



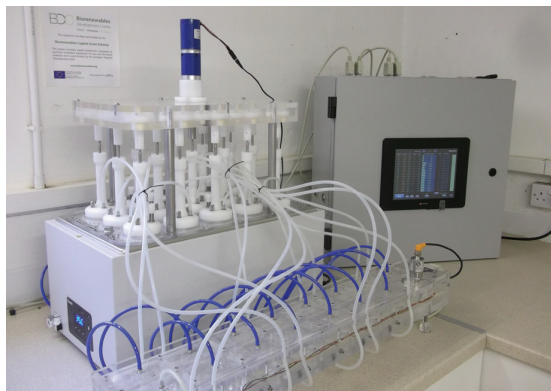
Feedstock analysis for
anaerobic digestion
productivity



NRM is the UK's largest provider of independent analysis to the renewables sector. We measure the suitability of feedstock for biogas and biomethane potential to improve productivity and profitability in AD plants.

NRM is one of only two laboratories in the UK approved to test to PAS110 digestate quality specification. Our UKAS certified analytical services are unrivalled. We offer a customer focused, fast turnaround service for:

- Feedstock suitability analysis ranging from basic characterisation to microbial inhibition
- Biomethane Potential (BMP) Bench scale analysis with over 20 baths in dedicated lab
- Residual Biogas Potential (RBP) 28 day test with optional VFA
- PAS110 (assessing nutrient, PTEs, contaminants, and pathogens), ADQP full assessment, and available without RBP
- Process analysis, covering FOS/TAC, VFA speciation, nitrogen, PTEs, sulphur, and more
- E. coli & Salmonella pathogen analysis for ABPR regulations.



Why test the suitability of feedstock?

Anaerobic digestion (AD) plants can use a range of organic material known as feedstocks. UK AD plants will utilise either waste derived & segregated waste food, energy crops or agri waste to produce biogas. These can include any biodegradable animal matter, food and drink waste, processing residues, agricultural residues, crops, or sewage sludge. In order to optimise the AD process, producers can assess the biogas potential of multiple feedstocks. This allows informed commercial decisions to maximise revenue.



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Theoretical biogas

This analysis looks at the volume of biogas the feedstock will hypothetically generate based on the nutrient content and a series of accepted conversions. Samples are tested for crude fibre, crude protein, crude fat (OAH/Oil B), ash, and moisture.

With a turnaround time of 10 days, this is the most cost-effective solution.

BGP/BMP

Biogas Potential (BGP) and Biomethane Potential (BMP) analyses simulate the process in an AD reactor to give the volume of biogas produced over a 14, 28 or 40 day time period. A representative portion of the homogenised sample is used. The composition of the gas generated can also be determined, producing measurements for CO₂, H₂S and CH₄.

Bullet BMP

An NIR scan of the dried and ground feedstock is used to provide a prediction of its BMP and an assessment of microbial inhibition in the sample.

This option is rapid with a 5 working day turnaround. It is not suitable for liquid samples with low solids content or samples high in fat or oil, as these cannot be dried.

How to submit a sample for analysis

- Book our courier service in advance
- Samples should be provided as a **2l bottle of liquid** or **1kg of solids in a large grip seal bag** (suitable sample containers can be provided on request)
- Samples should be labelled and kept under cool conditions during transit
- Please provide paperwork to accompany the samples with your client code and the analysis option required
- If you do not wish the samples to be blended, please indicate this on the paperwork
- If samples are being submitted for additional analysis, please provide a second sub-sample. This will be analysed and reported separately.

Please contact us to discuss which analysis option is best for your requirements.

Contact us on 01344 886338
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