I. INTRODUCTION

The world demand for wood and woody products is sharply increased during the recent years. This led to increasing horizontal extension of woody trees everywhere specially in new reclaimed regions. Woody trees have many benefits as it may be used as wind break for protecting orchards from winds and storms as well as maximizing orchard profitability. Also, the woody trees may be used as a source of wood fuel, and woody products. Besides, it may be used for decoration as it consider as a main tool for landscaping. In addition, they are valuable in reducing pollution in towns and crowded locations.

The policy of the Ministry of Environment is establishing of woody trees everywhere to be utilized as oxygenator or as forest zones. Thus, trees as oxygenator minimize pollution and heat in Our towns. Conifers trees reduce dust fall by 25% compared to Only 8% removed by the hard wood canopy (Dochinger, 1973). Meanwhile, Soulier (1977) found that every care demand 10 trees to clean the air from the pollution. However, forest zones were established in drainage zones to utilize drainage and sewage water in irrigation as well as get rid of this waste water and reducing pollution. Woody trees considered as filters to removing the injurious of heavy metals from sewage water which has reach about 2.55 billion in Egypt according to Abd-El-Gbaffar et al. (1988). Woody trees included many types, i.e. taxodium and cupressus.

*Taxodium distichum* (L.) Rich Family Toxodiaceae has heavy, straight trunk with a pyramidal growth habit. It consider as an important timber tree because of their freedom from shrinkage, resistance to wood rotting fungi, and its wood used for building constructions (Wesly, 1974). However, *Cupressus sempervirens* (L.) Family Cupressaceae is evergreen woody tree provide strong, fragrant, and durable timer. In addition, it used as ornamental evergreen tree.
and it used as a good feature in landscaping. Accordingly, a great demand from both taxodium and cupressus are needed for planting which propagated mainly by seeds. Low germination percentage and low growth rate are the main problems facing the production large numbers for overcoming the highest demand of both taxodium and cupressus. Thus, an alternative conventional propagation method is required.

In *vitro* propagation of woody trees represent the most affective and immediate solution for production of large numbers required. Thus, *in vitro* plants are homogenous, healthy with excellent growth. Also, through *in vitro* techniques, large number of plants produced in short time with less expenses.

The ultimate goal of this investigation is to establish an *in vitro* technique for production of both taxodium and cupressus plants which include different stages (establishment, proliferation, and rooting stages) as well as solving the problems which face their development and growth *in vitro.*