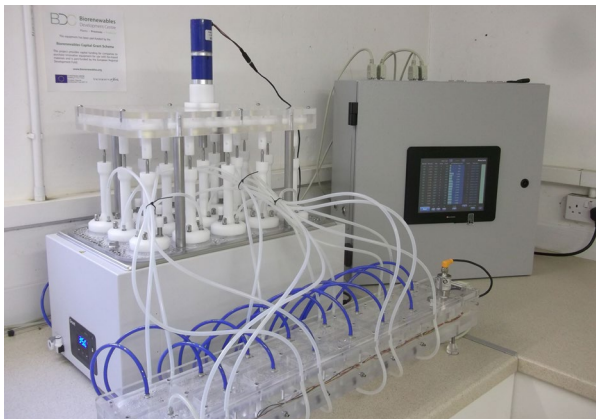




Why test the suitability of feedstock?

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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**Feedstock analysis for
anaerobic digestion**



www.cawood.co.uk



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. We offer a customer focused service for:

- Feedstock suitability analysis ranging from basic characterisation to microbial inhibition
- Biomethane Potential (BMP) analysis with over 40 baths in dedicated lab
- Residual Biogas Potential (RBP) 28 day test
- PAS110 (assessing nutrient, PTEs, contaminants, and pathogens), and Anaerobic Digestate Quality Protocol (ADQP) full assessment. Options are also available without RBP
- Process analysis, covering pH, ammonia, FOS/TAC ratio, volatile fatty acid (VFA) specification, potentially toxic elements (PTEs), trace elements, and more.

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 (Oil A/Oil B), ash, and moisture.

With a turnaround time of approximately 10-15 working days, this is the most cost-effective solution.

BMP

Biomethane Potential (BMP) analyses simulates 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 is also determined, producing measurements for CO_2 , H_2S and CH_4

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 on our website if required
- Ensure that sample volumes are sufficient for the testing that you require (suitable sample containers can be provided on request)
- Ensure samples are packaged and sealed appropriately and kept under cool conditions using a cool box or ice packs during transit
- Please provide paperwork to accompany the samples with your client code and the analysis option required
- All sample containers must be labelled
- Provide any purchase order numbers for us to include on your invoice.

Please contact us to discuss which analysis option is best for your requirements or for advice on how to submit other samples for analysis.

Contact us on 01344 886338
www.cawood.co.uk/nrm