



Ornamental Plant Pathology Washington State University-Puyallup Nhi Vu Summer 2016



Introduction

WSU Puyallup Research and Extension Center was established in 1894. The Center consists of 160-acre main campus and 152-acre Goss research farmland. The Center's faculty, staff and graduate student are working on 11 academic departments to address complex biological, ecological and social issue. The Ornamental Plant Pathology is a large research at the center. The program focuses on disease and postharvest preservation of Christmas trees, ornamental bulb crop and cut flower, ornamental and conifer nursery stock, and sudden oak death.

Responsibilities:

1. I mainly worked on the study of movement of *Phytophthora ramorum* inoculum in the soil profile. The result of the study would help to determine how deep the stem treatment should be to control the pathogen. The project involve various tasks:



a. Inoculate Rhododendron 'Nova Zembla' leaves with *p. ramorum* to create inoculum sources:



a. Set up the soil columns for the experiment



c. Make growth media



d. Test for the present of *P. ramorum* in the supernatant and the filtrated water by: direct plating and through disc leaves and intact leaves bait.

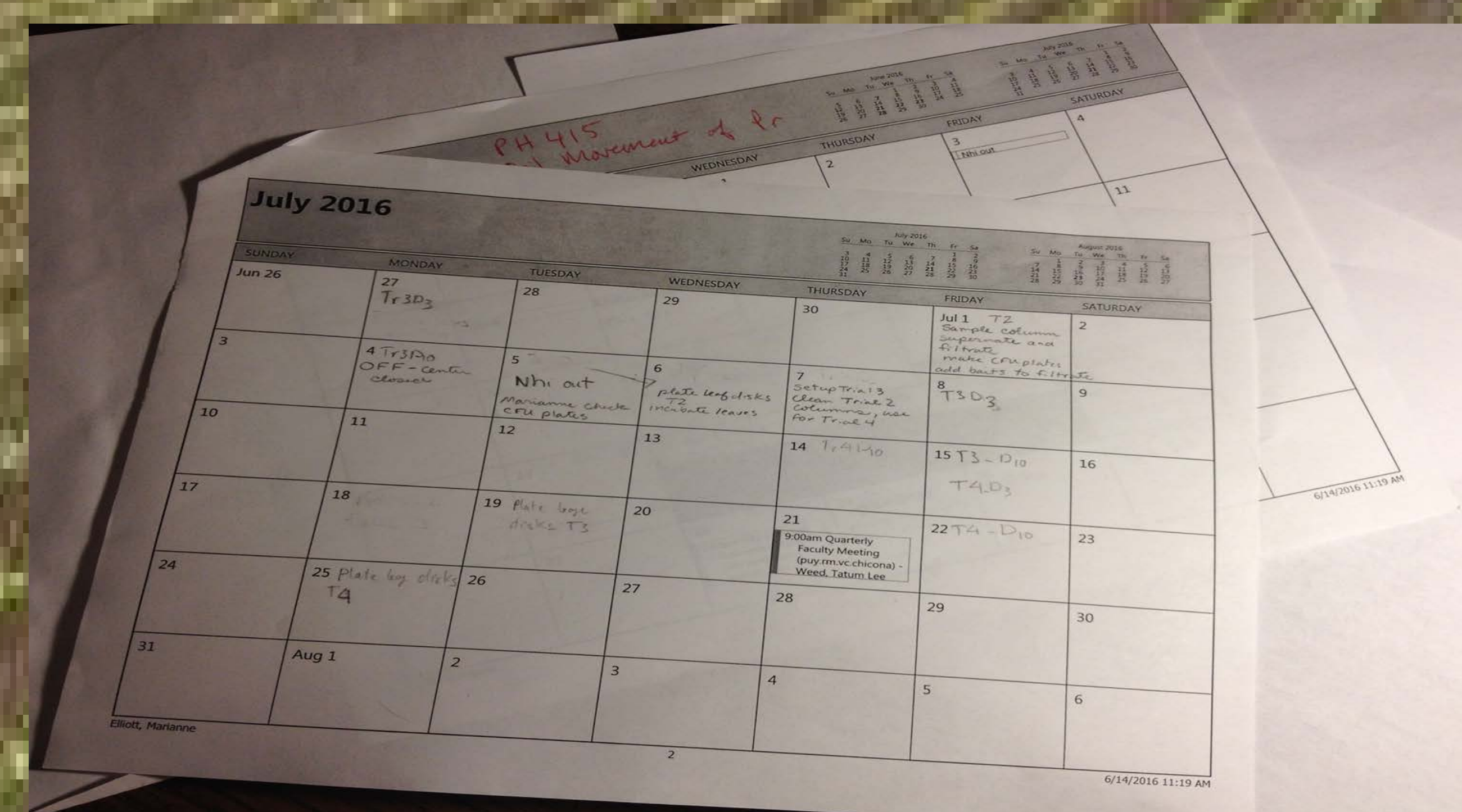
Trial 4		Soil Properties										
Column #	Depth, cm	% OM	soil type	compaction	L1	L2	W1	W2	W3	T1	T2	V
1	0	0	sandy loam	none	61.3	61.7	152.98	1716.5	1547.6	11.0	11.0	11.0
2	0	0	sandy loam	none	61.3	61.1	1520.8	1714.1	1745.0	11.0	11.0	11.0
3	0	0	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
4	0	0	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
5	5	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
6	5	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
7	5	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
8	5	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
9	15	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
10	15	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
11	15	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
12	15	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
13	30	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
14	30	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
15	30	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0
16	30	10	sandy loam	none	61.3	61.1	1526.3	1713.4	1745.0	11.0	11.0	11.0

e. Record data

Summary:

The summer internship in WSU Puyallup Extension gave me many valuable experience:

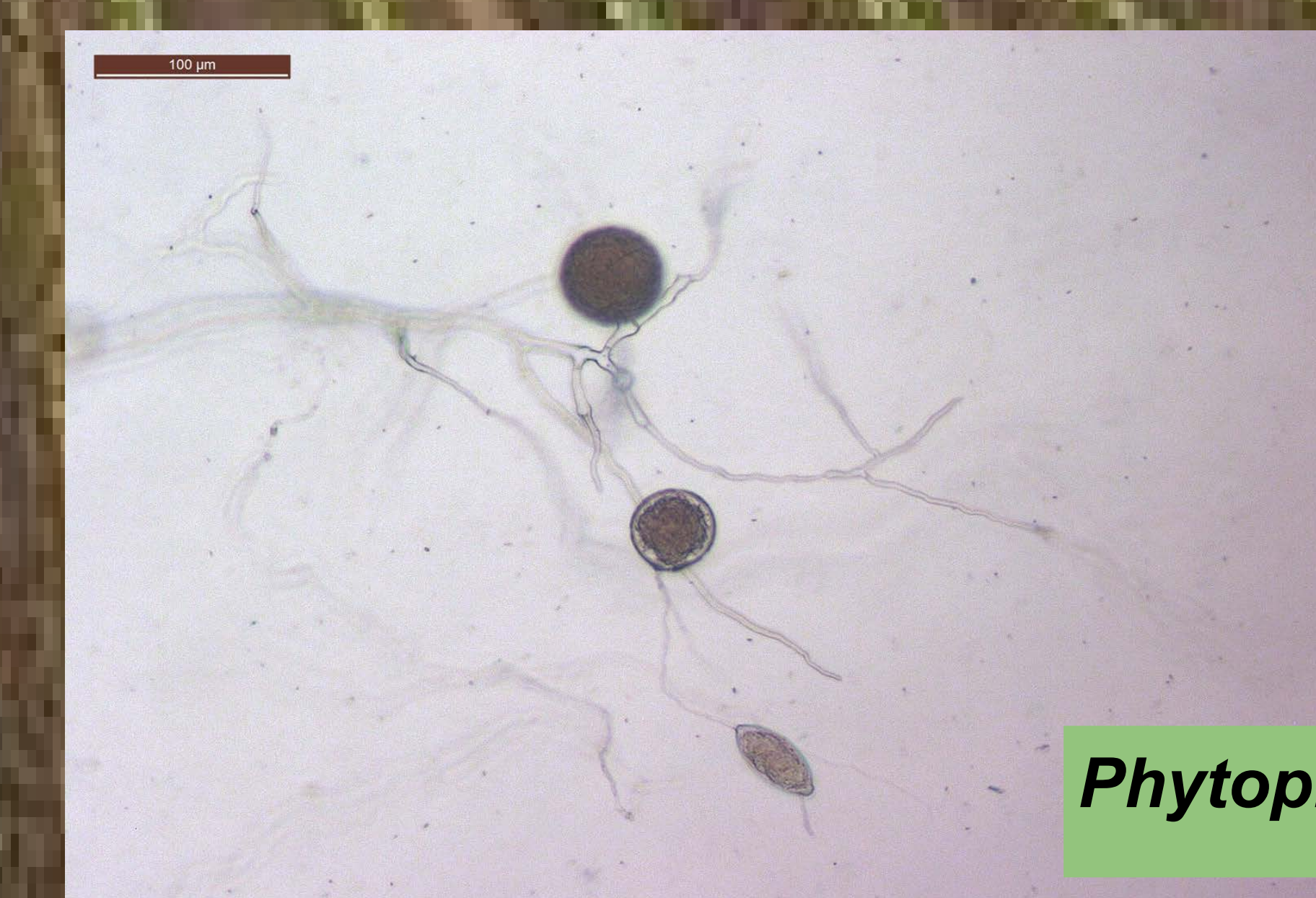
- valuable lab skills and experiments
- Time management skill
- An overview how researches be done
- Learning about real, current problems the nursery and public gardens
- Review the knowledge I had learned in general Plant Pathology course.
- Be familiar with some plant pathology terms



d. Schedule and keep track of the works

2. Beside that I also have change to :

- Visit and collect data, sample, isolated in nurseries, botanic garden Bloedel, and WSDA lab.
- Help with Christmas tree disease project
- Attend the safety lab lesson
- Attend the Ornamental Plant Pathology tour of graduate student in Puyallup extension center.



Phytophthora ramorum