

Effect of recovery treatments on pepper plants exposed to low temperatures

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Abstract

Pepper is a specimen to sensitive cooling and culturing season during winter time causes damages that reduce production. The objective of the present investigation is to evaluate the effects of chemical treatments on the recovery of pepper plants affected by low temperatures, by determining of the conductivity of the cellular eflux and the activity of dehydrogenase enzymes. Plants cultivated in greenhouse non warmed were used. Different chemical treatments were applicad to those plants that suffered the effect of low temperatures previously. The treatments were (1)control; (2) a solution of mineral nutrients; (3) the previous alternative with added sucrose; (4) the treatment (3) supplemented with yeast. Four samplings were made replications. The dehydrogenase activity and the conductivity of the cellular eflux were determined, calculating with this last parameter, the index of tissue damage. All the treatments showed a favourable effect on recovery of the stresed plants; but treatment four was the most efficient, as evidenced by the smaller damage of cellular membranes and a smaller dehydrogenase activity.

Key Words: Acclimation, dehydrogenase activity, pepper, tisular damage, *capsicum annuum*.

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