

ಕೃಷಿ ಮತ್ತು ತೋಟಗಾರಿಕೆ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಶಿವಮೊಗ್ಗ
University of Agricultural and Horticultural Sciences
Shivamogga



ನೇಗಲ ಮೇಲೆಯೇ ನಿಂತಿದೆ ಧರ್ಮ

POST - GRADUATE DEGREE PROGRAMMES

GUIDELINES FOR
WRITE-UP AND SUBMISSION OF THESIS

2020

DIRECTORATE OF PG STUDIES
University of Agricultural and Horticultural Sciences, Shivamogga

ಕೃಷಿ ಮತ್ತು ತೋಟಗಾರಿಕೆ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಶಿವಮೊಗ್ಗ
University of Agricultural and Horticultural Sciences
Shivamogga



ಸೇನಿಗು ಮೇಲೆಯೇ ನಿಸಿದ ಧರ್ಮ

**POST-GRADUATE DEGREE PROGRAMMES
GUIDELINES FOR
WRITE-UP AND SUBMISSION OF THESIS**

2020

**DIRECTORATE OF PG STUDIES
UNIVERSITY OF AGRICULTURAL AND HORTICULTURAL SCIENCES
SHIVAMOGGA**

Guidelines for write-up and submission of M.Sc. and Ph.D. Thesis

A) Guidelines for thesis write-up

Selection of the thesis research topic should be such that the research work, particularly the Ph.D. research work, must contribute substantially to the advancement of knowledge in the concerned branch of agricultural sciences.

The Thesis will consist of the following main Chapters numbered with Roman numbers as indicated below:

Ph.D. Thesis:	
Section	A
Chapter	I
Chapter	II
Chapter	III
Chapter	IV
Chapter	V
Chapter	VI
Chapter	VII

(Experimental results and discussion chapter can be written as separate chapters, if necessary)

M.Sc. Thesis :	
Section	A
Chapter	I
Chapter	II
Chapter	III
Chapter	IV
Chapter	V
Chapter	VI
Chapter	VII
Chapter	VIII

Title of the thesis should be informative without any abbreviations, but concise and typed in title case. The thesis manuscript has to be typed with Times New Roman, 12 font size in running text with 1.25 line spacing. The thesis will have a footer on all the pages. Even page footer will carry a line containing abridged title of the thesis and the odd page footer will contain 'Name of the Student, the degree & the year'; Times New Roman, 8 font size with italics will be the format for the footer.

All headings must be typed in lower case from the left hand margin. The sub-headings must be typed in italics and must start from the left hand margin and underlined. The para under a sub-heading must start from a line below the sub-heading. All new and unusual abbreviations should be defined when they are used for the first time in the thesis. Ordinarily sentences should not begin with abbreviations or numbers.

A. Cover and Preliminary pages

- The title of the thesis, the name of the author with ID. No., the year of presentation, the Department in which the work was carried out and the name of the university should be printed on the wrapper. On the spine portion of the thesis, year, title and name of the student with ID. No. should be printed
- A front page, giving the same details, as on the jacket.
- The second page giving details of degree being awarded, etc. as per the enclosure.
- A certificate from the major advisor and members of the advisory committee along with Name, e-mail & photograph of the student. Signature of the external examiner should be affixed on the certificate of Ph. D. thesis.
- Acknowledgements
- Thesis abstract not exceeding 300 words in english with e-mail ID & signature of both the student and major advisor.
- Thesis Abstract not exceeding 300 words in Kannada
- Contents indicating the Chapters and page numbers of different sections in each chapter.
- List of Tables, Figures and Plates.

1. Introduction

Significance of the thesis research topic must be brought out clearly with latest statistics wherever necessary. The specific objectives of the study must be listed at the end of the chapter.

2. Review of Literature

Review of literature should be pertinent to the problem and unrelated references should be avoided. Reviews should be organized based on concepts and references more than 10 years old should be avoided unless they are classic works.

3. Material & Methods

Material & methods should be precise and whenever the methods of other authors are followed, it would suffice if reference to their paper is made instead of repeating the procedure. The chapter should include experimental design, treatments and techniques employed. The year of experiment/ investigation carried out should be mentioned. Details of the meteorological data during the experimental period, characterization of the experimental site must be given wherever necessary. In case of a field experiment layout plan, history of the plot and crop production practices followed need to be given.

4. Experimental Results & Discussion (Ph.D. thesis only)

Appropriate statistical tests should be applied to the data presented. While presenting the data in tables and figures, these may be arranged in a sequence, the tables and figures should be given in the following the page wherein they are referred in running matter. Illustrations, text-figures and photos printed on glossy paper should be of standard quality. The units of data should be indicated with standard abbreviations. The figures should not be a mere repetition of the data already presented in tables. All the data in the tables need not be explained in detail and running text should cover only the most important findings in a crisp manner with scientific reasons behind the results obtained. All the salient findings of the experimental studies should be discussed drawing comparisons, variations and differences from the related studies made by the various other workers on the subject. At the end of the chapter, systematic scientific reasoning should be attempted for the salient findings across different experiments of the study which could lead to synthesis of new concepts. The overall picture emerging out of studies should also be given in the form of conclusions followed by suggestions on future lines of work that could be initiated by other workers. Experimental results and discussion chapter can be written as separate chapters, if necessary.

5. Experimental Results (M.Sc. thesis only)

Appropriate statistical tests should be applied to the data presented. No discussion of the experimental findings should be attempted under the chapter 'Experimental Results' as this part is meant merely to present the experimental data. While presenting the data in tables and figures, these may be arranged in a sequence, the tables and figures should be given in the following the page wherein they are referred in running matter. The tables should be neatly typed on separate sheets and no table, however small it may be, should be presented along with the running matter. The units of data should be indicated with standard abbreviations. All the data in the tables need not be explained in detail and running text should cover only the most important findings in a crisp manner.

6. Discussion (M.Sc. thesis only)

The Discussion part should be precise and all comprehensive. Systematic scientific reasoning should be attempted for the results obtained across different experiments of the study wherever necessary. All the salient findings of the experimental studies should be discussed drawing comparisons, variations and differences from the related studies made by the various other workers on the subject. The overall picture emerging out of studies should also be given in the form of conclusions followed by suggestions on future lines of work that could be initiated by other workers. Illustrations, text-figures and photos printed on glossy paper should be of standard quality and should invariably given in discussions and not in results chapter. Figures shouldn't be a mere repetition of the data already presented in tables.

7. Summary

The objectives of the study, methodologies adopted and salient results should be given in a crisp manner. No conclusions and inferences should go into the summary section.

8. References

Literature cited should be very carefully written, strictly as per the prescribed format enclosed. The abbreviations of the names of journals should be the same as given in the World List of Scientific Periodicals. References should be listed in the alphabetical and chronological order. In the text, the references should be cited as Hayman (1970) or (Hayman, 1970), Sen and Bhowal (1961) or (Sen and Bhowal, 1961), Tosh et al. (1978) or (Tosh et al., 1978), when there are more than two authors.

9. Appendix

Additional data related to the study may be given in support as the appendix only when absolutely necessary.

Thesis should be bound only after the final viva-voce by incorporating all the suggestions made during the final viva-voce and by the external examiner. The students are solely responsible for any mistake in typing, presentation of material, wrong or mis-statements and for any other omissions and defects in the thesis. They should take every care to present the highest quality thesis and towards this end, they should devote meticulous care and attention.

B) Guidelines for submission of M.Sc. & Ph.D. thesis

- Thesis has to be submitted both in digital format (Interactive, Non-editable PDF on a CD) and printed format (Hard copy) as detailed below:

- Dean (PGS) -(Soft copy - word format)
- (Hard & soft copy – PDF)
- Head of the Department
- (Soft copy – PDF)
- Chairperson, Advisory Committee - (Soft copy – PDF)
- (Hard & soft copy–PDF) – HQ students
- University Librarian
- (Hard & soft copy–PDF)–Other campuses
- College Library
- (Hard & soft copy–PDF)–Other campuses
(The above para will replace existing academic regulation No. 17.4)

- Additional soft copy is to be submitted to the University Librarian by students of campuses other than HQ. Additional hard and soft copy is to be submitted to ICAR/ Donars if the student is an ICAR/ donar sponsored scholarship holder.

(The above para will replace existing academic regulation No. 17.4.1)

- Hard copy of both M.Sc. & Ph.D. theses will have a thick blue (Colour code: RGB 0,0,100) wrapper with white colour text as outer bound jacket with good lamination. Thesis will be printed on both sides of the 80 gsm A4 size executive bond paper.
- The digital copy of the thesis will be a good quality CD having printed sticker along with a jacket. The colour codes and text content followed for the Hard copy cover shall be followed for the CD sticker also.
- The soft copy of the thesis will have scanned copies of the signed thesis certificate and abstracts.
- A Copy of the thesis abstract (Soft copy in word format) along with photograph (JPEG) of the student has to be submitted to UCC.
- At the time of final submission of Ph.D. thesis, one published/ accepted paper must be enclosed to the thesis. Copy of the poster paper with details of the symposium in which it was presented should be enclosed to the M.Sc. thesis at the time of final submission. Alternatively an acknowledgement by the editor of the journal for having received a paper for publication can be enclosed to the M.Sc. thesis. (The existing academic regulation 17.2 in respect of M.Sc. and 17.3 in respect of Ph.D. program stand modified in this regard)

NB: 1) The above guidelines are supplementary to the existing academic regulations No. 17.0 on thesis and final examinations.

- The guidelines are effective from 2015-16 admission and onwards for M.Sc. and from 2014-15 admission and onwards for Ph.D.

**EFFECT OF SOIL SALINITY ON
PERFORMANCE OF DIFFERENT RICE VARIETIES**

**EFFECT OF SOIL SALINITY ON
PERFORMANCE OF DIFFERENT RICE VARIETIES**

**SURAKSHA, H. R.
ID NUMBER**

**NAME OF THE STUDENT
ID NUMBER**

**DEPARTMENT OF SOIL SCIENCE AND AGRICULTURAL CHEMISTRY
COLLEGE OF AGRICULTURE, SHIVAMOGGA**

**DEPARTMENT OF SOIL SCIENCE AND AGRICULTURAL CHEMISTRY
COLLEGE OF AGRICULTURE, SHIVAMOGGA**

**UNIVERSITY OF AGRICULTURAL AND HORTICULTURAL SCIENCES
SHIVAMOGGA
2020**

**UNIVERSITY OF AGRICULTURAL AND HORTICULTURAL SCIENCES
SHIVAMOGGA
2020**

**EFFECT OF SOIL SALINITY ON
PERFORMANCE OF DIFFERENT RICE VARIETIES**

**DEPARTMENT OF SOIL SCIENCE AND AGRICULTURAL CHEMISTRY
COLLEGE OF AGRICULTURE, SHIVAMOGGA
UNIVERSITY OF AGRICULTURAL AND HORTICULTURAL SCIENCES
SHIVAMOGGA**

CERTIFICATE

This is to certify that the thesis entitled '**EFFECT OF SOIL SALINITY ON PERFORMANCE OF DIFFERENT RICE VARIETIES**' submitted in partial fulfillment of the requirements for the award of the degree of **MASTER OF SCIENCE (AGRICULTURE) in SOIL SCIENCE AND AGRICULTURAL CHEMISTRY** to the College of Agriculture, Shivamogga. University of Agricultural and Horticultural Sciences, Shivamogga is a bonafide record of research work carried out by **Name of the Student (in title case), ID NO. _____** (e-mail ID) during the period of study in this university under my guidance and supervision and no part of this thesis has previously formed the basis for the award of any other degree, diploma, associateship, fellowship or any other similar titles.

**Shivamogga
June 2020**

(MAJOR ADVISOR)

Photo

APPROVED BY:

Chairman:

(NAME IN CAPITALS)

Members:

1. _____
(NAME IN CAPITALS)

2. _____
(NAME IN CAPITALS)

3. _____
(NAME IN CAPITALS)

4. _____
(NAME IN CAPITALS)

Shivamogga

June, 2020

(Format)

(Format)

CONTENTS

CHAPTER	TITLE	PAGE NO.
I	INTRODUCTION	1
II	REVIEW OF LITERATURE	
	2.1 Response of rice to soil salinity	4
	2.2 Nutrient uptake by rice as influenced by soil salinity	13
	2.3 Effect of amendments on properties of saline - sodic soil	15
III	MATERIAL AND METHODS	
	3.1 Location	25
	3.2 Characterization of soil samples used for the experiment	25
	3.3 Experimental details	27
	3.4 Methods of soil analysis	28
	3.5 Physical properties	31
	3.6 Biometric observations	32
	3.7 Methods of plant analysis	33
	3.8 Nutrient uptake	34
	3.9 Statistical analysis	34

IV	EXPERIMENTAL RESULTS	
	4.1 Effect of amendments on growth and yield attributing parameters of rice varieties	35
	4.2 Effect of amendments on grain and straw yield of rice	41
	4.3 Effect of amendments on major nutrients content	43
	4.4 Effect of amendments on uptake of nutrients by rice	46
	4.5 Effect of amendments on K : Na ratio in rice grain and straw	48
	4.6 Effect of amendments on soil properties	48
	4.7 Correlation of rice productivity with plant and soil variables	63
V	DISCUSSION	
	5.1 Effect of amendments on growth and yield attributing parameters of rice varieties	64
	5.2 Effect of amendments on grain and straw yield of rice	66
	5.3 Effect of amendments on major nutrients content and uptake of nutrients by rice	68
	5.4 Effect of amendments on K : Na ratio in rice grain and straw	70
	5.5 Effect of amendments on soil properties	72
	5.6 Correlation of rice productivity with plant and soil variables	75
VI	SUMMARY	77
VII	REFERENCES	79

(Format)

(Format)



Post Graduate Center, Shivamogga



Post Graduate Center, Mudigere



Post Graduate Center, Ponnampet