

Feedstock Testing

Why do feedstock testing?

Running an anaerobic digester means making daily decisions about what to feed, how fast to push loading rates, and how much risk you can tolerate. Feedstock testing helps you make those decisions with data, before problems show up in gas production, foaming, or digestate quality.

When feedstocks don't work with your system, your digester can suffer from:

- Low biogas yield,
- Interruptions to operations,
- Barriers to digestate disposal, and
- A dead digester.

Why Azura Lab?

Azura's reports are focused on answers, not just numbers. We put our 35+ years of digester knowledge to work when providing test results and opportunities to maximize the efficiency of your digester and available feedstocks.



What does the test tell me?

What feedstock testing helps you decide:

- Which feedstocks you can safely accept, and which you should reject
- How aggressively you can increase loading rates
- What inhibitors are likely to limit performance
- Why biogas production may not match expectations
- How feedstocks are performing against industry norms, turning test results into practical insight for operating and commercial decisions.
- Whether a feedstock is a long-term asset or a short-term risk

When to conduct feedstock testing:

- Before accepting a new waste stream
- Before increasing organic loading rates
- When digestate disposal becomes difficult
- When BMP results don't match actual performance
- During feasibility studies for new processes

What is included?

Testing packages are tailored to individual needs. They may include:

- **Biogas Generation Estimates** - to measure energy revenue potential
- **Anaerobic Toxicity** - to assess downtime risk
- **Solids and Aggregate Organics** - for compliance and optimization
- **Macronutrients** - to optimize organic loading rate
- **Minerals and Anions** - to identify opportunities for increasing reliability
- **Metals** - for compliance and optimization

Feedstock Testing Process

Initial Discussion with Azura to:

- Understand the feedstock questions you need answered
- Review your options. Azura offers 4 levels of feedstock characterization packages.

Feedstock Variability Affects Testing Accuracy

Doing a BMP on your feedstock is like counting calories. **Total Digestible Energy (TDE)** testing counts your feedstock's calories and breaks down its macros.

- 1 Sample
- Results within 8 weeks from sample receipt
- For fuel value only

Decide the type of testing that suits your situation

- Multiple Samples
- Results within 3 weeks from sample receipt
- For fuel and nutritional value

Biomethane Potential (BMP)

Total Digestible Energy (TDE)

Sampling and Shipping Plan

Sampling and Shipping

Sample Receipt

Laboratory Testing

We require at least 2 kg (4 lbs) of fresh feedstock.

To get representative results we ask you **call before sending samples** so that we can discuss how samples are collected and shipped for best results.

Results Report and Discussion:

- Azura's tech team will put your results in context and provide detailed analysis for your specific situation.
- Reports will help you better understand your risks, opportunities, and benchmark your feedstock against industry averages.

Contact Azura today to discuss how feedstock testing can take your biogas project to the next level.