

Tárgytematika / Course Description

Plant physiology

MENB_NTTA016

Tárgyfelelős neve /

Teacher's name: dr. Molnár Zoltán

Félév / Semester: 2022/23/2

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 2/2/0

Tárgy féléves óraszám /

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

OKTATÁS CÉLJA / AIM OF THE COURSE

Aim of the course: to provide students with basic knowledge of plant physiology, which will make the subjects of plant production and horticulture well-established.

TANTÁRGY TARTALMA / DESCRIPTION

Plant and cell architecture (organs, tissues, cells). Importance and role of water in plants. Water transport processes. Water potential measurement techniques. Water management (uptake, transport, release) of plants. Essential nutrients and their deficiency symptoms. Mineral nutrition, membrane transport processes. Nitrogen metabolism in plants. The light reactions of photosynthesis. The carbon reactions of photosynthesis: carbon dioxide fixation, carbohydrate synthesis. Plant respiration. General characteristics of plant growth and development. Regulation of plant growth and development: plant hormones. Plants and stress: effects of water stress, low and high temperatures.

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD

Colloquium

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Hopkins W. G., Hüner N. P. A. (2009): Introduction to Plant Physiology. 4th Edition. John Wiley and Sons,

Inc., Hoboken – New Jersey

Taiz L., Zeiger E., Moller I., M., Murphy, A. (Eds.) (2015): Plant Physiology and Development. 6th Edition. The Benjamin Cummings Publishing Company, Redwood City - California.