

GreenFeed Pre-Experiment Checklist

General Experiment Information:

1. When is the planned start date for this trial? _____
2. When is the planned end date for this trial? _____
3. Which GreenFeed system(s) will be used on this trial?

4. Times of the day for sampling (All day/Morning/7am to 10am/etc):

5. Please attach photos of all (zero and span) calibration gas certificate labels. Please include ppm/% concentrations of each gas in the photos.
6. If known, what is the date that these calibration gases were first used by this/these GreenFeed system(s)?
7. Please attach at least two (2) photos of the alleyway and surroundings of each GreenFeed.
8. Internet connection used: Wi-Fi Ethernet Cellular Other: _____
9. Number of animals on trial (up to 40 per GreenFeed system): _____
10. Animal RFID tag type: Collar Ear Other: _____
11. Feed type used (size/consistency/photo): _____
12. Location of this trial: Barn Pasture Feedlot Other _____
13. If system(s) are being used in a contained area (such as a barn), does the area have any environmental control systems, such as a large ventilation fan, heater, etc:
 Fan Heater Other: _____
14. If equipped, will the system(s) be using a dual hopper: Yes No

15. Are the animals tagged with multiple RFID tags? ___ Yes ___ No
If animals are tagged with multiple RFID tags, please attach the cross-reference list.

16. Please provide a short description of trial (1 or 2 sentences)

17. Metrics interested in (CO₂, CH₄, O₂, Feed Intake, Visit Behavior, etc):

18. Email of person in charge of this trial: _____

19. Email of person performing calibrations: _____

20. Email of person performing CO₂ recoveries: _____

21. Email of person cleaning air filter: _____

22. Contact (Email) for emergencies: _____

Pre-Experiment To-Do List

- Please leave feeder(s) turned on for 48 hours (or more) before starting a trial so system sensors can be checked and software updates can be applied.
- Please perform a gas calibration at least once before trial begins and record factors:

Feeder ID	CH ₄ Factor	CO ₂ Factor	O ₂ Factor	H ₂ Factor	H ₂ S Factor

- Please perform a CO₂ recovery at least once before trial begins:

Feeder ID	Date Performed	Flow Factor	CO ₂ Factor	Overall % Error

- Please manually dispense 10 drops of feed from each hopper. Ensure that each time, feed is dispensed. If knowing the mass of each drop is important for your study, please weigh the total amount of feed dispensed and record it here:

Feeder ID	Date Performed	Total Mass of 10 Drops (grams)

Pre-Experiment QC Checklist (These items can be checked by C-Lock)

- RFID Reader is working
- Sample pump is working
- Fan is working
- Flow rate is sufficient/Flow meter is working
- Feed is dispensing properly
- Proximity sensor is working
- Temperature sensor is working
- Internet Connection is working

Required Maintenance Schedule Performed During Trial

Standard calibration should be performed at least once per week during trials. (If the system is equipped with an auto-calibration system, this can be set up automatically.)

Standard calibration should be performed immediately before each CO₂ recovery.

Perform a CO₂ recovery before your trial

Perform a CO₂ recovery after your trial

Perform a CO₂ recovery at least once per month during your trial

Ensure the feed bin is not empty at least once per week. Also make sure that pressing the feed drop button drops feed.

Clean and swap the primary air filter once per week - or sooner, depending on when your airflow gets too low (below 27L/s for GreenFeed, below 9L/s for GreenFeed for small animals)

Replace the secondary sample filter once per year of operation.