INTRODUCTION

The manufacture of pickles is one of the most important food industries. This industry is one of the methods for preservation of vegetables and some fruits. Pickling also resulted in appetizer pickled vegetables. The improving of pickling process prevent the spoilage of great quantities of pickled vegetables. On the otherhand, the package of good pickled and stored vegetables leads to high quality product which enable them to be competitive with other pickled products. The manufacture (sorting - grading - package) of great amounts of vegetables in the huge factories required long periods for package.

In order to extend the storage time of pickled olives, its brines must be pretreated with different natural and synthetic preservatives which may be used either individually or in combination between them. Among the synthetic chemicals were potassium sorbate (0.1%) and acetic acid to pH4, while natural ones were the inhibitory secretions of the starter used (such as lactic acid and others; Gibbs, 1987). The accumulation of such inhibitors greatly affected the densities of microbial population during storage period.

In Egypt the commercial manufacture procedure of pickled

olives is usually carried out without NaOH treatment but using 10% salt brine. In this research the pickling process was accelerated by trying NaOH (1.6%) treatment. The increase of salt brine to reach 13% is to control spoliage microorganisms. Pilot experiment (which was the method of production in Badrachin factory) was used as a control to demonstrate the improvement occurred by various treatments.

Pickling and ripening period lasted for 90 days, while the storage extended to 270 days. To study the efficiency of various treatments; microbiological, chemical and organoleptic estimations were done periodically.

The object of this investigation is to determine the most suitable conditions for the production of high quality pickled olives considering taste, texture and economics of production.