

Monitoring efforts and detection of the invasive pest, Spotted wing drosophila (*Drosophila suzukii*)



Spotted wing drosophila (SWD) is considered a new invasive pest in Canada, having been first detected in British Columbia in 2009 and in Ontario in the fall of 2010. This pest is considered a serious threat to most temperate fresh fruits. Climate analysis conducted by the Canadian Food Inspection Agency, showed that British Columbia, Ontario, and Nova Scotia are all at high risk for establishment of this pest. National surveys in 2011 did not detect SWD in Alberta, Saskatchewan or Quebec, despite captures in Quebec in 2010.

Monitoring efforts in Nova Scotia were conducted in the Annapolis Valley and Colchester/Parrsboro counties. Sixty traps were set up in various crops that included strawberry, sweet cherry, raspberry, blackberry, high and low-bush blueberry, cold hardy kiwi and grapes with additional traps in the vegetation adjacent to the crops (hedgerow, bramble, wind breaks, etc.). Compost sites/receiving sheds were also monitored in addition to six 'wild' sites (no crop nearby). Weekly sampling started in late May with our first confirmed capture in early August 2011. Since that time, we have continued to find both male and females within the Annapolis Valley and numbers are steadily increasing. In late August, we incubated fruit from confirmed trap capture sites and had adults emerge. Overall fruit inspection confirmed that fruit quality in Nova Scotia remains high and current research efforts in BC and the USA have demonstrated that this pest can be managed.

Our plans for 2012 include: fitting an existing climate based distribution model to Annapolis Valley/NS conditions and relating to 2011 capture data (Jeff Franklin), survey in early season to establish overwintering sites and spring numbers, determine distribution/basic phenology of pest, and continue to work with growers to monitor and control for SWD.

Contact: Deb Moreau at 679-5710 or Debra.Moreau@agr.gc.ca