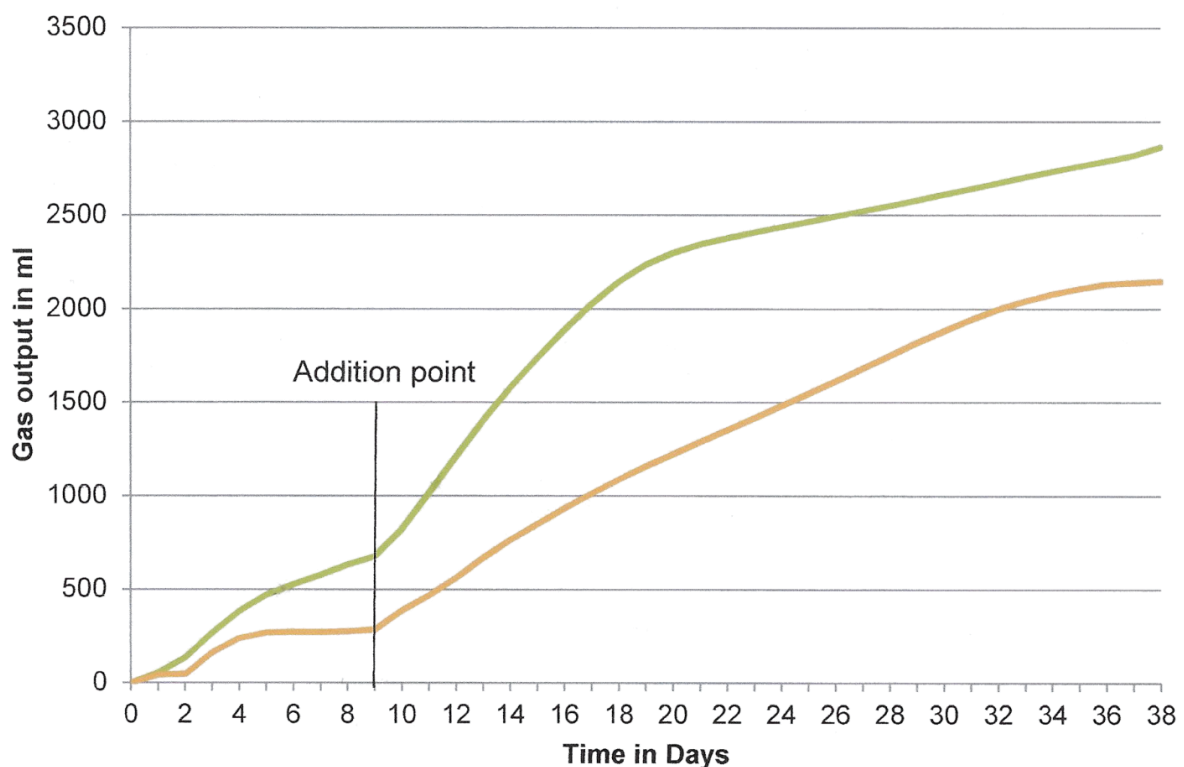


Figure 1. Comparison of digester feedstock gas production **with Open Sesame** and **without**