INTRODUCTION

Yucca is botanically belonging to an Agavaceae family. The genus Yucca, a native of warm parts of North America, comprises some forty species. Yucca is showy-flowered evergreens of impressive decorative merit, suitable for lawn planting and subtropical massing. In the ground or in containers, they associate splendidly with such architectural features as building, walls and steps and can be used to create quite dramatic effects. As is true of most desert, semidesert and other dry-soil plants, crowding detracts from their effectiveness. All Yuccas do well exposed to sun and wind and stand seaside environments well. Adam's needle is a popular name applied to *Y. filamentosa*, it has stem that grown from 4 to 12 ft. tall, the leaves are 1 inch wide and sword shaped and the blooms are white in colour. *Yucca filamentosa var. variegate* has the same shape of *Yucca filamentosa* but its leaves banded with creamy white along their margins. The propagation methods of Yucca by seeds, stem cuttings or by rhizome cuttings **Herwing (1980)**. These methods of propagation produce few amount of plants.

Workers in the field of ornamental and floriculture especially growers / producers of Yucca plants have always been faced with particular difficults either those closely related to growth of Yucca plants and represented the dominant problems throughout the earlier stage of growth like as growing media, mineral nutrition and irrigation regime from which the younger / tender plants suffered greatly from one hand or even the multiplication process of Yucca itself from the other.

It is well known that the important role of mineral elements is growth and other biological process throughout the various physiological stages of plant growth and development is one of the noteworthy achievements of

science. Besides, growing media and water supply (irrigation) play a dominant role in growth and development of all plants.

Consequently, the polyfeed nutrition (mineral fertilization) and water supply (irrigation regime) must be taken into consideration as two of the main important factors determining the structure and metabolism that lead to the necessity of having enough supply of each for such tender (newly developing plants) at the proper time and dose . Moreover, both aforesaid factors are not only the determining growing factors needed, but others are also required from which an optimum growing medium is the all most one in this respect.

Environmental conditions of the basal (subterranean) portion of the transplant plant i.e. both physical and chemical properties of the substrate surrounding underground system (roots) growing medium brove critical for quality and surviving of younger plantlets, especially the sensitive ones. Since, the moisture humidity requirements, as well as feeding of nutrients become of the outmost limiting factors in success of multiplying process itself. It is needed the efforts and time expent in the previous steps can be completely wasted.

If no satisfactory solutions would the offered. The various substrates differ considerably in their physochemical characteristics and finally in their optimization as growing media, Since the optimization of a given substrate is depending upon the proper combinations of the following factors:- a) water content "moisture capacity" b) air economy and drainage properties "permeability", c) nutrient balance, d) pH and buffer, e) heat balance and physical stability as well as other characteristics, **Bunt (1976), Goh and Haynes (1977)** of all these , the first two factors are complementary are of major important to both root development and the top (above ground system).