

**Training for Agricultural Professionals in Guam and the Northern Mariana Islands on identification of prevalent fungal leaf pathogens and their diseases**

**University of Guam- Cooperative Extension Service  
University of Georgia  
University of the Philippines**

**Western Region SARE Professional Development Program**

“Advancing the skills of regional agriculture professionals in plant diagnostics”

**2021**

**August 11<sup>th</sup>, 12<sup>th</sup>, 13<sup>th</sup>, and 14<sup>th</sup>**

**Presenters:**

Dr. Robert Schlub, University of Guam, rlschlub@triton.uog.edu

Dr. Robert Kemerait, University of Georgia, kemerait@uga.edu

Dr. Marin Brewer, University of Georgia, mtbrewer@uga.edu

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Dr. Leilani Sumabat-Dacones, University of the Philippines, lsdacones@up.edu.ph

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**Location:**

Mangilao, Guam: University of Guam, Agriculture and Life Sciences Building

<b>Location-Date-Time</b>	<b>Activity</b>	<b>Presenter</b>
<b>Wed August 11: Workshop Begins. University of Guam, Agriculture Life Bldg, Rm 127</b>		
8:00, Rm 125	Registration: Donuts, fruit, coffee, juice	Dr. Schlub, Julia
8:20, Rm 127	Welcome & Introduction	Dr. Schlub, Dr. Yudin
8:45, Rm 127	Overview of workshop: classroom lectures, lab activities, youtube tutorial, and field trips	Dr. Schlub, Ben, Dr. Shelton, Alex
9:15, Rm 127	Pre-test	Dr. Schlub, Julia
9:30, Rm 127	Foliar pathogens, endophytes, and saprophytes; symptoms caused by foliar pathogens	Dr. Kemerait
10:00, Rm 125	BREAK	
10:15, Rm 127	Introduction to foliar pathogens: fungi and pseudofungi, anamorphic stage-	Dr. Brewer

	teleomorphic stage, key morphological terms	
11:00, Rm 127	Why correct ID is essential for control recommendations	Dr. Kemerait
11:30, Rm 127	Clues to ID in the field: patterns of infections, how to use a hand lens, common disease names	Dr. Kemerait
12:00	Group Photo	CNAS Media Team
12:05, Rm 125	Lunch (provided)	Julia
1:00, Rm 127	How to collect, process, and send foliar fungal samples off-island for ID.	Dr. Brewer
1:20, Rm 127	How to collect, process, and store field samples for on-site processing and ID.	Dr. Kemerait
1:40, Rm 124	Review: how to use dissecting and compound microscopes, how to make a moisture chamber, preparing wet mounts. Introduction to walking tour around campus.	Ben
2:15, Rm 125	BREAK	
2:30, Rm 124	(Report to lab after break) Walking tour of campus and demonstration gardens, sample collection	Ben Deloso, assisted by Alex Chingyan
3:15, Rm 124	Return to Lab Examine and process samples	Ben, assisted by others
4:00, Rm 125	Welcome, get-to-gather with Agriculture faculty	Dr. Schlub, Dr. Yudin
4:30	Depart for Hotel	Alex, Julia
<b>Thurs. Aug. 12: Workshop, Second Day. University of Guam, Agriculture Life Bldg, Rm 124</b>		
7:45, Rm 125	Donuts, fruit, coffee, juice	Dr. Schlub, Ben
8:00, Rm 127	How to create a youtube tutorial	Dr. Shelton
9:00, Rm 127	Begin review of workshop materials: simplistic key, fact sheets, Index of Plant Diseases in Guam, vegetable guides, and Diseases of Cultivated Crops in Pacific Island Countries.	Dr. Schlub, assisted by others
9:30, Rm 127	Life Cycle & ID of Colletotrichum and related fungi	Dr. Brewer
10:00, Rm 125	BREAK	
10:15, Rm 127	Life Cycle & ID of Cercospora, Corynespora, and related fungi	Dr. Sumabat
11:00, Rm 124	Open Lab: Examination of lab samples (Corynespora, Colletotrichum, and Cercospora), examination of collected samples, preparing wet mounts	Ben, assisted by others
12:00, Rm 125	Lunch (provided)	Julia
1:00, Rm 124	Return to Lab, depart for Field trip <ul style="list-style-type: none"> <li>• Watson's Farm (Ken)</li> <li>• John Mesa's Farm</li> </ul> Collect samples and record information. *water and health bars will be provided	Alex, assisted by others

4:00, Rm 124	Return to Lab, Store samples	Ben	
4:30	Depart for Hotel	Alex	
<b>Fri. Aug. 13, Workshop, Third Day. University of Guam, Agriculture Life Bldg, Rm 124</b>			
7:45, Rm 125	Donuts, fruit, coffee, juice	Dr. Schlub, Ben	
8:00, Rm 124	Depart for field trip <ul style="list-style-type: none"> <li>• UOG Yigo Station (Jessica)</li> <li>• Ernie's Farm</li> </ul> Collect samples and record information. *water and health bars will be provided	Alex, assisted by others	
11:00, Rm 124	Return to Lab, discuss and examine field samples.	Ben, assisted by Dr. Schlub	
12:00, Rm 125	Lunch (provided)	Julia	
1:00, Rm 127	Molecular tools in fungal detection	Dr. Sumabat	
2:00, Rm 127	Open Lab	Ben, assisted by others	
4:00, Rm 124	Prepare for public diagnostic clinic.	Dr. Kemerait, Dr. Brewer, Dr. Schlub	
4:30	Depart for Hotel	Alex, Julia	
<b>Sat. Aug. 14, Workshop, Final Day, University of Guam, Agriculture Life Bldg, Rm 124</b>			
7:45, Rm 124	Sign in	Julia, Dr. Schlub	
8:00, Rm 124	Review/ final questions on youtube tutorial	Dr. Shelton	
8:30, Rm 124	Review and discussion on diagnostics workshop and preparation for Trainee-hosted diagnostic clinic	Dr. Schlub, assisted by others	
9:00, Rm 124	Trainee-hosted diagnostic clinic at UOG Life Science building room 124	Dr. Schlub, assisted by others	
<b>Trainee-hosted diagnostic clinic</b>			
	9:00 am	Sign in, welcome, pre-test	Julia, Dr. Schlub
	9:15 am	Presentation: how to identify Guam's common fungal leaf diseases	Dr. Schlub
	9:30 am	Walking tour of campus, collect disease samples	Ben, assisted by others
	10:00 am	Return to lab, examine samples	Agricultural professionals, assisted by others
	10:50 am	Post-test, workshop evaluation	Dr. Schlub, Julia
	11:00 am	Closing	Dr. Schlub
11:00, Rm 127	Post-test, workshop evaluation	Dr. Schlub, Julia	
11:30, Rm 127	Open discussion, presentation	Dr. Schlub, assisted by others	
11:45, Rm 127	Closing	Dr. Schlub	
12:00, Rm 127	Adjourn	Dr. Schlub	