



***In vitro* germination and development of Arbequina and Coratina olive cultivars**

A.M. Abd allatif¹, S.A.M.Hassan² and T.F.El-Sharony³

¹Pomology Department, Faculty of Agriculture, Cairo University, Giza, Egypt

²Biotechnology Lab., Pomology Dept., National Research Centre, Dokki, Giza, Egypt

³Hort. Crops Technology Dept., National Research Centre, Dokki, Giza, Egypt

Abstract: *In vitro* culture method was carried out during 2014-2015 seasons at the laboratory of Pomology Department, Faculty of Agriculture Cairo University and Biotechnology Lab., Pomology Dept., National Research Centre, to evaluate the germination percentage and development of embryos isolated from seeds of Arbequina and Coratina olive cultivars. Embryo germination and development success were determined by *in vitro* culture using 1/3 strength MS medium. The embryo cultured within the cut seed portion of the seed containing the embryo freeing from remaining seed tissue was used for culture the basal media (Agar +Sucrose +MS+GA₃ solely or in combinations each other). The most effective during development of embryo culture stage as it recorded the high germination percentage (72.66% in Coratina with Agar). The mean germination started in short period of time (6 days) with agar media for Coratina cv. The two tested cultivars showed high growth performance after germination, while Arbequina Superiority with Agar +Sucrose +MS in leaf number (5.66). Also, Agar+ Sucrose +MS media gave the highest plant height (3.50 cm) with Coratina cv.

Keywords: Olive, *In vitro*, Embryo culture, Germination percentage.

A.M. Abd allatif et al /Int.J. ChemTech Res. 2015,8(12),pp 471-476.
