GUIDELINES FOR THESIS PRESENTATION



2021

Dr.Y.S.R. HORTICULTURAL UNIVERSITY

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GUIDELINES FOR THESIS PRESENTATION

Research work carried out during the course of study is one of the most important achievements of a post-graduate student, which is documented and submitted in the form of a thesis to the University. The thesis is a scientific document and an important asset not only for the students but also for the academicians. As a whole, the thesis is referred by large number of people involved in teaching, research, extension and developmental activities. The research carried out under PG programme is generally of high standard and many breakthrough technologies come through such efforts. Therefore, it is necessary that the students and the advisory committees make efficient efforts not only to bring-out quality research work but also to present the thesis in a form which is nationally and internationally acceptable.

In this regard, there should be uniformity in the preparation of thesis across different faculties of the University. Therefore, following guidelines have been developed by the university to help the students and the advisory committees to prepare and submit quality thesis.

1. GENERAL

These guidelines deal with the presentation of a thesis and other similar related documents which fall within the definition of the term 'Thesis'.

- **1.1 Definition**: For the purpose of these guidelines a thesis or a dissertation is a statement of investigation or research presenting the author's findings and any conclusions reached, submitted by the author in support of his /her candidature for award of a higher degree.
- a) **Ph.D. thesis** must demonstrate the student's originality and ability for independent investigation, and the results of research must constitute a contribution to knowledge. The thesis must exhibit the mastery of the literature on the subject and familiarity with its sources.
- b) **M.Sc. thesis** must demonstrate student's familiarity with the methodology and tools for conduct of research in their major field and ability to present the results of the investigation precisely.
- **1.2 Copyright**: The University shall have the right to make available or to allow the thesis to be copied in whole or in part without any reference to the author for study and reference purposes subject to normal conditions of acknowledgement. In all the other cases, the copy right rests with the author.

- **1.3 Publication of Thesis**: Whenever any material from the thesis is published, a foot note shall always be given reflecting that the thesis has been submitted for the Post-Graduate Degree of Dr.YSR Horticultural University.
- **1.4 Submission of Thesis:** First the thesis shall be submitted in a paper-bound form (with Golden Yellow Colour cover page). After successful completion of *viva voce*, the thesis shall be submitted in hard bound form (Chocolate brown Colour cover page) with embossing letters in Golden Yellow Colour along with the University emblem as per the Guidelines. No other colour is acceptable.
- **Number of Copies:** Hard bound thesis shall be submitted in quadruplicate (four copies) along with C.D's prepared in line with the instructions as mentioned in appendix K, of which one each shall be for University Library, Campus Library, Department Library and Major Advisor.

2. PARTS AND ARRANGEMENT

The thesis should normally consist of various sections viz., (1) Preliminaries (2) Text and (3) End Matter. The names of these parts are only to facilitate the arrangement of various sections and they are not to be indicated as headings. The sections falling under each of these parts are arranged in the thesis as per the following sequence.

2.1 Preliminaries

Cover Page

Title page

Declaration

Certificates

Acknowledgements

Table of contents

List of tables

List of plates

List of illustrations

List of symbols and abbreviations

Abstract

2.2 Text

Introduction

Review of literature

Material and Methods

Results and Discussion

Summary and Conclusions

2.3 End Matter

Literature cited

Appendices

3. COVER

- **3.1 Binding:** The thesis shall be fully rexin bound with sufficient rigidity to support the weight when placed on the shelf, in the colour as specified at 1.4. The leaves of the thesis should be permanently secured to the cover, by sewing, in such a way that the leaves can be turned easily and the text clearly read up to the extreme left margin. All material like maps, photos etc., should be the size of the typed matter.
- **3.2** Cover Title: The out side front board should bear the title of the thesis in 18 point type in Times New Roman Font.
 - The title shall be in upper case with bold letters except scientific names.
 - The scientific names shall be in italics with first alphabet of genus in upper case (Capitals).
 - The title shall spell out acronyms, abbreviations and symbols.
 - The initial and name (16 point type bold) of the candidate (as registered at the time of admission to the PG Degree) with highest qualification (14 point type bold), the Degree (18 point type in bold) and discipline (14 type bold) for which the thesis is submitted.
 - The University emblem (4 cm diameter).
 - Name of the Department (14 Point), College and University in 12 point.
 - The month and year (20 point type in bold) of submission shall be given as depicted in **appendix A**. The Outer jacket should be covered tightly with a transparent plastic sheet.
- **3.3 Spine Title**: The spine of thesis shall bear in (11 point type), title of the thesis (11 point) initial and name (11 point), degree(13 point) at the top and the year of submission (13 point) at the bottom of the spine. The printing on the spine is towards the length side when the volume is lying flat.

4. PAPER, TYPOGRAPHICAL DETAILS AND MECHANICAL CONVENTIONS

- **4.1 Paper:** White **bond** paper of **A4 size** (215 x 273 mm) should be used.
- **4.2 Typing:** Typed characters shall not be less than 13 point with Times New Roman Font. However subscript, superscript and the figures in tables can be reduced in size but not less than 8 point in Times New Roman Font. Copies produced by Xerox or Comparably permanent process are acceptable. One side of the paper shall be used for printing and typing.
- **4.3 Margins**: The left side margins shall be of 4 cm wide and the top, bottom and right side shall be 2 cm wide.
- **4.4 Spacing:** A spacing of 1.5 lines shall be used in type script except for quotations of footnotes where single line spacing can be used. Spacing in Abstract should be in single line space.

4.5 Pagination

- **4.5.1 Preliminary pages**: These are numbered with lower case Roman numerals i.e., i, ii, iii, iv, v, vi, etc, and positioned at the centre in the bottom of the page.
- **4.5.2 Text:** The text pages shall be numbered with Indo Arabic numerals consecutively through out the thesis including the Appendices, Photographs, Diagrams, etc, and positioned at the upper right corner of the page.
- **4.5.3 Position of Page Numbers:** Page numbers shall be located at the right upper corner of the page approximately 2 cm from the right edge.
- **4.6 Chapter Heading** (First level heading): Every chapter in the body of the manuscript shall begin with new page and should be numbered with Roman numerals. The chapter heading shall be placed in capitals. It should be 14 point in the Times New Roman Font.
- **4.7 Chapter Title:** The chapter shall have title in the centre of the page (in Times New Roman Font) and must be at 1.5 space below the chapter head, capitalized throughout with 18 point size.
- **4.8 Paragraphs**: The text should begin with two 1.5 spaces below the chapter title. A paragraph default indentation of 1.27 cm shall be used at the beginning of paragraph. In paragraph menu, indent and spacing settings should be fixed as 6 pt. each for 'before' and 'after', without choosing 'don't add space between paragraphs' option. Alignment should be justified. No page should end with the beginning of a paragraph.

- **4.9 Sub-heading within chapters**: Theoretically any number of sub-heading levels are possible but in practice more than three levels are confusing. All sub headings and numbers will be left alignment.
- **4.9.1. Centre Heading** (Second level heading): This being the first sub-heading shall be in capitals bold and placed at 1.5 space below the last line of the previous section, with 16 point Times New Roman Font. The text following this heading should appear in regular paragraph form. The heading preceded by the number shall be typed with left alignment.
- **4.10 Numbering of Divisions**: The structural elements (Headings) shall be numbered as 1,2,3 and subdivided as 1.1, 1.2, 2.1, 2.2, etc. Further subdivisions shall be made as 1.1.1, 1.2.1, etc., Only Arabic numerals are used. A full stop is placed between numbers designating subdivisions of different levels. At the end no full stop is required.
- **4.11 Mechanical Conventions**: The conventions listed in the CBE Style Manual (1972) should be followed for punctuations, full stop, ellipsis, comma, semicolon, colon, question mark, numbering, illustrations, diagrams etc.
- **4.12 Decoration**: No ornamentation or bordering of the sides shall be permitted.

5. WRITING OF THESIS

- **5.1 Style of Writing**: The thesis should be written in the past tense, passive voice and in the third person. The guidelines given by the C B E Style Manual should be followed. For general English purpose Webster's Third New International Dictionary should be used.
- **Transliteration:** When quotations, author's names, and titles of works have originally appeared in a Non-Roman alphabet, the information should be transliterated into Roman alphabet for use within the text.
- **5.3 Illustrations**: Illustrations should immediately follow the textual reference on the following page. They shall be numbered chapter wise in Arabic Numerals for example the second figure in chapter 2 shall bear the number as figure 2.2. The caption shall be placed at the bottom of the figures with the initial letter in capital and shall maintain 1.5 space closed by a full stop.
- **5.4 Photographs:** Art paper should be used for printing of photographs (Photographs shall not be pasted directly). No extra designs or non-scientific backgrounds shall be used.
- **Tables**: Tables shall be placed on a separate page. A table running longer than one page may be continued on two or more pages by indicating the continuations e.g. Table 2 cont. The table shall be numbered chapter wise with Arabic

numerals. The table number should end with a full stop without any other punctuations both in the text and table title. The title shall be placed above the table following 1.5 space separately for the table and title. In the table, the decimal should be uniform up to 2 digits for all the values. The first letter of the title is capitalized and single spaced, in sentence form. A table is closed with a horizontal line and footnote if any pertaining to the table be placed below the line in single space.

5.6 Citations: In citing works in the text, the following system (author, year) shall be followed.

Basappa (1990) Bose and Yadav (2002) Chattopadhyay *et al.* (2006)

For the citation of institutional publication such as Annual Report, Committee Report etc. The organization is treated as the author.

6. PRELIMINARY PAGES

6.1 Title page: The title page is the first page of the thesis and it should consist of the following statements, as depicted in appendix B.

Title : Times New Roman Font Bold with 18 point

Author name : Times New Roman Font Bold with 16 point

Author's qualification : Times New Roman Font Bold with 14 point

Submission Statement : Times New Roman Font Bold with 14 point

Degree : Times New Roman Font Bold with 16 point

Discipline (in bracket) : Times New Roman Font Bold with 14 point

Emblem : 4.0 cm diameter

Imprint (Department name): Times New Roman Font Bold with 14 point

College name and place with pin code: Times New Roman Font Bold with 12 point

University name: Times New Roman Font Bold with 12 point

Month and Year of Submission: 18 point

6.1.1 Title: The title of the thesis should be self explanatory and should give an idea as to the content of the thesis. It shall be placed near the top of the page in bold capital letters. If the title exceeds one line, an inverted pyramid format shall be followed with out splitting the words in each line (Appendix A and B) with a spacing of 1.5 cm.

- **6.1.2** Name of the Author: The name of the Author with bold in capital should follow the title in the upper half of the page preceded by the word 'BY' centred in a separate line. The name of the author (as registered at the time of P.G Admission) shall be given followed by highest academic qualification.
- **6.1.3 Submission Statement:** The submission statement indicates that it is the thesis submitted to the University in partial fulfilment of the requirement for the award of the degree of Master of Science in Horticulture/Doctor of Philosophy in Horticulture followed by department in brackets
- **6.1.4 Imprint:** It should follow the emblem and consists of name of the department and the college where the candidate is studying followed by the month and year of submission. No full stop should be used at the end of the any statement.
- **6.2 Certificates of Approval:** The certificates of approval, one by the chairman of the Advisory Committee (Appendix C) and the other by the Advisory Committee. (Appendix D for M.Sc. and Appendix E for Ph.D.).
- **6.3 List of contents:** The title of the chapters (viz., Introduction, Review of Literature etc.,) followed by literature cited and appendices along with page numbers shall be listed in sequence as depicted in appendix F.
- **6.4 List of tables:** The list of tables with page numbers shall be given in the order in which they occur in the text. The titles of the tables shall be given exactly as they appear in the text.
- **6.5 List of illustrations:** The list of Illustrations such as maps, diagrams, graphs and statements or depictions with page numbers shall be given in the order in which they occur in the text.
- **6.6 List of plates:** The list of plates (Photographs) shall be given in the order in which they occur in the text. The title of plates shall be given exactly as they appear in the text.
- **6.7 Acknowledgements:** Acknowledgements if any shall be a brief note of appreciation for Technical and Financial (Institutions) assistance received by the candidate in his or her research work and preparation of thesis from organisations and individuals. It shall not exceed two pages without any nick names and dedications.
- **6.8 Declaration:** The author shall indicate in a declaration any material contained in the thesis which he / she has used or published before as depicted in appendix G for M.Sc. and appendix H for Ph.D.

- 6.9 **Abbreviations:** Only standard abbreviations followed nationally and internationally should be used in the thesis. If abbreviations are many and repetitive nature, a list of abbreviations in the beginning of the thesis should be included in the preliminary pages. For abbreviating scientific journals, the abbreviations as provided in the "World List of Scientific Periodicals" only should be used. If the standard abbreviations are not available in the World List of Scientific periodicals, the pattern followed in any scientific journal may be used (as given in appendix M).
- **6.10 Abstract:** The title should be in capital letters in Times New Roman Font with 18 point, it should be crisp and should summarise the content of the thesis / essence of investigation with single space not exceeding two pages. It shall be preceded by name of the author, title, degree for which it is submitted to the University (as given in appendix L).

7. TEXT

The text of the thesis shall be divided normally into Five Chapters viz., (1) Introduction (2) Review of Literature (3) Material and Methods (4) Results and Discussion and (5) Summary and conclusions.

- **7.1 Introduction**: The title shall be in capital letters in Times New Roman Font with 18 point and bold as depicted in appendix I with chapter I (14 point and bold). The introduction should give briefly the lacunae in the subject and the gaps the thesis attempts to fill up. The background and purpose of the investigation should be indicated. The objectives of the investigation should be clearly mentioned with specific objectives.
- 7.2 Review of Literature: It shall be written as chapter II (in Times New Roman Font with 14 point and bold) followed by review of literature (18 point and bold). The review of literature should provide background information to aid the investigator in analysing and formulating the thesis work. The reviews shall be up to date, critically examined with reference to their objective of investigation. It shall be a published work. The sources of information are cited by following the author and year system as given in 5.6. The arrangement of reviews shall be from the oldest to latest under any sub-head.
- 7.3 Material and Methods: The title shall be in capital letters in Times New Roman Font with 18 point and it shall start as chapter III (14 point bold) as depicted in appendix I. This chapter should present the techniques, Material and methods adopted for conducting the investigations and experiments. The standard statistical tools shall be adopted and the details incorporated for analysing the data. The names of the Insecticides, Fungicides, Plant Growth Substances,

Chemicals and Biofertilizers shall begin with capital letters in the beginning of the sentence and thereafter lower cap only. Trade names however are to be indicated with Capital letter (First Letter) either at the beginning of sentence or anywhere in the text.

7.4 Results and Discussion: It shall be written as chapter IV (in Times New Roman Font with 14 point and bold) followed by results and discussion in capital letters (in Times New Roman Font with 18 point and bold) as depicted in appendix I. The presentation of results shall be based on the experimental data recorded and subjected to standard and appropriate statistical analysis. The analysed data shall be interpreted convincingly. The data tables and other illustrations shall be different from each other to be interpreted and discussed in relation to the reported findings establishing cause – effect relationships. The discussion shall magnify the un-expected results (Positive and Negative) shall foresee the possible effect critically. The findings are also variously referred to as generalization, implications, inference, interpretations and recommendations for further suggested research if any. For typing titles of tables, plates and figures the examples given below shall be followed.

Table 4.1 Plant height as influenced by growth regulators.

The same method shall be followed for plates and figures also.

7.5 Summary and Conclusions: It shall be written as chapter V (in Times New Roman Font 14 point and bold) followed by summary and conclusion in capital letters (in Times New Roman Font 18 point and bold) as depicted in appendix I. A brief report of the work carried out shall form the first part of this chapter. Conclusions derived from logical analysis presented in the results and discussion chapter shall be clearly spelt out. Scope for continuing the work further with suggested modifications if any shall be stated lucidly in the last part of the chapter.

8. LITERATURE CITED

The title shall be in Times New Roman Font with capital letters in 18 point bold as depicted in appendix I. Literature cited shall contain complete reference list, citing all the Literature and other sources referred in the thesis and appendices including websites arrayed by the name of the author in alphabetical order as given in the appendix J.

Individual reference entries shall not be split over two pages. Format and placement of reference citations shall be, consistent throughout the thesis. The commonality of presenting citations of different formats as indicated below shall

be followed. In case of institutional publication the name of the institution or organization shall be treated as author. No entry shall appear as anonymous publication.

The main parts of a complete entry for a book are: (i) Name (s) of author (s), (ii) year of publication, (iii) Title of book in Italics (iv) Name and city of publishers (v) Pages referred to in the book. An example is:

- Kumar, N. 2010. *Introduction to Horticulture*. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi. 139-90.
- Kalloo, G. and Kirti Singh. 2001. Emerging Scenario in Vegetable Research and Development. Research periodicals and book publishing House, Texas USA. 148-66.
- Farooqui, A.A. and Sreeramulu, B.S. 2010. *Medicinal and aromatic crops*. Universities Press (India) Pvt. Ltd., Hyderabad. 152-56.

Sometimes books have contributions by a group of people each author contributing one chapter or essay. (i) Name (s) of author(s), (ii) Year of Publication, (iii) Title of the chapter, (iv) Author(s) of the book, (v) Title of book in italics, (vi) Name and city of Publishers, (vii) Pages referred to in the book. In such case it should be cited as:

Biswas, B 1999. Anthurium. In: T.K. Bose, R.G. Maithi, R.S. Dhua and P. Das (eds.) *Floriculture and Landscaping*, Naya Prakash, Calculta, 538-46.

In case of a chapter in a proceeding:

- Karthiresan, C. and Venkatesha, J. 2002. Effect of biofertilizers with levels of N and P on gladiolus. Floriculture research trends in India. *Proceedings of National Symposium on Indian Floriculture in the New millennium*. Lalbagh, Bangalore 118-21.
- Bhargava, B.S. and Singh, H.P. 1990. Potassium and the quality of tropical and subtropical fruit crops. *Proceedings of group discussion* held at IARI, New Delhi, December 2, 1989. Potash and Phosphate Institute of Canada. 22-31.

- The main parts of entry for an article in a periodical are: (i) Name (s) of author (s), (ii) Year of Publication, (iii) Title of article, (iv) Name of Journal in italics with volume number and pages in the article. This should be cited as:
- Gracia, M. and Charbaji, T. 1989. Effect of sodium chloride in the medium on the mineral composition of the grapevines. *Agrochemica*. 33: 412-23.
- Chacko, E.K, Kohili, R.R, and Randhawa, G.S. 1974. Investigation on the use of 2, Chloro ethyl Phosphonic acid (Ethephan, CEPA) for the control of biennial bearing in Mango. *Scientia Horticulture*. 2: 389-98.

Some journals / periodicals will have issue number in addition to volume number. In such cases the issue number shall be indicated in parenthesis after the volume number as show below.

- Archana, B, Patil, A.A, Ravi, H and Patil, V.S. 2008. Studies on genetic variability analysis in gladiolus hybrids. *Journal of Ornamental Horticulture*. 11 (2): 121-26.
- Agrawal, S. and Dikshit, S.N. 2010. Studies on effect of plant growth regulators on qualitative characters of Sapota CV Cricketball. *Indian Journal of Horticulture*. 67(2): 152-55.
- * Mark should be given as an indication that **Original articles were not seen** at the end of Literature cited.

The main parts of entry of a website are (i) Name of the Institute, (ii) Title of the article/Information/webpage as given below.

- Reddy, O. 2017. Apple ber is common man apple with multiple health benefits. *Green Universe Environment*.https://www.linkedin.com/pulse/all-apple-ber-osk-reddy.
- NHB, 2013. State wise area and production of flowers during the year 2012-13. In: R.K. Tiwari, N.C. Mistry, B. Singh and C.P. Gandhi (Eds.) *Indian Horticulture Data base-2013*. National Horticulture Board, Ministry of Agriculture, Govt. of India, Gurgaon 122015. P.289. www.nhb.gov.in>.
- NHB, 2017. Crop wise area and production of Horticultural Crops for three years. Horticultural statistics at a glance, 2017. National Horticulture Board, Ministry of Agriculture and Farmers welfare, Govt. of India, New Delhi. P.66. .

The first line of the reference starts from the margin and the subsequent lines continued from 1cm hanging indent of the above line. Each reference is single spaced: a double space should be provided between individual references.

If there are several references with different titles by the same author, the name (s) of the author (s) are to be typed again.

More than one publication of the same author in the same year, a small alphabet shall be mentioned at the year as mentioned below:

- Sheldrake, A.R, Narayanan, A.R. and Krishna, A. 1979a. Growth, development and nutrient uptake in pigeonpea (*Cajanus cajan* Milsp.). *Journal of Agricultural Sciences*. 92: 513-26.
- Sheldrake, A.R, Narayanan, A.R. and Krishna, A. 1979b. Pigeonpa (*Cajanus cajan* Milsp.) as winter crop in peninsular India. *Experimental Agriculture*. 15:91-95.

Likewise the literature cited should follow the format and all the references shall be arranged alphabetically (as shown in Appendix J) at the end after Summary and Conclusions chapter.

9. SYMBOLS AND ABBREVIATIONS

The International Standards of Symbols and abbreviations shall be followed as shown in **Appendix M.** For more symbols and abbreviations, the standard journals of international repute can be referred.

10. APPENDICES

Any supporting material not included but referred to in the main text should be given as an appendix. Appendices shall follow the section "Literature Cited." The style of appendices shall be consistent with the style of the main text. If there is more than one, each appendix shall be given alphabetic designation such as appendix A, B, etc. And be titled. The format should follow the rules for chapter titles as shown in Appendix I.

11. INDEX

The thesis shall not be **indexed**.

Appendix A: Cover Title

(18 point)

VASE LIFE AND QUALITY OF CHINA ASTER (Callistephus chinensis (L.) Nees) CUT FLOWERS AS INFLUENCED BY HOLDING SOLUTIONS

(16 point)

P. PRAVEEN KUMAR

(14 point)

M.Sc. (Hort.)

(16 point)

DOCTOR OF PHILOSOPHY IN HORTICULTURE

(14 point) (FLORICULTURE AND LANDSCAPE ARCHITECTURE)

(4 cm diameter)



DEPARTMENT OF FLORICULTURE AND LANDSCAPE ARHITECTURE,

(14 point)

COLLEGE OF HORTICULTURE, VENKATARAMANNAGUDEM, W.G.Dist.-534 101 (12 Point)

ANDHRA PRADESH

(12 Point)

Dr.Y.S.R. HORTICULTURAL UNIVERSITY

(12 Point)

(20 point) June, 2018

Appendix B: Title page

(18 point)

VASE LIFE AND QUALITY OF CHINA ASTER (Callistephus chinensis (L.) Nees) CUT FLOWERS AS INFLUENCED BY HOLDING SOLUTIONS

(16 point) BY

(16 point) P. PRAVEEN KUMAR

(14 point) M.Sc. (Hort.)

(14 point)

THESIS SUBMITTED TO Dr.Y.S.R. HORTICULTURAL UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF

(16 point) DOCTOR OF PHILOSOPHY IN HORTICULTURE

(14 point) (FLORICULTURE AND LANDSCAPE ARCHITECTURE)

(4 cm diameter)



(14 point)

DEPARTMENT OF FLORICULTURE AND LANDSCAPE ARHITECTURE, COLLEGE OF HORTICULTURE, VENKATARAMANNAGUDEM, W.G.Dist.-534 101

(12 Point) ANDHRA PRADESH

(12 Point)

(12 Point) Dr.Y.S.R. HORTICULTURAL UNIVERSITY

(20 point) June, 2018

M.Sc./Ph.D (13 point) VASE LIFE AND QUALITY OF CHINA ASTER (Callistephus chinensis (L.) Nees) CUT FLOWERS AS INFLUENCED BY HOLDING SOLUTIONS P. PRAVEEN KUMAR (11 point) (11 point) 2018 (13 point)

It should be in the spine portion

Appendix C : Certificate by Chairman of the Advisory Committee

CERTIFICATE (18 point)

| (13 point) |
|--|
| This is to certify that Mr/Ms |
| ID. No has satisfactorily prosecuted the course of research and |
| that the thesis entitled "" submitted is the result of |
| original research work and is of sufficiently high standard to warrant its |
| presentation for examination. |
| Neither the thesis nor its part thereof has been previously submitted by |
| him/her for a degree of any University. |
| |
| |
| Place: |
| Date: Chairman |

Appendix D: Certificate of the Advisory Committee for M.Sc.

CERTIFICATE (18 point)

(13 point)

No part of the thesis has been submitted by the student for any other degree or diploma. The published part and all assistance received during the course of the investigations have been duly acknowledged by the author of the thesis.

Thesis approved by the Student Advisory Committee

Chairman Name

Designation

Address (Signature)

Member Name

Designation

Address (Signature)

Member Name

Designation

Address (Signature)

Date of final viva-voce:

Appendix E : Certificate of the Advisory Committee for Ph.D.

CERTIFICATE (18 point)

(13 point)

No part of the thesis has been submitted by the student for any other degree or diploma. The published part and all assistance and help received during the course of the investigations have been duly acknowledged by the author of the thesis.

Thesis approved by the Student Advisory Committee

Chairman Name

Designation

Address (Signature)

Member Name

Designation

Address (Signature)

Member Name

Designation

Address (Signature)

Member Name

Designation

Address (Signature)

External Name

Examiner Designation

Address (Signature)

Date of final viva-voce:

Appendix F: List of Contents

CONTENTS (18 point)

| (13 point) | | |
|-------------|-------------------------|----------|
| Chapter No. | Title | Page No. |
| I | INTRODUCTION | |
| II | REVIEW OF LITERATURE | |
| III | MATERIAL AND METHODS | |
| IV | RESULTS AND DISCUSSION | |
| V | SUMMARY AND CONCLUSIONS | |
| | LITERATURE CITED | |
| | APPENDICES | |
| | | |

Appendix G

DECLARATION (18 point)

| (13 point) | | | | | | | |
|------------------------------|--|-----------|------------------|-----------|-------------|-------------------|------------|
| I, | ······································ | hereby | declare | that | the the | sis entitle | ed |
| | " submit | ted to | Dr.Y.S.R | . Horti | cultural | Universit | y, |
| Venkataramannagudem, fo | or the degre | e of M | Iaster of | Science | ce in I | Horticultu | re |
| (Fruit Science / Vegetab | le Science / | Floricul | ture and | Landso | cape Ar | chitecture | / |
| Plantation, Spices, Medic | cinal and Aı | romatic | Crops / | Post H | arvest ' | Гесhnolog | y / |
| Entomology / Plant Patho | ology) is the r | esult of | original re | esearch | work do | ne by me. | Ι |
| declare that no material con | tained in the t | hesis has | been pub | lished ea | arlier in a | ıny manneı | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Place: | | | Sign | ature of | the Stu | dent: | |
| Date: | | | Nam ID.N | | | | |

Appendix H

DECLARATION (18 point)

| (13 point) | | | | | |
|-------------------------------|-------------------|----------------|--------------|-------------|---------|
| Ι, | herel | by declare | that the | thesis e | ntitled |
| | _" submitted t | o Dr.Y.S.R | . Horticult | tural Univ | ersity, |
| Venkataramannagudem, for th | ne degree of Doc | tor of Philos | ophy in Ho | orticulture | (Fruit |
| Science / Vegetable Science / | / Floriculture ar | nd Landscap | e Architect | ure / Plant | ation, |
| Spices, Medicinal and Arom | atic Crops) is th | e result of or | iginal resea | rch work do | one by |
| me. I declare that no materia | l contained in th | e thesis has b | een publisl | ned earlier | in any |
| manner. | | | | | |
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| Place: | | Signa | ature of the | e Student: | |
| Date: | | Nam ID.N | | | |

Appendix I: Titles

ABSTRACT 18 point **Chapter I** 14 point **INTRODUCTION** 18 point **Chapter II** 14 point **REVIEW OF LITERATURE** 18 point **Chapter III** 14 point **MATERIAL AND METHODS** 18 point **Chapter IV** 14 point **RESULTS AND DISCUSSION** 18 point Chapter V 14 point **SUMMARY AND CONCLUSIONS** 18 point LITERATURE CITED 18 point **APPENDICES** 18 point

Appendix J : Literature cited

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Appendix K: Guidelines for submission of thesis in digital form (CD/DVD)

Guidelines for submission of thesis and abstract in the Digital Form (CD/DVD) to the University Library, Dr. YSRHU, Venkataramannagudem.

| A. | Text / Running script / Body | Tex | t: |
|----|------------------------------|-----|---|
| 1 | File Format | : | MS Word 97-2003 DOC file format |
| 2 | Page size | : | A_4 |
| 3 | Margin | : | Left: 4 cm Right: 2 cm Top: 2 cm Bottom: 2 cm |
| 4 | Line Spacing | : | 1.5 |
| 5 | Font type | : | Times New Roman at all levels |
| 6 | Font Colour | : | Pure Black at all levels. |
| 7 | Page Number | : | Upper Right corner for the chapters where continuous numbering is possible. |
| 8 | Titles Alignment | : | From Left Side |
| 9 | Body Text Alignment | : | Justified (From both left and right). |
| 10 | Page Layout | : | Portrait; landscape for tabulated text pages as in review of literature, if necessary. |
| 11 | Folder | : | A separate folder with the name TEXTS for holding all script files in it. |
| 12 | File Naming | : | Title of the chapter |
| 13 | Files | : | Each Separate MS word file for each chapter |
| 14 | Table and Graphs | : | Just mention the title of the table or graph file (left aligned) in appropriate location in the script, but the actual table or graph file will be remaining in the separate folder as mentioned in (B). |
| 15 | Photographs and Images | : | Just mention the title of the photograph or Image file (left aligned) in appropriate location in the script but the actual photograph or Image file will be remaining in the separate folder as mentioned in (C). |

| В | Tables and Graphs | | | | | | | |
|---|---|--------|--|--|--|--|--|--|
| 1 | All parameters will remain same as text mentioned under (A) except for Font size, Page Layout, Folder, File naming, Files, Data for Figures. | | | | | | | |
| 2 | Font size | : | Between 8 points to 13 points of TIMES NEW ROMAN suitable to fitting the table or graph into A_4 size. | | | | | |
| 3 | Page Layout | : | Portrait or Landscape | | | | | |
| 4 | Folder | : | : A separate folder with the name TABLES for holding all table files in it. A separate folder with the name FIGURES for holding all graph files in it. | | | | | |
| 5 | File naming | : | Title of the table or graph as the case may be. | | | | | |
| 6 | Files | : | Each separate MS Office file for each of the table or figure/ graph | | | | | |
| 7 | Data for Figures/ Graphs : All the basic data used to generate a graph must be made available in a separate MS excel file with the same file name as that of figure / graph. | | | | | | | |
| С | Photographs, Images, Maps | s, Art | works, etc. | | | | | |
| 1 | All parameters will remain sa Folder, File Naming, Files, R | | s TEXT mentioned under (A) except for Font size, Page Layout, tion, Image File Format | | | | | |
| 2 | Font Size | : | Between 8 points to 13 points of TIMES NEW ROMAN suitable to fitting the table or graph into A4 size. | | | | | |
| 3 | Page Layout | : | Portrait or Landscape. | | | | | |
| 4 | Folder | : | A separate folder with the name IMAGES for holding all photograph, image, map, artwork etc. files in it. | | | | | |
| 5 | File Naming | : | Title of the Photograph, Image, Map, Artwork as the case may be. | | | | | |
| 6 | Files | : | Each separate file for each of the photograph, image, map, artwork, etc. | | | | | |
| 7 | Resolution | : | 300 DPI | | | | | |
| 8 | Image File Format | : | TIF (Without compression) or PSD (without compression) | | | | | |

PROFORMA TO BE SUBMITTED ALONG WITH CD

PROFORMA

| 1 | Title of the Thesis | : | |
|----|--|---|--|
| 2 | Full name of the Student | : | |
| 3 | Name and Address of the Major Adviser | : | |
| 4 | Degree Awarded and Year | : | |
| 5 | Major Subject | : | |
| 6 | Total number of pages in thesis | : | |
| 7 | Number of words in thesis abstract | : | |
| 8 | Number of Tables | : | |
| 9 | Number of Figures | : | |
| 10 | Number of Plates | : | |
| 11 | Signature Name and Address of the Forwarding Authority | : | |

CERTIFICATE

This is to certify that I have no objection for supplying to any scientist only one copy of any part of this thesis at a time through reprographic process, if necessary, for rendering reference services in a library or documentation Centre

| Date: | Signature of the Student |
|--------|--------------------------|
| Place: | Name: |

Note: Acknowledgement will be given a day after submission of thesis and CD/DVD.

Appendix L : Format of Abstract

Format of abstract to be submitted along with thesis

Author : Name in bold face, capitalised throughout without

affiliations

Title of thesis : Title shall be given in bold face with single line space

Degree for which it is

submitted : in capital letters (bold)

Faculty : in capital letters (bold)

Major field : in capital letters (bold)

Chairman of

Advisory Committee : in capital letters (bold)

University : in capital letters (bold)

Year of submission : bold

ABSTRACT

(18 point) central alignment

Text in single line spacing limiting up to second page

Appendix M : Symbols and Abbreviations

The following abbreviations shall be used both for singular and plural units

| T | : | Absolute temperature | cl | : | Centilitre |
|-------------------|---|--|-------------------|-----|---|
| ac | : | Acre | cm | : | Centimetre |
| a.i. | : | Active ingredient | X^2 | : | Chi square |
| pm | : | After noon/Post Meridian | \mathbb{R}^2 | : | Co-efficient of Multiple Determination |
| v/s. or vs. | • | Against | CRD | : | Completely Randomized Design |
| AICRP | : | All India Co-ordinated Research Project. | r | : | Consumptive Use |
| H_1 | • | Alternate Hypothesis | CFB | : | Corrugated Fibre Board Box |
| ANOVA | : | Analysis of Variance | BCR | : | Benefit Cost Ratio (BCR) |
| et al. | : | and others/associates/ co- workers | CD (P=0.05%) | : | Critical Difference at 5 per cent level |
| etc. | : | And so on; and other people / things | СРМ | : | Critical Path Model |
| Per se | : | As such with mean | Kc | : | Crop co-efficient |
| @ | : | at the rate of | ET _c | : | Crop Evapo-Transpiration |
| AWHC | • | Available Water Holding Capacity | CGR | : | Crop Growth Rate |
| Bt | : | Bacillus thuringiensis | cft | : | Cubic feet |
| am | • | Before noon / Anti Meridian | Cusec | : | Cubic feet per second |
| В | • | Billion | m^3 | : | Cubic metre |
| BD | • | Bulk Density | $m^3 h^{-1}$ | : | Cubic metre per hour |
| C.S | • | Capsulated suspension | DAE | : | Days After Emergence |
| C:N ratio | • | Carbon to Nitrogen ratio | DAP | : | Days After Planting |
| cg | • | Centigram | DAS | : | Days After Sowing |
| DAT | : | Days After Transplanting | S^2 | : | Genotypic Variance |
| dcg | : | Decagram | GIS | : | Geographic Information System |
| dg | • | Decigram | gcc ⁻¹ | | gram per cubic centimetre |
| dl | : | Decilitre | g | : | Gram |
| dm | : | Decimetre | X | : | Grand Mean |
| dSm ⁻¹ | : | Decisiemens per metre | GIR | | Gross Irrigation Requirement |
| dsm ⁻² | : | Decisiemens per square metre | GI | :] | Growth Index |
| °C | : | Degree Celsius | HI | : | Harvest Index |

| dkl | : | Dekalitre | ha | : | Hectare |
|--------------------------|---|---|-------|---|---------------------------------------|
| DMRT | : | Duncan's Multiple Range Test | ha-cm | : | Hectare-centimetre |
| ETL | : | Economic Threshold level | ha-m | : | Hectare-metre |
| ER | : | Effective Rainfall | hl | : | Hectolitre |
| ECD | : | Efficiency of Conversion of | ht. | : | Height |
| ECI | | Digested food | H^2 | | TI 1: 1:12: 1: D |
| ECI | : | Efficiency of Conversion of Ingested food | Н | : | Heritability in Broad sense |
| ET | : | Evapo-Transpiration | HDPE | : | High Density Poly Ethylene |
| FUE | : | Fertilizer Use Efficiency | HP | : | High Density Poly Ethylene |
| FC | : | Field Capacity | h | : | Hour |
| Fig. | : | Figure | IBA | : | Indole -3-butyric acid |
| F. test | : | Fisher's Test | IAA | : | Indole- 3-acetic acid |
| e.g. | : | for example, for instance | IPM | : | Integrated Pest Management |
| GA | : | Genetic Advance | IU | : | International Unit |
| GAM | : | Genetic Advance as per cent of Mean | IPE | : | Irrigation Production efficiency |
| GCV | : | Genotypic co-efficient of variation | IR | : | Irrigation Requirement |
| rg | : | Genotypic correlation co- efficient | JA | : | Jasmonic Acid |
| kcal | : | Kilo Calories | J | : | Joule |
| kg | : | Kilogram | M | : | Million |
| kg ha ⁻¹ | : | Kilogram per hectare | Min. | : | Minimum |
| kg a.i. ha ⁻¹ | : | Kilogram active ingredient per hectare | MI | : | Moisture index |
| kl | : | Kilolitre | m | : | molality |
| km | : | Kilometre | M | : | Molarity |
| LSD | : | Latin Square Design | R | : | Multiple Correlation Co- efficient |
| LAD | : | Leaf Area Duration | MLR | : | Multiple Linear Regression |
| LAI | : | Leaf Area Index | Viz., | : | Namely |
| λ_{max} . | : | Light absorption maxima | ng | : | Nanogram |
| λ_{\min} | : | Light absorption minima | nm | : | Nanometre |
| 1 | : | Litre | NBT | : | Need Based Treatment |
| 1 ha ⁻¹ | : | Litre per hectare | NAR | : | Net Assimilation Rate |
| LLDPE | : | Low Linear Density Polyethylene | NIR | : | Net Irrigation Requirement |
| Max. | : | Maximum | N | : | Newton |
| mPa | | Mega Pascal | NRA | : | Nitrate Reductase Activity |
| m | : | Metre | NUE | : | Nitrogen Use Efficiency |
| ms ⁻¹ | | Metre per second | NRS | : | Non-Reducing Sugars |

| μg : Micro litre No. : Number μπ : Micrometre Moles g¹ Fr.wt. h⁻¹ Number of moles per gram Fresh weight per hour μ : Micrometre OD : Optical Density μ : Milligram ψ : Osmotic Potential ml : Millilitre K _E : Pan Co-efficient mm : Millilitre K _E : Pan Co-efficient mm : Millilitre K _E : Pan Co-efficient mm : Millilitre K _E : Parts per billion part per param Dry weight RPM : Parts per billion g¹ D.wt : per Gram Fresh weight s : Second p¹ D.wt : per Gram Fresh weight s : Second p¹ D.wt : per gram Dry weight RPM : Revolutions Per Minute p¹ P.wt : per metre SG :< | m^2 | | Metre square | NS | | Non-Significant |
|--|------------------|---|-------------------------------|------------------------|---|--------------------------|
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | μg | : | | H_0 | : | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | : | | No. | : | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | : | Micrometre | Moles g ⁻¹ | : | Number of moles per gram |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | | Fr.wt. h ⁻¹ | | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | μ | : | Micron | OD | : | Optical Density |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | mg | : | Milligram | Ψ | : | Osmotic Potential |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | ml | : | Millilitre | K _p | : | Pan Co-efficient |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | mm | : | Millimetre | ppb | : | Parts per billion |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Pa | : | Pascal | ppm | : | Parts per million |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | g-1 D.wt | : | per gram Dry weight | RPM | : | Revolutions Per Minute |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | g-1 Fr.wt | : | per Gram Fresh weight | | : | Second |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | l ⁻¹ | : | per litre | S m ⁻¹ | : | Siemens per metre |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | m ⁻¹ | : | per metre | SG | : | Soluble granules |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | m ⁻² | : | Per metre square | SL | : | Soluble liquids |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | % | : | Per cent | Ψs | : | Solute potential |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | PWP | : | Permanent Wilting Point | cm ² | : | Square centimetre |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | PCV | : | | km ² | : | Square kilometre |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | rp | : | | mm ² | : | Square millimetre |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | s ² p | : | Phenotypic Variance | SD | : | Standard Deviation |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | PPFD | : | Photosynthetic Photon Flux | SEm | : | Standard Error of mean |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | PLW | : | Physiological Loss in Weight | SE m± | : | Standard Error of mean |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | PM | : | | Sub sp. | : | Sub species |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | P _{fr} | : | | | : | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | P _r | : | Phytochrome red | T ha ⁻¹ | : | Tonnes per hectare |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | PUFA | : | Poly Unsaturated Fatty Acids | TSS | : | Total soluble solids |
| PCA: Principal Component AnalysisUSWB: United States Weather Bureauq: quintalWHC: Water Holding CapacityRBD: Randomized Block Design Ψ_w : Water potentialRSS: Reducing Growth RateWR: Water RequirementRGR: Relative Growth Rate $\psi_{m^{-2}}$: Watts per square meterRQ: Respiratory Quotient $\psi_{m^{-2}}$: Weed IndexKy: Yield Response Co-efficient $\psi_{m^{-2}}$: Weight | PET | : | Potential Evapo-Transpiration | Т | : | Trillion |
| PCA:Principal Component AnalysisUSWB:United States Weather Bureauq:quintalWHC:Water Holding CapacityRBD:Randomized Block Design Ψ_w :Water potentialRSS:Reducing Growth RateWR:Water RequirementRGR:Relative Growth Rate $W m^{-2}$:Watts per square meterRQ:Respiratory QuotientWI:Weed IndexKy:Yield Response Co-efficientWt.:Weight | Ψp | : | Pressure potential | UV | : | Ultra Violet |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | : | Principal Component Analysis | USWB | : | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | q | : | quintal | WHC | : | Water Holding Capacity |
| RGR : Relative Growth Rate W m ⁻² : Watts per square meter RQ : Respiratory Quotient WI : Weed Index Ky : Yield Response Co-efficient Wt. : Weight | | : | Randomized Block Design | $\Psi_{ m w}$ | : | Water potential |
| RQ : Respiratory Quotient WI : Weed Index Ky : Yield Response Co-efficient Wt. : Weight | RSS | : | Reducing Growth Rate | WR | : | Water Requirement |
| RQ : Respiratory Quotient WI : Weed Index Ky : Yield Response Co-efficient Wt. : Weight | RGR | : | Relative Growth Rate | W m-2 | : | Watts per square meter |
| | RQ | : | Respiratory Quotient | | : | |
| | Ky | : | | Wt. | : | Weight |
| | ₹ | : | Rupee | i.e. | : | That is |

