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Effect of the cold acclimation on proline and protein contents in Cauliflower clones

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Various plants accumulate free proline in response to abiotic stresses. The free proline and the protein contents were evaluated *in vivo* in cauliflower mutant clones grown under different environmental conditions, i.e. in growth chamber (at 22°C), in growth cabinet at 4°C (cold acclimation) and in a green house at 15°C. The results showed negative correlation in production of proline *v.* protein. The higher the proline the lower the protein content and vice versa. The maximum proline and the minimum protein content were found in the clones grown at 4°C. The protein content was maximum in the green house plants. These findings indicate that non-freezing low temperature (cold acclimation) enhances the proline production in cauliflower while it reduces the protein level. The aim of this investigation was to evaluate and compare the proline and protein contents in the cauliflower mutant clones under acclimated and non-acclimated conditions.