
Phytoplasma

NPDN Training

MARCH 2025

USDA APHIS PPQ Science and Technology
Plant Pathogen Confirmatory Diagnostics Laboratory



Phytoplasma

NPDN Training – MARCH 10-11, 2025

AGENDA

TIME	TOPIC	INSTRUCTOR	ROOM
Day 1 - March 10			
8:30-8:45 am	Welcome; Introduction of participants and course facilitators	J. Yasuhara-Bell	Levy Conference Room
8:45-10:00 am	General introduction on phytoplasma biology and diseases associated with phytoplasmas	J. Yasuhara-Bell	Levy Conference Room
10:00-10:30 am	Introduction on Phytoplasma classification	J. Yasuhara-Bell	Levy Conference Room
10:30-10:45 am	Break		
10:45-12:00 pm	Extraction procedure review	J. Yasuhara-Bell	Levy Conference Room
12:00-1:00 pm	Lunch Break		
1:00-4:00 pm	Sample preparation and DNA extraction	J. Yasuhara-Bell	Methods Laboratory
Day 2 - March 11			
8:30-9:30 am	Molecular detection methods and review of protocol	J. Yasuhara-Bell	Levy Conference Room
9:30-10:15 am	16SrX group assays – ‘Ca. P. mali’ and ‘Ca. P. prunorum’	J. Yasuhara-Bell	Levy Conference Room
10:15-10:30 am	Break		
10:30-11:30 am	PCR set-up	J. Yasuhara-Bell	Methods Laboratory
11:30-12:00 pm	Synthetic control	J. Yasuhara-Bell	Levy Conference Room
12:00-1:00 pm	Lunch Break		
1:00-1:30 pm	PCR results analysis	J. Yasuhara-Bell	Levy Conference Room
1:30-2:15 pm	Semi-nested Conventional PCR and Sequencing	J. Yasuhara-Bell	Levy Conference Room
2:15-2:45 pm	Sequence analysis exercise	J. Yasuhara-Bell	Levy Conference Room
2:45-3:00 pm	Break		
3:00-3:30 pm	Metabarcoding	J. Yasuhara-Bell	Levy Conference Room
3:30-5:00 pm	Course Evaluation, Quiz and Discussions	J. Yasuhara-Bell	Levy Conference Room