

ACKNOWLEDGEMENT

It is a pleasurable aspect that I have the opportunity to convey my appreciation for all of them who made this thesis possible. I bow to almighty for always helping me to overcome the challenges to sail through good and bad times.

*I owe my sincere thanks to **Prof. N.M.P. Verma**, Vice Chancellor and **Prof. R.C. Sobti**: Ex. Vice-Chancellor, Babasaheb Bhimrao Ambedkar University, Lucknow for providing the necessary facilities to carry out the research work.*

*I owe my deepest gratitude to my supervisor, **Prof. Kamal Jaiswal**, Department of Applied Animal Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow for believing in me and giving me an opportunity to carry out research. His exemplary guidance has made me an independent researcher. He offered me innumerable opportunities to learn and gain experiences in academics and encouraged throughout the research work. I have been fortunate in having Prof. Kamal Jaiswal, as my guide.*

*I extend my profound gratitude to **Dr. Suman Mishra**, Assistant Professor, Department of Applied Animal Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow for her constant support and guidance, vital corrections in the research paper and valuable suggestions that were extremely helpful.*

*I am also thankful to **Dr. V. Elangovan**, **Dr. Venkatesh Kumar R**, **Dr. Abha Mishra**, **Dr. Sandhya**, **Dr. Neeshma Jaiswal** (faculty members of Department of Applied Animal Sciences) for their scientific suggestions during the tenure of thesis work.*

I would like to thank all the technical and non teaching staff of Department of Applied Animal Sciences, Babasaheb Bhimrao Ambedkar University, Lucknow for their help and kind cooperation in the completion of my doctoral work.

*The research described in this thesis would have been impossible without the remarkable members of the Sericulture and Parasitology lab: **Jyoti Pandey**, **Awanish Kumar Singh**, **Neeraj Kumar**, **Ravi Angare**, **Anjum Bee**, **Savita**, **Harshita Pandey**,*

*Rita Verma and my sincere gratitude to my senior **Dr. Mukta Mayee Kumbhar** for helping me whenever I needed. The work ethic and sense of humour of the lab members created an ideal environment.*

*Lastly, I feel a deep sense of gratitude for all my family members. This thesis is dedicated to my late grandmother **Saraswati Jha** and my loving parents, my father **Rajesh Kumar Jha** and my mother **Sheela Jha**. My uncle **Sanjiv Kumar Jha**, aunty **Jyoti Jha** and **Sharda jha** for supporting me in all possible ways. My loving brother (**Anup and Ankit**) and my dear elder sister **Uma** for encouraging me. I salute you all for the selfless love and sacrifices you did to shape my life. I express my endless love and gratitude to my in laws for their patience and moral support and my husband **Kumar Rahul** for always being my strength. I greatly value his contribution, support, and understanding during the pursuit of my Ph.D degree and also appreciate his belief in me.*

*I sincerely express my thanks to the **University Science Instrumentation Centre (USIC)**, Babasaheb Bhimrao Ambedkar University, Lucknow for providing me Scanning Electron Microscopy facility and also I greatly acknowledge **University Grant Commission** for financial support to carry out my research work.*


Dipti Kashyap