INTRODUCTION

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The uses of trees are manifold and a country from which the forests have been destroyed becomes almost uninhabitable and worthless to mankind. The trees furnish wood and timber exercise and have beneficial influences on the climate, act as regulators of the waterflow, pervent erosion and also the removal of soil by the wind. Besides, furnishing wood and timber, many trees yield other products of great economic importance, especially the numerous kinds bearing fruits. The esthetic value also of the trees must not be underrated, though it cannot be counted in money **(Bailey, 1957).**

Many Egyptian companies import hardwood logs for different wood products such as veneer, plywood, match and furniture. Several trees entered Egypt as exotics from cold and warm zones. The climate and soil properties in Egypt are favorable for growing different timber and ornamental trees.

Usually late summer and fall are optimum periods for collecting fruits and seeds of many trees. Collection begins as soon as fruits, cones or seeds are mature. Sometimes proper timing can be a chose particularly with species whose seeds ripen and disperse quickly or are highly attractive to birds and mammals.

Viable seeds that do not germinate are said to be dormant. Dormancy can be regulated by the environments or by the seed itself. If a seed not exposed to sufficient moisture, proper temperature, oxygen and for some species light, the seed will not germinate. In this case, the seed's dormancy is due to unfavorable environmental conditions. On the other hand, some

seeds may not germinate because of some inhibitory factors in the seed itself. This particular kind of dormancy consists of two general types:

1- Seed coat or external dormancy.

2- Internal (endogenous) dormancy as mentioned by **Schopmeyer (1974)**.

The trees used in this study were ***Albizzia lebbeck* (L.) Benth.** ***Taxodium distichum* (L.) Rich.** and ***Cupressus sempervirens* L.** .

***Albizzia lebbeck* (L.) Benth.** Fam. Leguminosae. **(Photog. 1)** Sometimes classified as ***Mimosa lebbeck* L.** or ***Acacia lebbeck* (L.) Willd.** and known as woman's tongue tree or lebbeck tree. This species probably originates from tropical Asia but has nowadays naturalized in many dry areas of tropical countries and reaching from 3 to 50 meters high. The scented flowers are born in light yellow pappus. It is a rather fast growing tree, very tolerant to dryness, requiring full sun. It is used in India as shade trees for coffee crops. The timber is used for buildings and cartwrightsmith, the foliage make a good quality fodder.

***Taxodium distichum* (L.) Rich.** Fam. Taxodiaceae. **(Photog. 2)** There are trees of 800 to 1000 years old on the Cache River Basin in Illinois. Bald-cypress has been planted in the North of its natural range. Size-50 to 70 feet in height with roughly 30 feet spread. They are pyramidal in habit and have heavy straight trunk. Annual growth rate is about 12 to 8 inches. The tree is semi-deciduous native of Europe and America, known as bald-cypress, swamp cypress and pond cypress. It is an

important timber tree because of its freedom from shrinkage and its durability in wet places, the wood is used for such purposes as building constructions, deck bridge timbers, sash and doors, boxes and crates, trunks and silos. Because it is resistant to wood rotting fungi, it is valued as softwood lumber for shingles, trine and especially for greenhouse benches and rake. Bald –cypress can be used as ornamental tree in the gardens and possible as street tree use (**Wesley, 1974**).

***Cupressus sempervirens* L.** Fam. Cupressaceae. **(Photog. 3)** The species name 'sempervirens' comes from the Latin for "evergreen", known as cypress or Italian cypress tree, its origin is in southern Europe, western Asia. It is an evergreen tree, up to 60 feet tall (18 m.), spread varies depending on the variety. Because of their durable wood cypresses are valuable for posts, poles and railroad ties and the wood is used for making furniture and for fuel and sometimes the trees are used for wind breaks, hedges, shelter and useful as ornamentals (**Wesley, 1974**).

Usually,the rate of growth of these trees is very low in the first stage ,therefore,the main target of the present study is to enhance the growth cycles, especially the juvenile stage.

On this ground,a nutrition pre-treatment with potassium nitrate was compared with both thiourea and yeast extract treatments effects on the germination and seedling growth.

On this ground, the seeds content of some endogenous components was determined.

The trees of this work were chosen to study the effect of seed maturity through different dates of collection and seed dormancy and how to overcome it.