

Report to the 2023 BCFGGA Convention

From the

Horticulture Committee (formerly the Crop Protection, Research, Water and Environment Committee)

We have renamed the committee to cover the same areas as in prior years, but with a more straightforward name. The biggest shift in the past year is the federal and provincial government targeting of research funding to climate change, and specifically to reducing greenhouse gas emission and sequestering carbon. Orchards can play a role in both of these goals. The BCFGGA is fortunate to have hired Gail Nelson to be the staff lead on horticulture and research projects. This will give a new focus and energy to our Horticulture Committee in the future.

The SIR program is under financial pressure due to the decline in Okanagan apple acreage, about 17% over the past 4 years. A study was conducted to show the benefits of the SIR program to the environment and economy, and while the federal government did not announce any financial support for the program, the province allocated \$325,000 to help with the shortfall over the next few years, which is the cost of providing the DAS system.

SIR continues to seek to improve the effectiveness and reduce cost by trying out x-ray technology and the use of unmanned aerial vehicles to release moths. However, the program budget, like the cost of farming, is rising and growers will be asked to contribute more to this valuable program to keep it viable. The BCFA Board approved an expenditure of \$40,000 to help reduce the produce parcel tax increase from 8% to 4% for 2023.

I am pleased to announce the release of the Apple Clearwing Moth pheromone demonstration report.

CFIA continues to protect the Okanagan apple sector through area-wide trap monitoring and we hope that previous experience holds true - that Apple Maggot does not survive in our climate. A detection of Oriental Fruit Moth in the Southern Okanagan is also hoped to be an isolated incident and that this pest does not become endemic in our area - increased monitoring will take place in 2023.

Brown Marmorated Stink Bug in the Okanagan, trap counts outside of a central urban area of Kelowna have been low for several years. BMSB movement is virtually uncontrollable due to the way the insect flies and 'hitch hikes'. In the past year, a natural wasp predator of Brown Marmorated Stink Bug appears to be established. More research into control is needed.

A huge win for cherry growers would be a solution for Spotted Wing Drosophila. A lot of research is going on internationally, including in Sterile Insect Technology.

The BC Plant Protection Advisory Committee (BCPPAC) is an inter-governmental group that looks at invasive pests and how to control them. The BCPPAC uses sub-committees to develop specific sector plans. The Tree Fruit Subcommittee of the BCPPAC includes the BC Ministry of Agriculture, Okanagan Horticultural Advisors, BCFGA, Summerland Research and Development Centre, and other AAFC specialists. Work is ongoing for pests such as Brown Marmorated Stink Bug, Apple Maggot, Japanese Beetle and other possible pest introductions (Japanese Beetle and Lantern Fly for example).

Little Cherry Virus is emerging as a concern and increased surveys are needed to determine how widespread the virus has become, and to provide information on best practices to reduce the spread of this serious virus of cherries and other soft fruits.

BCFGA, pre-pandemic, supported the establishment of a new Plant Virus Research Centre at the site of the Sydney, BC imported plant quarantine facility. Ground is being broken this Spring and this centre will play an important role in plant virus research.

We are looking forward to more federal progress on the national Plant Protection Strategy, which was adopted about 3 years ago federally.

The BCFGA continues to nominate three producer-directors to the Sterile Insect Release Board - Tarsem Goraya, Joginder Dhand, and Walter Makepeace are the current representatives. Glen Lucas also attends Board meetings. SIR has helped offset its financial challenges (reduced apple acreage) by growing revenue from commercial sales of Codling Moth to other areas. An SIR 2.0 study is seeking a longer-term plan for financial stability of the program.

The BCFGA ensures that an industry representative attends the national Minor Use meeting on behalf of tree fruit. Last year, Deep Brar attended and BCFA plans to send a representative again this year.

Research

We will in the near future be providing updates on several recently completed research projects, including:

- Peach Thinning (University of Guelph) - \$3,000 / 3 years
- Optimized Netting Systems, using low pesticide inputs and mechanized practices (Research and Development Institute for the Agri-Environment, IRDA). \$10,100 / 5 years
- Sustainable Control Practices for Apples Pests (apple leaf curl midge and Leafroller). \$6,900 / 3 years
- Monitoring several pests to establish or improve Degree Day Models.

A new set of research projects is being considered for approval under the Apple Research Cluster, involving the four apple-producing areas of Canada.

Water

February 2022 was the deadline to register water wells, in order to preserve their access to water and gain priority for irrigation water use. If you have not yet registered your irrigation well, do so now.

The increased water rates for Okanagan farms has far exceeded the general inflation rate. At a time of great financial pressure on growers, many think that the increased cost of treating water for drinking water concerns is unfair to agriculture. We had an encouraging but brief discussion with a government minister on the topic, but unfortunately this discussion has been disrupted by the recent cabinet shuffle and we will need to re-start the dialogue.

The 2021 heat dome impacted the 2021 and 2022 crops. A partial solution for growers is to apply more water for cooling. Irrigation systems need to be properly designed (there is an EFP grant for this technical work to be done) and irrigation districts and cities need the help of the provincial and federal governments to increase water storage. Last year, we discussed the need for more flexibility in rules - in a mild Spring, it does not make sense to keep the same water turn-on date as we watch all of the water flow downstream to Portland, It makes sense to have the flexibility to fill up our soil water holding capacity when conditions make it possible (heavy stream flows in warmer Springs or the start of rainy Fall weather before freeze-up). The piloting of an Agricultural Water Reserve in the Okanagan needs some initiative in coming years. Katie Sardinha is the BCFGAs representative on the Okanagan Water Stewardship Council who will be taking forward regional water concerns. The BCFGAs recently attended a Sustainable Water Workshop, along with other agriculture associations from across the province.

Last year, we noted the correlation or reinforcing relationship between increasing water applied to soil and an increase in soil organic matter, or carbon sequestration. This interaction could lead to a re-thinking of water conservation. We should not waste water, but another use of water is to improve the sequestration of carbon in soil: irrigation is good for climate change.

The BCFGAs is sponsoring research assessing the direct and indirect economic value of irrigated agriculture to the Okanagan, and the potential implications for future water allocations and irrigation infrastructure investments to maximize this contribution.

Environment

As noted, the federal and provincial governments are placing a lot of funding and resources into climate change programs. A new area of effort is the Agriculture Climate Solutions (ACS) / Living Labs Program. Gail Nelson has been very active in organizing this project, and a recent workshop has given important direction for the next few years of demonstration/research projects.

It is important to note and to thank the efforts of our partners, including the Sterile Insect Release Program, the Canadian Food Inspection Agency, the Pest Management Regulatory Agency, and the Pest Management Centre of Agriculture Canada. The scientists at PARC and the BC Ministry of Agriculture are critical to our pest control objectives.

Although the BCFGAs Horticulture Committee did not meet this year, the BCFGAs has been very active in many aspects, and with our new staff Gail Nelson in place, our Committee will be re-activated.

Respectfully submitted,

Deep Brar,

Chair

Crop Protection Committee