

**Title** Characterising spatial variation in quality  
**Authors** J.-P. Praat, A.F. Bollen, A.D. Mowat  
**Citation** ISHS Acta Horticulturae 753:305-316. 2007.  
**Keywords** kiwifruit; dry matter; orchard management; canopy porosity mapping

### **Abstract**

Variation in product quality and consistency can limit kiwifruit orchard profitability. Fruit dry matter varies within the vine, within the block, and across the orchard. The proportion each aspect of variation contributes to the final batch variability. Fruit dry matter may relate to physical characteristics and local environmental gradients such as the slope, aspect or the amount of shelter. However, these effects can be significant, but are not consistent between orchards. Temporal patterns in fruit quality across an orchard over three seasons are also described where it was possible to identify zones of stable high and low dry matter, and other zones of unstable response. Technologies such as canopy sensing can add additional layers of information that can often indicate areas with different levels of dry matter.