



OPPONENT'S REVIEW ON BACHELOR THESIS

Name of the student: Miriam Hopfgartner

Thesis title: Dissemination of *Cordyceps fumosorosea* by entomopathogenic nematodes

Supervisor: Ing. Jiří Nermuť, Ph.D.

Referee: Assoc. Prof. RNDr. Pavel Hyršl, Ph.D.

Referee's affiliation: Masaryk University, Faculty of Science, Department of Experimental Biology, Brno

	Point scale ¹	Points
(1) FORMAL REQUIREMENTS		
Extent of the thesis (for bachelor theses min. 18 pages, for masters theses min. 25 pages), balanced length of the thesis parts (recommended length of the theoretical part is max. 1/3 of the total length), logical structure of the thesis	0-3	3
Quality of the theoretical part (review) (number and relevancy of the references, recency of the references)	0-3	3
Accuracy in citing of the references (presence of uncited sources, uniform style of the references, use of correct journal titles and abbreviations)	0-3	2
Graphic layout of the text and of the figures/tables	0-3	3
Quality of the annotation	0-3	3
Language and stylistics, complying with the valid terminology	0-3	3
Accuracy and completeness of figures/tables legends (clarity without reading the rest of the text, explanation of the symbols and labeling, indication of the units)	0-3	3
Formal requirements – points in total		20
(2) PRACTICAL REQUIREMENTS		
Clarity and fulfillment of the aims	0-3	3
Ability to understand the results, their interpretation, and clarity of the results, discussion, and conclusions	0-3	3
Discussion quality – interpretation of the results and their discussion with the literature (absence of discussion with the literature is not acceptable)	0-3	3
Logic in the course of the experimental work	0-3	3
Completeness of the description of the used techniques	0-3	3

¹ Mark as: 0-unsatisfactory, 1-satisfactory, 2-average, 3-excellent.

Experimental difficulty of the thesis, independence in experimental work	0-3	3
Quality of experimental data presentation	0-3	3
The use of up-to-date techniques	0-3	3
Contribution of the thesis to the knowledge in the field and possibility to publish the results (after eventual supplementary experiments)	0-3	3
Practical requirements – points in total		27
POINTS IN TOTAL (MAX/AWARDED)	48	47

Comments of the reviewer on the student and the thesis:

The bachelor thesis describes entomopathogenic nematodes and fungi as biocontrol agents and combines both of them in practical experiment. All parts of the thesis are very well written in English, methods are up to date, results are statistically analyzed and discussed with appropriate references. Results bring the evidence that entomopathogenic nematodes improve the transmission of fungal spores in the soil depending on nematode specie, soil conditions and presence of nematode's 2nd stage cuticle. Also using adhesives as e.g. sunflower seed oil can increase spore distribution.

Suggestions and questions, to which the student has to answer during the defense.

What are the differences between the spores of different fungal species (*Beauveria*, *Metarhizium* and *Cordyceps*)? Can we assume that results with dissemination of *Cordyceps* spores will be similar with other fungal species?

Interesting is using additives during application of nematodes or fungi showing the efficiency of sunflower seed oil. Are used some additives also in biocontrol products on the market or it is new observation based on laboratory experiments only?

Mistakes, which the students should avoid in the future:

The only one larger mistake is the position of references in the text, reference is always a part of the sentence, so must be included before the dot. In bachelor thesis I would prefer Harvard referencing than Vancouver.

Minor comments: Photographs should contain information about the microscope, camera and magnification or scale bar (e.g. Fig. 1, 2). Fig. 3 contain text in Czech and is missing the reference because it was probably modified from some other source. Statistical significance should be visualized directly in the graphs.

Conclusion:

In conclusion, I

r e c o m m e n d

the thesis for the defense and I suggest the grade "excellent" (1).²

In Brno date **Sep 8th 2022**



.....

signature

² You can suggest a grade, which can be modified during the defense based on the presentation. However, if the reviewer is not present at the defense, the grade will not be counted. Grades: excellent (1). Very good (2), Good (3), Unsatisfactory/failed (4).