

**Cairo University**  
**Faculty of Veterinary Medicine**  
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## **Welfare of Working Equids in Egypt**

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### **Abstract**

There are an estimated 112 million horses, donkeys and mules (i.e. working equids) in developing regions of the world. Though their roles are often fundamental to the well-being of the families they work for, their welfare is often severely compromised due to the limited resources and/or limited knowledge base of owners. The main objectives of the current study were; To build up a multifactorial welfare-assessment system for accurate, comprehensive and reliable welfare-assessment of working equids, which NGOs, practitioners, veterinarians and researchers can use to evaluate the welfare status of working equids. Moreover, there were no available reports regarding the prevalence of helminthes in working equids in Egypt. Thus, another objective of the current study was to investigate the prevalence of parasitic infestation in working equids in Egypt.

A total of 5248 working equids (n=2198 horses, 2640 donkeys, 410 mules) were assessed between February 2012 – January 2014. Equids were divided into categories based on the three species involved, as well as the four work types involved (transporting goods or people by cart, ridden <e.g. in tourist locations>, or working in brick kilns). The results suggested that, The welfare-assessment score has met our initial objective to be a useful tool in identifying which equids have more welfare problems (i.e., which species, type of work, age and sex). This, in turn will help in selection of the proper type of interventions needed and targeting such interventions toward the most vulnerable working equids. The idea of describing the welfare status of the working equids by a number, which then can be converted into the corresponding welfare category of “Adequate, Inadequate or Poor” was designed to be easily used either for many or few equid welfare-assessment s. Also, numerical description for the welfare status of working equids, would be greatly beneficial particularly, for NGOs that run activities in several provinces and districts. Such approach would enable them from monitoring the effectiveness of their activities on enhancing the welfare status of working equids thus, a decision whether to maintain or to end their activities in a certain provenience can be thoroughly and easily made. Furthermore, it was found that *Strongyle* and *Parascaris* infections are endemic in working equids in Egypt, with high rates of infection intensities. Young (under 3 years) and old (older than 15 years) working equids are more susceptible to high parasite burdens than medium age.

**Key Words:** working equids, welfare-assessment, equine behavior, equine welfare, Strongyle, P. equorum, BCS.



## *Dedication*

*I would like to dedicate this humble dissertation with lots of love and respect to the soul of my beloved father asking Allah to reward him the highest degree of heaven for the good deeds that he left in us, my mother asking Allah to grant her good health, a long life and happiness. Also, I would like to dedicate this work to my eldest brother for being always there whenever I needed advice and guidance. Also, would like to dedicate this work to All the NGOs that help working equids all over the world, and to these equids that indeed suffer to afford life for their owners, the poorest section of our communities.*





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Hoping that this thesis may be useful and serve good purposes for all humankind, I finally would like to thank everybody who was important to the successful realization of my thesis, if I failed to include your name above, but you helped me in one way or another, my sincere thanks goes out to you.

*Ahmed Ali, Michigan, USA.*



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