1. INTRODUCTION

Digitalis (foxglove) is one of the most important genera belonging to family Scrophulariaceae, because it includes several species well-known for their medical importance, long racemes of inflated flowers, slowing spires or towers of bells, the strong vertical lines of their flower stalks, rising from rich and luxuriant masses of cauline leaves, give always an appearance of strength the rambling outlines of the usual herbaceous border, cardiac glycosides have been found in the genus of digitalis.

The genus Digitalis has many different species as *D. purpurea* linn.(*D. lomentosa* link. *And* Houffmgg), *D. lanata* Ehrh., *D. ferruginea* linn. (*D. aurea* lindl.) , *D. sibirica, D. thapsii* linn., *D. ambigua* Murr. (*D. grandflora* lam., *D. ochroleuca* Jacq.), **Baily(1933).**

D. lanta Ehrh. (Grecian foxglove or wooly foxglove) is perennial or biennial, 2-3 ft., stems strict and linbranched, white-pubescent above, leaves many, long, lanceolate, somewhat ciliate or smooth, sessile, racemes closely many folded, downy, half of which is run-shaped brown-reticulated body with very short upper and lateral teeth, middle lower lobe about as long as body and projecting pointed, nearly white with fine veins, bracts much longer than calyx equaling or exceeding coroalla.

The projecting lower lobe of the two-lipped flowers provides an alighting platform for the insects, the fruit is capsule,

digitalis is indogenus to central and southeastern Europe, **Baily (1963).**

Wooly foxglove is native to the Balkans and is also grown there as a field crop for the pharmaceutical industry, it was introduced to other countries, including Britain, Holland and the USA. In Egypt under the environmental condition the plant flowers in the first season on July, **Abozied (1967) and Taraaf (1989).** Several species of digitalis contain physiologically active principles, the most important of these species are *Digitalis purpurea* and *D. lanata*, the drug is about three times potent in *D. lanata* than *D. purpurea.* **Stoll (1937)** isolated from the leaves of D. *lanata* three chemically pure primary glycosides known as lanatoside A, lanatosid B and lanatoside C, upon enzyme hydrolysis these glycosides become acetyl secondary glycosides which upon alkaline hydrolysis turns to secondary glycosides, digitoxin, Gitoxin, Digoxin respectively, these glycosides especially Digoxin are used in medical practice in the form of tinctures tablets, injections, suppositories and other preparations as cardioactive medicines to simulate and regulate the heart action in cases of arrhythmia tachycardia (and abnormal increase in the heartbeat) and a heart failure, these drugs can be described only by qualified medical practitioners, because there is not a great difference between therapeutic dose and a toxic one of the drug.

The biological methods of evaluation determine the amount of drug necessary to stop the heart of a given animal under specified conditions (lethal dose). The international

standard consists of dried leaves of *D. purpurea,* of which 80mg are equal ton one international unit, **Balbaa (1976).**

The present study aimed to investigate the effect of the application of some nutrients and irrigation frequency on vegetative growth and chemical constituents of *Digitalis lanata* Ehrh.