ACKNOWLEDGEMENT

In all humility and gratefulness, in all love and devotion, this work is dedicated in the lotus feet of almighty Supreme Father, like beacon lights, whose unbounded mercy and blessing has enabled me to steer across the shags which came during the completion of the work.

I still remember, the day when I first time entered into the gate of Dayalbagh Educational Institute, Dayalbagh, Agra. It was the turning point of my target less life. How has time been passed away, in this Institute, I have completed my 9 years with many new experiences, different feelings: happiness, sadness, turbulence and peacefulness. During these years, I never feel that I am away from my home just because of the family environment of Science faculty, support of my seniors and loving forever friends. These all experiences made my life more colourfull and my mind stronger.

The multifarious features of this project could be successfully accomplished only by the persistent support, guidance and encouragement of all concerned. There was a time to think a time to act, but now is the time for thanks giving.

Indeed the words of my command are not adequate either in the form of spirit of thought, to convey the depth of my feeling of profound gratitude to my supervisor, Prof. Guru Prasad Satsangi who inspired me constantly with his benevolent guidance and help throughout the tenure of my work.
I wish to express my gratitude towards the time to time help and encouragement of Prof. D.S. Rao, Head of Department of Botany, D.E.I., Agra.

I place a record of my sincere thanks to Prof. J.N. Srivastava of Botany Department, D.E.I. being very benign, He extended his support and help by giving me juxtapose indications.

I must express my grateful attitude to Prof. S.S. Bhojwani (Ex-Director), Prof. V.P. Bhatnagar (Ex-Head), Prof. A.K. Bhatnagar (Ex-Head), Dr. Prem Kumar Dantu, Dr. Sharmita Gupta and Dr. S.K. Soni, S.K. Srivastava and other staff of Botany Department for their assistance and help.

It is my pleasure to convey thanks to Prof. V.G. Das, Director, D.E.I., who showered his blessings in my tough time. The respect turns into reverence.

The financial assistance from UGC (University Grant Commition) in the form of fellowship in Sciences for Meritorious students is gratefully acknowledged.

I am grateful to Dr. Ajay Kumar, Technician, GC-MS Laboratory, AIRF, JNU, New Delhi for GC-MS analysis of the samples.

My sincere thanks to Prof. Sunil Pubbi, Principle Scientist, Center for Utilization and Conservation of Blue Green Algae, IARI, New Delhi for providing me the pure BGA cultures and constant help in identification of BGA genera.
I am thankful to Mr. Harish Chandra Yadav (Manager), Chambal Fertilizer & Chemical Ltd., Agra and Shri P.N. Yadav, Central Instrumentation Facility, CARI (Central Avian Research Institute), Bareilly, U.P., for their constant help and suggestions at experimental stage of the present investigation.

My deepest gratitude goes to my loving parents, Shri Ram Ratan Singh and Smt. Vimlesh Kumari, for their love, support and encouragement throughout my life. This work is simply impossible without them.

The acknowledgement would remain incomplete without the name of my close friends Vinay Kumar, Himanshu Yadav, Subhash Biyan and Vinay Davoriya. I am beholden to my younger brothers Saurabh and Sachin for their maximum co-operation, moral support and encouragement is my endeavour.

Acknowledgement is also due to my co-workers and loving juniors Mamata Satsangi, Kalpana Kanchan, Abha, Dolly Rani, Mubshir, Basanti, Puja, Shakshi, Nupur, Shiv Shankar and Neha, Santosh for their constant help and support.

Finally, I would like to thank to Ms. Preeti Yadav for her support during writing stage of this thesis and everybody who was important to the successful realization of theses as well as express my apology that I could not mention personally one by one.

Dated: 1\textsuperscript{st} Dec. 2012

(Sanjay Yadav)