MASTER OF AGROECOTEHNOLOGY
FACULTY OF AGRICULTURE
UNIVERSITY OF BENGKULU

COURSE SYLLABUS

AGT-512: PLANT ECOPHYSIOLOGY

Type of course : Compulsory
Credit unit : 3
Semester offered : 1

Course description

Examine the physiological, morphological, and productivity responses of plants to biotic and abiotic environmental conditions.

Learning outcome

Able to make an assessment of the impact of short- and long-term environmental changes on plant morphology, growth, and productivity.

Course content

1. Plant productivity and the environment.
2. Plant abiotic interactions and plant stress physiology (water, temperature, light, pollutant, and nutrient).
3. Evaluation of plant stress and tolerance to abiotic stress.
4. Plant biotic interactions and protection.
5. Assessment and control of weed, pests, and diseases.

References

1. Lambers, H., & Oliveira, R.S. (2019). Plant physiological ecology (3rd edition). New York: Springer.
2. Larcher, W. (2003). Physiological plant ecology: ecophysiology and stress physiology of functional groups. Springer Science & Business Media.
3. Pearcy, R. W., Ehleringer, J. R., Mooney, H., & Rundel, P. W. (Eds.). (2012). Plant physiological ecology: field methods and instrumentation. Springer Science & Business Media.
4. Roger, M. J. R. (Ed.). (2001). Handbook of plant ecophysiology techniques (No. Sirsi) i9780792370536). Kluwer Academic Publishers.