

# SES Fall Seminar Series

## Dr. Chris Cutler

Dept. of Environmental Sciences, Faculty of  
Agriculture, Dalhousie University, Halifax, NS



### ‘When poisons stimulate insects: the occurrence and significance of insecticide-induced hormesis’

High amounts of stress are harmful to organisms, but in low amounts may stimulate certain biological processes. This biphasic response to a stressor, termed ‘hormesis’, has been seen in many insect taxa following mild exposure to stressors, including pesticides. Pesticide-induced hormesis in insects is most often observed as stimulated reproduction, although stimulatory effects on other physiological and behavioral processes have also been reported. Given that insect pests in agricultural settings are often exposed to sub-lethal doses of pesticide, the ramifications of pesticide-induced hormesis for pest resurgences and insecticide resistance development may be significant. On the other hand, there may be opportunities to use hormetic principles to improve commercial production of insect natural enemies, or to better understand how beneficial insects like pollinators respond to low doses of pesticide.

Friday  
**November 13,**  
2015  
3:30 - 4:30 pm  
Alexander Hall  
Room 218

All are welcome to attend!



**ses**

school of environmental sciences



Food  
Agriculture  
Communities  
Environment