

Biologically active compounds of horticultural crops
2018/2019 fall semester
Wednesday, 14-17h, Room: G5

Day	Topic of lecture	
05.09.	Introductory exercises. Grouping of plant originated biologically active compounds. Influencing factors in the accumulation of active compounds, their role in life of plants and humans.	Németh
12.09.	Characteristic structures of synthesis and accumulation of special compounds in plants.	Szabó
19.09.	Lipids: fats, oils, prostaglandines. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Németh
26.09.	Phenolic compounds, glycosides, phenyl-propanes, polyphenols.	Németh
03.10.	Nitrogen containing secondary metabolites. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Bernáth
10.10.	Essential oils. Terpenoids and other compounds. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Szabó
17.10.	Steroids, saponines, bitter substances. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Németh
24.10.	Antioxidants and natural dye compounds. Characteristics, plant examples, human utilisation.	Pluhár
31.10.	Minerals, trace elements. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Szabó
07.11.	Saccharides, carbohydrates and vitamins. Characteristic compounds, examples, their role in plant's life, their utilisation.	Gosztola
14.11.	Practical work, exercises, tests	Németh
21.11.	Laboratory practice (Dept. of Medicinal and Aromatic Plants)	Radácsi Cserháti
28.11.	<i>No lecture – preparation of homeworks (presentations)</i>	
05.12.	Oral presentation of homeworks	Németh

Education material: Topics of the lectures and 'pdf' file materials. They are available under the googledrive link provided by the lecturer.

Prerequisites for obtaining the signature (and registering for the exam):

1. Control questions

Each lecture starts with simple test questions from the material of the previous lecture. As minimum, fulfilling at least 60% of the tests are compulsory for exam registration. On the other side, excellent performance in each of these tests results in a final best score without exam. Missing a test must be completed at a later time.

2. Preparation and presentation of individual homework

A specific phenolic type compound or compound group should be chosen by each student based on discussion with the teacher. The homework is an essay work on its occurrence, biosynthesis/degradation, accumulation, chemical features, role in the plant life, human biological activities including eventual adverse effects, utilisation in different products.

The work should be prepared based on scientific literature references (min. 5 references from the last 10 years which must be listed at a separate slide). The presentation is oral using 'ppt' slides at the last lecture with a duration of appr. 10 minutes.

3. Participation at the lectures is highly recommended. Participation at the laboratory practices is compulsory and prerequisite for the signature.

Exam

Written exam in the examination period in December-January

The topics of the exam are available in the homepage.

Budapest, 2018. 09. 03.

Zámboriné dr. Németh Éva
course leader