

Plain Language Research Summary - AgriScience Grape & Wine Cluster 2023-2024

Activity 6: Sustainable control of grapevine trunk diseases under a changing climate

Principal Investigator(s): Dr. Jose Ramon Urbez-Torres (AAFC Summerland)

1. What is the overall focus of this research activity?

Grapevine trunk diseases (GTD) are responsible for significant economic losses to the grape and wine industry and the main factor reducing yields and limiting vineyard longevity. Though GTD research is still at the early stages in Canada, studies led by the plant pathology laboratory at the Summerland Research and Development Centre during the past years have significantly contributed to better understand the status and role that these diseases play on Canadian vineyards' health.

The current project aims to understand the role that stress factors caused as a result of climate change (water stress, heat domes, freezing events) factors play on GTDs development. In addition, this research project aims to develop and implement the first biocontrol strategies against these diseases in Canada and identified locally sourced biocontrol agents with high control activity against GTDs fungi.

2. What are the main progress updates/milestones in terms of work that was done on this research activity this year?

There was no work conducted in this activity during the 2023-2024 fiscal year and consequently no progress updates/milestones to report.

No work was conducted due to the significant delay on the approval of the Grape and Wine cluster under which this activity falls. The Minister announced the approval of the Grape and Wine Cluster late in the 2023 year and scientists were informed on the approval of their activities early in 2024 but funding was not made available to scientists in the 2023-2024 fiscal year.

In addition, the deep freeze British Columbia suffered in January 2024 has decimated the industry with 99 to 100% bud damage. There is still uncertainty on the current situation and plant survival in vineyard blocks. We expect to have more information about the impact of the winter kill around mid-summer when a better assessment on full vine survival will be made. This has significantly impacted BC industry and consequently the research proposed in this activity. It is possible that many vineyard blocks will be pull out

and replanted while many others will be re-trained. Efforts will be made at our end to find suitable vineyard blocks to complete the research proposed but is still early to know how this will finally impact the block selection and research.

3. What is this research activity's intended impact on the Canadian grape and wine industry? What benefits could/will the growers, wineries, consumers, etc. see as a result of this research?

The main goal of this activity is to develop effective and sustainable control strategies against grapevine trunk diseases, including biological control. In addition, this research intends to better understand the effect that abiotic and biotic stress factors have on disease development and vine mortality. Developing sustainable control activities and understanding how stress affect disease we aim to provide the industry with the proper and effective management tools to mitigate the effects that these devastating diseases have on grape production.

4. Do you have any communications materials, publications, or other content related to this research activity that you would like CGCN-RCCV to share? If so, please provide a brief description here and either link it here or send the file as an attachment along with this summary.

As no work was conducted during 2023-2024 due to the delay in funding, no material is currently available related to this research activity.