

A field experiment was conducted to evaluate the efficacy of two destructive and two nondestructive chlorophyll estimation techniques for two vegetable crops (aroma tomato *Solanum lycopersicum* L. and green pepper *Capsicum annuum* L.) in three different environments (open field, lath house and plastic house) to indicate the best method of chlorophyll estimation. Results demonstrate significant differences between SPAD and atLEAF data for tomato and pepper plants where higher levels with atLEAF instrument comparing to SPAD chlorophyll meter. Chlorophyll a content was related to carotenoid levels in both destruction methods.