ACKNOWLEDGEMENT

Prima facie, I would like to acknowledge God almighty who gave me all the opportunities in life and whose grace and sustenance has brought me this far. I am eternally grateful!!

My deepest gratitude to my supervisor Prof. Amrtesh C. Shukla and Joint Supervisor Prof. Ramesh Singh, who gave me the freedom to explore on my own and at the same time the guidance to recover when my steps faltered. Their patience and support and practical advice helped me overcome many crisis situations and finish this thesis. Their guidance helped me in all the time of research and writing of this thesis. I could not have imagined having a better mentor for my Ph.D research.

Words fail to express appropriately my heartfelt appreciation to my parents who gave me immense inspiration throughout my life and have been my pillars in life. To them I owe my wonderful today and dream filled future.

I express my heart-felt gratitude to my family for their constant encouragement and moral support. It would not have been possible to pursue my doctoral degree without the love, patience and support My siblings has been a constant source of love, concern, support and strength all these years. I warmly appreciate their generosity. I have to give a special mention to my sister Anu who challenged me to reach greater heights.

My heart-felt thanks to my little son Vivaan understanding me and my work. I truly could not have done anything without his support. I thank my husband Vikas, who always stood by me through the good times and bad.

With profound of gratitude and humbleness, I express my sincere thanks to all my teachers, who molded me to a person I am today. I deeply appreciate their belief in me.

I am highly thankful to the faculties of the Department of Horticulture, Aromatic and Medicinal plants, Mizoram University, Aizawl as well as the Dean, School of Earth Sciences and Natural Resources Management, Mizoram University, Aizawl; for their consistence support during my research.
I am also thankful to the Department of Zoology, Udai Pratap College; and the Department of Botany, Sri Venkateshwar University, Tirupati for providing various research facilities for biochemical characterisation as well as for in-vivo investigations.

Friends are scarce and priceless. They have helped me stay sane through these difficult years. I feel blessed to have my friends support and care which helped me overcome setbacks and stay focused. I greatly value their friendship.

I am deeply indebted to all animals whose precious lives were sacrificed during this research work.

Last but not the least, I am grateful to the tribal communities of Mizoram who had shared their ethnomedicinal experiences during my research period and helped a lot to finalize the work in its present form.

Binu Singh
(Reg No. MZU/Ph.D/395 of 02/06/2011)
Department of Horticulture, Aromatic and Medicinal Plants
Mizoram University
Aizawl, Mizoram
India