I. INTRODUCTION

Globe artichoke (_Cynara_ _scolymus_, L.) is a popular vegetable crop grown in the Mediterranean border, especially Italy, Spain, France which produce over than 80% of the world crop production (Ryder _et_ _al_.1983).

In Egypt, the cultivated acreage of [*]artichoke increased from 1300 Feddans in 1972 which produced 12267 tons with an average of 9.44 tons/Feddan up to 3482 Feddan in 1983 which produced 26079 tons with an average of 7.49 tons/Feddan.

According to the world statistics of 1967 to 1978, the cultivated area of artichoke in Egypt reached about 0.7 - 1 % of the world crop area (Ryder _et_ _al_., 1983).

Nowadays in Egypt, more attention is given for promoting globe artichoke production to satisfy the increased demands for both local and foreign markets. The demands for export to European markets increases during the period from December up to February. Therefore, early production during this period is of major importance for promoting artichoke exportation, since the peak top of artichoke production occurs usually during March and April. The use of gibberellic acid for accelerating bud development and enhancing earliness has been employed on a commercial basis in several Mediterranean countries.

Moreover, globe artichoke is considered as one of the vegetable crops which requires high amounts of fertilizers

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* Cited from the Economic and statistical Dept. Ministry of Agric. Egypt.

due to its prolonged growth season and giant plant size. In Egypt, recommendations for artichoke fertilization with micronutrients are still incomplete, especially after the construction of the High Dam.

Therefore, this dissertation aimed to study some means suggesting to be suitable for promoting early and total yield productivity as well as improving quality of flower heads required for both local and foreign markets. Commercial folifertilizers such as Irral, Bayfolan and Folifertile; micronutrients such as Fe, Mn and Zn and growth regulators such as GA_3, CCC and NAA were chosen for this study.