

*Dedicated to
my beloved mother, father, brothers and sisters
and to my beloved wife Shereen
and my sweet daughter Rama.*

Acknowledgements

Over the course of the past three years, while writing my Ph.D. dissertation, I've realized two things: first no dissertation is ever really finished and second thanking every collaborative person who helped me to accomplish this work is truly an unapproachable issue. After Allah, first and foremost, I should thank my supervisor Prof. Dr. Dr. C.P.W. Zebitz for his great trust, confidence and motivation he put in me since my first day in his department. The next person who deserves a lot of credit is Dr. P. Rosenkranz, the director of the Apicultural State Institute (Landesanstalt fuer Bienenkunde) at the University of Hohenheim for his friendly and fruitful supervision throughout the last three years. This has really an ever-lasting impact on me.

I am also grateful to Prof. Dr. U. Mackenstedt and Prof. Dr. R. Böcker for their comments throughout the review of my thesis. I should also thank Dr. A. Reineke, Dr. G. Liebig, Ms. H. Maihöfer, Ms. G. Zander, Dr. C. Wallner and Dr. C. Monje for their support and time given to me throughout my study.

Praise goes also to the German Academic Exchange Service (DAAD) for awarding me a Doctorate fellowship. My colleagues at the department of Applied Entomology and at the Apicultural State Institute are very acknowledged for their cooperation and support. I thank Dr. C. Garrido, Dr. P. Aumeier, Mr. B. Dainat for providing me with mite samples from many places of the world and to Mr. W. Elomary and Mr. M. Alhiyary for their help in the field work.

I would like to thank my friends at the University of Hohenheim Mr. A. Abo-Sha'ban and his wife, Dr. A. Abdelghani, Dr. N. Salameh and his family, Mr. S. Abu-Ruman, Mr. A. Elnabulsi, Dr. H. Elnajar, Mr. A. Ghureer, Mr. I. Hadad, Mr. R. Alkattea, Dr. F. Alzeyood and Mr. A. Elhasan for their nice accompany throughout my time in Germany.

Deeply from my heart with love and faith, I would like to thank my beloved parents for their encouragement and prays throughout my life. I am also grateful to my wife and my sweet daughter "Rama" for their outstanding and highly appreciated patience day and night throughout the time of my study, may Allah bless them all for ever.