INTRODUCTION

Plant regeneration seems to be one of the most important topics in horticulture practices. On the other side, periods of suspended growth are common to most types of plants and many seeds of different genera are improved in germination by some mechanical, hot water treatment or chemical treatments including growth regulators.

The ability of seeds to retain viability for prolonged period of time without germination is one of the most important adaptive properties of plants. This allows them to survive during adverse seasonal conditions and thereby provides for the storage of seeds in the soil. However, numerous genera and species need further investigations to bring their seeds to proper or higher percentage of germination as *Acacia farnesiana* Willd, *Acacia arabica* Willd., *Cassia fistula*, L. *Cassia didymobotrya*, L. *Cassia goluca*, L., *Cassia modesta*, L. and *Olea europaea*, L. may represent the later category.

This study involved the prementioned plants on the ground of their economical and ornamantal value as trees or shrubs valid in arid zones. Little information is known about the physiology of their seeds or the environmental adaptation for their emergence.

Besides, the propogation of Ficus elastica Var. decora Roxbg, by cuttings was included in this study presuming the addition of new aspects in the field of plant progagation.

In this respect, different types of cuttings were subjected to different growth regulator treatments also, some chemical analysis were undertaken in both seeds and cuttings.