

Climate Smart
Agriculture Initiative
New Zealand



UC DAVIS
COLLEGE OF AGRICULTURAL
AND ENVIRONMENTAL SCIENCES



S E A M E O
SEARCHA



TRAINING ON QUALITY ASSURANCE FOR GREENFEED USERS IN THE REGION

4-6 February 2025 | SEARCHA & UPLB DTRI, Philippines

INFORMATION PACKET



Workshop Overview

The New Zealand Government's Climate Smart Agriculture Initiative (CSA) and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) welcome you to the **Training in Quality Assurance for GreenFeed Users in the Region**. This training workshop will be held at the SEARCA Headquarters and at the University of the Philippines Los Baños - Dairy Training and Research Institute (UPLB-DTRI) in Laguna, Philippines on 4-6 February 2025. It aims to train current and potential users in the practical skills needed to commission, operate and maintain GreenFeed units for livestock greenhouse gases (GHG) measurement. Participants will gain hands-on experience in all aspects of GreenFeed operation, from setup to experimental design and data analysis, focusing on the role of GreenFeed in animal methane research.

Learning Objectives

At the end of the training workshop, participants should be able to:

1. Have a high level of understanding of the GreenFeed technology
 - Learn what GreenFeed is and how it measures methane emissions from livestock
 - Gain skills to perform basic maintenance, calibration, and repairs on GreenFeed units
 - Learn to retrieve, analyze, and troubleshoot data collected by GreenFeed
2. Set up and operate GreenFeed units
 - Get hands-on experience in assembling, setting up, and operating GreenFeed units, including internet and power options
3. Design methane emission studies
 - Understand how to plan and design experiments using GreenFeed, including how many animals and visits are needed
 - Learn how to introduce and train animals to use the GreenFeed system for accurate data collection

This event is a joint activity of the Philippine and Vietnam Greenhouse Gas Measurement Hubs, through the support of the New Zealand Government’s Climate Smart Agriculture Initiative and the University of California, Davis.

Program of Activities

Day	Date	Time	Activities	Trainer/s	
0	03 Feb 2024	Flights – Arrival at NAIA in Manila Transport from Manila to Los Baños			
1	04 Feb 2024	8:30 – 8:45 a.m.	Registration <i>SEARCA SAS Room</i>	SEARCA	
		8:45 – 9:00 a.m.	Opening and Program Overview <i>SEARCA SAS Room</i>	SEARCA/UPLB Roger Hegarty	
		Module 1: GreenFeed Technology and Methane Measurement (SEARCA)			
		9:00 – 10:00 a.m.	<i>Lecture</i> 1.1 How GreenFeed fits into livestock GHG measurement methods 1.2 GreenFeed configuration and operation Comparison of emission measurement methods & hardware overview	Roger Hegarty	
		10:00 – 10:15 a.m.	<i>Health Break</i>		
		10:15 – 10:30 a.m.	<i>Travel to UPLB DTRI</i>		
		Module 2: Unpacking and Assembling GreenFeed Units (UPLB DTRI)			
		10:30 a.m. – 12:30 p.m.	<i>Practical 1</i> 2.1 Hands-on session for assembling GreenFeed	Graeme Bremner	
		12:30 – 1:00 p.m.	<i>Lunch</i>		
		1:00 – 3:30 p.m.	<i>Practical 1 (continued)</i> Hands-on session for assembling GreenFeed	Graeme Bremner	
3:30 – 4:00 p.m.	<i>Health Break</i>				
4:00 – 5:30 p.m.	<i>Practical 1 (continued)</i> Hands-on session for assembling GreenFeed	Graeme Bremner			
2	05 Feb 2025	8:30 – 9:00 a.m.	2.2 Communications (WiFi + SIM card) and setting up on screen	Graeme Bremner	

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Day	Date	Time	Activities	Trainer/s
		9:00 – 9:30 a.m.	2.3 App download and introduction	Graeme Bremner
		9:30 – 10:00 a.m.	2.4 App details	Graeme Bremner
		10:00 – 10:30 a.m.	<i>Practical 2</i> 2.5 App practice – cast to screen	Graeme Bremner
		10:30 – 11:00 a.m.	<i>Health Break</i>	
		11:00 – 11:30 a.m.	2.6 Power options	Graeme Bremner
		Module 3: System Setup, Tests, and Troubleshooting (UPLB DTRI)		
		11:30 a.m. – 12:00 nn	<i>Lecture</i> 3.1 Using the GreenFeed user interface - I	Graeme Bremner
		12:00 – 12:30 p.m.	<i>Lunch Break</i>	
		12:30 – 3:00 p.m.	<i>Practical 3</i> 3.2 Using the GreenFeed user interface - II with worked examples	Graeme Bremner
		3:00 – 3:30 p.m.	<i>Health Break</i>	
		3:30 – 4:00 p.m.	3.3 Gas recovery and auto-recovery system principles	Graeme Bremner & Roger Hegarty
		4:00 – 5:30 p.m.	<i>Practical 4</i> 3.4 CO ₂ recovery and calibration using GreenFeed units	Graeme Bremner
		Module 4: Data Access and Integrity (UPLB DTRI)		
		08:30 – 09:30 a.m.	<i>Lecture</i> 4.1 Download data and cup drops + pivot table summary	Graeme Bremner
		09:30 – 10:30 a.m.	<i>Practical 4</i> 4.2 Practical data download examples	Graeme Bremner
		10:30 - 11:00 a.m.	<i>Health Break</i>	
		Module 5: Experimental Design and Management (UPLBDTRI)		
		11:00 – 11:30 a.m.	<i>Lecture</i> 5.1 Experimental design and data collection 5.2 Number of samples and number of animals	Roger Hegarty
3	06 Feb 2025			

Day	Date	Time	Activities	Trainer/s
		Module 6: Managing Animals and GreenFeeds during Experiments (UPLB DTRI)		
		11:30 a.m. – 12:30 p.m.	<i>Practical 5</i> 6.1 Routine service tasks	Graeme Bremner
		12:30 – 1:00 p.m.	Lunch break + individuals do routine service hands-on	
		1:00 – 2:00 p.m.	6.2 Relocating and storing the GreenFeed Unit	Graeme Bremner
		2:00 – 5:00 p.m.	<i>Practical 6</i> 6.3 Animal adaptation and training	Graeme Bremner
		5:00	<i>Conclusion</i>	

Module Outline

Module 1: GreenFeed Technology and Methane Measurement

This module simply describes the array of methane measurement technologies available, where the GreenFeed system fits into that technological capability, and the basic components and operation of the GreenFeed system.

Module 2: Unpacking and Assembling GreenFeed Units

This is a hands-on assembly of the GreenFeed from its components as supplied by C-Lock. which will take most of the day.

Module 3: System Setup, Tests, and Troubleshooting

The GreenFeed operation is largely controlled by the GreenFeed User Interface and in this module we will explain much of what the interface offers and practice with how to use it for specific purposes.

Module 4: Data Access and Integrity

In this session we will learn how to use the interface (previous module) to download data and will show how to summarize that using MS Excel and pivot tables.

Module 5: Experimental Design and Management

We will discuss how to set up experiments using GreenFeed, setting up sample regimes, and analyzing the data.

Module 6: Managing Animals and GreenFeeds during Experiments

This covers routine maintenance, how to remove the chimney, and how to move and store the GreenFeed unit without damage.

We have compiled logistics and administrative information to guide you as you travel to the Philippines. This will help make your training experience both comfortable and enjoyable.

LOGISTICAL ARRANGEMENTS

Before and Upon Arrival in the Philippines

eTravel System

Secure an eTravel registration within 72 hours prior to your scheduled time of arrival in the Philippines by accessing this website: <https://etravel.gov.ph>. Enter the information needed and wait for your QR code to be generated. Take a screenshot or download your QR code before closing or exiting the eTravel website. You will be required to show the said QR code to an airline representative before boarding your flight. You may print your eTravel QR code as well.

The eTravel System is a digital single data collection platform for passengers arriving in and departing from the Philippines, which shall be utilized for border control, health surveillance, and economic data analysis. It is highly recommended to use eTravel with a good and stable internet connection. Registration is free of charge and will neither require nor collect any online payment.

If you have already registered in the eTravel before, then you may just update your details every time you travel (required categories stated under item 3). Passengers may update their status/e-Travel record under the “Edit Registration” tab of the e-Travel.

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Airport Transfer

Arriving at the Ninoy Aquino International Airport (NAIA) Terminal 1

Upon your arrival at the airport, please proceed to **Bay A11** and **Bay A12**, located just outside the exit doors of the NAIA Terminal 1 arrival lobby. Our driver will be waiting for you in this designated area, holding a SEARCA signboard for easy identification. Kindly note that you do NOT need to cross the street or proceed to the arrival extension area.

After meeting you, the driver will take you to the SEARCA Residence Hotel (SRH) in Los Baños, Laguna, where your accommodations have been arranged for the duration of the training. Please be advised that the travel time from the airport to SRH is approximately 2.5 hours, depending on traffic conditions. If you require a restroom break during the journey, please feel free to inform the driver.



Should you need immediate transport assistance, please contact Mr. Melour Enriquez, SEARCA Dispatcher, at +(63) 946-483-5726.

Name	ETA ¹ in Manila	Driver	Vehicle
Mr. Nguyen Van Hiep ²	3 Feb., 1:30 p.m.	Allan Rabulan +(63) 921-420-2722	Toyota Innova 210-0006
Mr. Dakalo Dashe Fanna Mr. Yonas Kejela Batiso	3 Feb., 9:30 p.m.	Allan Rabulan +(63) 921-420-2722	Toyota Innova 210-0006

Arriving at the Ninoy Aquino International Airport (NAIA) Terminal 3

Upon your arrival at the airport, please proceed to the **International Organizations (IO) Desk**, which is located on the left side of the arrival lobby when facing the exit doors. Our driver will meet you there, holding a SEARCA signboard for easy identification.

¹ Expected time of arrival

² Mr. Nguyen Van Hiep and Dr. Chu Manh Thang will be traveling together in the same car for the airport transfer.

Once you have been picked up, the driver will take you to the SEARCA Residence Hotel (SRH) in Los Baños, Laguna, where you will stay for the duration of the training. Please be advised that the travel time from the airport to SRH is approximately 2.5 hours, depending on traffic conditions. If you require a restroom break during the journey, please feel free to inform the driver.

Should you need immediate transport assistance, please contact Mr. Melour Enriquez, SEARCA Dispatcher, at +(63) 946-483-5726.

Name	ETA ³ in Manila	Driver	Vehicle
Dr. Mohammad Hemayet Hossain	2 Feb., 11:55 a.m.	Allan Rabulan +(63) 921-420-2722	Toyota Innova 210-0006
Dr. Chu Manh Thang ⁴	3 Feb., 1:00 p.m.	Allan Rabulan +(63) 921-420-2722	Toyota Innova 210-0006
Dr. Windi Al Zahra Ms. Iis Rosmayanti Dr. Annisa Rosmalia Mr. Sigit Puspito	3 Feb., 3:50 p.m.	Jun Corpuz +(63) 919-950-1332	Toyota Grandia Diplomatic
Dr. Sath Keo	3 Feb., 4:45 p.m.	Edward Raymundo +(63) 961-255-2082	Toyota Grandia 210-0005
Dr. Sukruthai Sommai Dr. Shimels Wassie	3 Feb., 6:25 p.m.	Jojo Aranzaso +(63) 908-865-1707	Honda Accord 210-0001

During Your Stay at Los Baños, Laguna

Accommodation

We have arranged your accommodation at the SEARCA Residence Hotel (SRH) in Los Baños, Laguna, from your arrival on 2 or 3 February up to your scheduled departure on 7 February. A single occupancy room is reserved for each participant. Upon arrival, please proceed to the SRH reception desk in the lobby to receive your room assignment. Kindly note that the SEARCA Headquarters, where the training will take place, is in a separate building from SRH.

The event organizers will cover accommodation for project-funded participants. Please refer to the invitation letter to confirm if your accommodation is included.

³ Expected time of arrival

⁴ Dr. Chu Manh Thang and Mr. Nguyen Van Hiep will be traveling together in the same car for the airport transfer.

For participants covering their accommodation expenses, the room rate is USD 52 per night.

Participants are also advised to bring a travel adapter for their electronic devices. In the Philippines, the standard voltage is 220 volts, and the standard frequency is 60 Hz.

Shared areas at the SRH are equipped with Wi-Fi access. Please inquire at the SRH reception desk for details on how to connect. SRH staff are available 24/7 to assist you with any needs.

The SRH can be contacted through the following:



+63 49 536-2236

+63 49 536-2276

+63 49 536-2396



srh_reservations@searca.org



Meals

We have arranged your dinner on 3 February at the SEARCA Residence Hotel (SRH). Plated dinner will be served from 6:00 - 8:00 p.m. For participants who will be arriving at a later time, a packed dinner will be prepared for your convenience. If needed, you may request the hotel staff to reheat your meal.

Additionally, a plated breakfast is included with your accommodation from 4-7 February and will be served at the SRH starting at 6:30 a.m. Lunch will be provided at the training venue in UPLB DTRI from 4-6 February.

For your dinners on 4–6 February, we encourage you to explore and enjoy the diverse cuisine available in Los Baños. The Grove and Raymundo areas, both within walking distance from SEARCA, offer a variety of restaurants and fast-food chains for you to experience. Project-funded participants will be provided with a modest dinner allowance, as indicated in the invitation letter.

Daily Attire

For your convenience and comfort during the training workshop, please consider the following attire recommendations:

Indoor Sessions

Smart casual attire is recommended for the lectures and discussions, which will primarily be held in an air-conditioned training venue. Since the temperature may feel uncomfortably cold for some, you are encouraged to bring a light jacket, cardigan, or shawl.

Outdoor Activities

The hands-on workshops will take place at an open farm facility where participants will need to walk on rough roads, which may become muddy if it rains. To prepare for this, you are advised to:

- Bring an extra pair of rubber shoes or shoe covers.
- Carry an umbrella for possible rain showers. But don't forget to pack your umbrella in your checked-in luggage. Umbrellas are not allowed on carry-on luggage.

We aim to make your experience productive and comfortable, so please plan your attire accordingly.

Getting Around

A shuttle service will be provided for participants each morning, departing from SEARCA Residence Hotel (SRH) to the training venue at 8:15 a.m. Please be at the SRH lobby during this time. In the afternoon, a shuttle will be available to return participants from the training venue to SRH.

For personal travel around the campus or outside the campus during free time, participants may use public transportation. Please note that the shuttle service is exclusively for training-related travel and will not extend beyond the campus area.

Training Kit

Your training kit will include the following items: a) identification card (ID), b) notebook, and c) pen. These will be provided to you upon registration on 4 February. For security purposes, please ensure that you wear your training ID when attending the training sessions and when moving around the venue.

House Rules

To ensure that the training workshop flows smoothly, please take note of the following:

- Please **BRING** your own laptop. You will need this during the lecture-discussions.
- Kindly set your phone in “vibrate” or “silent” mode while the training workshop is ongoing so as not to distract the trainers and the other participants as well.
- Pack your medicines and supplements.

No Smoking Policy

SEARCA and UPLB enforce strict no-smoking policy within the campus and all public areas. Participants are kindly requested to adhere to this ban on all premises and facilities to avoid penalties.

Before Departure in the Philippines

Accommodation

Upon checkout on 7 February, please return your key cards to the SRH reception desk and settle any outstanding bills (if any).

Airport Transfer

A vehicle for airport transfers will be provided based on your flight details. The schedule will be shared with you during the closing program on 6 February. Participants with similar or closely timed departures will share a vehicle in going to the airport. We kindly ask for your understanding as the driver may need to drop off other participants at their designated terminals. If you have alternative arrangements for your airport transfer, please inform us promptly so we can assist you accordingly.

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Contact Us

The SEARCA Training Management Team may be contacted via email:

- Dr. Nova Ramos – nea@searca.org
- Mr. Stoix Nebin Pascua – snsp@searca.org
- Ms. Rachelle Anne Mangaya – raem@searca.org

For urgent concerns, you may use the WhatsApp group specifically set up for this training. You may join the group clicking this [LINK](#) or scanning the QR code.

