1. INTRODUCTION

Egypt has long extending shores and large water-covered areas, which are represented by the River Nile, Red sea, the Mediterranean Sea and the inland lakes. All these represent a large fish resource, yet not fully exploited. Due to the increasing population which results in feeding problem, Egypt has to properly and extensively make use of its natural food resources, especially fish from both fresh and salt waters, in addition, aquaculture activities, which are spreading all over the country, represent a promising source of fish.

Fish with its high protein contents ranks the top among all protein sources especially those of animal origin. Fish flesh is a highly nutritious and easily digestible protein as well as being of high use coefficient (Hussein, 1990).

Tilapias have become one of the most important fish species for freshwater culture. Tilapia culture has become more popular because of the relative ease of their culture in variety of aquaculture systems and because of their favourable attributes as food fishes. Despite the popularity of tilapia culture, the overall production of market-size tilapia per hectare has remained relatively low because of the introduction of poor culturable species, mixed-six culture and poor management. However, the introduction of better management practices (selection of more suitable species for culture, the use of protein rich diets, water quality management ect.) have led to the improvement of tilapia production (Siddiqui and Al-Harbi, 1995). Among all cultured tilapia species, Nile tilapia *Oreochromis niloticus* has emerged as the most important species. The attributes which make Nile tilapia so suitable for fish farming are its general hardiness, ease of breeding, rapid growth rate, ability efficiently to convert organic wastes into high quality protein, and good taste (Yi et al., 1996). According to FAO data, the annual production of Nile tilapia *(Oreochromis niloticus)* in Egypt for 1989 was 25000 MT and 19857 MT for 1993 (FAO, 1995) and these amounts constitute 80.7% and 76.3% of the total production of freshwater fishes in the two years 1989 and 1993, respectively.

Polyculture, between tilapia and other aquatic species, is an established option when natural food from different pond niches are independently exploited by fish, when there is a market for all species in culture and when their combination provides an economic benefit which is high enough to cover extra labour expenses required to grade and sort fish at sampling and harvesting.