

**SENARAI TAJUK PROJEK PELAJAR TAHUN AKHIR
DISERTASI BACELOR PRT4959
SEMESTER PERTAMA 2023/2024
JABATAN PENGURUSAN TANAH, FAKULTI PERTANIAN**

A

- 1) Nutrient content in washed rice water from various rice brands and rice types
- 2) Sugarcane by-product wastes as plant fertilizer
- 3) Evaporative and nutrient leaching losses from various soil textures
- 4) No batteries or electricity needed: Testing a nature-controlled fertigation method
- 5) Effectiveness of Bokashi composting as fertilizer
- 6) Soil stability against erosion

B

- 1) Optimizing the growth of *Polygonum minus* using selected biostimulants based products
- 2) Promoting the growth of upland rice using formulated biochar products

C

- 1) Immobilization of heavy metals in soils using biochar.
- 2) Designer biochar to improve soil fertility.
- 3) Competitive sorption of P between soil particles and biochar.

D

- 1) Bioprospecting of beneficial microbes to improve soil fertility.
- 2) Isolation and characterization of beneficial microbes from sewage.
- 3) Preservation of effective microbes using freezing method.

E

- 1) Soil fertility index (SFI) study from selected vegetable farm for sustainable farming system.
- 2) Effectiveness of cation exchange capacity (CEC) through shaking method under acid soil conditions
- 3) Soil aluminum toxicity alleviation through calcium silicate application from selected acidic soil.
- 4) Kieserite fertilizer study on leaching and residual effect on sandy clay soil from Brownfield areas.
- 5) Soil-water quality index study under selected farming system.

E

- 1) Distribution patterns of potentially toxic elements in surface soils at an urban area
- 2) Assessment of heavy metals pollution and human risk in urban soils around manufacturing facilities

- 3) Soil quality assessment under different forest/plantation types.

G

- 1) Evaluation of organic liquid fertilizers on leafy vegetables
- 2) Evaluation of beneficial microorganisms on crop performance
- 3) Evaluation of growth medium for coconut seedlings
- 4) Evaluation of liquid organic fertilizers in soilless system
- 5) Impact of cropping system in organic farm on soil biological properties
- 6) Impact of soil management in organic farm on soil biological properties

H

- 1) Reducing soil compaction using selected soil amendment.
- 2) Development of soil media from POME sludge.
- 3) Utilization of POME sludge as a soil amendment to improve soil properties.

I

- 1) Development of a Sustainable Potting Soil Mix using different Agro-industrial-residues and their influence on fruit seedling growth
- 2) Development of a Potting Soil Mix using Palm Oil Mill Effluent (POME) and their influence on fruit seedling growth

J

- 1) Application of rock phosphate fertilizers to increase P-level in soils
- 2) Application of bio stimulant to increase uptake of nutrients in plants
- 3) Application of bio-K from agriculture waste to improve K nutrients in plants

K

- 1) Isolation and characterization of plant growth-promoting rhizobacteria (PGPR) and their effect on crop

L

- 1) Evaluating potassium fertilizer regime on the growth and yield of Napier grass
- 2) Nitrogen use efficiency of Napier grass under irrigated system
- 3) Yield productivity of leafy green vegetables from biodegradable degreaser applied as soil drenching and foliar application

M

- 1) Effect of Potassium fertilization on physicochemical properties of soil derived from Marine Alluvium and Riverine Alluvium planted with rice.
- 2) Effect of using wood vinegar as a stimulant for seed germination

N

- 1) Application of fortified biochar pellets for improving sandy soil.
- 2) Development of an Arduino-based smart sprinkler irrigation system.
- 3) Soil carbon balance and nutrient dynamics of oil palm agroforestry
- 4) Soil microbial diversity and abundance of oil palm agroforestry

Q

- 1) Effects of different amendments on solubility of different source of Mg fertilizers.
- 2) Selection of the best ratios/formulations of different fertilizers with amendments and impacts on nutrient release.
- 3) Effects of different amendments with red gypsum on physicochemical properties of red gypsum.
- 4) Effects of different amendments on solubility of different source of Mg fertilizers.
- 5) Selection of the best ratios/formulations of different fertilizers with amendments and impacts on nutrient release.
- 6) Effects of different amendments with red gypsum on physicochemical properties of red gypsum.
- 7) Localization of nutrients in different depth of soil.
- 8) Effects of soil conditioner in enhancing performance and yield of paddy.
- 9) Effects of different treatments on paddy.
- 10) Nutrients release determination using different approaches.

P

- 1) Soil Morphological and Chemical Properties in Homegardens on Ultisols
- 2) Soil Morphological and Chemical Properties in Homegardens on Oxisols
- 3) Influence Of Agricultural Activity on Soil Morphological and Physicochemical Properties on Ultisols
- 4) Influence Of Agricultural Activity on Soil Morphological and Physicochemical Properties on Oxisols
- 5) Influence Of Agricultural Activity on Soil Morphological and Physicochemical Properties on Alluvial soil