

# Bitwise Agronomy introduces 'Greenview' to the berry industry

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Having been involved in the berry industry for a short time (only 3 weeks!) the name Bitwise Agronomy has come up in conversation with colleagues and industry numerous times. This piqued my curiosity and after watching a few of their videos online I decided I should investigate their operations further.

I've discovered since moving to Tasmania that it seems like everybody knows everybody else, and this appears to be true of the berry industry here too. While a lot of the Tasmanian growers might know Bitwise Agronomy and their CEO Fiona Turner owner of Jinglers Creek vineyard, I thought this article would be a great opportunity to feature Bitwise Agronomy and their software "Greenview". This will give berry growers the opportunity to learn more about some of the fantastic, home grown industry driven technology they have developed for fruit growers.

## What is Greenview?

Greenview is a smart imaging and data collection application which is driven by a custom Artificial Intelligence (AI) platform. Images are captured by attaching a camera such as a GoPro to a farm vehicle and filming the crop as you drive through the rows. As the camera films, the application recognises parts of the crop, such as flowers, buds and fruit at different stages of maturity, classifying these and collecting the data. The images are collected and classified into pre-defined categories in a street view or side on view and plotted on a map using GPS technology. The data and imagery can then be accessed and analysed by the grower in maps, graphs and tables, as well as on video.

Being able to collect and analyse data that is not only representative of the whole crop, including data point locations, provides producers with the ability to assess their crops and inform their decision making without having to walk the field.

It provides data that can inform management practices ensuring they are more accurately targeted, saving time and money. Greenview can provide improvements in the areas of:

- Short term crop forecasting
- Harvesting and labour requirements
- Pruning
- Heat mapping of crop growth parameters to provide spatial analysis of the crop
- Crop yield information for items like location of bee hives for pollination improvement

Greenview was originally designed by Fiona and her team at Bitwise Agronomy as a way for her to monitor her vineyard whilst she was away. It has since also been tested in raspberry, blackberry and blueberry crops, gathering data specific to those crops. Every farm is different and the team at Bitwise Agronomy work with individual farmers by tailoring Greenview to collect data that suits the farm and informs the grower.



