

Pipfruit grower tools

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With the dawn of the electronic age, a lot of data can be collected and processed very quickly. Increasingly, knowing what to do with the data is a bigger challenge. This is certainly true of weather data, where collection can be automated as well. Pipfruit growers are very fortunate to have data collected and processed for them. It is then turned into valuable business information for them, thus lowering the transaction cost of getting to tools that will help their business grow and prosper. Dr. Mike Butcher from Pipfruit New Zealand has asked me to devote the current month's article to tools available to pipfruit growers around the country.

To access this Internet site you will need a login code and a password. If you are a pipfruit grower this can be obtained by calling the Pipfruit NZ office in Hastings. Login and go to the Tools menu item then select HortPlus Tools. An example of the screen layout is shown in Figure 1. The main screen is divided into 5 areas. These are Weather Tools, Forecast Tools, Diary Tools, Pest and Disease Models and Property Tools. The Weather and Forecast Tools display actual and forecast weather conditions. The network of climate stations is about 45 strong and these sites are downloaded every hour on average. The forecasts are updated 4 times per day. So, they give growers a good indication of what has been and what is forecast to happen.

The Pest and Disease models are specific to Pipfruit and include Blackspot, Fireblight, Codling Moth and European Red Mite. All of these models were developed to predict an outbreak of Pest or Disease and give the grower a good indication of the need to apply an Agrichemical for control. The Codling Moth model is critical to the export of fruit to Taiwan and tells growers when to apply their first spray for optimal control. The Integrated Blackspot model was developed by Dr Robert Beresford from HortResearch. It aims to provide a fully integrated view on Blackspot infection. To my knowledge, it is the most advanced system internationally and Dr Beresford deserves recognition for this.

The Diary tools area, attempts to integrate spray information with weather data. By combining these, a grower can examine their response to potential disease outbreaks. The idea is to use these tools as a post mortem of the season just gone to isolate any areas of concern. In addition, a grower can compare how they have gone in applying Agrichemicals to their neighbour or other growers in the industry. This tool is designed so that a grower can continue to improve their spray application by comparing what they have done to other growers in the same sector.

Of special mention is the SprayDrift Forecast in the Forecast Tools menu. An example of the output is shown in figure 2. Given that a grower has decided to spray, the key question, is when? This tool should help answer that question and encourage responsible use of Agrichemicals. We have recently completed mapping of all Pipfruit properties in New Zealand. A grower should be able to examine spray drift in relation to their property. This should prevent uses spraying at inappropriate times and limit the number of "off target" spray complaint to local Regional Council.

At the moment, these tools are only available to Pipfruit growers. We hope to have them available to other sectors in the next few years. It is of great credit to Dr Mike Butcher that he has lead the charge on behalf of Pipfruit growers in taking on this advanced level of science. It seems clear that other sectors would benefit from such information. I have recently met with Zespri and we quickly came up with a list of tools specific to that sector. Hopefully, they will have these tools soon. In the meantime, we encourage all Pipfruit growers to log-in and have a look. We feel confident that the tools will supplement their business. If you have any questions, please feel free to contact us.