

Marines Batalha Moreno

TOTAL CHLOROPHYLLS CONTENT IN LEAVES OF STRAWBERRY PLANTS TREATED WITH UV-C RADIATION

Moreno,MB; Crizel,GR; Leite,TB; Cantillano,RFF; Rombaldi,CV;

Universidade Federal de Pelotas; Universidade Federal de Pelotas; Universidade Federal de Pelotas; Universidade Federal de Pelotas; Universidade Federal de Pelotas;

The high consumption of strawberries [*Fragria x annassa* Duch] has providing an increase in its cultivation. For this reason, new technologies to increase productivity has emerged in recent years. This technologies are able to improve the quality of the fruits that are very perishable and susceptible to diseases. Among these researches for new technologies, there is the use of stress techniques, such as (UV) ultraviolet light. This light that, upon reaching a vegetable, physiologically active it, inducing this way its defense mechanism and stimulate a greater production of compounds of the secondary metabolism. In order to obtain information about this technology, it's intended to evaluate the total content of chlorophyll in leaves of strawberry that has been treated with UV-C radiation during its cultivation and the others that haven't untreated. The way as the Strawberries, CV. Aromas has been treated is described following: T1 - indicates the application of UV-C lamps (Phillips ® 30W) and incidence of 39 μ WS², with applications every three days for 10 minutes; T2 - indicates the plants without UV-C application. The analysis of the content of chlorophyll were performed every 4 radiation applications. This analysis were measured using a Soil Plant Analysis Development chlorophyll meter (SPAD-502, Minolta, Japan). With this was measuring two leaves per plant in each experimental unit, totaling 96 sheets per treatment. The average level of total chlorophyll for the T1 was 43.16, not different from T2 with a average value equal 43.15. This result suggest the use of moderate doses of UV-C for the strawberries' cultivation, without to affect the photosynthetic capacity of the plants. Therefore, one of the factors from the photosynthetic efficiency of plants and from the growth and adaptability to different environments is the chlorophyll, constantly being synthesized and destroyed (by photo-oxidation) in the light presence. This pigment is essential in the conservation of luminous radiation into chemical energy and, consequently in its growth and adaptability to different policies. This result allows to conclude the use of UV-C radiation in pre harvest does not affect the total chlorophylls and it can be evaluated with higher incidences of radiation if order to use this technique as a good way to induce the plant's resistance during cultivation.