

**BACHELOR DISSERTATION TITLES (PRT4959)
FOR THE SECOND SEMESTER 2024/2025 - FIRST SEMESTER 2025/2026**

- 1 Herbicide weed control in new variety of turfgrass, Axon Putra 001
- 2 Effect of silver nano-particle priming on seed germination and vigour
- 3 Assessing the Impact of Nutrient-Enriched seed coating on germination and seedling growth
- 4 Effects of calcium on cellular structure of dragon fruit
- 5 Effects of calcium on cellular structure of dragon fruit claydode
- 6 Effect of Nutrient Concentration on Growth and quality of Golden Melon under hidroponic planting system
- 7 Effect of Cutting Type of Pitaya on root and shoot formation.
- 8 Growth responses of a new Zoysia japonica hibrid as influenced by different soil textures
- 9 Growth responses of a new Axonopus compressues mutant towards different herbicides
- 10 Development and evaluation of a new bioherbicide formulations for sustainable weed control
- 11 Determination of different rate of biofertilizer on growth, physiological attributes, yield, and quality of Solanum melongena
- 12 Growth and yield performance of sweet corn as affected by biochar and biofertilizer application
- 13 Algae Supplement for Organically Grown Lettuce in Hydroponic Systems
- 14 Effect of Different Surfactant Types for Fertilizer Improvement in Hydroponic Systems
- 15 Optimisation of Morphological Characterisation through Microstructure Study for Selected Durian Clones
- 16 Optimisation of Fruit Setting through Pollination Ecological Study for Selected Durian Species
- 17 Micropropagation of banana cv. Tanduk
- 18 Micropropagation of fingerroot ginger.
- 19 The evaluation of paclobutrazol (PBZ) application method and variety on growth and yield production of snap bean (*Phaseolus vulgaris* L.)
- 20 Effects of manipulation of growing condition in hydroponic culture of kale
- 21 Effects of wood vinegar on growth and development of selected leafy vegetables
- 22 Effect of bio-organic fertilizer on rice.
- 23 Effect of local-based liquid fertilizer on selected crop.
- 24 Effect of the leaf powder and extract of *Sansevieria trifasciata* on growth and grain yield of transplanted rice
- 25 Enhancing Control Strategies for *Monochoria vaginalis* in Rice Fields Through Diverse Herbicide Modes of Action (MOA)
- 26 Effect of biochar application in improving paddy soil fertility

- 27 Determination of the best method in co composting horse manure
- 28 Evaluation of traditional Malaysian rice varieties for resistance against pest
- 29 Development of parental lines for sweet corn for nutritional quality
- 30 Growth performance of immature rubber in relation to different soil amendments
- 31 Evaluation of bio-organic fertilizer on growth and yield of *Hevea brasiliensis*, RRIM 3001
- 32 Effect of Different Types of Biostimulants on Growth and Flowering of *Rhodomyrtus tomentosa*
- 33 Post-harvest handling effect of *Rhodomyrtus tomentosa* as cut flowers
- 34 Combined Application of Rabbit Manure, Burned Rice Husk, and Chemical Fertilizer at Different Nitrogen Rates on Shallot Production
- 35 Combination of Rabbit Manure Compost and Mineral Nitrogen Fertilization on Growth and Yield of Corn
- 36 Characterization of Selected Homemade Liquid Organic Fertilizer Recipes from Kitchen Waste
- 37 Physical dormancy-breaking assessment for *Arachis pintoii* seeds under different storage conditions
- 38 Effects of potassium citrate on growth performance of papaya seedlings
- 39 Effects of potassium silicate on physiological growth of papaya seedlings
- 40 Effects of calcium carbide on growth performance of papaya seedlings under salinity stress
- 41 Use of Shredded Empty Fruit Bunches mulching and effects on maize growth performance
- 42 Comparison between soil physical and chemical properties in oil palm and rubber plantations in UPM Campus
- 43 Evaluating the effects of various growth media on nutritional value and shelf life
- 44 Assessing the impact of sanitizers on microgreens quality
- 45 Molecular marker assisted confirmation of hybrids on coconut
- 46 Usage of various crop material for silage making as animal feed production
- 47 Yield performance of selected minor industrial crop using different agronomic practice

- 48 Sugarcane by-product wastes as plant fertilizer
- 49 No batteries or electricity needed: Testing a nature-controlled fertigation method
- 50 Effectiveness of Bokashi composting as fertilizer
- 51 Soil stability against erosion
- 52 Identification of the best binding agent for organic-based granular fertilizers
- 53 Production of slow release fertilizer from selected organic and inorganic based materials
- 54 Promoting the growth ke *Polyganum minus* using organic and organo- mineral fertilizers

- 55 Identification of liquid-based fertilizers quality produced from selected waste materials
- 56 Immobilization of heavy metals in soils using biochar.
- 57 Designer biochar to improve soil fertility.
- 58 Competitive sorption of P between soil particles and biochar
- 59 Bioprospecting of beneficial microbes to improve soil fertility.
- 60 Isolation and characterization of beneficial microbes from sewage.
- 61 Preservation of effective microbes using freezing method.
- 62 Isolation and identification of potential microbes for odor removal of sewage treatment plant (STP).
- 63 Soil fertility index (SFI) study from selected UPM vegetable farms.
- 64 Effect of calcium silicate (industrial by-product) on selected acidic soil parameters.
- 65 Soil-water quality from selected Brownfield area in Selangor.
- 66 Assessment of Visual Soil Indicator (VSI) for acid soil under sustainable farming.
- 67 Distribution patterns of potentially toxic elements in surface soils at an urban area
- 68 Assessment of heavy metals pollution and human risk in urban soils around manufacturing facilities
- 69 Soil quality assessment under different forest/plantation types.
- 70 Evaluation of organic liquid fertilizers on leafy vegetables
- 71 Evaluation of organic growth medium for coconut seedlings in polybags
- 72 Evaluation of liquid organic fertilizers under soilless system
- 73 Impact of cropping system on soil organic status in organic farm
- 74 Reducing soil compaction using selected soil amendments.
- 75 Development of soil media from POME sludge.
- 76 Utilization of POME sludge as a soil amendment to improve soil properties.
- 77 Effectiveness POME sludge mixture as fertilizer
- 78 Effects of biochar quantum dots on growth of Brassica Juncea in potting soil
- 79 The impact of biochar quantum dots on growth of Brassica Juncea in the hydroponic culture
- 80 Effects of biochar quantum dots on soil microbial diversity in the potting soil grown with Brassica Juncea
- 81 Exploring beneficial effects of oil palm waste in growing crops and sustaining soil fertility
- 82 Utilization of new materials polyhalite to reduce fertilizer use in soils
- 83 Application of rock phosphate fertilizers to increase P-level in soils

- 84 Application of bio-K from agriculture waste to improve K nutrients in plants
- 85 Isolation and characterization of plant growth-promoting rhizobacteria (PGPR) and their effect on crop
- 86 Evaluating fertilizer additive effect on soil fertility status, growth and yield of leafy greens
- 87 Application of fertilizer additive and nutrient release interaction under soil incubation system
- 88 Fertilizer use efficiency and nutrient budget of indicator crops
- 89 Role of Soil Amendments in Enhancing Fertility and Sustaining Crop Productivity
- 90 Carbon Mineralization Dynamics of Selected Biochar
- 91 Biochar and Wood Vinegar Combinations: Optimizing Soil Health and Nutrient Retention
- 92 Impact of Organic vs. Inorganic Fertilizers on Soil Fertility and Crop Yield
- 93 Application of fortified biochar pellets for improving sandy soil.
- 94 Development of an Arduino-based smart sprinkler irrigation system.
- 95 Soil carbon balance and nutrient dynamics of oil palm agroforestry
- 96 Soil microbial diversity and abundance of oil palm agroforestry
- 97 Effects of different amendments on solubility of different source of Mg fertilizers.
- 98 Selection of the best ratios/formulations of different fertilizers with amendments and impacts on nutrient release.
- 99 Effects of different amendments with red gypsum on physicochemical properties of red gypsum.
- 100 Effects of soil conditioner in enhancing performance and yield of paddy.
- 101 Soil Morphological and Chemical Properties in Homegardens on Oxisols
- 102 Influence Of Agricultural Activity on Soil Morphological and Physicochemical Properties on Ultisols
- 103 Influence Of Agricultural Activity on Soil Morphological and Physicochemical Properties on Oxisols
- 104 Influence Of Agricultural Activity on Soil Morphological and Physicochemical Properties on Alluvial soil

- 105 Checklist of insect pests of coconut nursery
- 106 Identification of bacteria for insect pest control
- 107 Evaluation of fungi for termite control
- 108 Evaluation of fermented plant extracts for insect pest control
- 109 Biological control of Pineapple Mealybug
- 110 Infestation of Rice Yellow stem-borer (YSB) in the field
- 111 Effect of temperature on Fall armyworm (FAW) life cycle

- 112 Diversity and abundance of predatory insects on corn field at Selangor
- 113 Evaluation of beneficial plants as hosts for natural enemies of oil palm bagworms
- 114 Efficacy of anticoagulant rodenticides to control
- 115 commensal rats (*Rattus norvegicus*) in urban areas.
- 116 Efficacy of rhamnolipid biosurfactant as bait against *Coptotermes* spp. in urban areas.
- 117 Efficacy of a few insecticides against bagworms, *Metisa plana* Walker in oil palm plantation.
- 118 The role of plant root exudates toward soil nematode
- 119 Nematode diversity on palm oil plantation
- 120 The role of plant root exudates toward plant-herbivore interactions
- 121 Efficacy of insect-parasitic nematode for pest control
- 122 The role of habitat complexity in regulating rodent populations within oil palm landscapes
- 123 Camera trapping assessment of mammalian diversity in oil palm plantations
- 124 Optimizing trapping techniques for rodent control in oil palm plantations
- 125 Comparative analysis of sticky trap color on the diversity of Hymenopteran
- 126 Assessing non-target effect of predatory mites on beneficial insect populations
- 127 Diversity of ladybugs in corn field.
- 128 Effects of herbal plant extracts/biostimulants for the control of plant pathogens
- 129 Comparative genomic analysis of virulent factors/resistant factors in *Ganoderma*-oil palm pathosystem
- 130 Evaluating heat-tolerant microbes for biocontrol in a changing climate
- 131 Application of RNA interference (RNAi) technology for the control of plant fungal diseases
- 132 Detection and characterization of *Chrysanthemum stunt viroid* (CSVd)
- 133 Characterization of *Phytoplasma* from vegetables using molecular diagnostic tools
- 134 Biological control of plant diseases using antagonistic microbes
- 135 Identification and characterization of fruit crops diseases
- 136 Plant disease control efficacy using synthetic pesticides
- 137 Screening for the identification of potential biological control of fungal pathogen causing rice blast disease
- 138 Application of chitosan treatment for the control of postharvest fruit diseases caused by the fungal pathogen
- 139 Identification and pathogenicity assays of plant pathogenic fungi associated with ornamental plants and herbaceous plants
- 140 Morphological characterization and genetic diversity of pathogenic fungi causing plant diseases

- 141 Mushroom cultivation: Evaluation of different media substrate
- 142 Mushroom cultivation: Evaluation of different spawn substrate
- 143 Mushroom diseases: Morphological and molecular identification
- 144 Antimicrobial activity of seaweed extracts against *Phytophthora palmivora* isolated from durian stem canker disease.
- 145 Efficacy of cinnamon bark extract against selected phytopathogens.
- 146 Isolation and detection of *Fusarium oxysporum* f.sp *cubense* from banana.
- 147 Isolation and detection of *Pantoea* species from rice fields in Malaysia.
- 148 Basal stem rot disease of oil palm: Evaluation of nanofertilizer and nanofungicides against *Ganoderma boninense*
- 149 Evaluation of antifungal activity of plant extracts against plant pathogenic fungi
- 150 Evaluation of fungicides and biofungicides on chrysanthemum flower disease
- 151 Evaluation of chemical fungicides and biofungicides on vegetable diseases
- 152 Molecular identification and characterization of viruses infecting landscape plants
- 153 Molecular identification and characterization of viruses infecting vegetable plants
- 154 Identification and in silico characterization of viruses using bioinformatic analysis of publicly available plant transcriptome

- 155 Remote sensing applications in rice
- 156 Smart farming strategies for durian
- 157 Spatio-temporal modeling for optimization of crop input management
- 158 Development Database of Pest and Disease of Durian
- 159 Rice's Farmers Acceptance on Using Perosak dan Penyakit Padi App
- 160 Drone spraying technology in rice cultivation
- 161 Drone spraying technology in oil palm cultivation
- 162 Development of the drone spraying operational system
- 163 IoT technology in pest and disease control and monitoring
- 164 Web-based GIS in knowledge information system for agriculture.
- 165 Site-specific weed detection using UAV and GIS application in paddy field.
- 166 Crop growth monitoring using UAV and GIS application.
- 167 Land Suitability Analysis for Rice Cultivation Based on Multi-Criteria Decision Approach through GIS.
- 168 Mobile apps development in agriculture application.

- 169 Geo-tagging application for durian plantation using UAV technology.
- 170 Water level and Water Requirements for Optimal Rice Growth: Water Control and Monitoring Based on Crop Needs.
- 171 Crop water requirement determination for Putra Cr rice variety during drought season.
- 172 Evaluation of water efficiency for rice field based on precise irrigation water management.
- 173 Crop growth monitoring and control using IoT application for Rock Melon in greenhouse.
- 174 Impact of Greenhouse Microclimate on Rock Melon Growth and Crop Water Requirements.
- 175 Characterization of functional cosmetic properties of Citrus hystrix leave
- 176 Antioxidant and Proximate analysis of Citrus hystrix leave
- 177 Optimization of antioxidant properties of Citrus hystrix leave
- 178 Optimization of callus induction in Malaysian rice genotypes via seed explants
- 179 Varietal identification of rice cultivars using SNP-based markers
- 180 Optimizing Prosit Program for Big Data Analysis of Public Wheat Proteomics to Identify Disease-Resistant Proteins
- 181 Analyzing Public Wheat Proteomics Data with Deep:Prism program to Identify Disease-Resistant Proteins
- 182 Rapidminer-Based Proteomic Analysis of Public Wheat Data for Disease Resistance Detection
- 183 Using Big data analysis to Investigate Disease-Resistant Proteins in Public Wheat Proteomics Data
- 184 Exploring Public Wheat Proteomics Data with Prosit for Disease-Resistant Protein Identification
- 185 Usage and Analysis of High Performance Computer 10 (HPC 10): Quanta Server for Data Analysis
- 186 Hyperhydricity in micropropagated ornamental plants
- 187 Micropropagation of ornamental / herb plants
- 188 In vitro propagation and mutation induction on ornamental / herb plants
- 189 In vitro conservation of endangered and value-added plant species
- 190 Community Readiness to Adopt Technology among Urban Farming Community in Malaysia
- 191 Youth Perceptions towards Urban Farming Practices in Malaysia
- 192 Farmer' Readiness towards Organic Farming System among Urban Farming Community in Malaysia
- 193 Factors Influencing the Involvement of Agropreneur towards Sustainable Farming in Malaysia
- 194 Adoption of IoT among Youth in Agriculture
- 195 Factors Influencing Smart Farming Technology Adoption in Malaysia
- 196 Socio-economic Factors Influencing the Adoption of Precision Agriculture Technology among Pineapple Growers in Malaysia
- 197 Acceptance of Precision Farming and Efficient Agronomy Practices among Pineapple Farmers in Malaysia

- 198 Factors Influencing the Acceptance of Precision Farming Technology among Pineapple Growers in Malaysia
- 199 Socioeconomic Impact of Climate Change on Agriculture.
- 200 Farmers' Knowledge, Attitudes and Practices (KAP) towards Adoption of Information and Communication Technology in Agriculture.
- 201 Effectiveness of Agricultural Extension Services in Dissemination of Information to the Farming Community.
- 202 Effectiveness of Information Communication Technologies in Dissemination of Agricultural Information to Smallholder Farmers.