

**Project proposal: Quantifying the effect of wind on fruit quality, yield and tree performance of bearing fruit trees during establishment of a new generation wind break in the Western Cape.**

**Co-supervisors:**

**Dr Elmi Lötze (SU, Dept of Horticultural Science, South Africa)**

**Prof Maike Veste (CEBra - Centrum für Energietechnologie Brandenburg, Germany)**

Quantify the effect of wind on fruit quality on different bearing positions at three distances from the wind break on different fruit crops (Nadrocott and Lemon citrus orchards and a plum orchard). (evaluate skin finish, fruit density and internal quality eg TSS/Acid ratio in citrus and relate this to distance from the windbreak)

Determine the effect of wind on fruit growth and yield at two distances from an established wind break. (measure weekly/bi-weekly growth rates of individual fruit on marked trees and yield/tree and relate to distance from the windbreak)

Quantify tree growth, in the top and bottom of the tree, as affected by wind at two distances from an established wind break. (measure shoot growth during the season, SWP, stomatal conductance and leaf and soil temperatures on ad hoc dates and to the distance from the wind break)