Effect of Vegetable Extracts Based on Elder Tree, Willow Tree, Shamrock and Purple Nutsedge in Natura and Dehydrated in the in vitro Development of Orchids, 2nd Phase

Liberali, Rafaela (School: Colegio Estadual Jardim Porto Alegre)

Orchids are plants that are difficult to propagate, as their seeds do not have the amount of nutrients necessary for germination. In a natural environment, only 5% of the seeds germinate, requiring symbiosis with the mycorrhizal fungus. The demand for these plants for trade combined with the difficult propagation makes in vitro cultivation necessary to obtain plants. This form of cultivation, however, becomes impracticable for small producers and research institutions due to the high cost that for its production, another difficulty faced in obtaining orchids is the cultivation time, since this can take from 3 to 10 years until the first flowering. Much research is being carried out using chemicals to accelerate the development of orchids, which can further increase the cost and make production unviable. The use of plant extracts can stimulate the development of plants without the need for chemicals, and can assist in an alternative way. Therefore, my objective was to evaluate plant extracts from tubers of Purple nutsedge (Cyperus rotundus), Shamrock (Oxalis sp.), And Elder tree leaves (Sambucus nigra) and Willow tree (Salix babylonica) in an alternative culture medium 86% more cheap compared to commercial. Statistical analysis proves the efficiency of using plant extracts in specific concentrations, thus enabling the production of orchids more quickly and cheaply.

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