

A Word of Gratitude

गुरु गोविन्द दोऊ खड़े, काके लागू पाँय।
बलि हारि गुरु आपने, गोविन्द दियो बताए ॥

When you venture in to the real world you never know, how lame and in fecund your efforts could be in this tough real world environment. Unless a "Guru" holding your finger guides you to swim across the high seas of ignorance.

गुरुर्ब्रह्मा गुरुर्विष्णु, गुरुर्देवो महेश्वरः।
गुरुर्साक्षात् पर ब्रह्म, तस्मै श्री गुरुवे नमः
अखण्डमण्डला कारं, व्याप्तं येन चरा चरम्।
तत्पदं दर्शितं येन, तस्मै श्री गुरुवे नमः ॥

*Words are inadequate to express sufficiently my profound gratitude to my eminent and learned supervisor **Dr. S.P. Singh**, Reader and Head, Department of Botany, Meerut College, Meerut for his courteous and professional guidance during my research work. I am deeply indebted for his inspiration unending cooperation, constant encouraging criticism and invaluable timely suggestions endowed with benevolence. On the unpredictable journey of research through all its ups and downs, his teachings act as my guideposts and help me define my destination and show me the right direction. It is quite difficult to express my feelings in*

words for his kindness, affection and his sacrifice for moulding & shaping my career.

God could not be every where

So he created guide.

The value of guidance

Can never be made!

*Profound reverence from deep within and feelings from the core of my heart and all significant virtues of the same like, would ever underestimate themselves in conveying learned "Guru Ji" **Dr. Lokendra Singh**, Principal, Doon (P.G.) College of Paramedical Sciences, Dehradun, for critical suggestions, unstinted help and perpetual encouragement throughout my research work. This efficacy led to broadening and deepening of my understanding of the research problem and his courtesy, humanity and toiling efforts have made my task a joy.*

Faith makes all things possible,

Hope makes all things bright,

A teacher makes all things easy.

Nothing is impossible, everything is possible in your guidance;

You were the one,

who define the path of success for me,

You were the one,

who prepared me to face all obstacles when

***I achieved my goal,
You were the one,
who applaud me for my victory.***

Words are inadequate in translating deep sentiments of gratitude of my respectable, sagacious, eminent and honourable Madam Dr. Kalpana Teotia, Lecturer, Department of Zoology, S.G. (P.G.) College, Sarurpur-Khurd, Meerut. Her erudite directions, amicable nature, loving and affectionate help and faithful behaviour supported to accept the challenges during the period of my research endeavour. I hope her incessant guidance would support me to face the challenges during my whole life. My vocabulary is inadequate to express my emotions regards and sincere thanks towards madam.

I am gratefully acknowledge the moral support and help rendered by Dr. Y.S. Tomar, Principal, J.V. College, Baraut, Dr. Bharatveer, Reader & Head, Deptt. of Botany, S.G. (P.G.) College, Sarurpur Khurd, Meerut & Dr. R.P. Singh, Professor & Head, Deptt. of Chemistry, S. G. (P. G.) College, Sarurpur Khurd, Meerut, for the great help in my research work.

I am also thankful to my senior colleagues Dr. Poonam Khurana, Dr. Reena Rastogi, Dr. Vinita Singh, Dr. Nidhi Joshi, Dr. Meghana Sharma and Dr. Kalpana. I am appreciative of Mrs. Anjul Dhaka, Monika, Pooja Dagar, Meenu, Dimple, Shikha, Nisha, Neha, Shashank, Shivani, Prabitha, Rama, Mrs. Rajkumari,

Mrs. Kanta Tomar my friends and colleagues for their generous help, advice, suggestion and cooperation.

*Above all I acknowledge the patience & emotional support shown by my Booaji & Phoophaji Dr. R.P. Malik & Mrs. Raini Malik, Sh. Pradeep Panwar and Smt. Mukesh & **Renu Bhabhi, Manish Bhaiya**, my cousins Prerna, Pranav, Anukriti & Sangita who were a constant source of inspiration in crossing many a hurdle during completion of my research.*

I shall always preserve in my heart the blessings, love and affection of my beloved mother-in-law, sister-in-laws- Dr. Anita Phor, Dr. Ashu Chaudhary & Mrs. Anita Vedvan and Brother-in-law Mr. Rajeev Kumar during this strenuous period facilitated truck loads of moral strength for me.

*Words are short to thank my husband **Dr. Anil Kumar** for his abiding love, care, concern, inspiration, unfailing cooperation and untiring patience, which helped in uplifting my morale high and bringing me at the plateau of high level of achievement.*

*It is credible difficult to ink emotions on paper and thanks are a poor recompense for favour of my beloved parent **She D.P. Singh & Smt. Sumitra Singh** whose abiding care and inspiration, unfailing cooperation helped, keep my morale high and determination firm to pursue my research with added resolve.*

I, owe a great deal of Pramod Mamiji, who always inspire me for hard work and generosity. I have sincere desire to express my

grateful thanks to Dr. Ram Krishan, Professor, S.G.V.P. Ag. & Tech. University, Modipuram, Professor (Dr.) A.P. Choudhary, Deptt. of Horticulture, Gujrat Ag. University, Gujrat and Professor (Dr.) K.P. Singh, Deptt. of Animal Science, Gujrat Agri. University, Gujrat for their assistance rendered by them in my research work and for full cooperation and helping attitude.

I acknowledge the affectionate blessing of my Aunti and Uncle Sh. Satendra Malik & Smt. Suman Malik, Sh. Yogendra Singh & Smt. Brijesh and Pratibha Didi without whose generous interest, encouragement & love this work would never have been performed.

I owe my special gratitude to my nephew 'Vikhyat' for his cheerful activities which have given me new energy when I were tired.

I am also thankful to the staff members of Bio-informatic Center, IARI, New Delhi and National Informatic Center, Meerut for their generous help in providing literature. I am also thankful to Miss. Sarika for computer setting of the thesis & helping in technical work.

In the end, I would like to seek the blessings of Almighty 'GOD'.

Manisha
(MANISHA)