

Tárgytematika / Course Description Plant protection chemistry

N_DMA15

Tárgyfelelős neve /

Teacher's name: dr. Kőmíves Tamás

Félév / Semester: 2024/25/1

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 aim of the course is to describe the chemical system of pests and pathogens of crops grown in order to evaluate the most important results and look to future research and development.

TANTÁRGY TARTALMA / DESCRIPTION

Pesticide formulations
Insecticides
Weed control agents
Fungicides
Antibacterial agents
Other uses

The lectures describe important characteristics of the active ingredients of the different plant protection chemicals, such as

- Chemical structures
- Biological modes of action and mechanisms of action
- Environmental stability and toxicology
- Paying particular attention to the limitations of the applicability of the products in integrated pest management

The basics of plant protection chemistry.
Different forms and different goals of pesticide formulations.
Insecticides.
Weed control agents.
Antifungal agents.
Antibacterial agents.
Side effects of pesticides.
Residues and degradation products of pesticides in foods and in the environment.
Human and environmental toxicology of pesticides.
Applicability of pesticides in integrated crop production.
Alternatives to the use of pesticides.
Rules for the authorization of pesticides.

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Meeting the conditions set by the supervisor.

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Ohkawa, Hideo; Miyagawa, Hisashi; Lee, Philip W. (2007): Pesticide Chemistry. Crop Protection, Public Health, Environmental Safety, Wiley-VCH Verlag, Weinheim, p. 542 (2007)

Russell L. Jones et al. (2000): Pesticides in soil. Pesticide Outlook 174-179 (2000)

NG Ntalli, U Spiroudi. (2011): Pesticides of botanical origin, pp. 3-24, InChem (2011)

M. Stoycheva (Ed.) (2011): Pesticides, formulations, effects, fate; p. 822. InTech (2011)

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL