LEAF WATER POTENTIAL MEASUREMENTS ON COCONUT (*COCOS NUCIFERA L.*) USING A PRESSURE BOMB

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Soil moisture is one of the major factors affecting coconut yield. A better understanding of the effect of soil moisture on the plant water status of coconut is required to adopt suitable soil water management practices. Lack of a reliable and rapid method to determine the plant water status of coconut in the field has hindered progress in this field of study.

The Pressure Bomb method developed by Scholander *et al.* (1965) was adopted to determine leaf water potential (LWP) of young coconut in the field. A marked diurnal variation of LWP ranging from -1 to -13 bars with the highest values during mid-day and the lowest during nights, was noted. Neither the age of the frond nor the position of the leaflets had significant influence on LWP. Irrigation of the palms decreased LWP by as much as -10 bars.

The results showed that LWP as measured by Pressure Bomb could be used as a reliable indicator of the moisture status of coconut.

References:

1. Scholander, P. F., Hammel, H. T., Bradstreet, E. D. & Hemmingsen, E. A. (1965). Science, **148**, 339.