



"Our environment is our future"

RESEARCH COLLOQUIUM SERIES

Dr. Peter Kevan

University of Guelph



Friday
Oct. 1, 2010

3:30 - 4:30

LECTURE THEATRE

7 - 150

Alliances between beneficial insects, plants and fungi pollinate, protect, and promote crop production

When you sink your teeth into a luscious greenhouse-grown tomato, thank a bumblebee for pollinating tomato flowers. Bumblebees are essential world-wide for pollination of greenhouse grown vegetable crops. Apart from being great pollinators because of their ability to obtain and disperse pollen, they can also be used to disseminate other tiny particles, notable fungal spores. Although some fungi are plant pathogens, others can be used, as biological control agents, to fight crop pests. Using special dispensers on the fronts of bumblebee hives placed into greenhouses for crop pollination, fungal and microbial biological control agents can be disseminated onto the target crop plants where they attack other fungal pests, such as grey mould (*Botrytis*) as well as a suite of insect pests, such as tarnished plant bug, peach aphid, white fly, and thrips. By mixing two biological control agents, such as *Clonostachys rosea* and *Beauveria bassiana*, the formulations are safe for the bumblebee vectors, suppress pathogenic fungal infestations and populations of pest insects, and allow for effective pollination of crops such as tomato and bell pepper. The same sort of technology is being used on field crops such as strawberries, raspberries, blueberries, possible apples and pears, and some oil seed crops like sunflower and canola for which honeybees are the primary vector-pollinators.

The R & D presented in this seminar has come about from the results of pioneering efforts in Canada at the University of Guelph, Agriculture & AgriFood Canada, and private industry.

Dr. Kevan's presentation will be followed by poster presentations by NRES Graduate Students in the Winter Garden.

All Welcome