

Tárgytematika / Course Description

Characteristics of plant based food raw materials

N_DMA56

Tárgyfelelős neve /

Teacher's name: dr. Petróczki Ferenc

Félév / Semester: 2023/24/1

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 0/0/0

Tárgy féléves óraszám /

Teaching hours(sem.): 30/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

The purpose of the course is to teach the characteristics of plant-based raw materials used in food technologies. During the course the most important post-harvest operations (storage after harvesting, handling, cleaning, etc.) are discussed. The preparatory operations are also listed and the most important characteristics from a technological point-of-view (moisture content, ingredients, etc.) of raw materials are also reviewed. This course can be the basis of other PhD courses such as “Technologies and machines in plant based food production” and “Fermentation industries”. Moreover the course provides knowledge for students that can be applied in their measurements and examinations.

TANTÁRGY TARTALMA / DESCRIPTION

1. Introduction and overview of plant based raw materials.
2. Production of plant raw materials.
3. Physical and chemical characteristics of plant raw materials.
4. Post-harvest technologies 1.
5. Post-harvest technologies 2.
6. Preparatory unit operations 1.
7. Preparatory unit operations 2.
8. Characteristics of flour based industries
9. Corn as a raw material of distillation.
10. Raw materials of the canned food and freezing industry 1: fruits.
11. Raw materials of the canned food and freezing industry 2: vegetables.
12. Rapeseed and sunflowers as raw materials in the vegetable oil industry; sugar beets as raw materials in the sugar industry

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Meeting the conditions set by the supervisor.

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

- Barta J., Körmeny I.** (2007): Növényi nyersanyagok feldolgozástechnológiai műveletei. Mezőgazda Kiadó.
- Barta J.** (2007): A gyümölcsfeldolgozás technológiái. Mezőgazda Kiadó.
- Biacs P., Szabó G., Szendrő P., Véha A.** (2010): Élelmiszer-technológia mérnököknek. Szegedi Tudományegyetem.

Albert Ibarz, G.V. Barbosa Cánovas (2003): Unit operation in food engineering. CRC Press.

George D. Saracovas, Zacharias B. Maroulis (2011): Food process engineering operations. CRC Press

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL