



COURSE SPECIFICATION 2nd SEMESTER

Course Name : Plant Physiology
Code : KU 121
Credit : (2-2)

Course Description:

A basic course that will discuss how physiological processes occur in the plant body from absorption of water and nutrients by roots, transpiration, metabolic processes (photosynthesis and respiration). As well as the growth and development of crops.

References:

Frank B. Salisbury & Cleon W. Ross. Fisiologi Tumbuhan. Penerbit ITB. Bandung

Topics:

1. Benefits of crop physiology and its scope
2. Diversity of germplasm
3. Crop anatomy: crop organization, cell organization
4. Crop classification: C3, C4, CAM crops, crop habitus
5. The mechanism of absorption of water, nutrients and their translation, diffusion, osmosis, and imbibition
6. Function and nutrient deficiency
7. Transpiration and influencing factors
8. Metabolism and enzymes
9. Physiological and photosynthetic biomol (synthesis of carbohydrates, fats, and proteins)
10. Factors affecting the speed of photosynthesis
11. Respiration
12. Respiration biomol (carbohydrate, fat, protein catalysis)
13. Factors affecting respiration
14. Crop growth and analysis
15. Growth hormone and regulator
16. Seed development and dormancy, juvenility, flowering and fruiting, ripening and senescence and tuber formation.