



ORIGINAL ARTICLE

EFFECT OF THE VITRIFICATION METHOD ON THE PERCENTAGE OF SURVIVAL AND REGROWTH OF SINGLE NODES OF *CITRUS AURANTIFOLIA* (LIME) AFTER CRYOPRESERVATION

Mayada T. Al-Jubori* and L.K.J. Al Amery

Dept. of Horticulture and Landscape Gardening, College of Agril. Engineering Sciences, University of Baghdad, Iraq.

E-mail: mayada1982@coagri.uobaghdad.edu.iq

Abstract: The research was conducted in the Central Tissue Culture Laboratory, College of Agricultural Engineering Sciences, University of Baghdad for the period 2020-2022, in which the application of cryopreservation technology was studied to preserve explant (single nodes) of lime using the vitrification method for a period of 3 and 6 months. This was done successfully by studying the effect of the vitrification method and the concentrations of the protective solutions on the damage of Cryopreservation and the interaction between them, to increase the percentage of survival and regrowth of explant. The results indicated the superiority of the interaction treatment between concentrations of 10 and 30% of Dimethyl sulphoxide (DMSO) and Glycerol (GLY) after three months of liquid nitrogen preservation in the percentage of survival of single nodes, as it gave the highest percentage of 35%. Whereas, the interaction between the concentrations of 15 and 30% of DMSO and GIY gave the highest percentage of survival, which was 35%, after six months of preservation.

Key words: Vitrification method, Single nodes, *Citrus aurantifolia*, Cryopreservation.

Cite this article

Mayada T. Al-Jubori and L.K.J. Al Amery (2022). Effect of the Vitrification Method on the Percentage of Survival and Regrowth of Single Nodes of *Citrus aurantifolia* (Lime) after Cryopreservation. *International Journal of Agricultural and Statistical Sciences*. DocID: <https://connectjournals.com/03899.2022.18.1105>