

APPENDIX

The appendix contains the following resources:

1. The plant health clinic Prescription Form
2. Farmer Feedback Form
3. Template for making a photosheet
4. Plant health doctor self-evaluation form
5. Procedure check list for running plant health clinics
6. Refresher training for continued capacity building of Regional and National core group of plant health clinic trainers

Appendix 1 The Plant Health Clinic Prescription Form

CLINIC

Date: Fiji Samoa Solomon Islands Tonga Code:

FARMER

Family Name:	Given names:	Sex: M <input type="checkbox"/> F <input type="checkbox"/>
Village/Settlement:	Province:	Mobile:
Clinic visit: 1 st <input type="checkbox"/> 2 nd <input type="checkbox"/> 3 rd <input type="checkbox"/> other:	Age: < 29 <input type="checkbox"/> 30-55 <input type="checkbox"/> > 56 <input type="checkbox"/>	Sample: Yes <input type="checkbox"/> No <input type="checkbox"/>

CROP

Crop:	Estimate planted area (m ²):
Variety:	Estimate no. of plants:
Seed source:	Estimate no. of plants damaged: Few <input type="checkbox"/> Many <input type="checkbox"/> All <input type="checkbox"/>
Previous crop:	Plant problem: Common <input type="checkbox"/> New <input type="checkbox"/>
Crop stage:	Weather: Normal <input type="checkbox"/> Wet <input type="checkbox"/> Dry <input type="checkbox"/> Unusual <input type="checkbox"/>

DESCRIBE WHAT YOU SEE (if no sample, write what the farmer tells you)

WHAT CONTROL MEASURES HAS THE FARMER TRIED?

WHAT DO YOU THINK THE PROBLEM IS?

YOUR RECOMMENDATIONS

What can the farmer do now?

Cultural control

Chemical control

What can the farmer do in future (when growing the same crop)?

Cultural control

Chemical control

Before planting: Any resistance varieties?

During growth

After harvest:

Photo(s) taken: Yes No

Sample sent to lab? Yes No

Plant doctor:

Signature:

Mobile no.:

Appendix 2 Farmer Feedback Form

1. Did the plant health doctor diagnose your problem?

Yes

No

Not sure

Why?

2. Do you think you can carry out what the doctor said you should do?

Yes

No

Not sure

If not, why not?

3. Was the clinic useful?

Yes

No

Why?

4. Do you have any suggestions on how to improve the plant health clinic?

5. Would you recommend the clinic to other farmers?

Yes

No

Why?

6. If there is another clinic in your area would you come again?

Yes

No

Maybe

Appendix 3
Photosheet Template
COUNTRY

XX (major administrative area)

XX (PLACE ORGANISATION) PLANT CLINIC

XX (organisation) | DATE

INSERT PHOTO 1	INSERT PHOTO 2
INSERT PHOTO3	INSERT PHOTO 4
INSERT PHOTO 5	INSERT PHOTO 6

This plant clinic was held at XX and organised by XX. The XX (clinic) is located XX km N/S/E/W from XX town.

N (number) farmers participated at the clinic; there were N men and N women).

N samples were received.

Some of the key problems presented were XX.

The plant doctors were XX.

[Other information]: You could add if any specimens were sent for identification.

Prepared and reported by XX, Organisation. For more information contact XX (person, phone number, email etc.).

Photos by XX (if a different person).

Plant clinics are held as part of the ACIAR project: Responding to emerging pest and disease threats to horticulture in the Pacific islands.

Appendix 4

Plant Health Doctor Self-Evaluation Form

1. How confident are you in your abilities to make correct disease diagnoses?

1 2 3 4 5

2. How confident are you in your ability to correctly diagnose pest problems?

1 2 3 4 5

3. How confident are you in your ability to make correct recommendations?

1 2 3 4 5

4. Do you feel you need more training?

Yes No

5. If 'Yes' what training is needed? Please specify (e.g. IT, diagnosis, filling out the prescription forms, interviewing farmers etc.)

Appendix 5

Plant Health Clinic Procedure Check List

Before a clinic	Tick when done
1. Confirm the clinic date, time, and venue	
2. Farmer awareness (ongoing in different ways – farmer networks, social media etc.)	
3. Preparation and planning (select manager and working committee)	
4. Organize all materials for the clinic (refer to PHC checklist in Chapter 6)	
5. Conduct at least 1 day refresher training on areas of need e.g. P&D identification and diagnosis, management, filling in of forms etc.	
6. A recap of pest and diseases of the target clinic location	
7. Set up the clinic site and ensure the plant doctors and supporting team are ready	
During a clinic	
1. Clinic manager opens the clinic (maybe with a short welcoming speech) and then directs farmers to plant doctor stations	
2. Plant doctors work alone or in teams to serve farmers filling the Prescription Form (hard copy Prescription Form and soft copy – CommCare)	
3. Clinic manager collects samples (or delegates job) and directs farmers to fill Farmer Feedback Form	
4. Clinic manager provides or directs consultation support if necessary (if any consultant or senior officers/trainers available) to any doctor requiring a second opinion of diagnosis or management advice	
5. Clinic manager provides help in setting up any quick diagnosis tests to help plant doctors	
6. Ensure that farmers are served well and not waiting too long (keep farmers occupied)	
7. Engage online network(s) for external support in any unknown case to the clinic team on site	
After a clinic	
1. Manager thanks farmers (if any still around) and plant doctors	
2. Arrange field visit to farmers with urgent problems if time, transportation and farm location permit	
3. Clean up site and pack samples and clinic materials	
4. Quick audit of clinic materials to ensure all important tools and other items are accounted for (lenses, tables, etc)	
5. Reflection on clinic and samples (plant doctor group debrief) and then properly dispose of the samples (i.e., those not to be sent to the laboratory)	
6. Complete clinic summary photosheet and brief data/financial report to send to superiors and key partners	
7. Follow up on any field visits to farmers and send any specimens sent to laboratory if necessary; report updates	

Appendix 6

Refresher Training for Continued Capacity Building of Regional and National Core Group of Plant Health Clinic Trainers

This short course (3-4 days) aims to provide refresher training for capacity building in collecting, describing common pest and disease symptoms, giving diagnoses and providing recommendations for management to core groups of national trainers who are delivering plant health clinic training to extension staff in the Pacific islands. Any extra training on any gaps identified should be organised by SPC via video communication, e.g., Zoom.

Capacity-building in pest description, diagnosis and management

Equipment/Materials needed

The material collected will not only be used for you to understand the pests and diseases, their biology, lifecycles, etc., but also for teaching purposes. It will become **your** collection.

Equipment needed (each person):

- Newspaper - plenty
- Cardboard to place over the samples, e.g. 40 cm x 40 cm
- Alcohol (propyl alcohol from the pharmacy)
- Tubes for collecting and preserving insects
- Plastic bags for collecting samples
- Labels (and Sellotape if the labels are not self-adhering)
- Pens and pencils
- Pins – for pinning out the moths
- Polystyrene blocks
- Camera or smartphone
- Notebook
- PHC Manual prescription form

2. Collect pests and diseases

In pairs (preferably) or on your own, go to research stations and/or farmers' fields and make a collection of common pests and diseases of important crops in the country. Each person should make their own collection. Do not collect too many samples at one time, otherwise you will not have time to process them. (You want to collect 10-15 samples maximum. Aim for 50:50 insects/mites and pathogens.)

Remember to collect a lot of material for each sample, so that you have enough to press to show the different stages of insect life cycles, and the variation of symptoms of each disease.

3. Preserve the samples

Each sample is to be described and diagnosed, and conserved:

- Use the prescription form from Chapter 5 to make a description and a diagnosis, AND do the same with the CommCare app
- Make a herbarium sample of the diseased specimens and preserve the pests in alcohol. If you want to pin out the moths, read the part on setting moths here:

<http://lepidoptera.butterflyhouse.com.au/faqs/setting.html>

If you are not sure how to make a herbarium specimen of diseases or preserve an insect, use the following references:

- PestNet: <https://www.pestnet.org/how-to-send-specimens/>. Insects will be preserved in propyl alcohol.
- Exercise 33 in Chapter 6
- Contact SPC Plant Health, Land Resources Division, Suva.

4. Label the samples

Make sure you have enough diseased material collected, or enough insects or mites conserved. Make a label for each sample, with the following information:

- Name of crop
- Give each sample a unique number
- Common name of pest or disease (if known)
- Locality
- Date
- Collector's name

Take a photo of each of your samples; place the label by the sample and make sure it is included in the image. **Describe each sample on the prescription sheet and on the CommCare app.** Make sure the number on the label coincides with the number against each description. **Contact SPC for details how to access the CommCare app designed for PHCs.**

If you collect insects, make a herbarium sample of the damage caused, if practical. If not, just take photos of the damage, or draw it. Make sure that the numbers are carefully recorded.

Create a table in your notebook with details of each specimen, providing the information on the label, plus anything else that you think is relevant

5. Review: Summarise observations on Prescription Forms and the CommCare app

Each sample should be used to fill in a copy of the Prescription Form from the PHC Manual, and the CommCare app. This is important. It's as if you have been given the sample by a farmer. Obviously, there are some sections that you will have to make up, or record your own ideas (as a farmer), e.g., what you have done to control the problem, but most of it is straightforward.

Note, using the CommCare app you can take a photo. Send the CommCare list of sample descriptions to your email.

6. Make a summary of your work using the Word and Excel templates

Use some of the samples that you have collected to make a one-page summary. Make a heading, then enter the photos you have taken into the table, and add:

- date
- location
- number of farmers (estimate, divided by gender)
- number of samples
- crops and important pests and diseases
- list of plant doctors (yourself)
- further information, and support from the project
- Add your prescription data into an Excel spreadsheet. **Check with SPC for latest format.**
- If you are using the CommCare form, go over it carefully, checking that the data have been entered correctly

7. Carry out a reflection on collecting, diagnosis, management, preservation

In pairs, discuss these questions and then present your answers to the whole group:

- Has this exercise been of help to you? Have you improved in certain areas? If so which ones?

- What further training do you still need: i) technical and/or; ii) delivering the training to extension staff (based on your past experiences).
- Discuss your reflections.

8. Fitting in the course with your present duties

Remember you have to change the newspaper each day or the specimens will collect mould. Because you have other duties, you do not have to do the collecting, preserving, prescribing and other activities every day. You need to fit the exercise in with your other work. **BUT** if you can't go each day to change the newspaper, then take the samples back to your office so that it can be done there.

9. Participants

It is recommended that the course be done by national trainers, and staff selected from extension, research, biosecurity, and NGOs.

Identification of gaps in knowledge and training via Zoom

This will follow after the collections have been made, and photos of the samples have been sent, and analysed. The areas covered will be identified come from the reflections that you make (see 7 above).

When complete, refer to the relevant sections in the manual:

- Use the fact sheets app to review the most common pests you have collected
- Discuss management methods
- Discuss teaching methods for your next training session

Contact SPC to arrange this training.