ENVIRONMENTAL INFLUENCE ON THE PRODUCTIVE AND REPRODUCTIVE PERFORMANCE OF THE WATER BUFFALOES

BY

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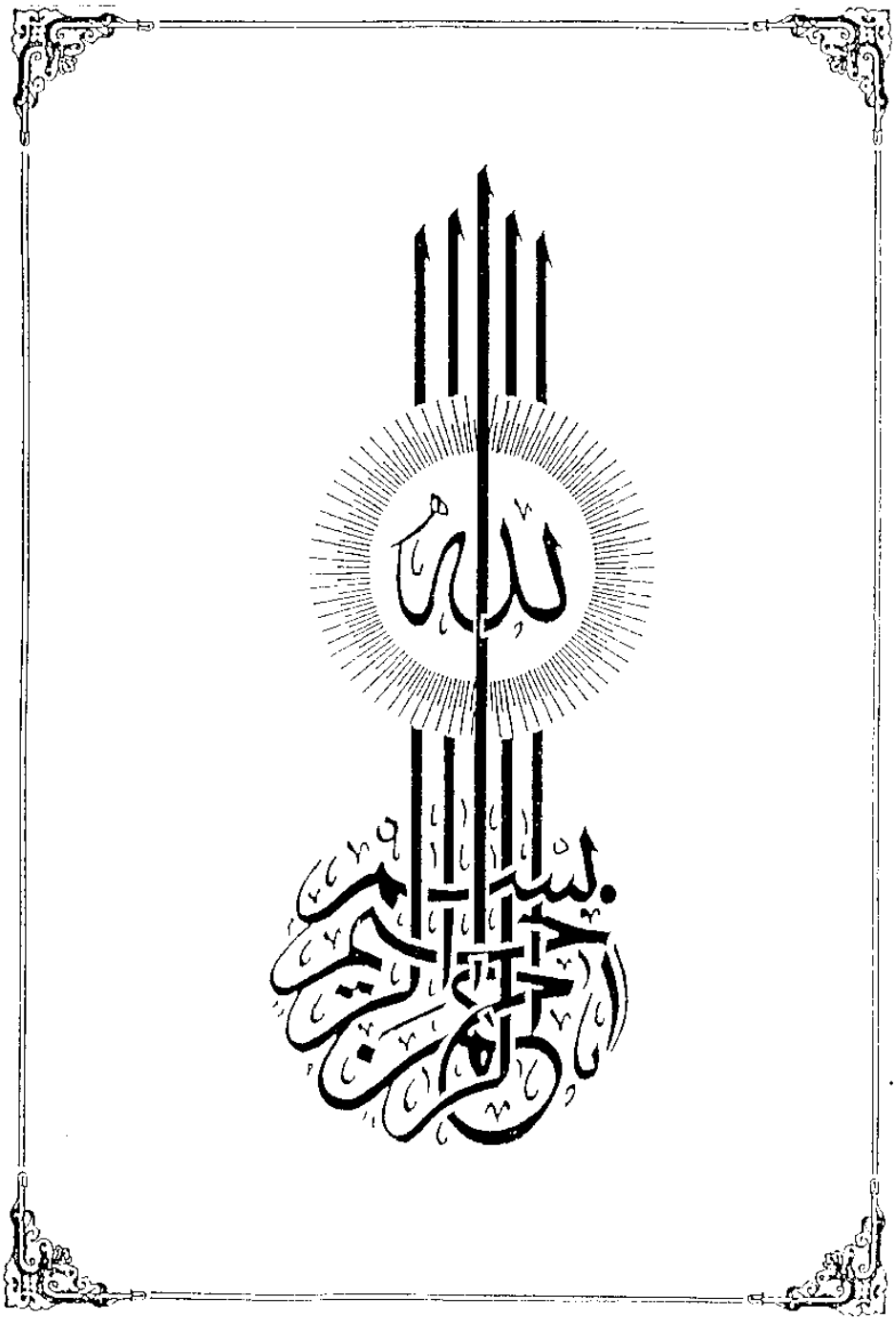

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INTRODUCTION

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In Egypt there are two regional types of buffalo, the heavier Beheri type in the Nile Delta, north, and the smaller and darker Saidi type in Upper Egypt, south. Apparently, each type is genetically and physiologically adapted to its local prevailing environment.

Very recently, the total buffalo population in the country is estimated to be 2.5 million heads, a figure similar to that for cattle population.

The buffalo is the major source of milk and meat. There are reasons to believe that buffaloes may be replacing cattle at the farmer's home, since mechanization of agriculture is developing fast. Since governmental buffalo population is estimated as 1% then the bulk is at the farmer's holding which averages 2-3 large farm animals, either cattle or buffalo cows or both. Such dispersion of animals renders it very difficult to employ modern husbandry and production methods. Some official estimates indicate that yearly increase in buffalo population is 1.7%, in cattle population is 1.4%, in sheep is 3.4%, while in human the annual increase in population is 2.4%.

So important is the buffalo animal in Egyptian

agriculture, it has been partially, or probably completely neglected since its reproductive performance is deteriorating during the past 30 years. As an example, birth weight has been reported as being 38.6 and 38.2 Kg for male and female calves, respectively in 1952, (Asker and Ragab), while it reached 32.0 and 31.5 Kg. for the respective sexes in 1985, (Osman). Various other reports between 1952 and 1985 gave values ranging from 22.7 kg., (Abdel-Salam, 1960), to 36.3 Kg. with males being 2 kg. heavier than females, (Mostageer, et al., 1981). Other physiological phenomena such as age and weight at puberty, sexual maturity and first calving, service period, calving interval and number of services per conception are not ideal since large values have been reported by various investigators.

In addition milk production (8 to 12% fat) is not so high as could be expected from such an animal. Most reports for Egyptian buffalo did not go beyond 1200 Kg. per lactation for the mature buffalo cow. Furthermore, lactation periods of longer than 305 days are not uncommon. The literature clearly show that the Egyptian buffalo might have superior reproductive and productive features as compared to Asian, European and Latin American buffaloes.

The Egyptian buffaloes need special attention, programs for improvement of their reproduction and milk production

should be performed at the national level.

This study aims at the evaluation of reproductive efficiency and productive capacity of two buffalo herds, one in the Delta and the other in Middle Egypt.