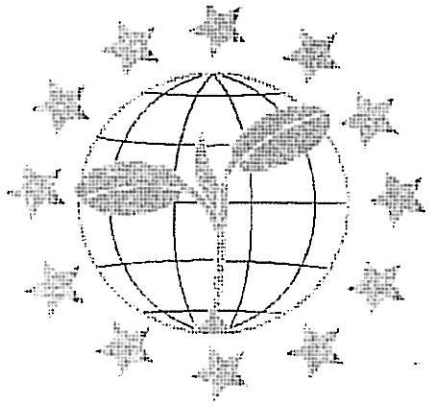

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BOOK OF ABSTRACTS

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Using a portable chlorophyll meter in potato crop

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The objective of this work is to study the suitability of the SPAD-502 chlorophyll meter readings to assess the nitrogen (N) status of the potato foliage through the reproductivity of the readings, variability among plants within each plot and response to the soil nitrogen availability. Readings were taken in a field fertilization trial with several different N doses. The coefficient of variation (CV) of thirty readings on the same leaflet (terminal leaflet of the youngest fully expanded leaf) ranged between 2,07 e 4,49 % for 4 different leaflets. Readings on thirty leaflets of different plants given CV ranged between 6,90 e 9,87 % for 4 different plots. At 13 days after emergence (DAE), there were no differences among fertilization treatments. The results suggest that chlorophylls are priority sinks for N and showed that SPAD readings do not respond to luxury N consumption. After 13 DAE, SPAD values declining continuously during the season, mainly in the treatments supplied with smallest amounts of nitrogen, and the differences among treatments acquired statistics significance. Split applications of N increased quickly the greenness of the foliage and simultaneously the SPAD values which reached always the saturation level for each growth stage. It is concluded that potato crop do not present particular problems to the use of SPAD-502. On the other hand, this N status index showed good sensibility to the soil N availability.