ACKNOWLEDGEMENT

With full honor and ecstasy of delight, I express very sincere thanks to my Major Guide Dr. B. B. Kunjadia, Professor, College of Agriculture, Junagadh Agricultural University, Mota Bhandariya, for his kind interest, valuable guidance, judicial supervision and constructive criticism throughout the course of investigation and preparation of this manuscript.

I express my great sentiments of regards and indebtedness to member of my advisory committee Dr. S. P. Kachhadiya, Associate Res. Scientist, JAU, Junagadh, Dr. H. L. Sakarvadia, Associate Research Scientist, Dept. of Agril. Chemistry & Soil Science, and Dr. S. M. Upadhyay, Professor & Head, Dept. of Agril. Statistics, Junagadh Agricultural University, Junagadh for their constant attention and guidance during my study.

I acknowledge with thanks to Dr. A. R. Pathak, Hon'ble Vice-Chancellor, Dr. V. P. Chovatia, Director of Research & Dean P. G., Dr. B. K. Sagarka, Principal, College of Agriculture and Dr. N. B. Babaria, Professor and Head, Dept. of Agril. Chem. & Soil Science, JAU, Junagadh for providing necessary facilities for conducting the research work.

I would like to express my special thanks to Dr. K. B. Parmar, Dr. M. S. Solanki, Dr. N. M. Zalawadiya, Dr. S. G. Savaliya, Shri. A. S. Jadeja, Prof. A. V. Rajani, Dr. J. V. Polara, Dr. L. C. Vekaria, Shri. H. P. Ponkia and Dr. K. B. Polara, Department of Agril. Chem. & Soil Science for their support and guidelines during my study without which my task could not have been accomplished.

My sincere thanks are also to B. S. Pansuria and Mr. P. B. Bhunsa other staff of Agril. Chem. Dept. of Soil Science for spending their valuable time for the soil analysis. I would like to thanks are also to Satishbhai, Ramnikbhai, Kishor bhai, Prakashbhai, Ashwinbhai, Rajubhai and Hirparabhai for their constant help in the laboratory. I am also very thankful to Mr. Ranmalbhai Parmar, store keeper for availing necessary chemicals and glassware time to time during entire period of my study.

I am sincerely thankful to Dr. R. K. Mathukia, Dr. B. K. Sagarka, Dr. P. J. Gohel, Dr. R. M. Solanki, Dr. P. K. Chovatiya, and all the staff members of academic branch and central library for their ever willing co-operation and encouragement.
I highly thanks to a big group of my friend’s Atul, Barkha, Bhavin, Bhumi, Chandna, Digvijay, Divya, Haresh, Mahesh, Monali, Mulji, Nirali, Rahul Jadav, Rahul Rathwa, Sanjay Gediya, Sanjay Nakum, Trupti, Vijay, Vipul and all other friends are so intimate that it seems awkward to say them “Thank You”. Rather, I shall always be willing to help them, whenever opportunity arises.

Words run short to express my indebtedness to my beloved parents. Most humbly, I bow my head with sense of reverence to my venerable Father Shri. Umeshkumar Kandoliya, Mother Smt. Geetaben Kandoliya, my sister Rutu who were instrumental in providing this opportunity for building up my educational carrier, encouragement and inspiration throughout the study.

Finally, I frankly admit that it is not possible to remember all the faces that stood behind the facade at this juncture and omission of any names does not mean lack of gratitudeness. Now as I carry this thesis in my hands. I carry with me memories that will enrich my nostalgia.

Last but most important, a million thanks to God Shree Lord Shiva and Khodiyar maa the almighty who made me do this task and made every job a success for me.

**Place:** Junagadh

**Date:** 11\(^{th}\) June, 2018

(Kandoliya Rushang)