

IN VITRO" ROOTING OF TWO PEAR ROOTSTOCKS (PYRODWARF AND CYDOMALUS) UNDER PHOTOAUTOTROPHIC CONDITIONS.

Giorgio De Paoli ¹, Eduard Subirà ², Andrea Battistini ²
Vivai Battistini dott. Giuseppe, Via Calcinaro, 1265

²Employers - ¹Consultant

Keywords: Micropropagation, sucrose, Peat, vermiculite, *Pyrus communis*.

Abstract

At Vivai Battistini dott. Giuseppe, we have produced several woody species, by micropropagation, especially rootstocks. Today, because of its economic importance, one of the most important species is the pear rootstock. In particular during last five years our laboratories have increased the production of Pyrodwarf (Old Home x Bonne Luise D'Avranches) and Cydomalus (*Malus communis* x *Cydonia oblonga*) plants.

All the experiments show that when we use tissue culture media without sugar, the shoots root with difficulty and growth less. The second experiment shows that there is no evident difference in shoot rooting no with a variation from 10 to 30 gr/l concentration of Sucrose, and, if we increase the percentage of peat from 20 to 80% we obtain bed rooting, but thinner and more branched roots. Those experiments show, that the Photoautotrophic medium in growth chambers with normal light intensity and natural atmosphere, gave bad results. We must do more experiments with CO₂ fertilization and we think it will be possible obtain stronger and plants with more roots; but we have to find a practical and cheaper system for the growth chamber CO₂ fertilization. Today the available methods described by some researchers are too expensive for a commercial laboratory.

Regarding sugar concentration we think it will be a good experience to verify if lower concentrations of sucrose will also yield good results. The most important result of these trials is that we succeeded in finding a good medium for Cydomalus rooting that was previously very difficult in media containing only agar. Therefore we can now produce cheaper Cydomalus plants than before.

For information can call with us

Vivai Battistini Dott Giuseppe Via Emilia 3551 Diegaro di Cesena Italy

Tel 0039-547-3472270039-547-382122

Fax 0039-547-3474630039-547-639315

