



ses

school of environmental sciences

The Research Seminar Presentation by

Behrang Behdarvandi

Will be held on

Wednesday March 09, 2016

At 10:10 am

ALEXANDER HALL 337

Title:

Interaction of replant-associated *Cylindrocarpon destructans* with American ginseng (*Panax quinquefolius*)

Abstract

The most significant concern relating to ginseng production is replant failure, a phenomenon where ginseng cannot be successfully cultivated in the same garden twice because of diseases, including root rot caused by *C. destructans*. Under non-replant conditions, *C. destructans* causes limited root rot symptoms on ginseng roots; however, the fungus becomes more aggressive causing severe symptoms under the replant conditions. The main questions that have not been fully understood yet are: why *C. destructans* strains act differently in replant soils and what factors alter the fungal virulent levels under replant conditions. Therefore, the main purpose of this study is to investigate factors contributing to root rot disease caused by *C. destructans* in replant American ginseng. To achieve this goal, the genomic variations among different *C. destructans* isolates will be examined to develop a PCR assay to identify and differentiate more aggressive strains. In addition, factors including soils, microbes and ginseng root exudates will be investigated for their effects on *C. destructans* virulence. The results are expected to help us improve our knowledge of root rot and develop integrated methods to manage the replant diseases in ginseng production.

Everyone is welcome to attend

(This is a Research Proposal presentation by students in ENVS*6900)