



MASTER OF AGROECOTEHNOLOGY
FACULTY OF AGRICULTURE
UNIVERSITY OF BENGKULU

COURSE SYLLABUS

AGT-523: SOIL FERTILITY MANAGEMENT

Type of course : Compulsory

Credit unit : 3

Semester offered : 2

Course description

Discuss plant and soil relationship, concept of soil fertility, plant nutrients and their availability in the soil, and nutrient management for sustainable crop production.

Learning outcome

Able to formulate soil fertility management strategies to support the achievement of maximum and sustainable crop productivity.

Course content

1. Soil fertility and crop productivity
2. Soil fertility concepts and parameters
3. Changes in soil fertility
4. Nutrient function and availability
5. Fate of nutrients
6. Integrated nutrient management
7. Biofertilizer
8. Fertigation

References

1. Foth, H. D., & Ellis, B. G. (1997). Soil fertility. Soil fertility., (Ed. 2).
2. Whalen, J. K. (2012). Soil Fertility Improvement and Integrated Nutrient Management-A Global Perspective.
3. Power, J. F., & Prasad, R. (1997). Soil fertility management for sustainable agriculture. CRC press.
4. Jones Jr, J. B. (2012). Plant nutrition and soil fertility manual. CRC press.
5. Gruhn, P., Goletti, F., & Yudelman, M. (2000). Integrated nutrient management, soil fertility, and sustainable agriculture: current issues and future challenges. Intl Food Policy Res Inst.