Introduction

Fasciolosis is a serious parasitic disease infecting buffaloes, cattle, goats, sheep, donkeys, swine, horses, camels and rabbits which were reported as vertebrate hosts for the parasite *Fasciola Spp.* **(Anwer *et al.*, 1996; Farag, 1998 and Hafeez, 2003).** Infection had been also reported in birds **(Vaughan *et al.*, 1997).**

Buffaloes in Egypt are considered the main source for meat and milk, and of high economic importance for breeders and farmers. According to the last survey **(Razzaque *et al.*, 2008)**, the world buffalo's population was 166.4 million heads. There were 3.920 million heads in Egypt, producing 3.3 million ton of milk and 270.000 ton of meat annually according to the last **FAO census (2005).**

Economic losses produced by parasitic infection of buffaloes consisted of costs of anthelmintics, labor and losses in production due to mortality, reduction in meat, milk and wool production, reduction in growth rate, fertility and draught power **(Anonymous, 2003 and Mendes *et al.*, 2008).**

Fasciola Spp. could affect the reproductive performance of farm animals through impaired growth rate of young stocks, increased puberty age of heifers and prolonged estrus intervals in mature animals **(Sharma, 2003; Ahmed, 2006 and Racioppi *et al.*, 2007).** It was found that 58.4% of repeat breeder cows were seropositive to *F. hepatica* **(Simsek *et al.*, 2007).**

Fasciolosis altered the serum concentration of estradiol-17 beta resulting in abnormally low concentrations of progesterone **(Lopez-Diaz *et al.*, 1998)**. Field studies done by **Barakat *et al.* (2001)** indicated that chronic fasciolosis in cows was associated with reduced fertility mainly due to changes in blood metabolites, delayed growth rate and puberty in

growing animals and prolonged anestrus period in mature animals following loss of body condition.

Fasciola spp. eggs were detected in Egyptian buffaloes in almost all governorates. **Kendal (1975)** detected *Fasciola gigantica* in livers of slaughtered buffaloes in Aswan. The parasitic infection was also detected in Behera province **(Khalil, 1979)**, Gharbia **(Ayob, 1983)**, Cairo **(El-Reffaii *et al.*, 1984)**, Alexandria **(Samaha, 1989)**, Beni-Suef **(Salem *et al.*, 1990)**, Kafr-EL-Sheikh **(Abdo-Rabo, 1991)**, Dakahlia **(Aly, 1993)**, Ismailia (**El-Reffaii, 1993**), Menofia **(Ezzat *et al.*, 1994),** Assiut **(Lotfy *et al.*, 1995)**, Giza **(Radwan, 1996)** and in the reclaimed desert land **(Curtale *et al.*, 2005 and El Shazly *et al.*, 2006).**

It was noticed that a higher infection rate was recorded in older buffaloes than in younger ones (below 2 years of age) **(Aal *et al.*, 1999 and Maqbool *et al.*, 2002)**. In addition, **Phiri *et al.* (2005)** studied prevalence and factors influencing occurrence of fasciolosis. Female animals got significantly higher percentage of infection (59.3%) than males (44.5%).