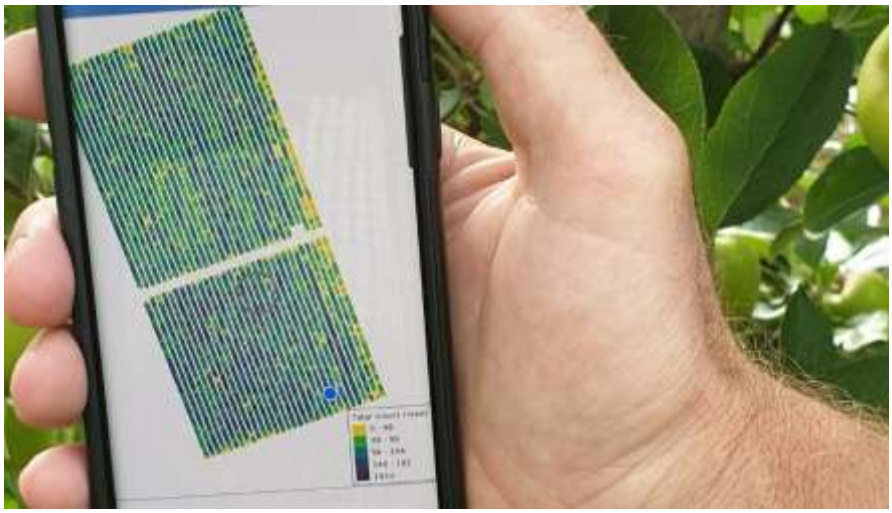
Crop & Canopy Scanning

We have completed our second season of scanning with our Green Atlas Cartographer. We were stoked to receive the Fourneau Trophy, for innovation in horticulture, at the HB Fruitgrowers awards!

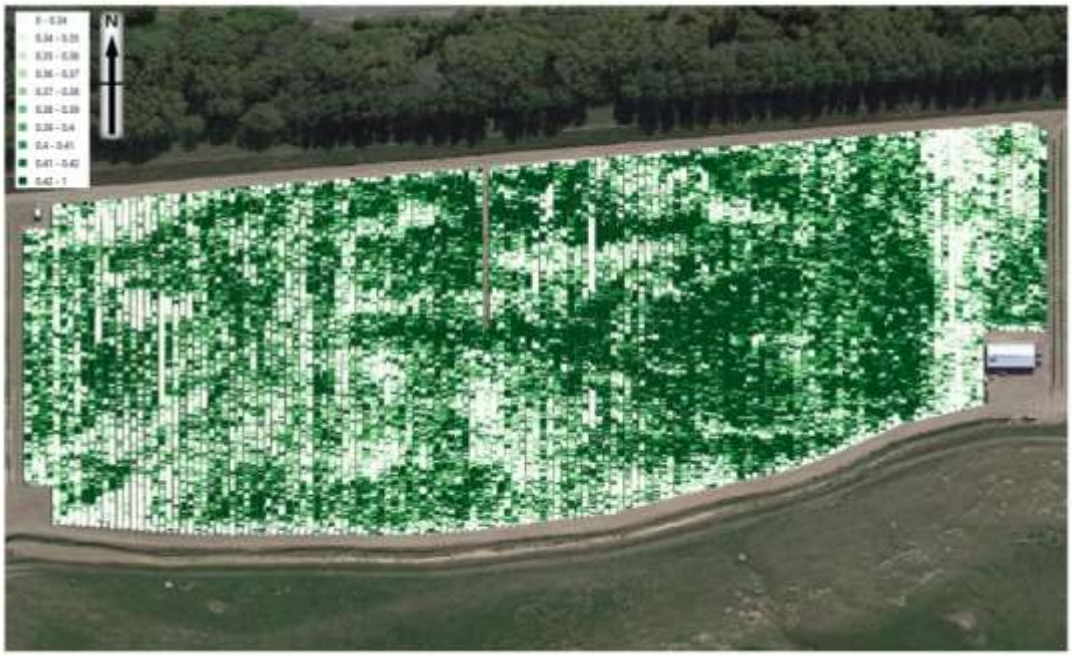
The enhancement to show geo-PDF maps on any device is a useful step forward. Manual fruit counting is not accurate, quick, cheap or much fun. Now we can see the variation over a whole block, and anyone can easily navigate to any area of interest in a block.



Does that light area even need thinning? Did the thinners miss the tops in that row? Was the QC on their toes? The amount of variation in blocks is often surprising, even alarming.

The Cartographer is taking our ability to optimize and estimate crops to a new level.

It's also cool that now we can measure the variation and take steps to fix it. For example, the following LIDaR scan show plenty of variation in the density (read tree vigour) in this block of apples. The darker the green, the more vigour the canopy, the poorer the colour, the lower the packout and fruit value etc.



The base cause is soil type (depth & texture) variation and while that can't be changed, selective management inputs can. The scanning data can be converted into a 'prescription maps' that give instructions to GPS enabled gear.

For example, liquid fertilizer can be 'flood-jet fertigated' to just the 'bony' (white areas) with a sprayer. Then, the growthy areas can be selectively treated with PGRs like Regalis or even root-pruned to help bring them back into line.

Variable Rate Prescription for Liquid Fert derived from Canopy Density.