



REGIONAL ADAPTATION ENHANCEMENT PROGRAM | PROJECT SUMMARY

New Tool Gives Okanagan Tree Fruit Growers Edge on Pest Management

THE CHANGING CLIMATE IN THE Okanagan has broad implications for agricultural pest management, including increasing populations of problem species, and the arrival of new pests in the region. A project to adapt a successful pest management decision support tool developed by Washington State University (WSU) is expected to provide Okanagan tree fruit growers with an important new resource to improve orchard management.

Washington State University's Decision Aid System (DAS) is a web-based platform designed to provide management information to orchardists using real-time, local weather data and pest and disease models to help predict and manage pests and diseases.

"This is the Cadillac of pest management decision support systems: tried, tested and loved by Washington growers because it saves them time and money and improves the efficacy of pest management," says Melissa Tesche, Acting

PROJECT	<i>Decision Support Tool to Improve Local Tree Fruit Management</i>
LOCATION	<i>Okanagan</i>
COMPLETION	<i>2017</i>
PROJECT LEAD	<i>Okanagan-Kootenay Sterile Insect Release Program</i>
FUNDING PARTNERS	<i>Agriculture and Agri-Food Canada, BC Ministry of Agriculture, Okanagan-Kootenay Sterile Insect Release Program</i>

General Manager for the Okanagan-Kootenay Sterile Insect Release Program.

"The benefits include improved precision and timing with management and treatments. This minimizes associated labour and costs as well as helping to maintain beneficial insect populations and reducing environmental impacts," she adds.

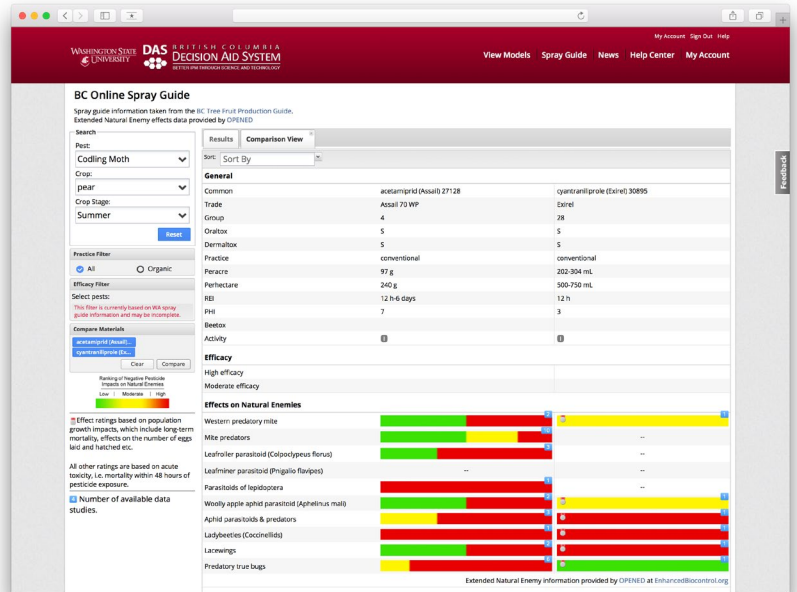
Climate change impacts, including an increase in annual and winter temperatures are expected to increase winter survival rates in pests, as well as the number of cycles some pests have in a year. New pests and diseases that previously couldn't survive in the Okanagan are also more likely to migrate and become established in the region. Using real-time weather data, DAS predicts when a specific pest or disease is likely to emerge, and provides growers with a recommended treatment plan. With the increasingly variable conditions associated with climate change, this will assist producers to make suitable management decisions.

Dr. Vincent Jones leads the Insect Ecology and Behavior Laboratory at WSU. He has been meeting with local experts in the Okanagan including senior field staff and consultants, as well as entomologists and climatologists at the Summerland Research Centre, to ensure the weather and pest inputs and models make sense for local conditions.

DAS has a clear, simple web-based interface that provides information linking weather conditions with pest lifecycles and treatment information and alerts for growers. It is programmed for conventional and organic management recommendations, allowing growers to choose the treatments that are right for their operation. The system has been in use in Washington State for nearly a decade.

“This is bringing all the complex information that exists in different places, and weaving it together to provide the best information to growers,” says Tesche. “It’s no substitute for boots on the ground in your orchard, but it can give advice on when you might want to apply certain management practices.”

Developing resources to link weather, pest and disease data with decision support tools was identified as a priority action under the Okanagan Regional Adaptation Strategy released in 2016 by the BC Agriculture and Food Climate Action Initiative. The regional strategy brought agricultural



producers together with local governments and provincial agencies to identify collaborative solutions and actions to adapt to the climate change impacts identified for the Okanagan.

Projects like this are part of the work being delivered by the BC Agriculture & Food Climate Action Initiative (CAI). CAI develops tools and resources to assist BC farmers and ranchers with adapting to impacts of climate change. CAI’s Regional Adaptation Enhancement Program provides up to \$300,000 to implement priority projects identified in each regional adaptation strategy.

www.BCAGClimateAction.ca

The BC Agriculture & Food Climate Action Initiative (CAI) was launched in 2008 by the BC Agriculture Council to enable a proactive and pan-agriculture approach to climate change issues. CAI is currently supported by the BC Agricultural Research & Development Corporation and the Investment Agriculture Foundation of BC, with funding provided by the Governments of Canada and British Columbia through Growing Forward 2, a federal-provincial-territorial initiative.

The photo in this handout is courtesy of Emrys Damon Miller.

