Concept Note
Training Workshop on Pest Surveillance for Virus
GCP/RAS/286/ROK
Seoul National University, Korea, April 25-30, 2016

1. Background

Based on the training schedule agreed at the 2nd Project Steering Committee, Training Workshop on Virus will be implemented in collaboration with NPPO-Korea at the Seoul National University, Korea, on 25-30 April 2016.

Virus is regarded as one of the most serious pests to be controlled and its damage is continuously increasing in the agricultural sector. Besides, it is not easy to control the virus by the chemicals, thus no other option but to remove the infected plants in the field in order to reduce the damage. Furthermore, virus disease has an incubation period with no indication of disease, so it is very difficult to identify it by its symptom. In this regard, prompt and accurate diagnostic techniques regarding the virus infection are closely related to the crops' productivity.

Training program will include not only theoretical lectures on the plant virus but also practical exercise to make a diagnosis of virus disease using the sophisticated laboratory equipment such as PCR and ELISA. In addition to this, there will be a presentation of country report on "Past activities, current issues/challenges and future action plan for Plant Virus (Diagnostics)".

Meanwhile, the trainees should be skilled in dealing with lab equipment and have prior knowledge on the virus for the efficient performance of the training.

This workshop will provide an opportunity for the participants to improve the expertise on "virus survey and detection" as well as to develop the capacity to carry out a series of virus diagnosis works as an expert in the countries after the training.

About 16 participants including 12 trainees from 6 participating countries and 3 experts from NPPO-Korea are expected to take part in the workshop.

2. Agenda of the workshop

Workshop will be conducted in English and the detailed agenda will be as follow.

2.1. Lecture

The lectures of the workshop will be delivered on the Detection of plant quarantine virus and viroids in Korea, Diagnostics method for plant virus, Serological method for plant virus detection as well as Decision making on virus diagnostics.

2.2. Country report and discussion

Trainees, on behalf of each NPPO of the country, will present the country report on "Past activities, current issues/challenges and future action plan for Plant Virus (Diagnostics)" (tentative), which will be discussed among the participants

2.3. Practice training and test

Practice will be implemented, focusing on Virus isolation (DNA/RNA), Molecular based Virus (TSV) detection, Preparation of whole protein and ELISA plates for CGMMV detection and Virus detection under the guidance of the Korean experts. Just after the laboratory practice, the trainees will be appraised for their comprehension and proficiency regarding the Virus diagnostics through the assignments prepared by the experts.

2.4. Workshop Assessment

At the last session, the workshop achievement will be evaluated by the trainees through a prepared questionnaire regarding training content and structure.

3. Outputs

The outputs of the workshops are expected as follows;

3.1. Specific knowledge of the participants on plant virus would be improved through the diverse topics of lecture.

3.2. Trainees are fully aware of a series of virus diagnostic works through the practice training and expertise test so that they can work as an expert or mentor in this area in the country.

3.3. Relevant information on past activities and current issues/challenges in implementation of the virus survey in the countries would be shared among the participants through the country report and discussion session.

4. Resource persons

For the expertise lectures and laboratory practice session, there will be three resource persons, Dr. Boo-Ja Lee, Dr. Sang-Mok Kim and Dr. Jung-Hwan Park, from NPPO-Korea.

5. Workshop venue and date

The workshop will be held at the laboratory of the Seoul National University, Korea on 25-30 April 2016.

6. Expected participants

Approximately, 16 participants are expected to attend the meeting as follows;

6.1. 12 trainees from 6 participating countries (2 trainees per country)

6.2. 3 Korean experts as resource persons

6.3. FAO-RAP (Project Coordinator)

Agenda and Timetable for the Meeting (Plant Virus)

Day-1 (Apr. 25, 2016)

Time	Session	Facilitator
09:00 – 09:30	Registration	
Opening Session		
09:30 - 09:45	Welcome remark	NPPO-Korea (Director General) Project Coordinator
09:45 - 10:00	Group photo and Coffee break	
Session 1: Lecture(1)		
10:00 - 12:00	Lecture-1 Overview of plant virus	Dr. Boo Ja Lee Dr. Sang Mok Kim
12:00 - 13:30	Lunch	
13:30 – 15:00	Lecture-2 Detection of Plant Quarantine virus and viroids in Korea: actions, results and current status	Dr. Boo Ja Lee Dr. Sang Mok Kim Dr. Won Seok Lim
Session 2 : Country report and discussion		
15:00 - 15:20	Coffee break	
15:20 – 17:00	Country report on "Past activities, current issues/challenges and future action plan for Plant Virus (Diagnostics)"	NPPO of the country
	Group discussion on the report	Project coordinator Lecturers
	Summary and recommendation	Project coordinator Lecturers
18:30 - 20:30	Welcome dinner	

Day-2 (Apr. 26, 2016)

Time	Session	Facilitator
Session 3: Field Trip		
09:00 – 17:00	Field trip: sample collection	NPPO-Korea

Day-3 (Apr. 27, 2016)

Time	Session	Facilitator
Session4: Lecture(2)		
09:00 - 12:00	Lecture-3 Introduction of Diagnostics method for Plant Virus	Dr. Boo Ja Lee Dr. Sang Mok Kim
12:00 - 13:30	Lunch	
Session 5:Laboratory practice(1)		
13:30 – 15:30	Laboratory practice-1 Virus Isolation (DNA/RNA)	Dr. Boo Ja Lee Dr. Sang Mok Kim Dr. Won Seok Lim
15:30 – 15:40	Coffee Break	
15:40 – 17:00	Laboratory practice-2 Molecular based Virus(TSV) detection(RT-PCR & PCR)	Dr. Boo Ja Lee Dr. Sang Mok Kim Dr. Won Seok Lim

Day-4 (Apr. 28, 2016)

Time	Session	Facilitator
Session6: Lecture(3)		
09:00 - 12:00	Lecture-4 Serological method for Plant virus detection	Dr. Sang Mok Kim Dr. Boo Ja Lee
12:00 - 13:30	Lunch	
Session 7: Laboratory Practice(2)		
13:00 – 15:00	Laboratory practice-3 *Preparation of whole protein and ELISA plates for CGMMV detection*	Dr. Sang Mok Kim Dr. Boo Ja Lee Dr. Won Seok Lim
15:00 – 16:00	Laboratory practice-4 Virus detection : ELISA method 2nd step	Dr. Sang Mok Kim Dr. Boo Ja Lee Dr. Won Seok Lim
15:30 – 15:40	Coffee Break	
15:40 – 17:00	Laboratory practice-5 Virus detection : ELISA plates reading	Dr. Sang Mok Kim Dr. Boo Ja Lee Dr. Won Seok Lim

Day-5 (Apr. 29, 2016)

Time	Session	Facilitator
Session8: Lecture(4)		
09:00 – 12:00	Lecture-5 Decision making on virus diagnostics	Dr. Sang Mok Kim Dr. Boo Ja Lee
12:00 – 13: 00	Lunch	
Session 9: Laboratory Practice(3)		
13:00 – 15:30	Lecture-5 *Keeping methods for plant virus*	Dr. Sang Mok Kim Dr. Boo Ja Lee Dr. Won Seok Lim
15:50 – 16:00	Coffee Break	
Session 10: Test		
16:00 – 17:00	Test *Interpretation of PCR and ELISA results.*	Dr. Sang Mok Kim Dr. Boo Ja Lee Dr. Won Seok Lim
Session 11: Assessment		
17:00 – 17:30	Appraisal on workshop implementation	Project Coordinator
Closing session		
17:30 – 18:00	Closing remark	Lecturer Project Coordinator NPPO-Korea

Day-6 (Apr. 30, 2016)

Time	Session	Facilitator
Extra session: On-site Visit		
09:00 – 17:00	Visit the plant quarantine inspection site	NPPO-Korea