Dairy Training and Research Institute
UPLB College of Agriculture and Food Science

GreenFeed Control App Exercises

The Unit Number is 786.

1. Open the Control Feed APP  on your phone and connect to the GreenFeed:786. After connection is made, use the Fan Command to turn the Main Fan ON and Off. Record the Airflow from the Real Time Sensor Value Screen while the fan is **OFF** and again when the Fan is **ON.**
   OFF:……L/sec **ON:……L/sec**

2. Use the **Drop Feed** command to Drop a single Feed Drop.

3. Observe the **Head Proximity** reading from the Real Time Sensor Values. Record the Value**:……(raw).** Come closer to the GreenFeed unit and place your hand close to the proximity sensor. Observe the reading and record the Value**:…… (raw)**

4. Click anywhere in the Grey area below the other commands line to reveal the available sensors to plot. Select CO2. Allow to run and observe the plot of CO2 in Real time. Take a screen shot. Try plotting other sensors and observe.

5. Select **Other Commands.** Select **'Place the System into Sleep Mode'.** You should observe the main fan turn off**.** Wait about 30 seconds**.** Again, select **Other Commands.** Select **'Wake the system from Sleep Mode'**. You should hear the main fan turn on.

GreenFeed User Interface Exercises

Owners of GreenFeed units have their own unique user name and password.

As there will be no data available on GreenFeed Unit 786 for this exercise, we have kindly been granted permission by Ag Research NIAS to use their User Account for the purpose of this exercise. MANY THANKS TO THEM.

At the completion of this Workshop, I will work with the NIAS team to change their password and make sure all settings have been restored to their original values.

The User Name is**: agresearchnias** The password will be provided on the day.

The GreenFeed User Interface is accessed via the C-lock home page ***https://www.c-lockinc.com/***

The GreenFeed User interface is used to monitor GreenFeed units and set certain parameters, control system functions and review and download raw and processed data.

Exercises:

1. Open the User interface. Select from the available GreenFeed units (in this case there will be only 1 unit) 576. With the **GreenFeed** Tab selected, select **Configure** and locate the option for changing the **Mass of Food Drop**. What is this Value? ……..

2. With the **GreenFeed** Tab selected, select **Configure** and locate the option for **Default value for newly added Tags**. Enter the Values Observed Below:
   Max Drops:
   Drop Interval:
   Feed Period Duration:
   Max Feed Periods:

   From the above values, calculate the default Maximum Feeding Period time for a **NEW** animal Feeding Period = ……

3. With the **GreenFeed** Tab selected, select **Configure** and locate the option for: **Feeding Period will begin if Head Sensor is Above XXX.**
   If you were to change this figure to a smaller number, what would be the expected outcome?
   ……

4. With the **GreenFeed** Tab selected, select **Configure** and locate the option for: **Feeding Period will begin if Head Sensor is Above XXX.**
   If you were to change this figure to a larger number, what would be the expected outcome?
   ……

5. With the **Animals** Tab selected, select **Animals Statistics**, tabulate the cup drops for the period 01 May 2024 – 31 May 2024. Download this data to your computer.

6. With the **Animals** Tab selected, select **Feeding Schedule** enter the dates 01 May 2024 to 31 May 2024. Press GO. Observe the table. Look at the settings for an animal with a tag number ending in 64985. The Drop Dispense Interval of 30 secs. is ok. However, you would like the maximum total feed time per feeding period to be 3 Minutes? How would you achieve this? ……

Data Exercises – JOINT SESSION

1. Open the User interface. Select from the available GreenFeed units (in this case there will be only 1 unit) 576. With the **Data** Tab selected, select **View and Download Raw Data.** Enter the **Start Time** as **2024-05-06 18:00:00**. Select the **Duration** as **60 Minutes.** From the Dropdown select **Series 1 as CH4** and **Series 2 as CO2** click **Plot Data**. Try other combinations of parameters. Change the duration settings and times using the forward and backward arrows.

2. With the **Data** Tab selected, select **CO2 Recovery Tests** from the drop-down, select a date from Saved CO2 recoveries. Look at all the saved recoveries and see which recoveries are within the tolerance level of 8% of 100% recovery. If any are not within the tolerance level, can you suggest why.

3. With the **Data** Tab selected, select **Processed Data and Support Files.** Double click on the data file 2024-05-01_to_2024-05-31_for_fids_576_temp.xlsx. The file will download to your computer.

4. Select the Excel sheet called **events** and copy to a new workbook.

WE WILL NOW GO THROUGH A JOINT TUTORIAL AND LOOK AT WAYS TO SUMMARISE THIS DATA.