

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Tropical AgriSciences

Evaluation of the Diploma Thesis by Opponent

Thesis Title **Determination of in vitro antimicrobial activity of Peruvian medicinal plants**

Name of the student **B.Sc. Lizeth Chinchay Chumbe**

Thesis supervisor **prof. Ing. Ladislav Kokoška, Ph.D.**

Department **Department of Crop Sciences and Agroforestry**

Opponent **Ing. Adéla Fraňková, Ph.D.**

Formulation of the aims	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Choice of suitable methods	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fulfilment of the aims	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Scientific contribution of the thesis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Originality of the thesis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Theoretical background of the author	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Handling with data and information	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Handling with scientific literature (citations)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Argumentation and critical thinking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Abstract and keywords	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Structure of the chapters and paragraphs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Comprehensibility of the text	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Accuracy of the terminology	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Quality of scientific language	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Formatting, layout and general impression	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Evaluation of the work by grade (1, 2, 3, 4)					2

Evaluation: 1 = the best

Date 05/25/2016

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Signature of Opponent

Other comments or suggestions:

The presented work "Determination of in vitro antimicrobial activity of Peruvian medicinal plants" determines minimal inhibitory concentrations (MIC) of five Peruvian plants against five microorganism. In general, the work is well organized but should be more detailed. The literary part is very brief and general. More information about the tested plants should be included. Formula in which the plant part are used (infusion, skin application etc.) should be included as well. Moreover, the characteristic of the test microorganism and reason why those organisms were selected should be mentioned.

The methodology is confusing in some parts. For example the process of the extract preparation is not very clear. Was the plant material really mixed for 24 hours in blender or only macerated for this period of time? In the antimicrobial assay, it is stated that six fold dilution of the plan extract was prepared. Was not it two fold dilution? The abbreviation of the bacteria strains should be written uniformly and correctly. For example it is not correct to write "Candida a." but "C. albicans". The discussion and conclusions are formulated well.

From the formal point of view the thesis contains lot of grammatical mistakes in English and also in the Czech part.

Questions for thesis defence:

Q1: Why were not the plans macerated in ethanol for longer time? The usual time of maceration ranges from 1 to 2 weeks.

Q2: You stated that some of the tested plants are used for the treatment of snake and crocodile bites. Which is a typical crocodile and snake oral bacterial flora? Did you consider to test the susceptibility of some of those bacteria to the selected plants?

Q3. You stated that bacterial infection is caused by production of toxins (page 3). Do some other mechanisms of bacterial pathogenesis exist?

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