

WRITING THESIS - guide

Thesis should be divided into the following numbered chapters/sections: **Title page**, **Acknowledgements** (optional), **Contents**, **Introduction**, **Literature review**, **Material and methods**, **Results**, **Discussion**, **Conclusions**, **References**, **Summary**, **Streszczenie** (summary in Polish) and author's **Statements**. Subchapters/ subsections should be numbered 1.1. (then 1.1.1., 1.1.2., ...), 1.2., *etc.* Each chapter/section and subchapters/subsections must have a brief heading. Each heading should begin on separate line. Headings of chapters should be bolded, and for the main headings (Contents, Introduction, Literature review, *etc.*) the bigger font (14p) should be used. The main chapter must start on a new page, and the subchapters must follow it on the same page. The pages must be numbered continuously starting from the title page, however, a number on this page should be invisible.

The thesis must be written with Times New Roman 12p, and 1.5 line spacing. Spacing between paragraphs 6p. Margins: top and bottom – 2.5 cm, left – 3.5 cm, right – 1.5 cm. Alignment: justified.

The entire text should be intelligible to readers and therefore, acronyms and abbreviations should be written out and all lesser-known technical terms should be defined the first time they are mentioned. Measures should be expressed as metric units, e.g., metric tons (t).

The Latin names of genera and species should be in italics, higher taxa in normal font. The full Latin names of plants, fungi, and bacteria species (including authors' names) should be given with the first citation in the text, while the abbreviations of these names should to be used afterwards (except beginning of sentence, when full Latin name should to be given).

Examples

- First citation:

...lettuce (*Lactuca sativa* L.) inflorescence consists of...

...bacterial leaf and flower spot caused by *Xanthomonas campestris* pv. *zinniae* Hopkins and Dawson, Alternaria blight caused by *Alternaria zinniae* Pape, and powdery mildew caused by *Golovinomyces cichoracearum* (DC.) V.P. Heluta...

- Next citations:

... this was reported for *L. sativa* and *D. carota*.

...symptoms of *A. zinniae* infection are...

but at the beginning of sentence:

Lactuca sativa is an annual plant...

Alternaria zinniae caused severe zinnia disease...

To avoid unnecessary errors you are strongly advised to use the "spell-check" and "grammar-check" functions of your wordprocessor.

TITLE PAGE

The title page includes all relevant information about the thesis (TITLE PAGE specimen is attached as annex 1 at the end of this document).

ACKNOWLEDGEMENTS

The optional part of your thesis. Acknowledgements are usually located on the second, separate page of the thesis, following title page.

CONTENTS

This is a list of the chapters contained in your thesis (CONTENTS specimen is attached as annex 2 at the end of this document).

INTRODUCTION

Introduction contains a short (one page or so) description of the work completed in your thesis. In this paragraph you should characterize in a few sentences a situation you dealt with, point out a problem with that situation, indicate possible solution(s) to that problem and at the end present goal of the work.

LITERATURE REVIEW

In this chapter state the objectives of the work and provide an adequate background supporting your project.

Writing this chapter you may use several types of reporting:

- strong author orientation (Past Tens)

Examples **JONES and SMITH** (1995) investigated the problem of..

The problem of...was first investigated by **JONES and SMITH** (1995)

- weak author orientation (Present Perfect)

Example Local failure rates as high as 18% have been reported (**CANTIN et AL.** 1968)

- subject orientation (Present Tense or use of „may”)

Example There are evidences that **the results of vigour tests** show differences in quality of seed lots (**MICHAEL et AL.** 1988, **KALI** 1997).

Referring to the literature (authors)

You will refer to literature mostly in the chapters LITERATURE REVIEW and DISCUSSION, but sometimes also in the chapter MATERIAL AND METHODS (e.g. referring to the rules, methods, statistical programs, manuals, etc.).

Citations should be made using authors' surname and year system.

Examples

- one author:
in References: RUSKIN J. (1996):
in the text: ...reported by RUSKIN (1982) *or* (RUSKIN 1982)
- two authors:
in References: RUSKIN J., LUDOVICO D. B. (1999):
in the text: ...according to RUSKIN and LUDOVICO (1999) *or* (RUSKIN and LUDOVICO 1999)
- more than two authors:
in References: LUDOVICO D. B., MORANO J., HUNG N. M., MARTOLETTO A. (1984):
in the text: ...the figures given by LUDOVICO et AL. (1984) *or* (LUDOVICO et AL. 1984)

Multiple references should be given in chronological order.

Example

This phenomenon was observed by numerous authors (REHDER et AL. 1949, TERPO 1960, CHALLICE and WESTWOOD 1973, TERPO 1985, BELL 1986, BOROWICZ et AL. 1993).

For **Web references** (including: photographs, graphs, pictures, *etc.*) full URL should be given.

Examples

There are several techniques of seed treatment (<https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/seed-treatment>).

In other countries this plant had been introduced later (<http://baike.baidu.com/view/28007.htm>).

Every reference cited in the text must be also present in the reference list (and *vice versa*)!

MATERIALS AND METHODS

This chapter have to provide sufficient details to allow the work to be reproduced. Methods already published should be indicated by a reference. You should list all materials which you used in the experiment, such as: seeds (species, cv, harvest year, region, lot No, seed company...), chemicals (trade name, active ingredient, properties, manufacturer, concentration applied...), *etc.* and describe with details all performed experiments (treatments, conditions, replicates, sampling, units...). Last paragraph of this chapter contains usually the description of statistical methods used for data analysis (test, transforming data, software...)

RESULTS

Results should be described clearly and concisely. You may present results of your experiments in tables, on the graphs, photographs or drawings. Tables are the most effective in presenting a great number of data. Illustrations must be understandable without reading a text (legend, explanations for abbreviations, statistical analysis *etc.* must be posted below tables and figures). Title of the table should be located above the table, but titles of the graphs, photos and drawings, go below these figures. For tables use an abbreviation **tab.**, for graphs, photos and drawings an abbreviation **fig.** Tables and figures should be numbered separately. In the tables and on the graphs Times New Roman 12p. should be used, but in case of large amounts of data the font size may be reduced to 10p.

The same data cannot be presented in different ways (e.g. table and graph).

Text (description of results obtained) must refer to tables (table/tab. # *or* tables/tabs #, #, #...), graphs (figure/fig. # *or* figures/figs #, #, #...) *etc.* and must precede them.

DISCUSSION

In this chapter you should explore the significance of the results of the work, not repeat them but comment them with reference to relevant scientific literature. Discussion should end with your recommendations and concluding remark(s).

CONCLUSIONS

A conclusion should stress the importance of the thesis statement, give the essay a sense of completeness, and leave a final impression on the reader.

Suggestions for writing CONCLUSIONS

Answer the question "So what?" Show your readers why this paper was important. Show them that your paper was meaningful and useful.

Synthesize, don't summarize. Don't simply repeat things that were in your paper. They have read it. Show them how the points you made and the support and examples you used were not random, but fit together.

Redirect your readers. Give your reader something to think about, perhaps a way to use your paper in the "real" world. If your introduction went from general to specific, make your conclusion go from specific to general. Think globally.

Create a new meaning. You don't have to give new information to create a new meaning. By demonstrating how your ideas work together, you can create a new picture.

REFERENCES

References must be listed in alphabetical order according to surname of the first author. Surname is followed by initial(s) of given name(s). List should not be numbered.

In case of references that have the exact same author(s) and were published in the same year letters should be assigned to distinguish them (**2002 a** for the first one, **2002 b** for the second one, etc.), and these should be cited as such in the text.

Both in the text and in the REFERENCES the authors names should be written in small caps (small capitals).

Examples of style for references:

- **Citations of journal papers**

Author(s) (year): Title of a paper. Official acronym of Journal's title or a full title if acronym is not known, Volume No (issue No): pages.

Examples

BADAR N., ARSHAD M., FAROOQ U. (2008): Characteristics of *Anethum graveolens* (Umbelliferae) seed oil: extraction, composition and antimicrobial activity. Int. J. Agri. Biol. 10: 329-332.

BOCCARDO G., BOARINO A., BOZZANO G., MARZACHI C., CONTI M. (2002): Molecular identification of phytoplasmas from dill (*Anethum graveolens* L.; Umbelliferae). J. Plant Pathol. 84 (2): 133-137.

PAGANOVA V. (2003 a): Taxonomic reliability of leaf and fruit morphological characteristics of the *Pyrus* L. taxa in Slovakia. Hort. Sci. (Prague) 30 (3): 98-107.

PAGANOVA V. (2003 b): Wild pear *Pyrus pyraster* (L.) Burgsd. requirements on environmental conditions. Ekológia (Bratislava) 22 (3): 225-241.

- **Citations of books**

Author(s) (year): Title of a book. Publisher, Location.

Examples

AGARWAL V. K., SINCLAIR J. B. (1987): Principles of Seed Pathology, vol. II. CRC Press, Inc. Boca Raton, Florida.

ELLIS M. B. (1971): Dematiaceous Hyphomycetes. Commonwealth Mycological Institute, Kew, Surrey, England.

- **Citations of articles and chapters from the books**

Author(s) (year): Title of a chapter in a book. In: Editor(s) (ed. *or* eds.). Title of a book. Publisher, Location: pages.

Examples

MONTEMURRO N., VISCONTI A. (1992): *Alternaria* Metabolites – Chemical and Biological Data. In: J. Chelkowski, A. Visconti (eds.). *Alternaria*. Biology, Plant Diseases and Metabolites. Elsevier, Amsterdam-London-New York-Tokyo: 449-557.

TAYLOR E. (2006): Diagnosis of seedborne pathogens. In: A. S. Basra (ed.). Handbook of Seed Science and Technology. Food Product Press, An imprint of the Haworth Press, Inc. New York, London, Oxford: 649-675.

- **Citations of conference proceedings**

Author(s) (year): Title of publication. In: Editor (ed. *or* eds.) (*if available*). Title of the materials. Name of the conference, Location, date. Publisher (*if available*), city: pages.

Examples

JAHN M., NEGA E., KROMPHARDT C., FORSBERG G., WERNER S. (2006): Optimization of different physical methods for control of seed-borne pathogens in organic vegetable production. In: Joint Organic Congress Papers. Joint Organic Congress, Odense, Denmark, May 30-31. ABC Press, Odense: 72-73.

KHANZADA A. K., SHETTY H. S., MATHUR S. B., CAPPELLI C., INFANTINO A., PORTAPUGLIA A. (1989). Avoidance of phenol in the embryo count procedure. In: Abstracts of papers. 22nd International Seed Testing Association Congress. Seed Symposium, Edinburgh, Scotland, June 21-30. International Seed Testing Association, Zürich: 38.

- **Citations of PhD and MSc theses**

Author (year): Original title [title in English]. MSc *or* PhD thesis, Institution (University, Institute, *etc.*), city, country.

Examples

GOMBERT L. (1998): Disease suppression in *Zinnia elegans* integrating chemical and cultural management strategies. MSc thesis, The University of Tennessee, Knoxville, USA.

MARCINIEC K. (2017): Wpływ promieniowania mikrofalowego na kiełkowanie i zdrowotność nasion marchwi (*Daucus carota* L.) [The effect of microwave radiation on germination and health of carrot (*Daucus carota* L.) seeds]. MSc thesis, Poznań University of Life Sciences, Poznań, Poland.

Web references

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given.

Example

HAN F. (2010): The effect of microwave treatment on germination, vigour and health of china aster (*Callistephus chinensis* Nees.) seeds. J. Agr. Sci. 2 (4): 201-210. DOI: 10.5539/jas.v2n4p201 (Accessed: 26. 09. 2019).

Web references, if only URL are given, should be listed separately after the reference list.

Example

Web references:

<http://agriquest.info/index.php/quality-seed-and-its-importance-in-agriculture>

<http://baike.baidu.com/view/28007.htm>

<http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/G/Germination.html>

<http://www.ces.ncsu.edu/depts/hort/consumer/agpubs/ag-448.pdf>

http://www.epa.gov/oppfead1/cb/csb_page/updates/2013/pollinsummit

SUMMARY

In this chapter you should shortly describe goal of the work, conducted experiments, applied methods and obtained results. End with the most important conclusions drawn from the work and your recommendations.

No tables, figures, literature, *etc.* in this chapter!

STATEMENTS

Three signed Author's statements (available as pdf files on Faculty website – DOWNLOAD section) must be attached to each copy of the thesis, i.e.:

- declaration of the author of diploma thesis on its being original, prepared solely by the author and constituting no abridgement of copyright,
- declaration of the author on the print and electronic copies of the thesis being identical,
- declaration by the author on having transferred to the University the right to process the thesis in a plagiarism detection system.

PLAGIARISM may cost you your degree, and it is important that you investigate how to avoid it before you start writing your thesis. Occasionally the students commit plagiarism unintentionally, and this can happen because they copy/paste specific sections of a journal article they are citing instead of simply rephrasing them. Whenever you are presenting some information that is not your own idea in your thesis, make sure you mention the source and avoid writing the statement exactly as it is written in the source.

THESIS SUBMISSION

You are required to submit three copies of the final version of your thesis to the Faculty Dean's Office. Two copies (one-sided printout) must be hard bound/hardcover and one copy limp bound/softcover (double-sided printout). In addition to the printed copies of your thesis, you are required to submit to the Faculty Dean's Office an electronic copy of the final version of your thesis saved on CD as a pdf and doc/docx files. This CD should be submitted in paper envelope signed by your supervisor (CD cover specimen is available as pdf file on Faculty website – DOWNLOAD section). At the same time you also have to submit the electronic copy as a pdf file to the Virtual Dean's Office.

Report from anti-plagiarism system, confirming originality of your work, signed by your supervisor, must be submitted to the Dean's Office together with copies of the thesis.

Author's first name and family name (font size 14pt)

Title (font size 18pt)

(font size 12pt) Master of Science thesis carried out
(font size 12pt) at the Department of,
(font size 12pt) at the Faculty of Horticulture and Landscape Architecture
(font size 12pt) at Poznań University of Life Sciences
(font size 12pt) under the supervision of

(font size 14pt) Study field: Horticulture
(font size 14pt) Speciality: Plant Breeding, Seed Science and Technology

.....
(the supervisor's signature) (font size 8pt)

Poznań 2019 (font size 14pt)

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