

MORPHOLOGICAL AND BIOCHEMICAL ALTERATIONS IN PEPPER PLANTS (*Capsicum annum L.*) INFECTED WITH THE NEMATODE *Nacobbus aberrans*. Alterações morfológicas e bioquímicas em plantas de pimentão (*Capsicum annum L.*) infectadas com o nematoide *Nacobbus aberrans*. Bernardo, V.^{1,2}; Garita, S.²; Arango, C.²; Ripodas, J.I.²; Ruscitti, M.². ¹Comisión de Investigaciones Científicas (CICBA), Buenos Aires, Argentina. ²Instituto de Fisiología Vegetal (INFIVE-CONICET-UNLP), Buenos Aires, Argentina. valebernardo35@gmail.com

Nacobbus aberrans is responsible for producing important losses in the production of numerous crops in America. In pepper plants the analysis focused on the morphological and biochemical changes produced in tissues by the mechanic and enzymatic damage that *N. aberrans* provokes when entering the root. Pepper plants were transplanted in pots with tinalized soil, were placed in a greenhouse and inoculated with five thousand eggs of *N. aberrans*. Five months after the transplant, a significant reduction in growth was observed in the inoculated plants ($p < 0.05$), showing a lower leaf area and less accumulation of dry matter both in the aerial and roots. The leafs of the inoculated plants presented 48.68% less chlorophyll content and 50.46% less soluble proteins content in comparison to the non-inoculated plants. The penetration of the mobile forms of the nematode into the roots produced damages in the cell membranes, releasing electrolytes which, in turn, increased the relative conductivity (41.82%) when compared to the non-inoculated ones (29.51%). Malonildialdehyde, a product of lipid peroxidation of cell membranes, was higher in the roots of inoculated plants (1.94 $\mu\text{g/g}$) than in plants without nematode (1.28 $\mu\text{g/g}$). The loss of functionality of the inoculated roots induced a hydric stress reflected by a growth decrease in plants. This was also confirmed by a higher accumulation of proline in root, a metabolite used by the plants as osmoregulator in water deficit situations.