

Manure in the Innovation Center



PROCESS

Various types of manure are frequently tested in the FEECO Innovation Center. Because each source of manure varies considerably, testing is critical to the success of a process, no matter what the end goal is.

Depending on where the customer is in their process, and what they are looking to achieve, testing is generally carried out in four stages:

1. Feasibility/Proof of Concept - An initial non-witnessed batch testing phase in which the possibility of creating a product is explored.

2. Proof of Product - A more in-depth batch testing in which more time is spent determining whether a product can be made to desired specifications.

3. Proof of Process - A continuous testing phase that aims to establish the equipment setup and parameters required for continuous production of your specific material.

4. Process/Product Optimization - An in-depth study to optimize your specific material's characteristics and/or production parameters in an industrial setting.

Processes Commonly Tested:

- Granulation
- Nutrient Fortification
- Drying

Equipment Commonly Tested:

- Disc Pelletizer
- Pin Mixer
- Pug Mill/Paddle Mixer
- Granulation Drum
- Rotary Dryer
- Rotary Cooler
- Hammer Mill
- Pumping System (to pump binder into a disc pelletizer and pin mixer)

Commonly Tested Manure Materials:

- Chicken Manure
- Chicken Litter
- Hog Manure
- Dairy Manure

THE INNOVATION CENTER ADVANTAGE

Testing in the FEECO Innovation Center provides an invaluable opportunity to test in a controlled environment, allowing you to gain a familiarity with your material, while reducing the chance for unforeseen problems after process scale-up. Some of the many advantages to testing in the FEECO Innovation Center include:

Material Experience:

FEECO has been a pioneer in material processing since the 1950s, and has extensive knowledge around hundreds of materials and processing methods.

Customers gain a valuable familiarity with their material and its unique characteristics through testing in the Innovation Center.

Complete Process Knowledge:

FEECO is familiar with each aspect of a process, from agglomeration and kiln processing, to drying and cooling, allowing us to look at how the process will function as a whole, instead of each individual portion.

Process Scale-up:

Once the process configuration has been defined, FEECO can aid in process scale-up, as well as manufacturing the equipment needed to get the job done.

Automation & Data Collection:

FEECO is a Rockwell Automation partner, providing integrated process control solutions for our customers, both as a service in the Innovation Center, and as part of a system purchase. This provides customers with state-of-the-art data collection and reporting capabilities.

A variety of data points can be monitored, trended, and adjusted in real time, all from a single interface or mobile device.

Historical data is also available for returning customers, allowing you to pick up exactly where you left off.

Virtual Lab:

FEECO offers a unique Virtual Lab where customers can view their material being tested in real time, without having to come to the FEECO facility.

Commonly Targeted Material Characteristics:

- Crush Strength/Hardness
- Abrasion/Attrition
- Material Composition
- Bulk Density
- Flowability
- Moisture Content
- Green/Wet Strength
- Sieve Analysis
- Solubility

SCHEDULE A TEST

To discuss your testing needs with one of our process engineers and schedule a test, contact us today at:
[FEECO.com/contact](https://www.feeeco.com/contact)