Guava "*Psidium guajava* Linn" is probably the most important fruit of family *Myrtaceae*. It is believed to be native to the area between Mexico and Peru, from where it has spread to almost all tropical and subtropical countries of the world (Chandler, 1958). In Egypt, guava acreage occupies about 23945 feddans with total fruit production of 206756 metric tons, according to the statistics of Ministry of Agriculture, Egypt (1995).

The great importance of guava lies in its fruit which is considered as the cheapest and richest source of vitamin C, since it contains four to ten times that of orange fruits. Besides, the fruit contains small amounts of vitamin A, B1 and B2 with 11.6% carbohydrates, 0.6% oils and 1% protein (Godston and Chanin, 1946). Moreover, fruits are consumed either fresh or in jelly, jam and juice products (Popenoe, 1932). On the hand, guava fruits ripen in between seasons where other fruits are rare.

As for horticulturists, guava is admired as being of low cultural requirements (Popenoe, 1932). For instance, the trees are successfully grown on various kinds of soil; sandy; or very light sandy or poor, dry or moist (Baily, 1960). Meanwhile, trees yield at a time when markets are nearly lacking from other fruits.

On the other hand, fertilization policy is considered the most important factor that influences the vitality of guava trees. The maximum growth needs an optimum availability of all macro- and micro-nutrients. If the nutritional balance is disturbed due to insufficient or excess of essential elements during the active growth period, disorder of growth manifestations will occur and special symptoms will develop on sooner or later.
Therefore, this investigation was undertaken to study the effect of mineral fertilization with different levels of nitrogen, phosphorus and potassium as well as their combinations on vegetative growth, fruiting and fruit quality of guava trees cv. El-Maamora.