

**Biologically active compounds of horticultural crops**  
2020/2021 fall semester  
**Wednesday, 14-17h Online at the SZIE e-learning platform**

Day	Topic of lecture	
09.09.	<i>Arrival and registration of students</i>	
16.09.	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
23.09.	Characteristic structures of synthesis and accumulation of special compounds in plants.	Szabó
30.09.	Lipids: fats, oils, prostaglandines. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Németh
07.10.	Phenolic compounds, glycosides, phenyl-propanes, polyphenols.	Sárosi
14.10.	Essential oils. Terpenoids and other compounds. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Szabó
21.10.	Steroids, saponines, bitter substances. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Németh
28.10.	<i>Autumn holiday</i>	
04.11.	Nitrogen containing secondary metabolites. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Bernáth
11.11.	Antioxidants and natural dye compounds. Characteristics, plant examples, human utilisation.	Pluhár
18.11.	Minerals, trace elements. Characteristic compounds, examples, their role in plant's life, their utilisation potential.	Szabó
25.11.	Saccharides, carbohydrates and vitamins. Characteristic compounds, examples, their role in plant's life, their utilisation.	Gosztola
02.12.	Exercises, tests, repetition	Németh
09.12.	Oral presentation of homeworks	Németh

Participation at the lectures is highly recommended.

**Education material:**

copies of the lectures will be available for the students in the SZIE e-learning system.

**Requirement for obtaining the signature** (and registering for the exam):

*Preparation and presentation of individual homework*

Evaluation of biologically active materials of a free chosen horticultural species (agreed until end of September with the course leader!). The work should include the compound types, occurrence, level, their possible roles and utilisations and the influencing factors of their accumulation in the plant or eventual other specialities. The work should be prepared as a ppt presentation and presented in max. 10 minutes at the last lectures. It must be created based on at least 5 scientific references from the last 10 years which should be indicated at the last slide of the presentation. Deadline for preparation: 27<sup>th</sup> November.

### **Exam**

It is a written exam in the [e-learning platform](#) in the examination period in December-January. You have to register for the exam in the Neptun system.

The topics of the exam are also available at the course platform. Questions would include both short essay type ones and tests.

Budapest, 2020. 09. 01.

Zámboriné dr. Németh Éva  
course leader