

The 28th Annual H.R. MacCarthy Lecture in Pest Management

Lessons from the last 10 years of *Drosophila suzukii*: Moving forward with management

Monday, December 7, 1:00-2:30 pm PST

Speaker: Dr. Hannah Burrack, North Carolina State University

Since its detection in North America and Europe in 2008, *Drosophila suzukii*, commonly referred to as the spotted-wing drosophila, has rapidly spread throughout both regions and colonized all fruit producing areas within five years. This unexpected invasion came with significant consequences in affected host crops (caneberries, cherries, blueberries, strawberries, grapes and others). Zero tolerance for infestation resulted in increases in pesticide use from 20% to 200% or greater, which in turn increased production costs and potential for market-limiting residues. Outbreaks of non-target pests have also been associated with *D. suzukii* management. We have made significant strides in understanding the biology of *D. suzukii* in its introduced range and are now translating this information into improved management strategies. The rapid, global range expansion of *D. suzukii* presents unique opportunities to address broader issues associated with future invasive species, particularly those which are not currently considered high risk in their native range.



Speaker Bio: Hannah Burrack is a professor & extension specialist in the Department of Entomology & Plant Pathology at North Carolina State University, where she has served since 2007. Dr. Burrack leads the Specialty Crop IPM Laboratory which develops biology based pest and pollinator management strategies. Recently, she has accepted an appointment at the Director of Education & Outreach for the NC State University Plant Sciences Initiative. Dr. Burrack completed her doctoral research at the University of California, Davis in 2007 where she focused on the biology and management of the olive fruit fly (*Bactrocera oleae*), which at the time has recently invaded California. Dr. Burrack carried this interest in invasive species management to NC State and has been a national and international leader in the response to *Drosophila suzukii*, the spotted-wing drosophila. During her career at NC State, Dr. Burrack has trained 17 graduate students, contributed to 62 peer reviewed publications or book chapters, and generated over \$11 million in program funding. In addition, she has engaged with grower stakeholders through contributions to 25 production guides, over 420 meetings to more than 27,000 attendees, and extensive media contacts.

Registration: bcacarn.com/swdtalk

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DR H. R. MACCARTHY began his career in agricultural research in 1948 as a student assistant at the Field Crop Insect Laboratory at Kamloops. Mac grew up in England, was an agriculturalist in Australia, a cattle rancher at Princeton, B.C. for 9 years, and spent nearly 6 years in war service with the Canadian Infantry Corps. After returning from war service in 1946, Mac attended the University of British Columbia, receiving his B.A. in Zoology in 1950. He went directly on to graduate studies at the University of California at Berkeley and was awarded his Ph.D. in 1953.

He returned to Kamloops and worked there until 1955, when he was appointed Officer-in-Charge of the Field Crop Insect Laboratory on the campus of the University of British Columbia. He was named Head of the Entomology Section of the Vancouver Research Station in 1959. Dr MacCarthy's research was largely on the transmission of potato leaf roll virus by aphids. Collaborative work by him and other scientists at the station led to almost complete control of potato leaf roll virus in the province.

Dr. MacCarthy was an adjunct professor at Simon Fraser University's Centre for Pest Management since 1974. Immediately following his retirement from Agriculture Canada in 1976, he became a sessional lecturer at Simon Fraser University, and was acting director of the Centre for Pest Management for more than two years. Dr. MacCarthy passed away on April 7th, 2004.

The purpose of the H. R. MacCarthy Pest Management Lecture is to present an annual lecture by a distinguished pest management scientist or practitioner. The venue of the lecture will alternate between Simon Fraser University and the University of British Columbia. The Lecture is managed by the H. R. MacCarthy Lecture Committee, consisting of representatives of the University of British Columbia, Simon Fraser University, and Agriculture and Agri-Food Canada. It is funded by revenues from the H. R. MacCarthy Endowment Fund held by Simon Fraser University.



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