PACIFIC ISLANDS DISTANCE DIAGNOSTICS AND RECOMMENDATION (PIDDRS) SYSTEM

Illustrated User Manual



Pacific Islands Distance Diagnostics and Recommendation (PIDDRS) System Illustrated User Manual written and designed by Vanessa Troegner and James Hollyer, ADAP Project, University of Hawaii.

Special thanks to Dr. Mark Schmaedick, American Samoa Community College, for his tremendous help with this publication.

Many thanks to Dr. Mark Wright (University of Hawaii), Dr. Juliana Yalemar (Hawaii Department of Agriculture), and the ADAP Board of Directors.

For reprints of this publication, please contact:

Agricultural Development in the American Pacific (ADAP) Project University of Hawaii - CTAHR 3050 Maile Way, Gilmore Hall 112 Honolulu, Hawaii 96822 http://www.ctahr.hawaii.edu/adap

Email: Adap@hawaii.edu

The ADAP Project is a research, extension, and instruction program of the American Samoa Community College, College of Micronesia, Northern Marianas College, University of Guam, and University of Hawaii.

All or part of this publication may be reproduced for educational purposes. When doing so, please credit the ADAP Project.

This material is based upon work supported by the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, under Award No. 2004-38826-02201.

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

Copyright 2008 Agricultural Development in the American Pacific Project (ADAP), University of Hawaii, College of Tropical Agriculture and Human Resources, 3050 Maile Way, Gilmore Hall 112, Honolulu, Hawaii 96822.

Table of Contents

Introduction to PIDDRS Website	2
Getting Started with PIDDRS	4
Obtaining an Account	6
Logging on to PIDDRS	8
Submitting a Sample	10
Viewing Samples for Evaluation	18
Reviewing Submitted Sample Information	20
Evaluating Samples	22
Forwarding the Sample to Another Evaluator within PIDDRS	24
Consulting with an Outside Source	25
Reviewing Diagnosis of Sample	26
Taking a Vacation: Forward your Evaluator Duties	28
Viewing/Updating Account Information	29
Search for Samples	30
Search the Recommendation Database	31
Create Entry for Recommendation Database	32
Pacific Media Digital Library	34
Appendix: Components of a PIDDRS Workstation	36
Appendix 2: Tips for Capturing a Good Digital Image for Diagnostic Sampling	37

Introduction to PIDDRS Website



The Pacific Islands Distance Diagnostics and Recommendation System (PIDDRS) is an avenue for transmitting digital photographs, and descriptions of insects, weeds, and plant diseases to a team of specialists in entomology, botany, and plant pathology. PIDDRS connects Pacific island extension offices to the expertise within the Pacific Land Grant Colleges and the Western Plant Diagnostic Network (WPDN). PIDDRS has the potential to contribute significantly to improving diagnostic services throughout the Pacific, as well as providing a database system for documenting the movement of invasive organisms, and building the capacity of local agricultural personnel.

The impacts of invasive insect pests, plant pathogens, weeds and other organisms on island ecosystems are severe, not only in natural ecosystems, but also in agricultural production and other human activities. The islands of the Pacific have been subjected to extensive invasion by pest species, and most agricultural practices have been affected.

PIDDRS was developed with the technical assistance of the University of Georgia's Consortium for Internet Imaging and Database Systems, and based on the University of Georgia's Distance Diagnostics through Digital Imaging (DDDI) system. Initial funding for PIDDRS was provided by the Agricultural Development in the American Pacific (ADAP) Project, USDA 2003-38826-02019. Current funding to maintain the system has been provided by the Western Plant Diagnostic Network (WPDN) under subcontract from the University of California (Grant 07-002558-14).

PIDDRS is unique within the DDDI system in that PIDDRS has the ability to send samples confidentially to a designated specialist for identification. This quality has made the system indispensable to the Hawaii Department of Agriculture and APHIS. Sending physical samples across the Pacific region is difficult due to the distances and travel time. A sample would deteriorate before reaching its destination, and the if the sample represents an invasive species, the time lag could allow the species to establish a firm hold in its new environment.

PACIFIC ISLANDS DISTANCE DIAGNOSTICS AND RECOMMENDATION SYSTEM http://www.dddi.org/pacific

Additional features of PIDDRS include the Database for Pest Control Recommendations, and the Pacific Digital Media Library. These features add functionality and are fun to browse.

The recommendations within the Database for Pest Control Recommendations are written by the PIDDRS diagnosticians, experts in their respective fields. The Pest Control Recommendations usually include multiple management approaches, both chemical and non chemical.

The Pacific Digital Media Library is a database of digital images that may be used free of charge for educational purposes. For example, if a researcher needs pictures for a presentation, he or she can search the database to see what is available, or if a researcher has a collection of digital pictures, he or she can help colleagues by posting them. Find a digital image by text searching, or browsing. When downloading the image, you can decide on the resolution that will fit your purpose and your computer's connection speed.



Bean Butterfly.

Media courtesy of: Juliana Yalemar,
Hawaii Department of Agriculture
(available on Pacific Digital Media Library)



Glassy-winged Sharpshooter.

Media courtesy of: Bernarr Kumashiro,
Hawaii Department of Agriculture
(available on Pacific Digital Media Library)



Fruit Piercing Moth.

Media courtesy of: Juliana Yalemar,
Hawaii Department of Agriculture
(available on Pacific Digital Media Library)

Getting Started with PIDDRS

The PIDDRS Welcome Page contains a menu bar on the left to get you started on the PIDDRS website. If you currently have a PIDDRS account, login with your Username and Password. Click **Login**.



On your first visit to the PIDDRS website, you will need to sign up for an account by clicking **Request an account**. Signing up for an account allows you to submit samples for evaluation, and you will have the opportunity to become a diagnostician. Accounts are free and take only minutes to set up.



If you have forgotten your password, but remember your username, request an email reminder by clicking **Forgot your password**. (3)

If you no longer have access to the email account listed on your PIDDRS registration, you will need to contact the site administrator to update your account. If you have forgotten your username, you will also need to email the site administrator. Contact the site administrator at adap@hawaii.edu.

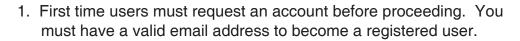
Other links on PIDDRS's Welcome Page include links to the **System Demonstration** presentation and the **User Manual**, both created by the University of Georgia, CIIDS, for the DDDI system - a system similar to PIDDRS, but not identical.

Additionally, there is a link for the **Pacific Digital Media Library**. You will need submit an additional request form to gain unlimited access to the Media Library. (5)

PIDDRS Welcome Page



Obtaining an Account





2. On http://www.dddi.org/pacific, below the login form, click **Request** an account.

- 3. Complete the **Request an account** form. All elements in red or indicated with an asterisk (*) are required.
 - a. If you are affiliated with HDOA or APHIS, please select accordingly. 3
 - b. To be considered for diagnostic responsibilities, complete the **Area of Expertise** box. 4
- 4. Click **Submit Request**.



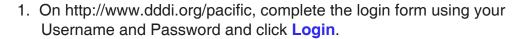
- 5. Your information will be routed to the PIDDRS administrator for verification and approval.
- 6. You will receive an email informing you of your application status. If you do not receive an email within three days, please contact the PIDDRS administrator via email at adap@hawaii.edu.

!	NOTE: Be sure to write down the Username and Password that you have listed on the request form. The authorization email will include your Username, but will not include your Password.
	Username:
	Password:

PIDDRS Account Set-Up Page

元	Pacific Islands "cific ocean"				
	Pacific Islands College Ocean Distance Diagnostics and Recommendation System				
	Collaborative Diagnostic System for the Pacific				
Ucorpamou	108	Nor			
Username:		Request an Account			
Password:	Use this form to request an account with the Pacific I System. All fields labeled in RED or noted with an "*" any spaces.	Islands Distance Diagnostics and Recommendation ' are REQUIRED. The Username should not contain			
Login	*Username:	(2)			
Request an account	First Name:				
Forgot your password?	*Last Name:				
<u>Home</u>	*Organization:				
System Demonstration (MS	*Address1:				
PowerPoint)	Address2:				
Hear Manual (Adaha@ DDE)					
User Manual (Adobe® PDF) Get the free Adobe® Reader®	*City:				
	*Client State/Territory and Island:	Select State/Territory and Island			
	*Mail Code:				
	*E-mail Address:				
	*Phone:	(format "1-888-888-8888")			
	Fax:				
	*Password:				
	*Verify Password:				
	*Are you affiliated with the HDOA or APHIS?	● None			
		O Hawaii Dept. of Agriculture			
		O APHIS			
	*Do you want to be a Submitter or a Diagnostician? If a "Diagnostician", please complete the "Expertise" question below.	Select One			
	If you wish to be considered for diagnostic res areas of expertise below. This information will diagnostician.	• • • •			
	Area of Expertise:	4			
TI		Submit Request 5			
Copyright 2007 Consortium for Interr	This site is a component of <u>The Consortium for Internet Imaging and Database Systems</u> . Copyright 2007 Consortium for Internet Imaging and Database Systems. All rights reserved.				
NOTE: This is a secure site and authorization is required for access. A current version of Netscape Navigator or Internet Explorer that is JavaScriptenabled and has cookies enabled is required. For more information, contact your technical support representative.					

Logging on to PIDDRS



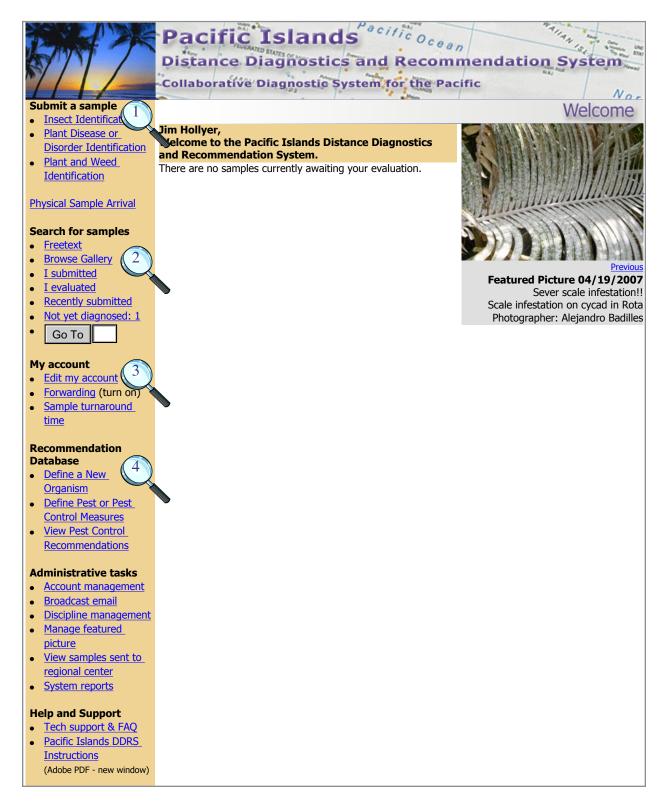


- a. If you have forgotten your password, click Forgot your password?, enter your Username and email address, and then click Submit. The system will match your username and email address, and send you an email.
- b. If you have forgotten your Username, or no longer have access to the email account on your PIDDRS registration, you must contact the site administrator via email at adap@hawaii.edu.
- 2. Upon successful login, you will be taken to the PIDDRS Main Page with a new set of menu options on the left side of the page. These are the PIDDRS Sidebar menu options:
 - a. Choose an option from the **Submit a Sample** menu if you have digital images ready for submission to a diagnostician.
 - b. Choose an option from the **Search for Samples** menu if you want to review the samples that either you or a colleague has submitted to the system.
 - c. Choose My Account to review your account settings.



- d. Choose **Recommendation Database** to browse or contribute data. 4
- e. The **Administrative tasks** options are only available to PIDDRS administrators.

PIDDRS Main Page & Menu Descriptions



Submitting a Sample

- On the PIDDRS Sidebar Menu, under the Submit a sample heading, click on the identification form that best suits your sample needs: Insect Identification, Plant Disease or Disorder Identification, or Plant and Weed Identification. Once you select a sample type, you cannot change it without having to reenter sample information.
- 2. Select a client from the **Select Existing Client** select list or complete the **Enter New Client Information** form.
 - a. If the **Select Existing Client** list is available, clients have been entered into the database before.
 - i. Select the client of interest from the list and the client's contact information will be displayed in a pop-up window.
 - ii. Review the client information displayed in the new window. To proceed, click YES or NO next to the question Do you want to use this Client?.
 - iii. If the client is correct, but the contact information needs to be updated, click **Yes** at the bottom of the page beside **Edit this Client** and make the corrections on the form displayed.
 - If Select Existing Client list is unavailable, or there
 is only a blank form, no clients have been entered
 previously.
 - i. Complete the Client Information form and click Continue at the bottom of the form.



- Insect Identification
- <u>Plant Disease or</u>
 <u>Disorder Identification</u>
- <u>Plant and Weed</u> Identification

Physical Sample Arriva

Selecting a Client or Entering Client Information

	Pacific Distance D	Islan Diagnost	ics and Re	ocean ecommendation System	Memoil
Submit a sample Insect Identificat	Collaborative		7 5	Insect Identification	v _o _z
 Plant Disease or Disorder Identification Plant and Weed Identification 		ents labeled in I rately. The curr	RED or indicated by	y an '*' are required and must be filled out vill automatically be associated with this samp	ple
Physical Sample Arrival	Client Information	1			
Search for samples • Freetext • Browse Gallery • I submitted	Select Client: Or Enter New Clien *Client Organization: *Client Name:		Select Existing (Client 2	
 I evaluated Recently submitted Not yet diagnosed: 2 	*Client Address 1: Client Address 2:				
My account Edit my account Forwarding (turn on) Sample turnaround time	*Client City: *Client State/Territor *Client Mail Code: *Client Phone: Client Email:	ry and Island:		ritory and Island - (Format: 1-999-999-9999)	
Recommendation Database Define a New Organism			Continue		
Define Pest or Pest Control Measures View Pest Control Recommendations			ent Pop-Up Wir		
Administrative tasks Account management Broadcast email Discipline management Manage featured picture View samples sent to		Organiza Name: Submitti Address:	ng Location:	UH James Hollyer Hawaii ADAP Honolulu, Hawaii 96822 Island: Oahu	
regional center • System reports Help and Support		Phone: Email:		1 - 808 - 956 - 0000	
Tech support & FAQ Pacific Islands DDRS Instructions (Adobe PDF - new window)		_	vant to use th Client? <u>Yes</u>	is Client? Yes No 4	

PACIFIC ISLANDS DISTANCE DIAGNOSTICS AND RECOMMENDATION SYSTEM http://www.dddi.org/pacific

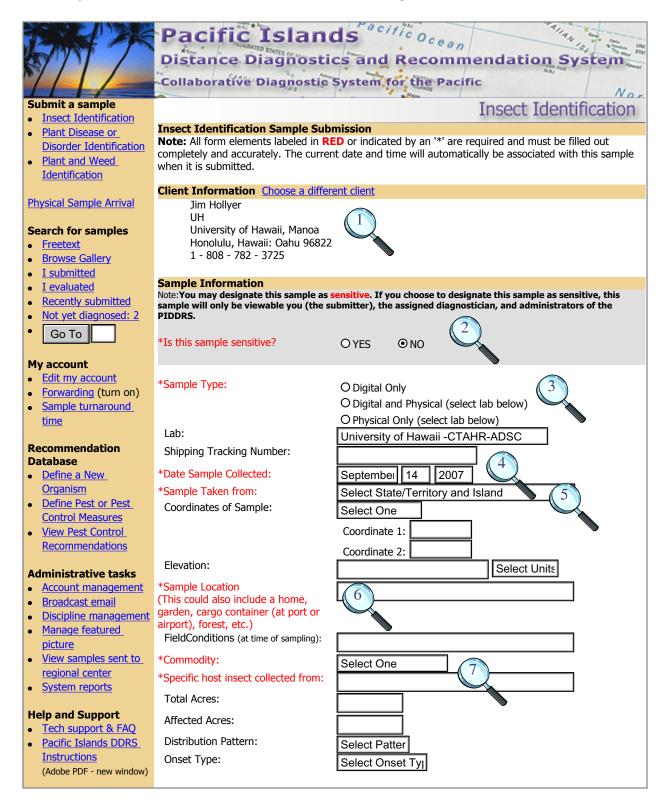
- 3. Upon completion of Client Information or approval of the Select a Client information, a sample submission form is generated with the client information displayed at the top. If the client information displayed at the top of the sample submission form is incorrect, click Choose a different client to be returned to the previous menu.
- 4. Complete the sample submission form. Fill in the form as completely as possible. The more information you provide to the evaluators, the more accurate the diagnosis will be. All elements in red or indicated with an asterisk (*) are required to be completed.
 - a. Is this sample sensitive? Checking YES will limit those who have access to view the sample to the submitter, the evaluator, and the PIDDRS administrators. Selecting YES is encouraged in cases where public knowledge of a plant disease or invasive species may result in economic hardship for the client, island, or region.
 - b. Select the **Sample Type**. Choose either Digital Only, Digital and Physical (only available to Hawaii, currently), or Physical Only (only available to Hawaii, currently).
 - c. Enter Date Sample Collected. The default setting is the current date.
 - d. Enter **Sample Taken From**. The pull-down menu is organized by island group, then specific island.
 - e. Enter **Sample Location**. You can enter data such as street address, or description of location. You can choose to enter **Coordinates of Sample** and **Elevation**.
 - f. Enter Commodity from pull-down list and Specific crop/host. Please be as specific as possible.



- Insect Identification
- <u>Plant Disease or</u>
 <u>Disorder Identification</u>
- <u>Plant and Weed</u> <u>Identification</u>

Physical Sample Arriva

Sample Submission Form - Page 1



PACIFIC ISLANDS DISTANCE DIAGNOSTICS AND RECOMMENDATION SYSTEM http://www.dddi.org/pacific

- 5. Complete the **Host Parts Affected** survey and the **Symptoms** section as completely as possible. These sections are identical for the Insect Identification and the Plant Disease/Disorder Identification forms, but are not present in the Plant and Weed Identification form. The Host Parts Affected section is selfexplanatory, but see below for a brief descriptions of select symptoms.
 - a. Discoloration: Discoloration includes blackening. browning, reddening, yellowing, bleaching (lightening in color, or becoming white), and becoming mottled (spots or blotches of different colors).
 - b. Disease: Disease symptoms include damping off (rotting of seedling stem at the soil line), die back (peripheral parts of plant begin to die), stunting (failing to grow in the expected manner), and wilting (drooping).
 - c. Insect: Destructive insect activities include boring (chewing holes in the stem or fruit), chewing (progressive damage to leaves or stem starting from the outside, working inward), skeletonized (leaf tissue between the veins is eaten, leaving the veins intact), and webbing (for example: silk webbing, produced by spider mites or some caterpillars).
 - d. Malformation: Malformation symptoms include bark roughening, canker (small area of dead tissue), and galls (abnormal growth or swelling of plant tissue).
 - e. Spot: Spots include frog eye (concentric rings around a diseased spot), and shot hole (dropping out of small round section of leaf).
- 6. Complete the Host, damage/infestation or general comments section as completely as possible. 6



- **Insect Identification**
- Plant Disease or **Disorder Identification**
- Plant and Weed Identification

Physical Sample Arriva

Sample Submission Form - Page 2

System Demonstration	Onset Date:				
(HTML - new window)System Demonstration	Severity (Avg % plant affected):	į	Select Severit		
(PowerPoint - new window)			·		
• <u>User manual</u>	Host Parts Affected - Select all	host	parts that apply		
(PDF - new window)	Flower		D		
• Western Plant Diagnostic Network	☐ Blossoms (flowers) Fruit	ш	Buds		
 Submit suggestions 	☐ Fruits or nuts	П	Seeds		
Submit suggestions	Leaf	ш.	Secus		
Pacific Media (new window)	☐ Leaves		Leaves - bottom side	☐ Leaves	- Needles
	☐ Leaves - top side				
<u>Home</u>	Other				
Logout	☐ Tubers - bulbs - corns				
<u>Logout</u>	Roots				
	☐ Roots		Roots - Growing tips	☐ Roots	- Large Roots
	☐ Roots - Rootlets				
	Stem	_		_	
	Petiols	_	Stems		- Growing tips
	☐ Stems - Large branches		Stems - Terminal branches	☐ Stems	- Trunk
	☐ Stems - Twigs	□ :	Stems -Bark		
	Symptoms - Select all symptoms	c that	annly		
	Discoloration	s ulat	. арріу		
	☐ Blackening		Bleached	☐ Brown	ing 1
	☐ Discoloration (any)		Internal (stem/fruit/nut)	☐ Mottle	- (1
	☐ Reddening		Yellowing		
	Disease		3		•
	☐ Damping off (stem)		Dieback (any)		ing- slime or ooze (any
		_		part)	(2)
	☐ Mushrooms - disease	Ш	Rot or decay (any part)	☐ Stuntir	ng (an
	☐ Wilting (leaf/flower/stem) Insect				
	☐ Boring - insect	П	Chewing - insect	☐ Frass o	or cas 3 ect
	☐ Skeletonized - insect - leaf		Webbing - insect	— 11ass (or cus
	Malformation	_	Webbing insect		
	☐ Bark roughening (stem)		Canker (Stem)	☐ Cracke	d (ste 4 it/nut)
	☐ Galls (leaf or stem)		Malformation (any)	☐ Margin	al burn for flower)
	☐ Scorched (leaf/flower/stem)				
	Spot				
	☐ Fruit frog eye		Leaf frog eye	☐ Leaf sh	not hol 5
	☐ Leafspot		Spot (any)		
	Uach damage /infastation		ual acumout-		
	Host, damage/infestation or go Describe stage of growth of	genei I	rai comments		1
	host plant or animal:		(6)		
	Describe damage/injury	Į.]]
	caused by pest				
	(other than selected above):				
		L			l

PACIFIC ISLANDS DISTANCE DIAGNOSTICS AND RECOMMENDATION SYSTEM http://www.dddi.org/pacific

7. List any chemicals applied. Be as detailed as possible, listing the chemical 's common and commercial names, the manufacturer, and the application dates. For example, the fungicide with the common name Azoxystrobin is commercially known as Abound; the chemical name is methyl-(E)-2-2-6-(2-cyanophenoxy)pyrimidin-4-yloxy-phenyl-3-methoxyacrylate. In most cases, the common name is sufficient for the diagnostician.



- Insect Identification
- <u>Plant Disease or</u>
 <u>Disorder Identification</u>
- <u>Plant and Weed</u> Identification

Physical Sample Arriva

8. Choose an evaluator:

- a. The system will automatically select the appropriate evaluator based on the value listed as the **Commodity** field of the sample submission form. If you wish to send your sample to a specific evaluator, select his/her name from the **Send to Evaluator** select list.
- b. If you wish to view the expertise listings for the evaluators in PIDDRS, click the **View Evaluator Information** link.



9. Attach Images:

- a. If the sample is a **Digital Only** or a **Digital and Physical** sample type, you must attach at least one image and provide a description for each image submitted.
 - i. Click Browse to locate the image file on your computer. Only JPG or JPEG files can be submitted to PIDDRS, and only JPG and JPEG files will be identified by the PIDDRS Browse feature. Once the file has been selected, you may click Preview to review the image in a popup window.
- b. For **Physical Only** samples, PIDDRS will not prompt the submitter to attach any digital images.
- 10. Click the **Submit** button at the bottom of the form. The sample is recorded in the database, and the evaluator notified via email. **Reset Form** will delete your responses.

Sample Submission Form - Page 3

	Describe degree of infestation:		
	-		
	General Comments:		
	List any chemical(s) applied		
	Application Type Application Used	Application Rate Application	ation Date Application Method
	Select Type		
	Select Type		
	Select Type		
	Ongoing Communications Note:		
	• Physical Only sample notification wi	I only be routed to the selected	l lab, not to an evaluator selected
	in this listDesignating a sample as 'Sensitive	will limit viewing of the campl	e to the assigned diagnostician
	and those diagnosticians selected to re		
	 The sample will automatically be set ongoing communications with a specif 		
	please select the evaluator from the lis		The sample to a specific evaluator,
	Cound to Friedrichers		
	Send to Evaluator:	Choose automatically	View Evaluator Information
	Sample Images and Correspondin	g Descriptions (click here for	help():
	Note:A description is required for each		
	*Sample Image 1:	Browse	Preview 4
	*Description:		
	Sample Image 2:	Browse	Preview
	Description:		
	Sample Image 3:	Browse	Preview
	Description:		
	Sample Image 4:	Browse	Preview
	Description:		
	Sample Image 5:	Browse	Preview
	Description:	5	
	Submit F	Form Reset Form	
	ortium for Internet Imaging and Database Systems. net Imaging and Database Systems. All rights reserve	red.	cfibs
NOTE: This is a secure site and auth	orization is required for access. A current version of	Netscape Navigator or Internet Explorer	that is JavaScript-
madied and has cookies enabled is re	equired. For more information, contact your technica	i support representative.	

Viewing Samples for Evaluation

- Submitters have the opportunity to select a specific evaluator on the sample submission form, or allow the PIDDRS system to select an evaluator. Otherwise, samples automatically routed by PIDDRS are sent to evaluators based on the value selected in the Commodity field in the sample submission form.
- 2. Evaluators will receive an email when a new sample in their field of expertise is submitted to the system. The notification email will contain a hyperlink to the sample. Clicking the hyperlink will automatically launch your internet browser, and take you to the PIDDRS website. Otherwise, the evaluator can go to http://www.dddi.org/pacific.
- 3. Login to PIDDRS using your Username and Password.
- 4. For evaluators, upon login, the Main Page will have links to the samples awaiting evaluation, under the heading **The following samples are awaiting your evaluation**.
- 5. To view the sample, click on the sample number.
- 6. For submitters, to review the digital sample, the submitter clicks the link to the Submission Log by selecting **I submitted** from the PIDDRS Sidebar menu.
- 7. To review the sample listed on your Submission Log, click the sample number. Submitted samples are archived by year and month.

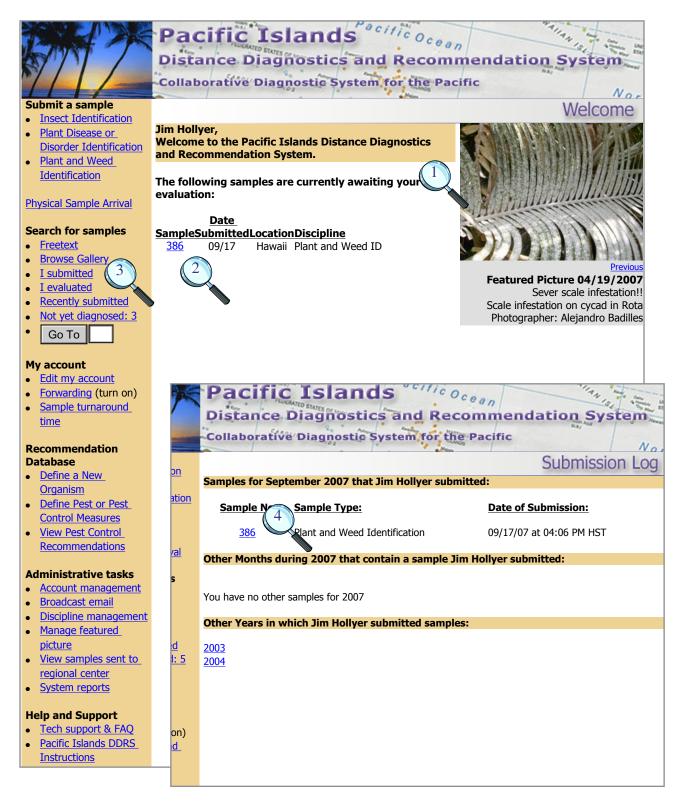
Search for samples

- Freetex
- Browse Gallery
- I submitted
- I evaluated
- Recently submitted
- Not yet diagnosed: 3



account

Main Page with Samples awaiting Evaluation



Reviewing Submitted Sample Information

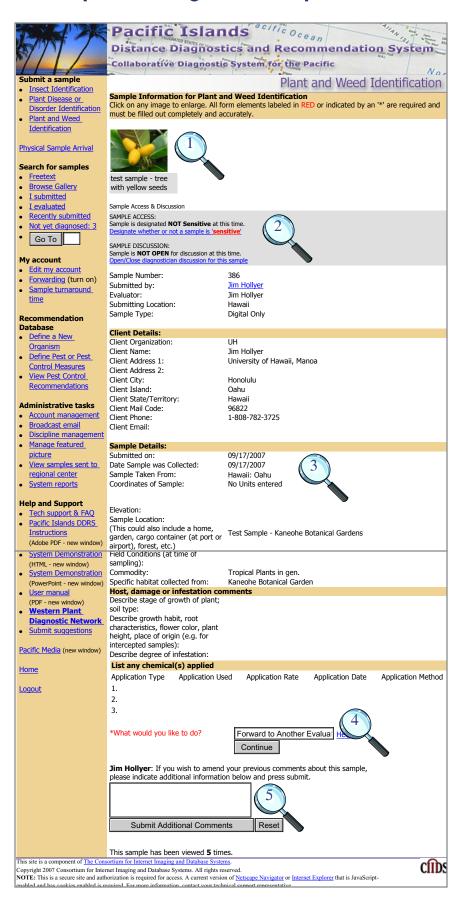
- 1. To view the submitted sample information, scroll down the page to view all information submitted about the sample.
- 2. To view the images for the sample, click on each thumbnail image to produce an enlarged version of the image that you may click to zoom and pan.
- 3. If the evaluator determines that the sample should be considered sensitive, due to possible negative impacts for the client, island, or region, the evaluator can update the sensitivity of the sample by clicking the **Sample Access** link.
- 4. The Sample Details contain information contributed by the submitter. This information cannot be edited after it is submitted to the PIDDRS system.
- 5. After viewing the sample information, the evaluator has the following three courses of action for the sample: 4
 - a. Evaluate the sample.
 - b. Forward the sample to another evaluator within PIDDRS.
 - c. Consult with an outside source about the sample.
- 6. The submitter and the evaluator have the opportunity to add more information to the digital sample by adding comments to the text box and clicking **Submit Additional Comments**. Once comments are added, they cannot be edited.

Search for samples

- Freetex
- Browse Gallery
- I submitted
- I evaluated
- Recently submitted
- Not yet diagnosed: 3
- Go To

account

Example of Digital Sample for Plant Identification



Evaluating Samples

- After reviewing a digital sample, the evaluator may choose to select Evaluate this sample at the bottom of the sample information page. By clicking Continue, the sample diagnosis form will be generated and displayed. All elements in red or indicated with an asterisk (*) are required to be completed.
- 2. Select the **Primary Diagnosis or Identification** (required field) and the **Associated Host** (optional field) from the select list.



- a. If the proper entries are not found in the select list, click **Search the database**. (3)
- b. A pop-up window will display with database access to the National Plant Diagnostic Network and the American Phytopathological Society. Search for the correct plant, insect, or disease identification by entering the search term and clicking Search.
- c. Click on the proper entry and the information will be automatically entered in the diagnosis form. If the proper entry is not available, define a new one as necessary.
- 3. Before filling out the **Evaluation** and **Recommendation** sections, review the recommendations already in the database by clicking **Open the recommendation database**. If the evaluation and recommendation already appear, simply copy the hyperlink into the **Evaluation** box.
- Complete the remaining diagnostic and comment sections of the diagnosis form as necessary. When complete, click Send Evaluation at the bottom of the form.
- 5. The diagnosis is recorded and sent to the submitter via email.

22

Evaluation Details:

Evaluated on: Evaluated by:

For more information conta

Pest Identification:
Host Name:
Is this an invasive special this is a NEW Recommend to the same and the same

Example of Diagnosis Form

ı		-774A			
		Pacific Isl	ands ocitic ocean		
		Distance Diagr	nostics and Recommendation System		
ı		to the state of th			
ı		Collaborative Diagn	nostic System for the Pacific		
ľ	Submit a sample		Plant and Weed Identification		
ı	Insect Identification		Promis della product della contractional		
ı	 Plant Disease or 		at and Weed Identification		
ı	<u>Disorder Identification</u>	and accurately.	RED or indicated by an '*' are required and must be filled out completely		
ı	Plant and Weed Identification	and decaracely			
ı	<u>Identification</u>	*Primary Diagnosis or	Unknown, General		
ı	Physical Sample Arrival	Identification:			
ı	Thysical Sample Arrival	NOTE: If the diagnosis or i	identification is not found in the select list, <u>search the database</u> . (3)		
ı	Search for samples				
ı	• Freetext	Associated Host:	Select Associated Host		
ı	Browse Gallery	NOTE: If the associated ho	ost is not found in the select is search the database.		
ı	• <u>I submitted</u>				
ı	I evaluated December submitted		5		
ı	Recently submittedNot yet diagnosed: 3	Open the recommendation da	atabase to h for recommendations.		
ı		*Is this an invasive species:			
ı	• Go To	15 tills all lilvasive species.	O Yes O No O Not Known		
ı	My account	Is this sample a NEW:	☐ Island Record ☐ State/Country Record		
ı	Edit my account		Li Island Record Li State/Country Record		
ı	• Forwarding (turn on)	*Forward to WPDN?	O Yes		
ı	Sample turnaround	Torward to Wi Div.	O les O No		
ı	<u>time</u>	Diagnostic confidence	Confirmed		
ı		level:	Confirmed		
ı	Recommendation Database	*Evaluation:			
ı	Define a New				
ı	Organism				
ı	Define Pest or Pest	Recommendation:			
ı	Control Measures				
ı	View Pest Control				
ı	Recommendations	Comments:			
ı	Administrative tasks				
ı	 Account management 				
ı	Broadcast email	Additional Resources URL			
ı	• Discipline management		http://		
ı	Manage featured	Additional Resources URL	http://		
ı	<u>picture</u>	2:			
ı	View samples sent to	Send CC to other diagnosticians:	Juliana Yalemar		
	regional centerSystem reports	(multiple selection list)	Julian Yates III Bob Yonahara		
	System reports	,	Select one		
	Help and Support	.			
	 Tech support & FAQ 	Is this a test sample?	No 6		
	Pacific Islands DDRS				
	<u>Instructions</u>		Send Evaluation		
	(Adobe PDF - new window)				

Forwarding the Sample to Another Evaluator within PIDDRS

 After reviewing a digital sample, the evaluator may choose to select Forward to another evaluator at the bottom of the sample information page, and then click Continue. The forward form will be displayed.

Evaluation Details:

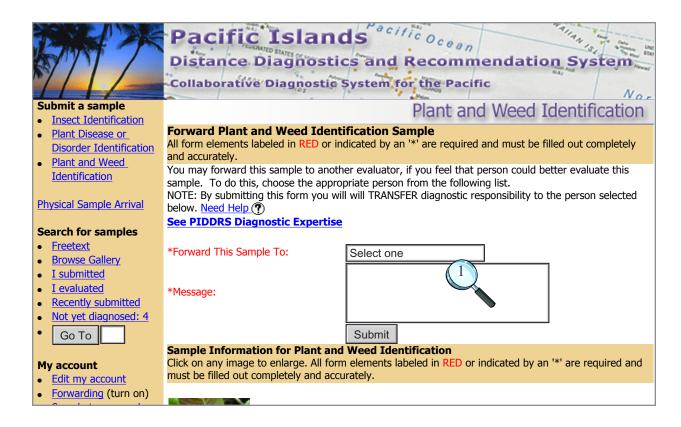
Evaluated on: Evaluated by:

For more information conta

Pest Identification:
Host Name:
Is this an invasive special this is a NEW Recommendation.

- Select the appropriate evaluator from the Forward This Sample
 To: select list, add a short Message, and click the Submit.
- 3. The new evaluator is notified of the sample via email, and the submitter is notified that the sample has been forwarded.

NOTE: All responsibility for completing the evaluation and communicating with the submitter now lies with the new evaluator.



Consulting with an Outside Source

- 1. After reviewing a digital sample, the evaluator may choose to select **Consult with** an **Outside Source** at the bottom of the sample information page, and then click **Continue**. The request consultation form will be displayed.
- 2. Complete the form and click **Submit Consultation Request**. All elements in red or indicated with an asterisk (*) are required to be completed.
- 3. Once the request is submitted, an email is sent to the consultant at the email address on the form. The consultant will have access to the sample information and digital images, but not client information. The consultant has access as long as the sample is not diagnosed.
- 4. The consultant is provided with a form to complete their response and send it back to the PIDDRS evaluator. The PIDDRS evaluator is still responsible for diagnosing the sample, inputting the diagnosis into the PIDDRS, and answering any additional questions presented by the sample submitter. It is not necessary to wait for a response from the consultant to diagnose the sample.

NOTE: The consultant may not directly diagnose the sample. The PIDDRS evaluator is still responsible for diagnosing the sample.

Reviewing Diagnosis of Sample

- Once a sample has been evaluated, the submitter receives an email stating the diagnosis is ready. The notification email will contain a hyperlink to the sample. Clicking the hyperlink will automatically launch your internet browser, and take you to the PIDDRS website. Otherwise, the evaluator can go to http://www.dddi.org/pacific.
- 2. Click the link I submitted from the PIDDRS Sidebar menu. The digital sample submittal form with the completed evaluation section will be displayed. Scroll down the page to view the Evaluation Details.
 - a. Evaluated by / For more information contact: This is the evaluator's name. To view the contact information for the evaluator, click on his/her name. A pop-up window will display his/her phone number and email address. The evaluator is available to answer any further questions you have about the sample.
 - b. Pest Identification / Invasive species? / Diagnosis confidence level: Read these sections carefully.
 - c. Evaluation / Recommendation / Comments: This section contains text fields that include important information from the evaluator. The comments section may contain instructions to the submitter to confirm the sample identification or diagnosis.
 - c. Additional Resources URL: The evaluator may choose to include links to other internet resources, such as the PIDDRS Recommendation Database.
- 3. To return to the Submission Log, click the browser's back button, or click I submitted from the PIDDRS Sidebar menu.

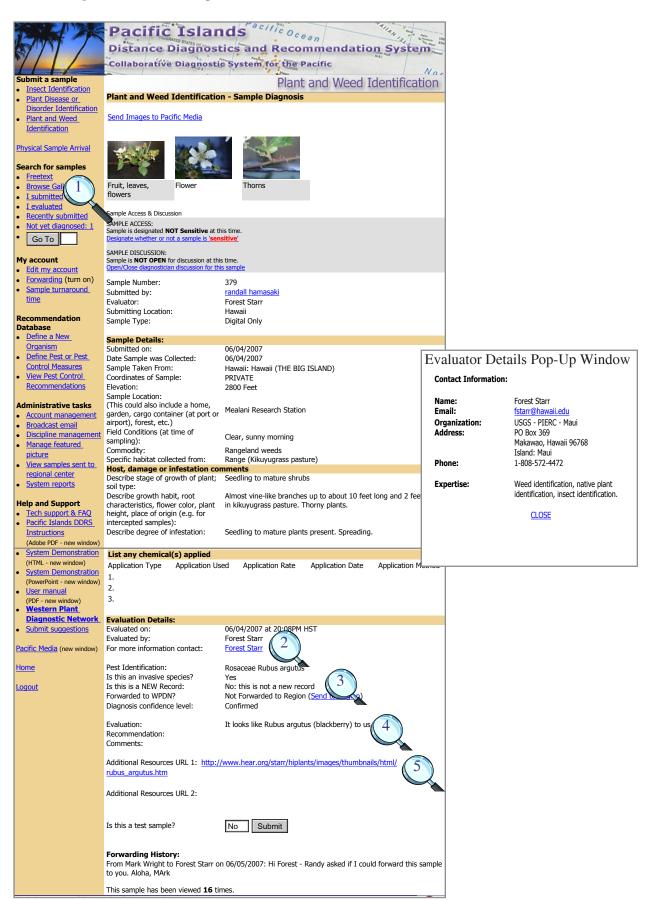
Joical Sample

Search for samples

- Freetext
- Browse Gallery
- I submitted
- I evaluated
- Recently submitted
- Not yet diagnosed: 3
- Go To

* account

Example of Diagnosis / Plant Identification



Taking a Vacation: Forward your Evaluator Duties

 If you will be out of town and unable to evaluate samples, you may temporarily route samples to another PIDDRS evaluator. Click Forwarding under My account on PIDDRS Sidebar menu. The Manage Forwarding form will be displayed. To permanently decline evaluator duties, make changes to your PIDDRS account settings.



Evaluation Details:

Evaluated on:
Evaluated by:
For more information conta

Pest Identification:
Host Name:
Is this an invasive special this is a NEW Recommend to the sarded to

2. Select the proper evaluator from the **Forward your Samples to:** select list. Please note that only evaluators that are not currently forwarding samples to another evaluator will be in the list. Additionally, your name will not appear on the list.

- Click Turn Forward On to enable sample forwarding to the selected evaluator.
- When you are ready to resume your evaluator duties, return to the forwarding menu, by clicking Forwarding under My Account. Click Turn Forward Off.



Viewing/Updating Account Information

- To update your contact information, area of expertise, or password, go to Edit my account, under the heading My account on the PIDDRS Sidebar menu. The Modify Account form will be displayed.
 - a. The Modify Account form allows you to update all your contact information including your mailing address, email address, and phone numbers,
 - b. Change your **Password** by entering a new password in the appropriate box.
 - c. Change your **Area of Expertise** by adding, deleting, or updating the information in the appropriate box. To permanently cease evaluator duties, clear all the text from the Area of Expertise box.
 - d. Click **Submit Changes** to save your updated information.
- 2. To view the average turnaround time for samples you have evaluated, click **Sample turnaround time**. This is the average total elapsed time between sample submission and evaluation for each sample you have evaluated.

Search for Samples

 Review samples submitted to the PIDDRS system by selecting a search option from the PIDDRS Sidebar menu under the heading Search for samples. Options include:

Search for samples

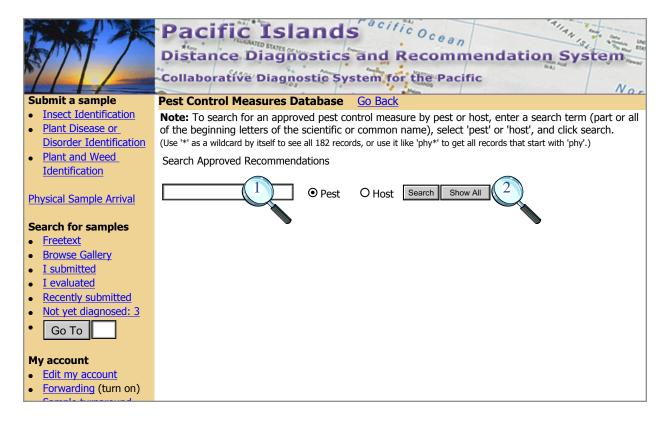
- Freetex
- Browse Gallery
- I submitted
- I evaluated
- Recently submitted
- Not yet diagnosed: 1
- Go To

Vv account

- a. Freetext search: Freetext search allows you to search for a word (common name, genus, or species) any where within the digital sample form. Enter search terms and click Search. Search results are displayed by the type of sample submission form used.
- Browse Gallery: Browse gallery displays thumbnail images of samples submitted, listed in reverse chronological order.
- c. I submitted: Displays a list of samples you have submitted. Results are categorized by month and year. Click the month or year to expand that category and display submissions.
- d. I evaluated: Evaluators can review the submission they evaluated by clicking I evaluated to display a list of samples. Results are displayed categorized by month and year.
- e. **Recently Submitted**: Displays a list of recently submitted samples. You can narrow the list to specific disciplines by selecting the discipline of interest.

Search the Recommendation Database

- The Recommendation Database contains management recommendations submitted by the PIDDRS evaluators. To view recommendations, click View Pest Control Recommendations under the heading Recommendation Database on the PIDDRS Sidebar menu. Options include:
 - a. **Search**: Enter the pest or host in the search form and click **Search** to display recommendations based on the criteria you provided. If you are unsure of the spelling, you can input just the first few letters, and the wildcard (*) to return all entries that begin with those letters. (Example: Enter 'phy*' to get all records that start with 'phy'.)
 - b. Show all: Click Show All to display all the recommendations. Then click the column headings to alphabetize by that factor.
- 2. Click on the recommendation of interest to display recommendation details and images (when available).



Create Entry for Recommendation Database

- Evaluators may choose to create an entry for the Recommendation Database choosing Define Pest or Pest Control Measures under the heading Recommendation Database on the PIDDRS Sidebar menu.
- 2. To define a new or additional pest control measure, you must first select a pest. Enter the search criteria and click **Find Pests**. Click on the name of the pest from the resulting list.
- 3. Choose to proceed in one of the following manners:
 - a. Define Without Host: Without selecting an associated host by clicking to define the pest control measure based on only the pest.
 - b. Define With Host: Search for a host to associate with the pest and the pest control measure only if the control measure is specific to the pest/host combination. To search for a host, enter the name and click Search for Host. Click on the name of the host from the resulting list.
- Complete the recommendation submission form and click Continue. All elements in red or indicated with an asterisk (*) are required to be completed.
- 5. The supplemental information form is next. Add any supplemental information and click **Submit**.
- 6. The recommendation submission form will be reviewed by a PIDDRS administrator and made available for viewing.

Recommendation Database

- <u>Define a New</u>
 <u>Organism</u>
- Define Pest or Pest Control Measures
- View Pest Control Recommendations

Administrative tas'

Example of Recommendation Submission Form

	0.0	ostics and Recommendation System
	103	Nor
Submit a sampleInsect Identification	Pest Control Measures Da	
Plant Disease or	Define a New or Additional Pes	st Control Measure:
Disorder Identification		
Plant and Weed	Pest: test Host: None selected	
<u>Identification</u>	*This pest control measure	Day
Physical Sample Arrival	applies to :	Residential
Thysical Sample Arrival		□ Commercial
Search for samples	*D	Regulatory
• Freetext	*Pest life cycle or time of year for which this pest	
Browse Gallery	control measure is	
I submitted I evaluated	applicable:	
<u>I evaluated</u>Recently submitted	*Pest control measure is	American Samoa
 Not yet diagnosed: 3 	applicable in the following geographic areas:	Asia
• Go To	(multiple selects allowed: help with	Australia and New Zealand Federated States of Micror
0010	multiple selections)	FEITER ATEL STATES THE WINE THE
My account	*Key identifying	
Edit my account	characteristics of this pest:	
 Forwarding (turn on) 		
Sample turnaround	*Do you want to include a	O Yes
<u>time</u>	link to the MSDS site along	http://ntp.niehs.nih.gov/index.cfm?objectid=03610FA5-C828-304B-
Recommendation	with this pest control	FE31F1182E8F764C
Database	measure:	
Define a New		
Organism Define Post or De	•	ne four Control Measures below:
Define Pest or Pel Control Measures	Prevention and Cultural Controls:	
View Pest Control	Controls.	
Recommendations		
	Physical Controls:	
Administrative tasks		
Account management Broadcast email		
<u>Broadcast email</u><u>Discipline management</u>	Chemical Controls:	
Manage featured	A link to the <u>Hawaii Pesticide</u>	
<u>picture</u>	<u>Information Retrieval System</u> will be provided automatically above	
View samples sent to	this control recommendation.	
regional center	Biological Controls:	
System reports		
Help and Support		
Tech support & FAQ	(2)	
Pacific Islands DDRS		
<u>Instructions</u>	Continue Slear Form	
(Adobe PDF - new window)		

Pacific Media Digital Library

 The Pacific Media Library is an archive of images which can be downloaded for educational uses. Click the Pacific Media link on the PIDDRS Sidebar menu or go to http://www.dddi.org/Pacific/PacificMedia/.

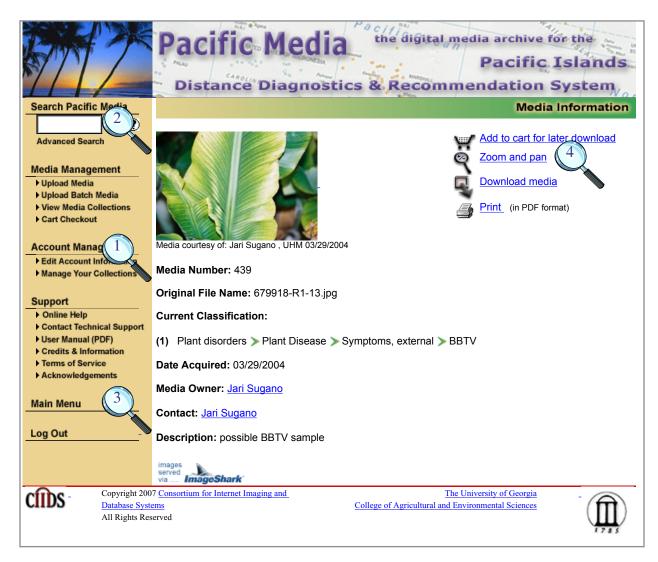


- 2. Users may browse and download media from the Pacific Media Library with or without becoming a registered user. Registered user access to the Pacific Media Library is separate from the PIDDRS registration. Click the **Create an Account** link on the sidebar menu to register for a Pacific Media account.
- 3. Users may either **Search** or Browse the media database.
 - a. **Search**: Search by typing a keyword in the text box.



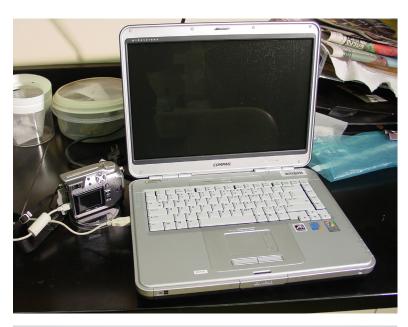
- b. **Browse by Area**: Browse images by category. Clicking the **Home**, or **Main Menu** link will always return you to the Browse by Area page.
- 4. There are several methods to download an image. One way is to click the link Download media and follow the directions. To download multiple images, first click Add to cart for later download, select your multiple images and place them in the cart. When you are ready, click Cart Checkout from the sidebar menu and follow the directions. Depending on the security settings for your internet browser, the two above methods may not work. A third way to download an image is to click on the image itself, or click Zoom and Pan. This will open the image in a pop-up window. Right-mouse click on the image to view options. From the list, select Save to disk. Name your image file and select a destination for it.
- 5. PIDDRS evaluators can submit images directly to the Pacific Media archive by clicking the **Send Images to Pacific Media** link at the top of the Insect Identification Sample Diagnosis page.

Pacific Media Digital Library



Appendix: Components of a PIDDRS Workstation

- 1. An internet connection
- A laptop or desktop computer. The PIDDRS system is equally compatible with both Macintosh or PC computers.
- 3. A digital camera.
- 4. A compound microscope and adapters for mounting digital camera.
- 5. A dissecting microscope and adapters for mounting digital camera.







Appendix 2: Tips for Capturing a Good Digital Image for Diagnostic Sampling

- 1. When preparing to submit a digital sample, remember that each electronic sample submission can contain up to 6 digital images.
- 2. All images must be in JPG or JPEG form. When taking a picture, select the highest resolution available on your digital camera. Pictures will be automatically downsized when they are submitted to PIDDRS. After your photos are submitted to PIDDRS, keep the originals on your computer in case the evaluator requires an image with better resolution.
- 3. For large specimens, take a picture of the item with something in the picture for scale.
- 4. For small specimens, or for an up close look, turn on the macro mode feature on your digital camera. The macro mode is not available on all digital cameras, but this feature allows the digital camera to focus on small items close-up. The macro mode feature is best for photographing insects, flowers, or individual leaves. Look for a flower icon on your camera to turn on this feature.



5. For macro or micro photographs, provide something in the photograph to indicate scale, such as a ruler or scale bar, or state in the caption the actual size of the objects in the photo.

Western Plant Diagnostic Network (WPDN): http://www.wpdn.org

Agricultural Development in the American Pacific (ADAP) Project: http://www.ctahr.hawaii.edu/adap

University of Hawaii, College of Tropical Agriculture and Human Resources, Cooperative Extension Office: http://www.ctahr.hawaii.edu

University of Guam, College of Natural and Applied Sciences, Cooperative Extension Office: http://www.uog.edu

American Samoa Community College, Cooperative Extension Office: http://www.amsamoa.edu/

College of Micronesia, Cooperative Extension Offices: http://www.comfsm.fm/

Nothern Marianas College, Cooperative Extension Services: http://www.nmcnet.edu/

