CIAE-SPAD Meter

SPAD (an absorbance based relative chlorophyll measure) is the most commonly used quick diagnostic tools to measure or estimate crop health and nitrogen status. It has high accuracy and less in-field calibration as compared to other measures. Relative Chlorophyll measures the greenness of the leaf and is widely used as one of the important measure of plant health.

ICAR-Central Institute of Agricultural Engineering, has developed the "CIAE-SPAD meter", a low cost instrument costing about Rs. 5000/-. The CIAE-SPAD meter measures the optical density difference at two wavelengths of 650 nm and 940 nm to calculate SPAD values for crops with leaves up to 1 mm thickness such as rice wheat, maize etc.

The CIAE- SPAD meter has similar accuracy to that of commercially available SPAD meter and of low cost. Therefore, it can become a potential diagnostic tool for measuring nitrogen status for research and field use.

The CIAE-SPAD meter requires to be attached to OTG enabled Android smart phone for data display and logging. The measured SPAD equivalent value can further be calibrated for quick estimation of measurement of chlorophyll content of the crop and to make nitrogen fertilizer recommendation.

For further Details:
ICAR-Central Institute of Agricultural Engineering
Nabi Bagh, Berasia Road, Bhopal - 462038 (Madhya Pradesh)