بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها

علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائـــــــق الاصليـــــة تالفـــة

بالرسالة صفحات
لم ترد بالاصل

El-Minia University
Faculty of Science
Zoology Department

STUDIES ON TICK SPECIES PARASITIZING SOME DOMESTICATED ANIMALS AND A STRATEGY FOR THEIR CONTROL IN EL-MINIA GOVERNORATE

A THESIS

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بسم الله الرحمن الرحيم

"فأما الزبد فيذهب جفاء وأما ما ينفع الناس

فيمكث فى الأرض كذلك يضرب الله الأمثال"

صدق الله العظيم

سورة الرعد من الآية (17)

DEDICATION

To My FATHER, THE GREAT TEACHER…..,

TO MY MOTHER, THE GREAT HEART…..,

TO MY BROTHERS, THE GREAT LOVE….,

TO MY HUSBAND, THE GREAT FUTURE…,

ACKNOWLEDGEMENT

****

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Ticks represent a highly specialized blood sucking ectoparasitic arthropods of mammals, birds, reptiles and occasionally amphibians. Feeding mechanism of ticks causes considerable tissue damage, leading to secondary bacterial and fungal infections that induce painful abscess (Maclovor, 1982). Such abscess may have serious consequences as the loss of teats and udder quarters in dairy animals or the loss of fertility in breeding bull (Uilenberg, 1992). In addition to inducing anemia, due to loss of host blood, other systemic damage such as tick paralysis and immunosuppressive effects are also induced as a result of salivary toxins injected upon feeding (Inokuma *et al.*, 1993).

Through blood sucking habits, ticks transmit a variety of infectious agents to their hosts, including virus, bacteria, rickettsia, spirochetes, Protozoa and filariae. (Arthur, 1962; Katayama *et al.*, 1996 and Assadian *et al.*, 2002). Moreover, they maintain the causative agents of diseases within their bodies, in natural foci of infection via transovarial transmission from female to offspring. Such transmission is the only mechanism that allows one-host tick to serve as vectors, while the use of a series of host species by the two- or three- host tick species increases the opportunities for transmission of pathogens (Burgdorfer and Varma, 1967).

Many of the major animal diseases transmitted by ixodid ticks, such as babosiosis, Rocky mountain spotted fever, Lyme disease, haemorrhagic fever, typhus and tularemia are also transmitted to human. Infection may occur through tick's biting or through the ingestion of raw milk or cheese from infested dairy animals (Estrada-pena, 1999 and Horak *et al.*, 2002).

Besides their role as disease vectors, tick infestation causes significant economical losses to livestock industry, dairy industry, as well

as to leather and wool industry. These losses were manifested by loss of weight, reduction in weight gain and milk production in addition to skin damage and weakening or falling of hair or wool fibers (Norval, *et al.*1987; Sutherst and Kerr 1987; Scholtsz *et al.* 1991; De Castro, 1997; and Jonsson *et al.*, 1998).

A major problem facing researchers in parasitology and indeed pest control management is the inability to identify confidently by morphological characters. Different parasites often have evolved along lines that euliminate in remarkable morphological similarity between disparate species. Species of ticks often are diagnosed on the basis of slight morphological differences, host specificity, and/or the geographical locality from which they were collected (Ross *et al.*, 1992).

However, morphological characters sometimes are insufficient to identify unequivocally the species to which specimens belong. For example, the tick known to transmit Lyme disease in America, *Ixodes dommini*, is difficult to distinguish morphologically from the closely related species *Ixodes scapularis* in areas where they coexist (Oliver, 1988). Furthermore, ticks feeding on hosts undergo structural changes and are particularly difficult to identify using morphological characters. Therefore, cytogenetic studies have been conducted on several tick species, mainly concerning cytotaxonamy (Kahn, 1964) and the details of mitotic events which occur during gametogenesis. So, cytogenetic studies on ticks can provide data for taxonomic analysis that are independent from morphological, biochemical and behavioral characteristics (Sessions, 1990).

Concerning the control of such serious parasites, review of literature revealed that tick control, throughout the world, is still based almost exclusively on chemical acaricides. Such chemical control may provoque many problems such as environmental pollution, development