

## I- INTRODUCTION

Grape is considered as one of the most popular and favorite fruit crops in Egypt; it ranks second after citrus crop concerning the acreage and consumption rates grape acreage in Egypt exhibited a remarkable increase in the last decade reaching 160005 feddans with a productive average of 144624 faddans producing 1391749 tons. The average yield was 9.62 tons/feddans according to the statistics of Ministry of Agriculture published in 2005.

Among the horticultural practices carried out in vineyards; winter pruning and thinning is considered the most important one through which grape production can be increased and cluster quality improved.

The production of grapes in Egypt increased as a new varieties became known and culture practices post harvest handling as well as a new marketing methods utilized in the new reclaimed areas in the Egyptian deserts particularly the early ripening cultivars such as "Flame seedless", "Superior" and "Early Superior".

In Egypt, information concerning pruning of Flame seedless and "Crimson seedless" cultivars seems to be quite limited. Some grape growers adopted cane training system as appropriate method for training this cultivars with the purpose of obtaining the highest yield without taking into account the negative effect of this yield on the size and quality of both bunches and berries.

The present work consisted of two parts. The first one dealt with studying the effect of different cane lengths bud load on growth, yield, quality of both "Crimson seedless" and "Flame seedless" cultivars. The ultimate target of this investigated is to determine the appropriate bearing unit length which can be recommended for each cultivar under cane pruning system.