FAKULTAS PERTANIAN
UNIVERSITAS MULAWARMAN

Kampus Merdeka
INDONESIA JAYA

STAFF HANDBOOK

DOCTORAL PROGRAM OF AGRICULTURAL SCIENCE
FACULTY OF AGRICULTURE
MULAWARMAN UNIVERSITY

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Program Doktor Ilmu Pertanian
Universitas Mulawarman

Prof. Dr. Ir. H. Rusdiansyah, M.Sc.

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Research Interest:
Agronomy,
Plant Breeding

Sinta ID:
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Scopus ID:
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Orchid ID:
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Formal Education:

Barchelor of Agriculture
Mulawarman University, 1986

Master of Science
Bogor Agricultural Institute, 1996

Doctor of Agriculture
Bogor Agricultural Institute, 2002

Office Address:
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Recent Publication:

1. Selection of BCIF5 Lines Pandan Ungu/ Kambang/ Pandan Ungu (PU/K/PU) Based on Agronomic Characteristics, 2023
2. Occurrence of BC1F4 Cross Reciprok of Kambang Rice/Purple Pandan//Purple Pandanus Based on Agronomic Characters in Tidal Rice Fields in Sidomulyo Village, Anggana District, 2022
3. Growth and yield of maize plants (*Zea mays* L.) With Mycorrhizal Enrichment and Compound Fertilizer on Post-Coal Mining Land, 2022
4. Edible Part Nutritional Value And Calcium Content In Five Lai-Durian (*D. zibethinus* X D. Kutejensis) Fruit Rind From Loa Kulu East Kalimantan, 2021
5. Growth and yield of maize (*Zea mays* L.) Applied by Several Compound Fertilizer Compositions to Post-Coal Mining Land, 2021
6. Growth and Yield of Tomato (*Lycopersicum esculentum* MILL.) on the application of Zn fertilizer and different planting distances, 2020
7. Morphological Characteristics of Batuah Red-Fleshed Durian (*Durio graveolens*), an Endemic Exotic Plant from East Kalimantan, Indonesia, 2020
8. Six potential superior durian plants resulted by cross breeding of *D. zibethinus* and *D. Kutejensis* from East Kalimantan, Indonesia: Initial identification, 2019

Prof. Dr. Ir. H. Rusdiansyah, M.Sc.

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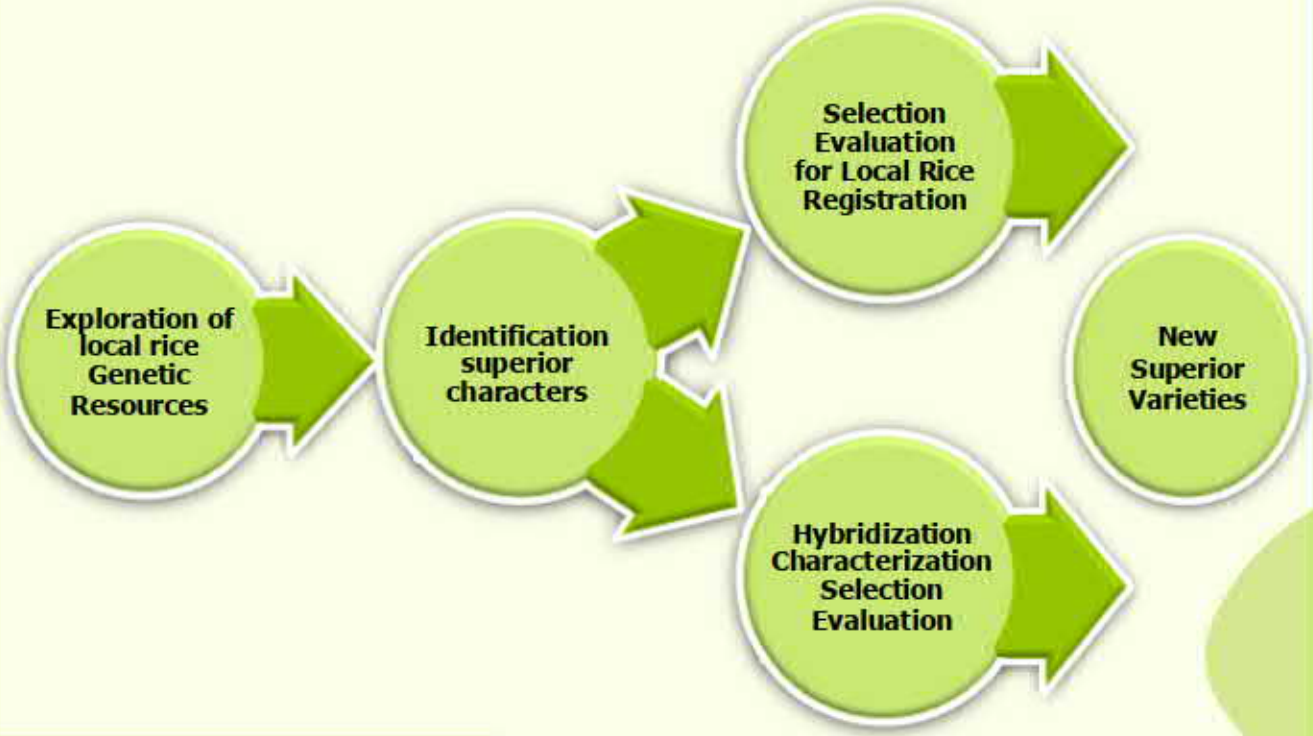
Research Interest:

Agronomy,
Plant Breeding

Lecture:

1. Philosophy of Science and Application of Research Methods
2. Ecophysiology of Humid Tropical Plants
3. Selected Topics in Plant Breeding
4. Current Topics in Crop Production
5. Management of Genetic Resources of Tropical Humid Plants
6. Plant Breeding for Stressful Environments

RESEARCH ROADMAP



Current work, Releasing process of superior rice varieties from the cross of East Kalimantan local rice. In 2022 (the proposed varieties are waiting for the results of the analysis of pest and disease resistance, iron tolerance (Fe) and rice quality from BB Padi Sukamandi.

Prof. Dr. Bernatal Saragih, SP, M.Si.

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Research Interest:
Nutrition and Food Science

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5978410

Scopus ID:
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Orchid ID:
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Formal Education:

Agricultural Product Technology (Bachelor)
St. Catholic University Thomas Medan, 1995

Food Science (Magister)
Bogor Agricultural Institute Food, 2001

Community and Family Nutrition Study Program (Doctor)
Bogor Agricultural Institute Food

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Recent Publication:

1. Antioxidant activities (DPPH and ABTS method) from extract of Bangle rhizome (*Zingiber cassumunar*) using different method of extraction, 2024
2. Utilization of the tiwai plant (*Eleutherine americana* merr) as a functional instant drink containing antioxidant, 2024
3. The effect of variations in coffee tiwai as drink products on blood lipid profiles and hematological indices, 2024
4. Substitution of Banana Heart Flour (*Musa Paradisiaca*) and Green Beans (*Vigna Radiata*) to Protein, Fiber and Sensory Steamed Brownies, 2024
5. Use of Tiwai Onion Extract (*Eleutherine americana* Merr) as an Inhibitor of Rancidity in Bulk Cooking Oil, 2023
6. Engineering of rotary system pepper dryer with temperature controller for pepper powder quality improvement, 2023
7. Physical Properties, Organoleptic, Antioxidant Activity And Glucose Response of Tiwai Coffee, 2023
8. The relationship between fruit and vegetable consumption patterns to nutritional status during the Corona Virus Disease 19 (COVID-19) pandemic, 2023
9. Sensory evaluation and antibacterial activity of bee pollen extracts isolated from several stingless bees in two drying methods, 2023
10. The Effect of the Substitution of Banana Blossom Flour (*Musa paradisiaca*) and Mung Bean (*Vigna radiata*) on Proteins, Fiber, and Steamed Brownies Sensory, 2023

Prof. Dr. Bernatal Saragih, SP, M.Si.

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Research Interest:
Nutrition and Food Science

Lecture:
1. **Philosophy of Science and Application of Research Methods**
2. **Advanced Food Science**
3. **Advanced Agricultural Product Chemistry**
4. **Quality Management and Food Safety**
5. **Agricultural Product Processing Techniques**
6. **Post-Harvest Technology of Tropical Agricultural Products**

RESEARCH ROADMAP

Years

2008-2011	2012-2016	2017-2019	2020-2021	2022-2023	2024-2025	2026-2027

Field: Development of local food as functional foods

- ✓ Exploration of the potential of local food
- ✓ In-depth interviews with the community on the benefits and characteristics of Tiwai plants
- ✓ Phytochemical tests
- ✓ Food coloring
- ✓ Diversification of Tiwai onion extract products: Candy, effervescent, syrup, drinks
- ✓ Development of herbal products

- ✓ Research on medicinal plants and local food
- ✓ Development of herbal products of shallots
- ✓ Consumer testing
- ✓ Test on hypercholesterolemia patients
- ✓ Packaging designPIRT management
- ✓ Product salesSales analysis
- ✓ Study of functional food potential of lepiu and its biogenic function test

- ✓ Tiwai Herbal Shelf Life
- ✓ Antioxidants
- ✓ Herbal drying method
- ✓ Advanced product development of Tiwai Coffee
- ✓ Locally sourced analog rice
- ✓ Identification and characterization of local Dayak ethnic food to support food security
- ✓ Making an Analog Rice Extruder with a nire cutter

- ✓ Tiwai Coffee
- ✓ Test
- ✓ Antioxidant
- ✓ α-glucosidase,
- ✓ Malonaldehid
- ✓ glycemic index
- ✓ Chemical profile of tiwai coffee drink with FTIR
- ✓ Lipid profileHematology post-intervention in mice
- ✓ Fortification of iron (fe) and vitamin a in monggomas analog rice on nutritional value, chemical profile with FTIR and Hb and cholesterol status in mice

- Tiwai Coffee Test on Humans with DMT2 and Hypercholesterolemia
- BMI, Blood Pressure
- Nutritional Intake
- Body Fat Percentage
- Lipid Profile
- Post-Intervention Hematology in Patients

- Package Design
- Shelf Life Test
- Market Test of Functional Local Food Products
- Development of Local Food Businesses

Functional food

Food and Nutrition Expertise

- ✓ Analysis of food security coping strategies
- ✓ Determination of household hunger indicators in poor families in East Kalimantan
- ✓ Analysis of children's eating patterns
- ✓ Nutritional status of children in East Kutai

- ✓ Positive Deviance Indicators of Nutritional Status and Food Security of Poor Households in Urban and Rural Areas
- ✓ Analysis of nutritional status of children in Paser Regency
- ✓ Analysis of Food Security of Bulungan Regency
- ✓ Analysis of Minimum Service Standards for Food Security in Samarinda City
- ✓ Data Profile of Food Security in Samarinda City
- ✓ Dietary Patterns and Nutritional Status
- ✓ Consumption Revolution for Food Independence in East Kalimantan

- ✓ Review of improving the performance of the Samarinda
- ✓ Food Security Council
- ✓ Overcoming stunting
- ✓ Impeoving synchronization of the Food Security Council
- ✓ Analysis and planning o West Kutai food supplies
- ✓ Master plan for food security in West Kutai Regency
- ✓ Evaluation of food security performance in Samarinda city
- ✓ Dietary patterns and nutritional status
- ✓ Analysis of Expected Food Patterns

- ✓ Overview of Community Eating Habits During the Covid 19
- ✓ PandemicRelationship of Various Factors with Eating Habits During the Covid 19 Pandemic
- ✓ Relationship of family food security with mothers' ability to meet nutritional needs (vitamins C and E) from fruits and vegetables during the Covid 19 pandemic
- ✓ Analysis of Samarinda Food Resources
- ✓ Food and Nutrition Action Plan for Paser Regency
- ✓ Factors Affecting Food Security
- ✓ Technocratic Draft of Bulungan Regency RPJMD 2020-2024

- Food security and covid 19
- Stunting control
- Food and nutrition action plan
- Composite food security
- Analysis of Expected Food Patterns
- Evaluation of regional food and nutrition action plans

- Analysis and Policy for Combating Stunting
- Analysis and Policy for Food and Nutrition Action Plan
- Analysis and Policy for Combating Food Insecurity

Food and Nutrition Security Improvement Strategy

Prof. Dr.Oec.Trop. Ir. Krishna P. Candra, M.S.

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Research Interest:
Chemistry and Microbiology of Food/Agricultural Products

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Scopus ID:
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Orchid ID:
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Formal Education:

Agricultural Industrial Technology (Bachelor)
Bogor Agricultural Institute, 1987

Food Science (Magister)
Bogor Agricultural Institute Food, 1993

Food Science (Doctor)
Christian-Albrecht University of Kiel Germany, 2000

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Recent Publication:

1. Green open space development as A green city concept implementation strategi (Case study in Samarinda city), 2024
2. Yield optimization in coconut oil extraction (*Cocos nucifera* L.) by wet rendering method, 2023
3. The Effect of *Passiflora foetida* L. Leaves Decoction on Blood Pressure Profile and Its Correlation with the Demographics of Hypertensive Patients, 2023
4. Perception of preventing behavior against COVID-19 among Indonesian industrial workers, 2022
5. Critical factors affecting the quality of the longissimus lumborum from native thai cattle (*Bos indicus*), 2022
6. Critical factors affecting the quality of the longissimus lumborum from native thai cattle (*Bos indicus*), 2022
7. Fatigue on Oil Refinery Workers and Related Factors, 2021
8. Rapid authentication of East Kalimantan forest honey with ATR-FTIR spectroscopy combined with chemometric analysis, 2021
9. Evaluation and analysis of new design traditional handloom performance in reducing work musculoskeletal disorders among Sarong Samarinda female weavers: A quasi-experimental study, 2021
10. Factors Affecting Musculoskeletal Disorder (MSD) Prevalence among Women Weavers Working With Handlooms in Samarinda, Indonesia, 2020

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Research Interest:
Chemistry and Microbiology of Food/Agricultural Products

Lecture:

1. Philosophy of Science and Application of Research Methods
2. Scientific Writing and Academic Ethics
3. Advanced Agricultural Product Analysis
4. Advanced Agricultural Product Microbiology
5. Biotechnology of Tropical Agricultural Products
6. Post-Harvest Technology of Tropical Agricultural Products

RESEARCH ROADMAP

Utilization of Carbohydrate-Based Local Resources for the Development of Food and Energy Diversification 2015-2025

- Study on the characteristics of cassava from East Kalimantan and its use in supporting the diversification of food products (2015-2016)
- Selection of cassava types as canned tape candidates (2017-2018)
- Development of canned tape technology made from selected cassava raw materials and other potential local carbohydrate source materials. The development of bioethanol production technology utilizes local resources. (2019-2020)
- Development of small-scale industrial can tape production technology. Development of bioethanol production technology utilizing local resources. Improvement of the technology of processed carbohydrate-based materials and their techno-economic calculations. (2021-2025)
- Canned tape innovation products as an export-oriented cocktail material. Technological innovation of carbohydrate-based semi-finished material production process from local resources and its industrial feasibility.

Prof. Dr.sc.agr. Nurhasanah, S.P., M.Si.

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Research Interest:
Plant Biotechnology,
Plant Breeding,
Plant Molecular Breeding

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Scopus ID:
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Orchid ID:
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Formal Education:

Barchelor of Agriculture
Jambi University, 1998

Master of Forestry Management
Bogor Agricultural Institute, 2003

Doctor of Science in Agriculture
Georg August Universitat Zu Gottingen, Germany, 2010

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Recent Publication:

1. Shoot multiplication of Doyo (*Curculigo latifolia* Dryand.) using the combinations of BAP dan IBA in In-Vitro propagation, 2022
2. Somatic Embryos Induction of East Kalimantan Local Rice (*Oryza sativa* L.) Cultivars and In Vitro Selection Against Salinity, 2022
3. Genetic and phytochemical analysis of Indonesian black rice cultivars, 2021
4. In Vitro Regeneration Of Banana Genotypes Possessing Distinct Genomes By Using Male Flower Explants, 2021
5. Genetic relationships among cultivated and wild bananas from East Kalimantan, Indonesia based on ISSR markers, 2021
6. Genome group classification and diversity analysis of talas and rutai banana, two local cultivars from East Kalimantan, based on morphological characters, 2021
7. Somatic embryos response against iron stress in in-vitro culture condition of East Kalimantan (Indonesia) rice, 2019
8. Interspecific grafting to solve the rootstock shortage in vegetative propagation of Lai-durian (*'Durio zibethinus* x *kutejensis'*) originated from East Kalimantan, 2019
9. Selection and regeneration of purple sweet potato calli against drought stress simulated by polyethylene glycol, 2019
10. The response of East Kalimantan, Indonesia local rice cultivars against iron stress, 2019

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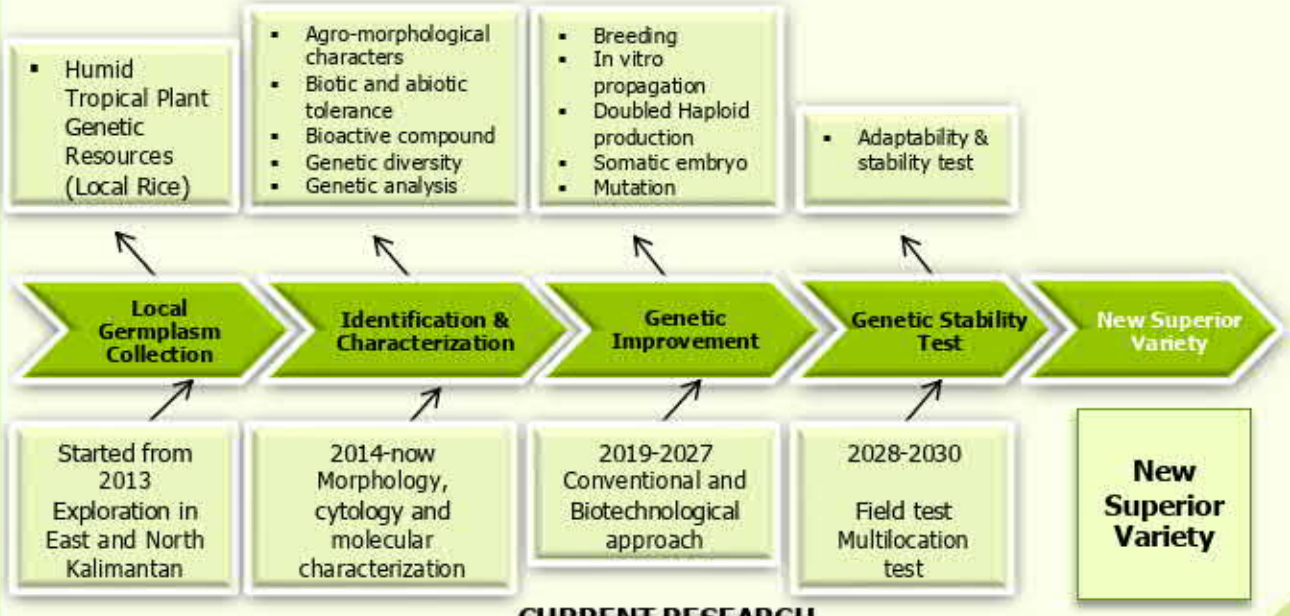
Research Interest:

Plant Biotechnology,
Plant Breeding,
Plant Molecular Breeding

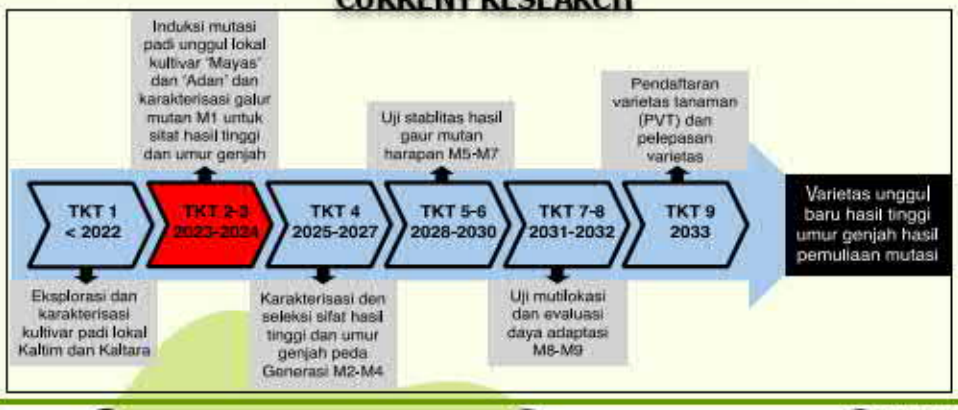
Lecture:

1. Selected Topics in Plant Breeding
2. Plant Molecular Biology
3. Plant Genetic Engineering
4. Mutation Breeding
5. Molecular Analysis
6. Plant Biotechnology

RESEARCH ROADMAP



CURRENT RESEARCH



Ir. Sopialena, MP, Ph.D.

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Research Interest:
Phytopathology, Epidemiology

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Scopus ID:
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Orchid ID:
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Formal Education:

Barchelor of Agriculture
Mulawarman University, 1986

Master of Agriculture
Brawijaya University, 1991

Doctor of Philosophy
University of The Philippines, 2004

Office Address:
Gunung Kelua, Kec Samarinda Ulu, Kota Samarinda, Kalimantan Timur 75243

Website:
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Recent Publication:

1. Identification and Testing of Trichoderma spp. Indigenus Antagonists in Several East Kalimantan Areas Against the Causes of Tomato Wilt Disease (*Fusarium oxysporum*), 2024
2. Antagonist Test of Trichoderma sp and Gliocladium sp Againts Fungal Pathogens That Cause Diseases on Tomato Plant, 2024
3. Controlling Diseases in Porang Plants (*Amorphophallus muelleri* Blume) Using Endophytic Fungi In vitro, 2024
4. Effect of Garlic and Cinnamon Extract Administration on Anthracnose Disease in Red Pepper (*Capsicum annuum* L.), 2024
5. Test of the Effectiveness of Plant-Based Pesticides from Bay Leaf Extracts, Galangal and Turmeric on Rhizoctonia Fruit Rot (*Rhizoctonia Solani* Kühn) on Tomatoes (*Lycopersicum Esculentum* Mill.) In Vitro, 2023
6. Effect of Chitosan Liquid Organic Fertilizer on Porang Plants (*Amorpophallus muelleri* Blume) on the Control of Fusarium Wilt Disease (*Fusarium* sp.), 2023
7. Microbes in Plant Growth Promoting Bamboo Rhizobacteria, Reeds and Bananas, 2023
8. Effect of Tuba Root Extract (*Derris elliptica* Roxb.) Against the Intensity of Insect Attack of Large Chili Virus Vector (*Capsicum annuum* L.), 2022
9. Impact of Metarhizium sp. and Trichoderma sp. on Soil Fertility and Growth of Tomatoes (*Solanum Lycopersicum* L.) in Post-Mining Land, 2022
10. Control of antracnose disease in tomato (*Solanum lycopersicum*) using endophytic fungi, 2022

Ir. Sopialena, MP, Ph.D.

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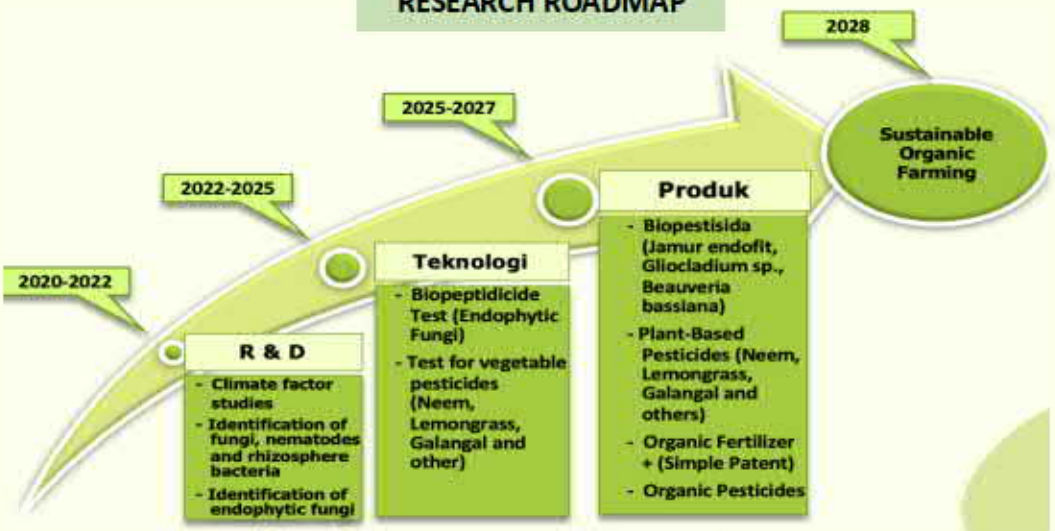
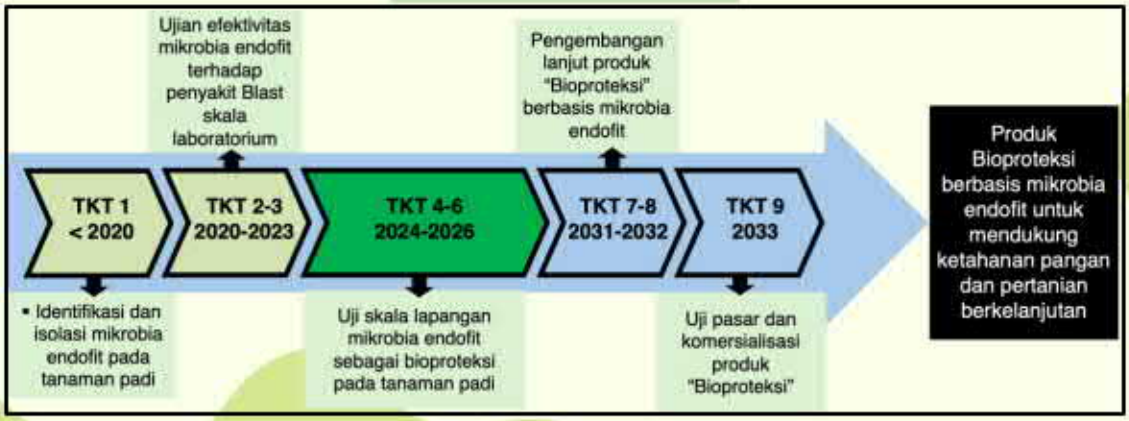
Research Interest:
Phytopathology,
Epidemiology

Lecture:
1. Microbe and Plant Interactions
2. Epidemiology and Management of Pests and Diseases in Humid Tropical Plants
3. Integrated Pest Management in Humid Tropical Environments
4. Plant Resistance to Pests and Pathogens
5. Advanced Plant Bacteriology
6. Advanced Plant Mycology

RESEARCH ROADMAP



CURRENT RESEARCH



Prof. Widi Sunaryo, S.P., M. Si., Ph. D.

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Research Interest:
Agronomy,
Plant Biotechnology,
Plant Molecular Biology

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Formal Education:

Barchelor of Agriculture
Mulawarman University, 1997

Master of Science
Bogor Agricultural Institute, 2002

Doctor of Philosophy
Georg August Universitat Zu Gottingen, Germany, 2010

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Recent Publication:

1. Genetic diversity and cluster analysis of local pigmented rice from East and North Kalimantan, Indonesia based on quantitative and qualitative characters, 2024
2. Diversity, nutrient contents and production of forage plants in an integrated cattle livestock-oil palm plantation in East Kalimantan, Indonesia, 2023
3. The diversity of banana cultivars in East Kalimantan based on morphological characteristic, 2022
4. Shoot Multiplication on Doyo Plant (*Curculigo latifolia* Dryand.) Using Multiple Combinations of BAP and IBA in In-Vitro Propagation: Shoot Multiplication in Doyo Plants (*Curculigo latifolia* Dryand.) Using Multiple Combinations of BAP and IBA in In-Vitro Propagation, 2022
5. Somatic Embryos Induction of East Kalimantan Local Rice (*Oryza sativa* L.) Cultivars and In Vitro Selection Against Salinity, 2022
6. Benzyl Amino Purine (BAP) Growth Regulator Application and Shoot Origin Stem Lai (*Durio kutejensis*) Against Growth Durian (*Durio zibethinus* Murr) Grafting Seedlings, 2022
7. In vitro regeneration of banana genotypes possessing distinct genomes by using male flower explants, 2021
8. Protocol for screening and expression studies of T-DNA and tagging-based insertional knox mutants in Arabidopsis thaliana, 2021
9. Induction of Multiplication of Cassava var. Elephant (*Manihot esculenta* crantz) Through Tissue Culture With BAP Growth Regulators and NAA Multiplication ofInduction of Cassava var. Elephant (*Manihot esculenta* crantz) Through Tissue Culture Using BAP and NAA Growth Control, 2021
10. Genetic relationships among cultivated and wild bananas from East Kalimantan, Indonesia based on ISSR markers, 2020

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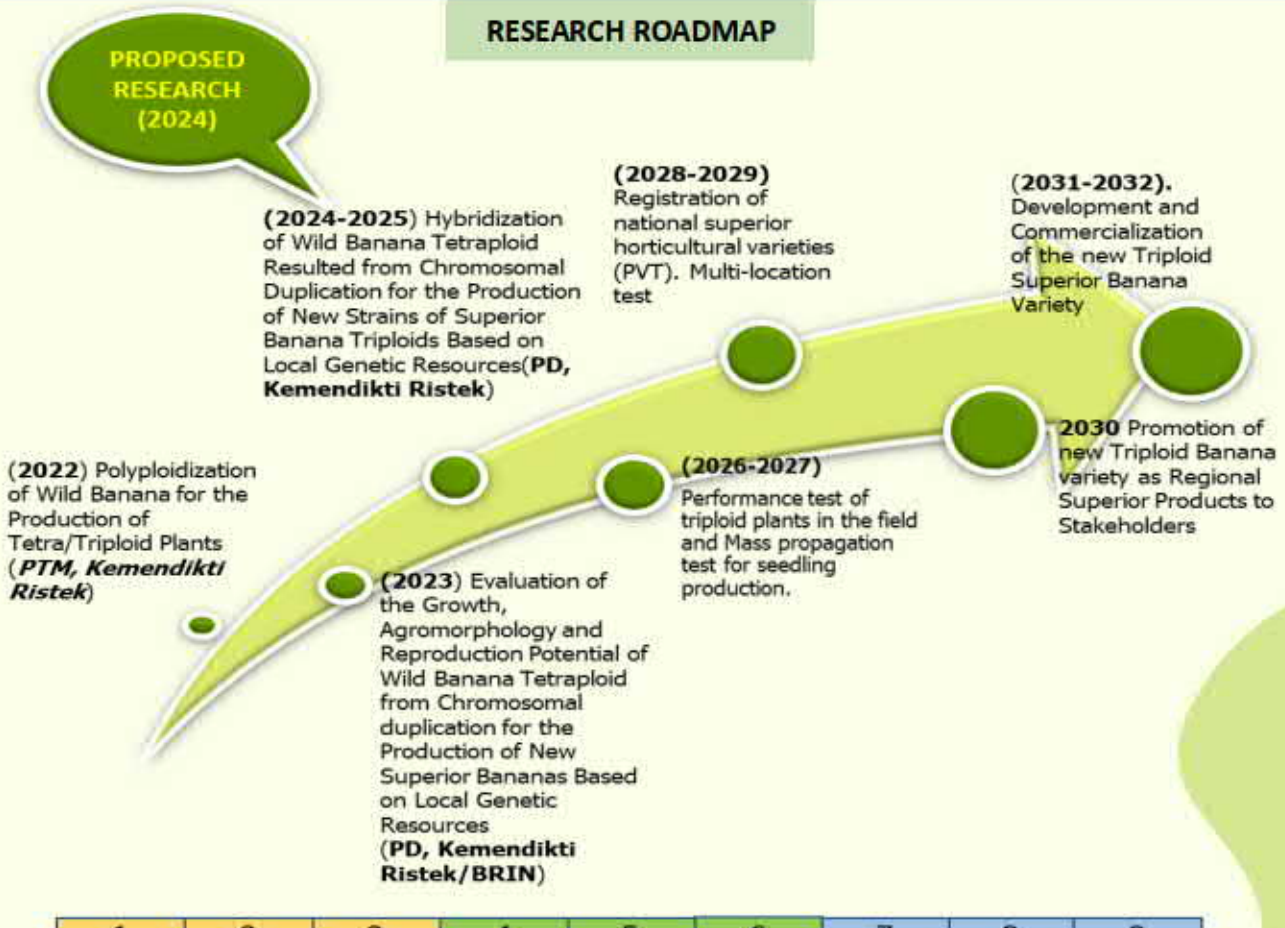
Research Interest:

Agronomy,
Plant Biotechnology,
Plant Molecular Biology

Lecture:

1. **Scientific Writing and Academic Ethics**
2. **Plant Molecular Biology**
3. **Advanced Plant Physiology and Stress Physiology**
4. **Current Topics in Plant Physiology**
5. **Management of Genetic Resources of Tropical Humid Plants**
6. **Plant Breeding via Tissue Culture**
7. **Plant Genetic Engineering**
8. **Molecular Analysis**
9. **Plant Biotechnology**

RESEARCH ROADMAP



Prof. Ir. Suyadi, MS, Ph.D.

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Research Interest:
Plant Protection, Crop Protection, Integrated Pest Management, Plant Neonatology, Integrated Farming

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6010975

Scopus ID:
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Orchid ID:
-

Formal Education:

Barchelor of Agriculture
Mulawarman University. 1983

Master of Science
Gadjah Mada University. 1988

Philosophy of Doctor
University of The Philippines, At Los Bathos. 1994

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Recent Publication:

1. Strategy for Increasing the Quantity and Quality of Agricultural Commodity Production in Berau Regency, 2023
2. Plant Parasitic Nematodes (NPTs) Are Silent Pests in East Kalimantan, 2023
3. Nematode Diversity In Post-coal Mining Reclamation Land In Bangun Rejo Village, Tenggarong Seberang District, 2023
4. Ecosystem Monitoring on Leaves of Leaf Rust Disease of Maize (*Zea mays* L.), 2022
5. Strategies for Improving East Kalimantan's Food Security and Challenges as a Buffer for IKN, 2021
6. Control of bacterial leaf blight disease in several varieties of rice plants (*Oryza sativa* L.) by using bacteria of Paenibacilus polymyxa Mace, 2021
7. Tenurial Conflicts Within Protected Forest Management Unit (PFMU) of Tarakan, North Kalimantan, 2021
8. Nematode diversity indices application to determine the soil health status of Lembo agroecosystem in West Kutai, East Kalimantan Province, Indonesia, 2021
9. Impact of Sedimentation and Soil Properties on the Presence of Entomopathogenic Nematodes in the Oil Palm Rhizosphere in Kutai Kartanegara Regency, East Kalimantan Province, 2021
10. Efektivitas Cendawan Endofit Sebagai Pengendali Penyakit Blast Pada Tanaman Padi (*Oryza sativa*), 2020
11. Exploration of Nematophage Fungi from Manure in Samarinda City: A Case Study of Lempake Village, 2020

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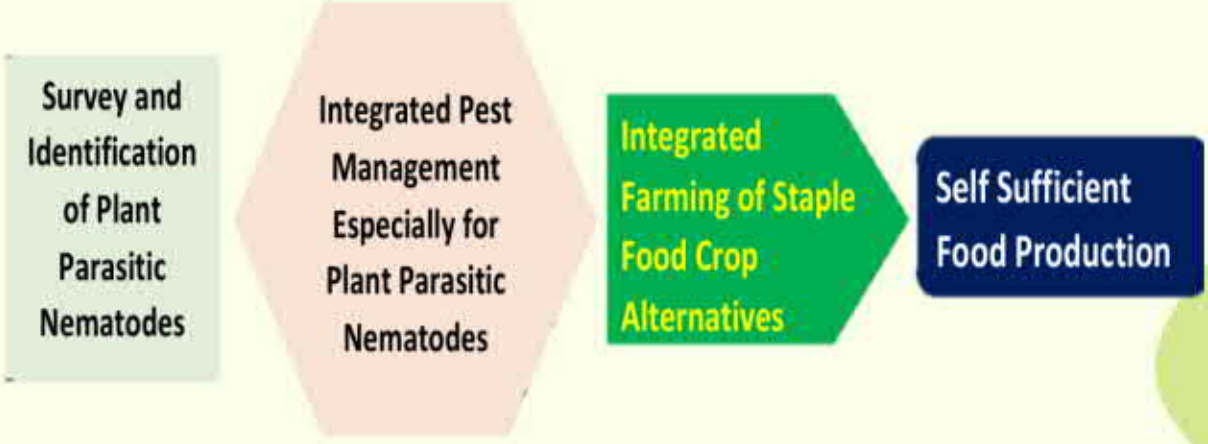
Research Interest:

Plant Protection, Crop Protection,
Integrated Pest Management,
Plant Neonatology,
Integrated Farming

Lecture:

1. Epidemiology and Management of Pests and Diseases in Humid Tropical Plants
2. Bio-ecology and Insect Classification
3. Integrated Pest Management in Humid Tropical Environments
4. Pesticide Toxicology
5. Advanced Plant Nematology
6. Advanced Plant Virology
7. Biology and Production of Entomopathogens

RESEARCH ROADMAP



Prof. Dr. Ir. Taufan Purwokesumaning Daru, MP

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Research Interest:
Nutrition and Animal Forage Plants

Sinta ID:
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Scopus ID:
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Formal Education:

Animal Nutrition and Forage (Bachelor)
Brawijaya University

Animal Nutrition Science (Magister)
Padjadjaran University

Animal Science (Doctor)
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Recent Publication:

1. Performance Evaluation Of The Implementation Of The Cattle Corporation Village Development Program (Case Study Of The Babulu Brahman Jaya Livestock Production), 2024
2. Effect of Cow Manure and Different Planting Distances on the Growth of Pakchong Variety Elephant Grass (*Pennisetum purpureum* cv. pakchong), 2023
3. Identification of types of buffalo feed crops on Lanting Island, West Kutai Regency, 2023
4. In vitro evaluation of ruminal digestibility and fermentation characteristics of local feedstuff-based beef cattle ration, 2023
5. Analysis of the Post-Mining Program of Cattle Farming on Former Mining Land of Pt Kitadin Site Embalut, 2023
6. Diversity, nutrient contents and production of forage plants in an integrated cattle livestock-oil palm plantation in East Kalimantan, Indonesia, 2023
7. Effect of kecombrang flower extract (*Etlingera elatior*) and basil leave extract (*Ocimum afrinacum*) to the growth of Streptococcus mutans ATCC 35668 and Staphylococcus aureus ATCC 33591, 2023
8. Potential for Beef Cattle Development Based on the Availability of Forage in Berau Regency, 2022
9. Produksi Rumput Pakchong Dengan Perlakuan Pupuk Kandang Sapi Dan Jarak Tanam Berbeda, 2022
10. Heavy Metal Levels in Legumes Calopogonium mucunoides Planted on Post-Coal Mine Reclamation Land Pt. Kitadin Embalut Kutai Kertanegara, 2022

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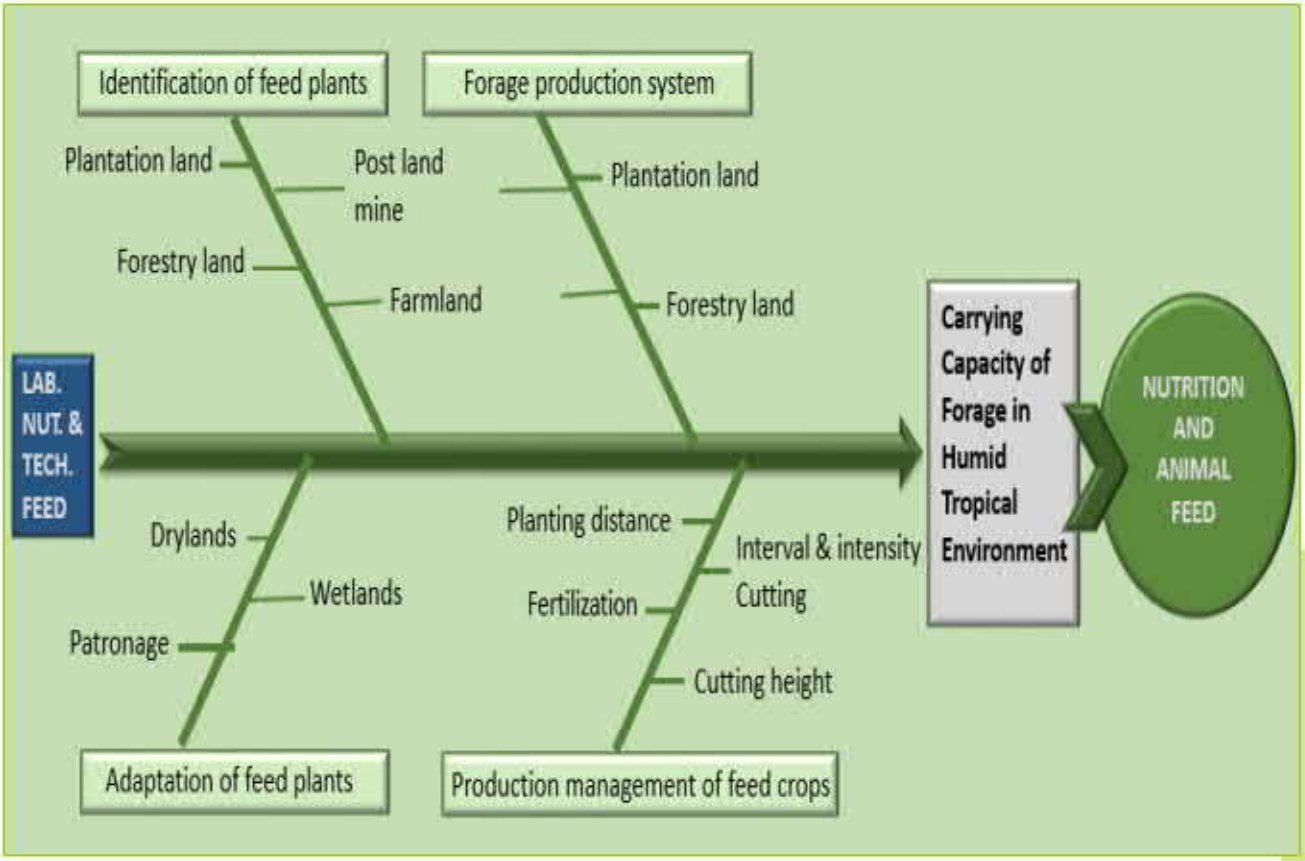
Research Interest:
Nutrition and Animal Forage Plants

Lecture:
Advanced Tropical Agroecosystems

RESEARCH ROADMAP



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Research Interest:
Agronomy,
Ecophysiology of Rice Plants,
Plant Ecophysiology

Sinta ID:
6014161

Scopus ID:
57189296446

Orchid ID:
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Formal Education:
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Recent Publication:

1. Diversity analysis and genetic potency identification of local rice cultivars in Penajam Paser Utara and Paser Districts, East Kalimantan, 2016
2. Yield-related traits characterization of local upland rice cultivars originated from East and North Kalimantan, Indonesia, 2017
3. Investigation of Organic C, N, P, K and C/N ratio of Fruit Plant Leaves for Organic Fertilizer Materials, 2020
4. Effect of Foliar Compost Fertilizer on the Growth and Biomass of Local Rice in Mayas Merah in Post-Coal Mining Soil Snapshots, 2020
5. Growth Response and Yield of Shallot Plants (*Allium cepa* var. *ascalonicum* L.) Against the Application of Several Concentrations of Liquid Organic Fertilizers, 2021
6. Investigation of C-Organic Content, Nitrogen, P and K, pH and C/N Ratio of Rainfed Rice Fields in Sarinadi Village, Kota Bangun District, Kutai Kartanegara Regency, 2022
7. Photocycylate allocation, growth and yield of local field rice (*Oryza sativa* L.) Origin of East Kalimantan Province With Organic Material Application, 2024

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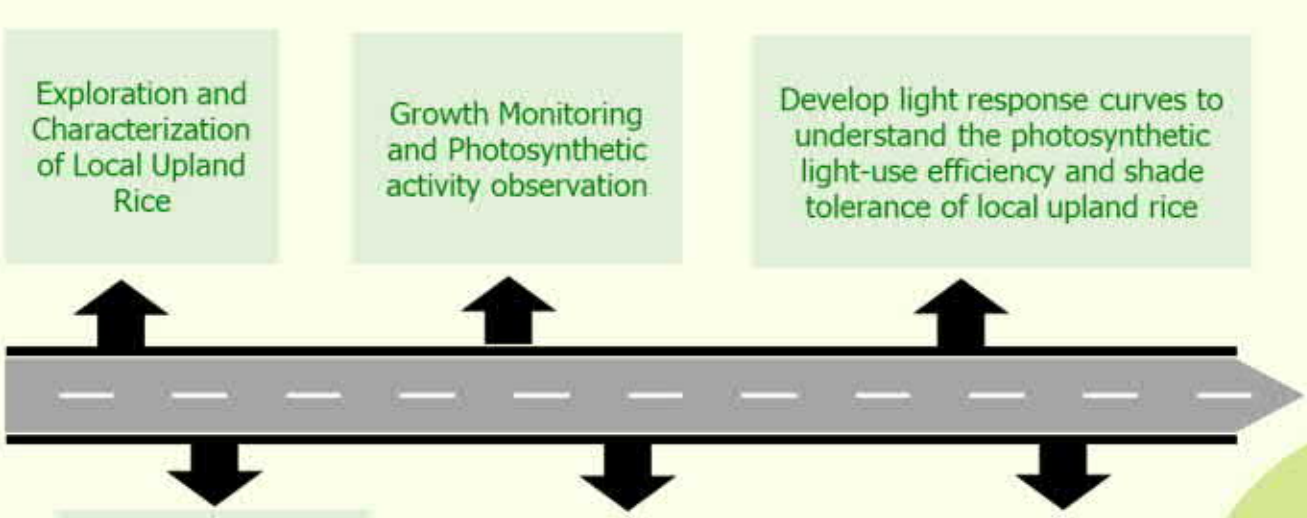
Plant Ecophysiology

Lecture:

1. Ecophysiology of Humid Tropical Plants
2. Advanced Plant Physiology and Stress Physiology
3. Current Topics in Plant Physiology
4. Current Topics in Plant Ecology

RESEARCH ROADMAP



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Weed Science,
Statistics

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Formal Education:
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Recent Publication:

1. Some Notes on the Effect of Ageratum conyzoides on Several Local Gogo Rice Cultivars, 2024
2. Effect of Plant Growth Promoting Application of Rhizobacteria and Trichoderma sp on Fusarium Wilt Disease on Shallot Plants (*Allium cepa* L.), 2023
3. Mortality of Aphis gossypii in Cayenne Pepper Plants (*Capsicum frutescens*) with Application of Leaf Extracts of Ageratum conyzoides, Tagetes erecta, and Chromolaena odorata, 2023
4. Effectiveness of Weed Extract in Inhibiting Anthracnose Disease (*Colletotrichum* sp.) In Vitro The Effectiveness of Weed Extract in Inhibiting Antracnose (*Colletotrichum* sp.) Disease in Chilli (*Capsicum annuum* L.) In Vitro, 2023
5. Identification of Weeds in the Rice Fields of Local Rice Swamps of East Kalimantan in Rapak Lambur Village, Tenggarong District, 2022
6. Potensi Gulma Eceng Padi (*Monochoria vaginalis*) Sebagai Tanaman Hias: Potential Of Rice Water Weed (*Monochoria Vaginalis*) As Ornamental Plants
7. EA Syaifudin, N Akhsan, S Suyadi, F Syahrianto, 2022
8. Effect of Weed Control Frequency on Weed Population in Shallot Plants (Bima Brebes), 2021
9. The Ability of Rice Endophytic Fungi to Infirm the Growth of Fungi Causing Rice Plant Disease (*Oryza sativa* L) In Vitro, 2021
10. Identification of the species of nematode Meloidogyne sp. on tomato plants (*Solanum lycopersicum* L) and celery (*Apium graveolens* L) in Samarinda, 2021

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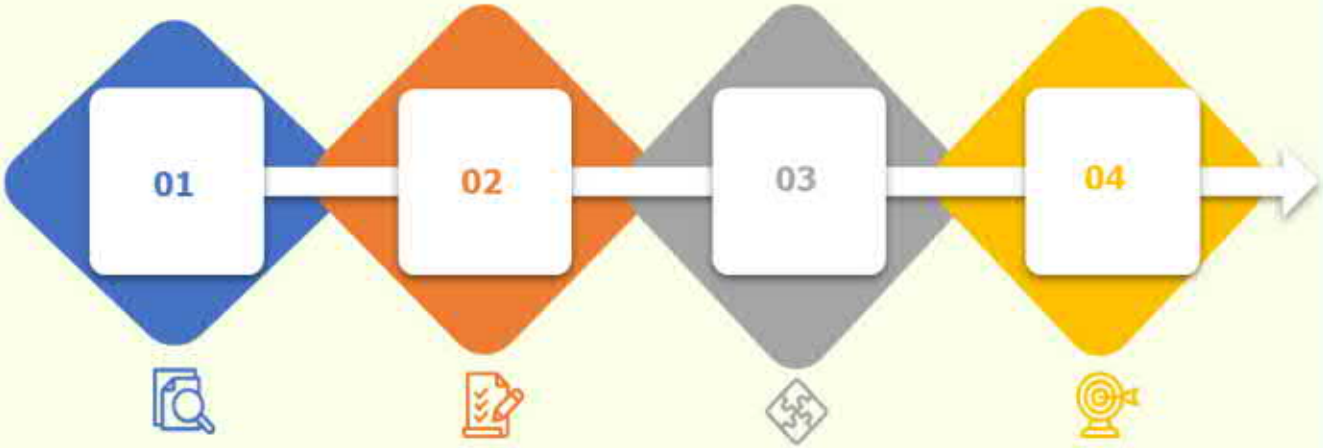
Research Interest:
Weed Science,
Statistics

Lecture:

Advanced Weed Science

RESEARCH ROADMAP



01	02	03	04
Identification of the biological characterization of weeds	Development of control techniques (mechanical and physical methods, chemical control)	Biological control (biological control agents and ecological interactions)	Development of integrated control systems (integration of methods, rotation & diversification of plants)

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Agronomy,
Agricultural Cultivation and Plantation,
Land Processing

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Scopus ID:
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Recent Publication:

1. Identification of Homegarden Patterns on Several Etnic in Berau Regency, 2024
2. The Degree of Stability of Rubber Stands (*Hevea brasiliensis*) in the Timber Estate Area of PT. Sylvaduta District Kembang Janggut, Kutai Kartanegara District East Kalimantan Province, 2023
3. Effect of Soil Tillage on Weed Growth and Soybean Plant Production (*Glycine max* (L.) Merrill), 2023
4. The Effect of Arbuscular Mycorrhyza Inoculation and SP 36 Fertilizer on the Growth of Palm Oil (*Elaeis Guineensis* Jacq.) Seedling DxP PPKS 540 Variety Grown in Pre Nursery Phase, 2022
5. Comparison of Content and Status of the C-Organic, Nitrogen, C/N Ratio, Soil pH, and Organic Matter in Rainfed, Tidal and Swampy Rice Fields (Case Study in Three Villages, in East Kalimantan), 2022
6. Estimation of soil erodiability and identification of erosion types in post-coal mining areas, 2022
7. Benzyl Amino Purine (BAP) Growth Regulator Application and Shoot Origin Stem Lai (*Durio kutejensis*) Against Growth Durian (*Durio zibethinus* Murr) Grafting Seedlings, 2022
8. Investigation of C-Organic Content, Nitrogen, Phosphorus, Potassium Nutrients, pH Soil and C/N Ratio of Tidal Rice Fields in Sidomulyo Village, Anggana District, Kutai Kertanegara Regency, East Kalimantan, 2022
9. Investigation of C-Organic Content, Nitrogen, P and K, pH and C/N Ratio of Rainfed Rice Fields in Sarinadi Village, Kota Bangun District, Kutai Kertanegara Regency, East Kalimantan, 2022
10. Benzyl Amino Purine (BAP) Growth Regulator Application, 2022

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Research Interest:
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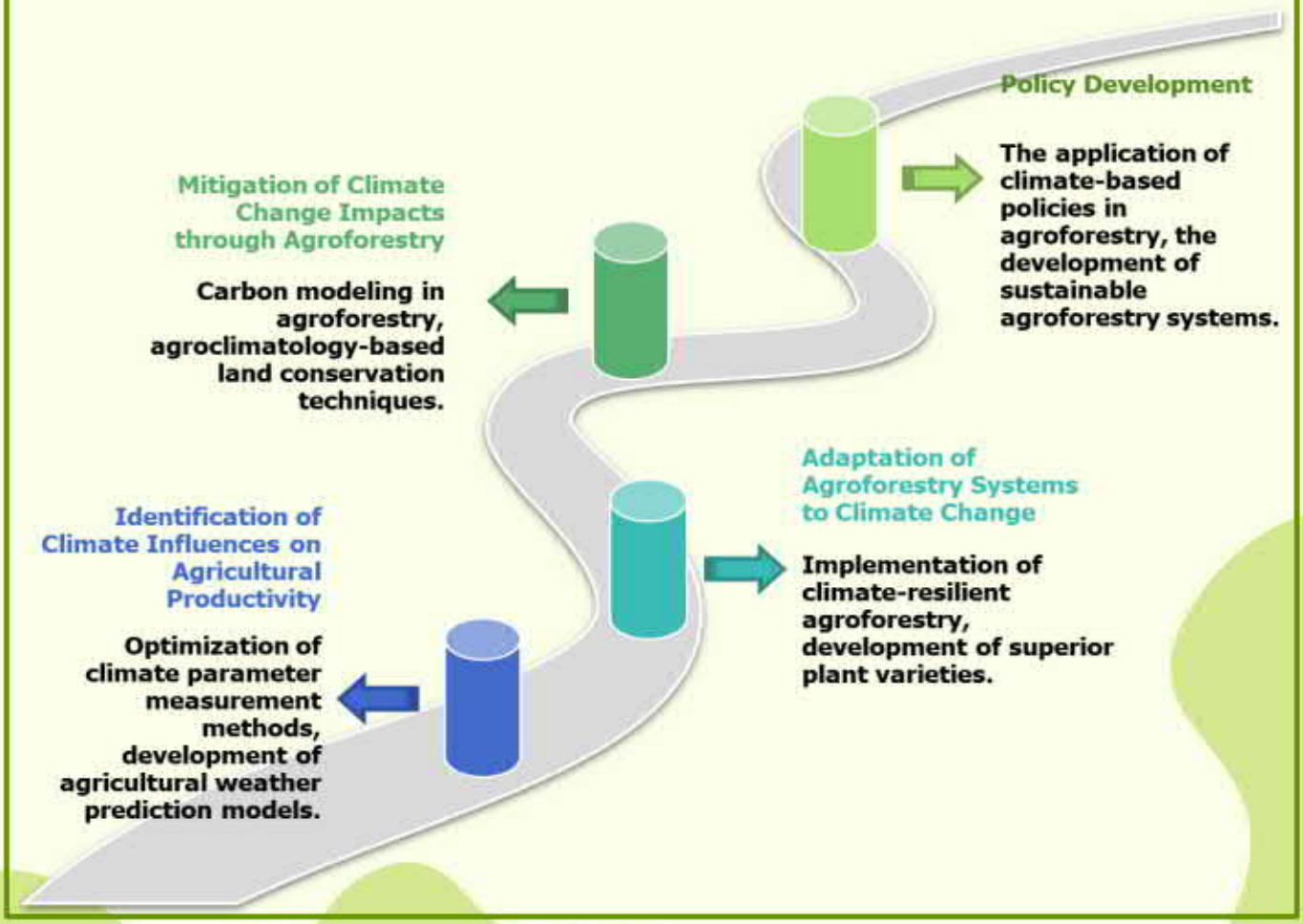
Agricultural Cultivation and Plantation,
Land Processing

Lecture:

1. Advanced Tropical Agroecosystems
2. Current Topics in Plant Ecology

RESEARCH ROADMAP



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Plant Biotechnology,
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Agronomy

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Scopus ID:
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Recent Publication:

1. Growth and Yield of Komak Beans (*Lablab purpureus* (L.) Sweet) with Application of Photosynthetic Bacteria PNSB under Shade, 2024
2. Identification of Cavendish Banana Tissue Culture Contamination, 2024
3. Growth Response of Dendrobium Orchid Seedlings (*Dendrobium Ira* Veronica) to the Addition of Foliar Fertilizer and Organic Fertilizer to Fertilization Composition, 2024
4. Morphological and Agronomical Characters Identification of Rice Plant (*Oryza sativa* L.) Backcross1 (BC1F1) Pandan Ungu/Kambang/Pandan Ungu, 2023
5. Aquaponics In The Yard, 2023
6. Application of Combinations of Different Types and Concentrations of Antioxidants as Browning Inhibitors in Tissue Culture Propagation of Cavendish Bananas, 2023
7. Test on the Effectiveness of Mycorrhizal Biofertilizer on the Growth and Yield of Tomato Plants (*Lycopersicum esculentum* Mill), 2022
8. Growth and Yield of Soybean Plants (*Glycine max* L) with the Utilization of Solid and Liquid Rabbit Livestock Waste, 2022
9. Diversity of F3 Strains Cross-Produced by Puncak Kambang/Purple Pandan//Ciherang based on Agronomic Characters in Tidal Rice Fields in Sidomulyo Village, Anggana District, 2022
10. Effect of Growth Regulators and Organic Matter on the Growth of Grammatophyllum speciosum Blume Sugarcane Orchid by Tissue Culture, 2021

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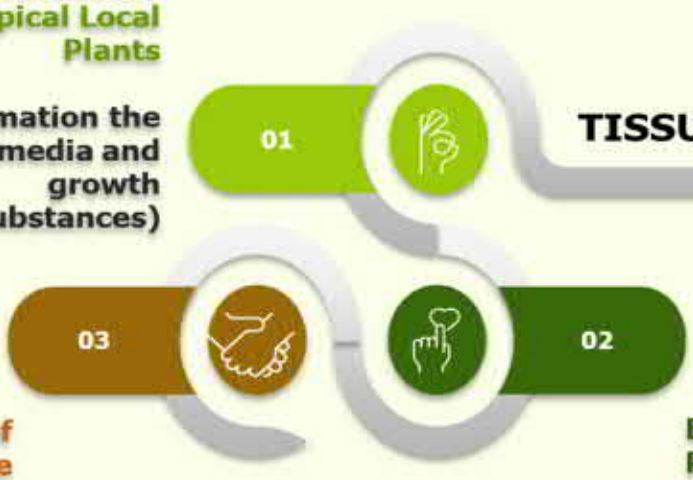
Research Interest:
Plant Biotechnology,
Plant Breeding,
Agronomy

Lecture:

1. Advanced Plant Metabolism
2. Plant Breeding via Tissue Culture

RESEARCH ROADMAP



Development of Tissue Culture Methods for Tropical Local Plants

(Optimation the proper media and growth substances)

Establishing Propagation Method

(Producing efficient propagation methods for the conservation and commercialization of local plants)

Application of Tissue Culture Technology for Comercial Scale

(Producing tissue culture derived seedlings for mass propagation)

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Phytopathology,
Mycology

Sinta ID:
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Scopus ID:
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Orchid ID:
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Recent Publication:

1. Aphis gossypii Mortality on Cayenne Pepper (*Capsicum frutescens*) with the Application of Leaf Extract Ageratum conyzoides, Tagetes erecta, and Chromolaena odorata, 2023
2. Utilization of Water Hyacinth Weeds (*Euchornia crassipes*) and Rice Husks as Alternatives for White Oyster Mushroom (*Pleuretus ostreatus*) Growth Media, 2023
3. Effectiveness of Weed Extract in Inhibiting Anthracnose Disease (*Colletotrichum* sp.) Chili Plants (*Capsicum annuum* L.) in Vitro, 2023
4. Isolation of Entomopathogenic Fungi in Food, Horticulture, and Plantation Crops in North Penajam Paser Regency and Pathogenicity Test in Spodoptera litura, 2023
5. Disease incidence of tomato plants (*Lycopersicum esculentum* Mill) on soil from different plants, 2022
6. POTENTIAL OF RICE WATER HYACINTH WEED (*Monochoria vaginalis*) AS AN ORNAMENTAL PLANT, 2022
7. Identification of Rhizosphere Fungi in Shallot Crop Fields (*Allium ascalonicum* L.) Weed in Bendang Raya Village, Tenggarong District, 2022
8. Identification of Rhizosphere Fungi in Kepok Banana Plants (*Musa paradisiaca* L.) What grows in the plains and hills, 2021
9. Sustainable Weed Control for Conservation Agriculture, 2021
10. Effect of Weed Control Frequency on Weed Population in Shallot Plants (*Bima Brebes*), 2021

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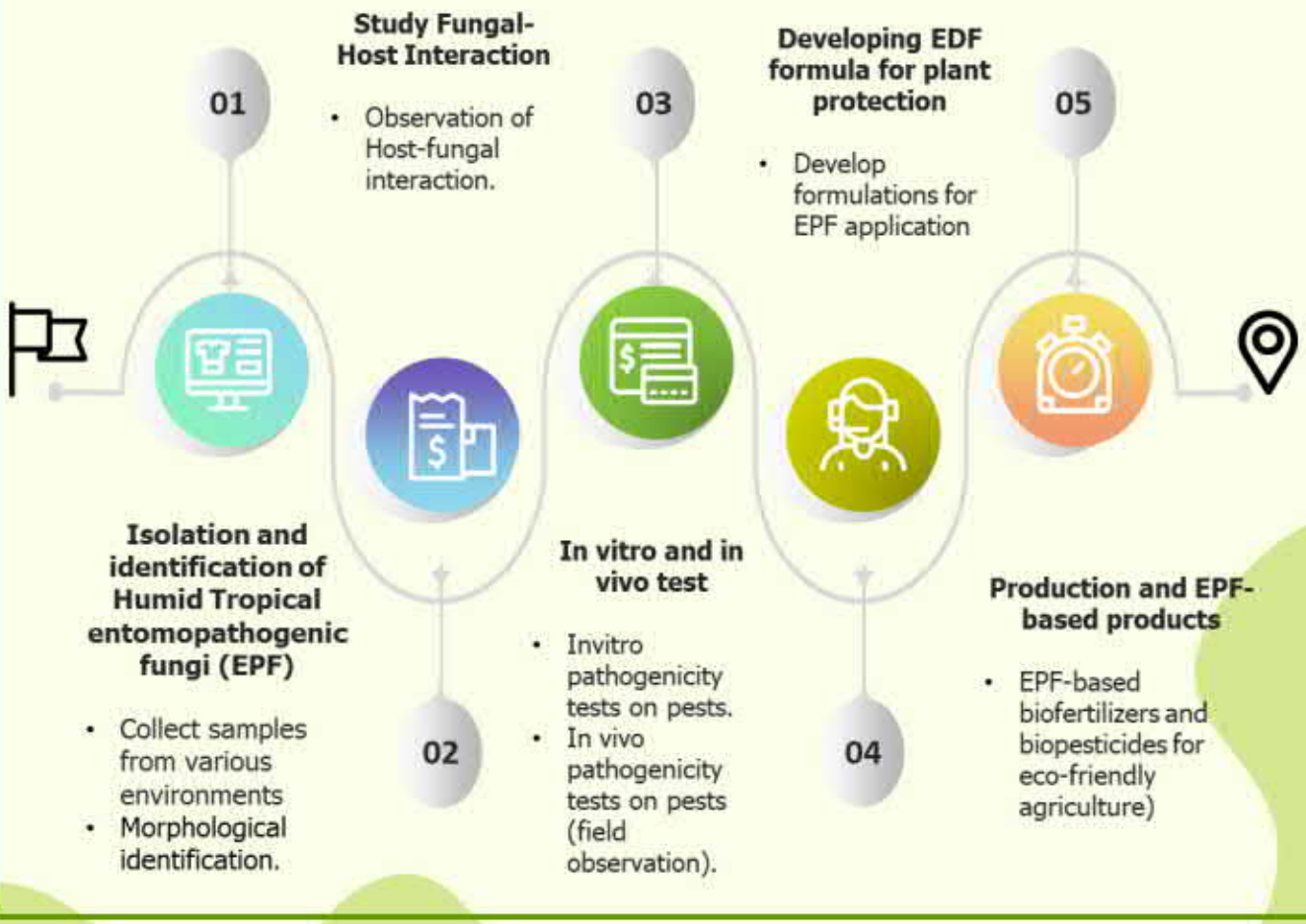
Research Interest:

Phytopathology,
Mycology

Lecture:

1. **Microbe and Plant Interactions**
2. **Advanced Plant Mycology**

RESEARCH ROADMAP



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Research Interest:
Quality Management and Food Safety

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Scopus ID:
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Formal Education:

Food Science & Technology (Bachelor)
Gadjah Mada University, 1997

Nutritional Program, School of Public Health & Tropical Medicine (Magister)
Tulane University, USA, 2003

Halal Products Management Doctor)
University Putra Malaysia, 2016

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Recent Publication:

1. PHYSICAL AND ORGANOLEPTIC CHARACTERISTICS OF TAMARIND PASTE (*Tamarindus Indica* L) WITH MODIFIED ELEPHANT CASSAVA (*Manihot Esculenta*) DERIVATIVE PRODUCT THICKENER, 2024
2. Chemical properties, spreadability and sensory properties of the combination of Pedada fruit (*Sonneratia caseolaris*) and Soursop fruit (*Annona muricata*), 2023
3. Effect of Comparison of Toraja Arabica Coffee Powder (*Coffea Arabica*) with Papaya Seed Powder (*Carica papaya*) on Moisture Content, Ph, Antioxidant Activity, Sensory Characteristics, and Coffee Color, 2023
4. Identification of Influential Factors in the Development of Modified Screen-printed Carbon Electrode in the DNA-based Electrochemical Biosensor Using the Design of Experiment, 2023
5. Assistance for Spp-irt and Halal Legality for Krenyezz Tempeh Chips MSMEs and Alza MSMEs in Kutai Kartanegara Regency, 2023
6. Application of Good Food Production Methods for the Household Industry (CPPB-IRT) in MSMEs Seasoning Dew Cuisine Samarinda, 2023
7. Colorimeter design for dry food-products inspection using TCS3200 sensor and Arduino Mega-2560, 2023
8. Physical Properties, Organoleptic, Antioxidant Activity And Glucose Response of Tiwai Coffee, 2023
9. Physical and Sensory Properties of Tamarind Powder Produced Using Elephant Cassava Starch Filler Using the Foam-mat Drying Method, 2023
10. Analysis of the Suitability of the Implementation of Sanitary Hygiene in Food Service Providers: (Case Study of Assistance at MSMEs Dapur Mamak Nia, Waru District), 2023

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Research Interest:

Quality Management and Food Safety

Lecture:

1. Advanced Agricultural Product Chemistry
2. Quality Management and Food Safety

RESEARCH ROADMAP

Mapping Food Risks and Contaminants in the Tropical Environment

Food contaminant risk maps in humid tropical environments and rapid detection technology

Development of HACCP-Based Food Quality Management System

Design and implement a Hazard Analysis and Critical Control Points (HACCP) system for local food products.

Innovation in Natural Food Preservation Technology

Safe and effective natural ingredients-based food preservation technology.

Strengthening Food Safety Based on Regulation

Strict food safety regulatory system

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Soil Science,
Soil Fertility

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Scopus ID:
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Orchid ID:
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Recent Publication:

1. Analysis of Land Capability for Direction of Agricultural Land Use on Ex-Mining Land in Batu Butok Village, Muara Komam, Paser Regency, 2024
2. Mapping of Soil Quality by Land Use Type in Tepian Baru Village, Bengalon District, East Kutai Regency, 2024
3. Changes in pH, Exchangeable Aluminum and Phosphorus Available Ultisol due to Organic Fertilizer Application of Banana Stems and Coal Fly Ash, 2023
4. Literature Review on the Utilization of Coal Fly Ash on Phosphorus Uptake in Plant Growth and Production, 2023
5. Analysis of Land Capacity for Land Use Direction on Ex-Mining Land in Krayan Makmur-long Ikis Village, Paser Regency, 2023
6. Spatial distribution of paddy field's heavy metals diversity contamination in Samarinda using remote sensing imagery, 2023
7. Literature Review: The Use of Plant Growth Promoting Rhizobacteria (PGPR) to Increase Growth and Reduce the Use of Inorganic Fertilizers in Agricultural Crops, 2022
8. Effect of Soil Damage on Carrying Capacity of Biomass Production: A Lesson from Tanjung Selor District—Tanjung Redeb, Indonesia, 2022
9. Improvement of phosphorus fertilization efficiency on ultisol using coal fly ash, 2021
10. The possible use of coal fly ash and phosphate-solubilizing fungi for improving the availability of P and plant growth in acid soil, 2020

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Research Interest:
Soil Science,
Soil Fertility

Lecture:

1. Technology for Managing Marginal Lands in Humid Tropics
2. Interaction Between Soil and Plants
3. Post-Mining Land Managemen

RESEARCH ROADMAP

3

3: Field experiment and impact assesment.

- Perform large-scale field trials (crop yield, soil health).
- Conduct cost-benefit and environmental impact assessments.

2

2: Test the effectiveness of coal fly ash in improving Ultisols

- Conduct greenhouse experiments (plant growth, nutrient uptake).
- Develop fertilization strategies combining ash and fertilizers.
- Small-scale field trials on Ultisols.

1

1: Understand coal fly ash properties and its impact on Ultisols.

- Characterize coal fly ash (nutrients, heavy metals, pH).
- Study soil-ash interactions (pH, moisture, CEC).
- Assess environmental risks (e.g., heavy metal leaching).

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Horticulture (Pomology)

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Scopus ID:
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Formal Education:

Bachelor of Agriculture
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Recent Publication:

1. Effect of Mixed Compost Fertilizer Dose of *Trichoderma* sp., Mushroom Planting Media Waste, and Cow Manure on the Growth and Yield of Curly Pepper Plants (*Capsicum annuum* L.), 2023
2. Effect of Liquid Organic Fertilizer and Chicken Egg Shell Flour on the Growth and Production of Shallot Plants (*Allium cepa* L.), 2023
3. Exploration and Identification of Local Lake Purun (*Lepironia articulata*) as a Natural Adsorbent in a Humid Tropical Climate in East Kalimantan, 2022
4. Edible Part Nutritional Value And Calcium Content In Five Lai-Durian (*D. zibethinus* X *D. Kutejensis*) Fruit Rind From Loa Kulu East Kalimantan, 2021
5. Study on the Growth of Roots and Shoots of Pepper Cuttings (*Piper nigrum* L.) on a Combination of Different Planting Media and Number of Internodes, 2021
6. Study on the Growth of Roots and Shoots of Pepper Cuttings (*Piper nigrum* L.) on Different Planting Media and Number of Segments, 2020
7. Identification of dominant maternal and paternal line characters influence to new find sahang durian plant morphological characters as nature cross-pollination result, 2020
8. Can We Grow Shallot (*Allium ascalonicum* L.) Root in Hydroponic System with Simple Growing Media?, 2020
9. Morphological Characteristics of Batuah Red-Fleshed Durian (*Durio graveolens*), an Endemic Exotic Plant from East Kalimantan, Indonesia, 2020
10. Six potential superior durian plants resulted by cross breeding of *D. zibethinus* and *D. Kutejensis* from East Kalimantan, Indonesia: Initial identification, 2019

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Research Interest:
Horticulture (Pomology)

Lecture:

1. Technology for Managing Marginal Lands in Humid Tropics
2. Interaction Between Soil and Plants
3. Post-Mining Land Managemen

RESEARCH ROADMAP

01

- Exploration local fruit varieties
- Superior traits and morphological analysis

Exploration & Identification

02

- Green house scale test
- Improve the cultivation techniques

Cultivation Technology

03

- Yield improvements with cultivation technoloy in the field experiment

Yield Improvement

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Functional Food Processing Technology

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Food and Nutrition Technology
Bogor Agricultural Institute, 2002

Food and Nutrition Technology
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Recent Publication:

1. Antioxidant activities (DPPH and ABTS method) from extract of Bangle rhizome (*Zingiber cassumunar*) using different method of extraction, 2024
2. Utilization of the tiwai plant (*Eleutherine americana* merr) as a functional instant drink containing antioxidant, 2024
3. Engineering of rotary system pepper dryer with temperature controller for pepper powder quality improvement, 2023
4. Assistance for Spp-irt and Halal Legality for Krenyezz Tempeh Chips MSMEs and Alza MSMEs in Kutai Kartanegara Regency, 2023
5. Assistance in the Implementation of the Halal Product Assurance System for MSMEs Omah Kue Uti Atik in Balikpapan City, 2023
6. Feasibility Study and Business Development in Brown Rice MSMEs in Tenggarong City, 2023
7. Sensory evaluation of Elephant cassava chips (*Manihot utilissima* var. Elephant) with the addition of bay leaf powder (*Syzygium polyanthum*), 2023
8. Implementation of the halal product assurance system for MSMEs to increase product competitiveness, 2023
9. Colorimeter design for dry food-products inspection using TCS3200 sensor and Arduino Mega-2560, 2023
10. Effect of comparison of honey pineapple juice and skimmed milk on total titrated acid, total BAL and sensory characteristics of honey pineapple yogurt, 2023

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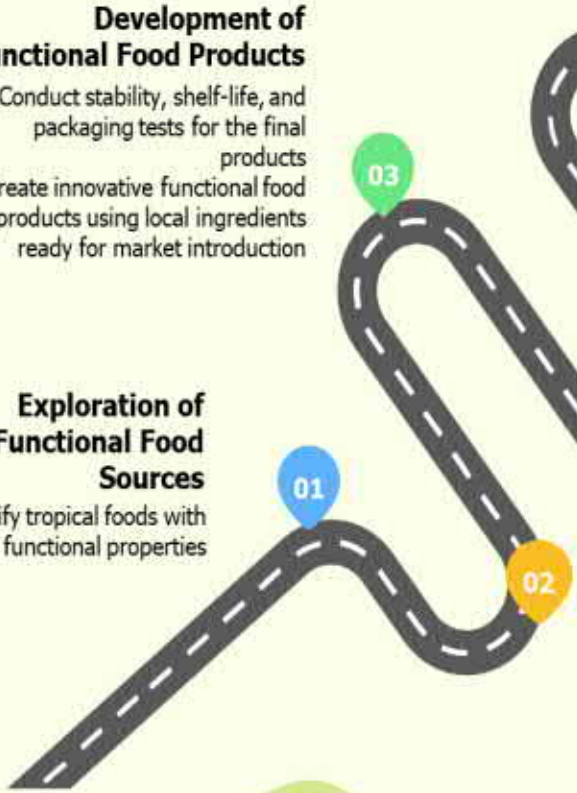
Research Interest:
Functional Food Processing Technology

Lecture:

1. Advanced Agricultural Product Analysis
2. Bioactive Components of Tropical Wetlands and Their Utilization

RESEARCH ROADMAP



01 Exploration of Functional Food Sources
Identify tropical foods with potential functional properties

02 Examine the Potential of Functional Food Bioactivity and Health Benefits
- Conduct in-vitro and in-vivo tests to evaluate health effects, such as antioxidant, anti-inflammatory, and metabolic disease prevention properties
- Perform safety and toxicity tests on functional food ingredients

03 Development of Functional Food Products
- Conduct stability, shelf-life, and packaging tests for the final products
- Create innovative functional food products using local ingredients ready for market introduction

04 Clinical Testing and Market Analysis
- Conduct clinical trials in humans to verify the health benefits of functional food products
- Perform market tests to assess consumer preferences and potential for commercialization

05 Commercialization and Sustainable Development
Develop sustainable and innovative functional food products for local and global markets

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Research Interest:
Microbiology of Food Processing

Sinta ID:
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Scopus ID:
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Orchid ID:
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Formal Education:

Food Technology (Bachelor)
Bogor Agricultural Institute, 1999

Food Science (Magister)
Bogor Agricultural Institute, 2005

Food Science (Doctor)
Bogor Agricultural Institute, 2014

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Recent Publication:

1. Organoleptic Quality Profile of Fresh and Cooked Products from Tilapia (*Oreochromis niloticus*) Preserved Using Keluwek Leaves (*Pangium Edule* Reinw.), 2023
2. The appropriateness of Pangi (*Pangium edule* Reinw) leaves as natural preservative based on sensory quality and microbiological safety profile, 2023
3. Proximate Analysis of the Combination of Moringa Leaves (*Moringa Oleifera*) and Soursop Fruit (*Annona Muricata* L.), 2023
4. Addition of Bangkal Bark Powder (*Nauclea subdita*) in the Making of Health Soap Made from VCO (*Virgin Coconut* Oil), 2023
5. Effect of comparison of honey pineapple juice and skimmed milk on total titrated acid, total BAL and sensory characteristics of honey pineapple yogurt, 2023
6. Effect of Elephant Cassava and Oyster Mushroom Composite Portion with Dragon Fruit on Proximate and Sensory Content of Vegetarian Naget Vegetarian, 2023
7. The relationship between fruit and vegetable consumption patterns to nutritional status during the Corona Virus Disease 19 (COVID-19) pandemic, 2023
8. Implementation of CPPB-IRT and halal product assurance system as an effort to improve the quality and halalness of MSME products, 2023
9. Utilization Of Tahongai Leaf (*Kleinhovia hospita* L) In The Production Of Alabio Duck Nuggets As Functional Foods, 2023
10. The Utilization of Tahongai Leaves (*Kleinhovia hospita* L) in Making Alabio Duck Nuggets as a Functional Food., 2023

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Research Interest:
Microbiology of Food Processing

Lecture:

1. Advanced Food Science
2. Advanced Agricultural Product Microbiology
3. Biotechnology of Tropical Agricultural Products

RESEARCH ROADMAP

Assess market potential and commercial scale-up
Conduct consumer trials to gauge market demand, preferences, and potential improvements.Analyze production costs, packaging, and distribution strategies

Shelf-Life Testing and Stability Analysis
The shelf stability and safety analysis of the plant-based yogurt

Nutritional Enhancement and Probiotic Fortification
Improve the nutritional profile and probiotic content of the plant-based yogurt

Sensory Evaluation and Texture Improvement
Improve the sensory characteristics of the plant-based yogurt, focusing on taste, texture, and appearance

Optimization of Fermentation Process
Optimize the fermentation process using lactic acid bacteria (LAB) for plant-based yogurt

Development the plant-based yoghurt formula
Analyzing the physicochemical properties of the milk base (viscosity, pH, protein content)

Identification nutrient content and functional properties of local fruits
Nutritional analysis of potential local fruits

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Research Interest:
Entomology,
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Insect Pathology

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Formal Education:

Barchelor of Agriculture
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Master of Science
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Doctor of Philosophy
Kyushu University, 2022

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Recent Publication:

1. Identification and Testing of Trichoderma spp. Indigenus Antagonists in Several East Kalimantan Areas Against the Causes of Tomato Wilt Disease (*Fusarium oxysporum*), 2024
2. Exploration of Endophytic Fungi in Sweet Corn Plants (*Zea mays* saccharata L.) and Its Potential as an Entomopathogenic Fungi, 2024
3. Effect of Tuba Root Extract (*Derris elliptica* Roxb.) Against the Intensity of Insect Attack of Large Chili Virus Vector (*Capsicum annuum* L.), 2022
4. A new species of the genus Agrioglypta Meyrick (*Lepidoptera: Crambidae*) from Japan based on morphological characters and DNA barcoding, 2021
5. Impact of Sedimentation and Soil Properties on the Presence of Entomopathogenic Nematodes in the Oil Palm Rhizosphere in Kutai Kartanegara Regency, East Kalimantan Province, 2021
6. Identification of Nematode Genera on Rubber Plantation Land (*Hevea braziliensis*) in Santan Ulu Village, Marangkayu District, Kutai Kartanegara Regency, 2019
7. Microbial diversity on sedimentated rice fields due to coal mining activities in Tenggarong Seberang subdistrict of Kutai Kartanegara, 2018
8. The role of neem leaves as organic pesticides in chili pepper (*Capsicum frutescens*), 2018
9. Genus Nematode Entomoparogen in Rice Field (*Oriza sativa* L.) in Muara Wis District, Kutai Kartanegara Regency, 2017
10. The role of plant parasitic nematodes on productivity reduction of banana and tomato in East Kalimantan, Indonesia, 2017

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Research Interest:

Entomology,
Insect Taxonomy,
Insect Pathology

Lecture:

1. **Advanced Plant Nematology**
2. **Biology and Production of Entomopathogens**

RESEARCH ROADMAP

Insects & Nematodes Biosystematic Ecology

Market	:	National Government/ Overseas	Local Government	Farmer	Private
Product	:	Insects collection, Nematodes collection, DNA barcoding for Gene Bank, molecular detection of dangerous insects pest and plant nematodes, insects pest and plant nematodes application for identification, biopesticides (nematodes, fungi and bacteria), healthy soil ecosystem, insects garden for ecotourism.			
Technology	:	- insects and mites morphological characters distinguished by head, thorax, abdomen, wings, legs and genitalia dissection - nematodes characters distinguished by morphometrics, internal dissection and perineal pattern for Root-Knot Nematodes - molecular specific primer for rapid detection of dangerous pests (insects and nematodes) - morphological characters (insects and nematodes) for new species and their cladistic analysis - DNA barcoding (insects, nematodes and mites) for new species and their phylogeny		- Bioinsecticide bioassays (LD_{50}, LT_{50}) - molecular genetics for insect resistance - changes in morphological characteristics due to insecticides - Microbial symbionts (especially Wolbachia) in insect resistance and insect controlling - Total population (insects-nematodes-microbes), Soil chemical and physical for healthy soil - Insect breeding and conservation	
R & D	:	**Insect & Nematode Biosystematic** Morphological and Genetics Molecular for systematic and phylogeny - Especially Lepidoptera, Hemipteroidea, Isoptera, Diptera and Collembola. - Agricultural mites (Acariformes) - Agricultural nematodes		**Insect & Nematode Ecology** - Association insects and its natural enemies - Insects-Nematodes-microbes association - Association insects/nematodes and its host plant - Pesticides and insect resistance - Ecotourism insects	

2024----------2044

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Post-Harvest Technology and Food Processing of Agricultural Products

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Science of Pests and Plant Diseases (Bachelor)
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Food Science and Technology (Magister)
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Food Science (Doctor)
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Recent Publication:

1. Antioxidant activities (DPPH and ABTS method) from extract of Bangle rhizome (*Zingiber cassumunar*) using different method of extraction, 2024
2. The effect of variations in coffee and tiwai plants as drink products on blood lipid profiles and hematological indices, 2024
3. Assistance for Spp-irt and Halal Legality for Krenyezz Tempeh Chips MSMEs and Alza MSMEs in Kutai Kartanegara Regency, 2023
4. MSME Product Digitization Technology to Increase the Marketability of Web-Based Geblek Snacks, 2023
5. Fulfillment of Aspects of Good Processed Food Production Methods (CPPOB) in Taganang MSMEs, Balikpapan City, 2023
6. Implementation of CPPB-IRT and halal product assurance system as an effort to improve the quality and halalness of MSME products, 2023
7. Feasibility Study and Business Development in Brown Rice MSMEs in Tenggarong City, 2023
8. Implementation of the halal product assurance system for MSMEs to increase product competitiveness, 2023
9. Becoming a viewer again? Optimizing educational tour at IKN Nusantara to encourage community enthusiasm, 2023
10. Application of Good Processed Food Production Method (CPPOB) for BPOM distribution license certification, 2023

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Research Interest:
Post-Harvest Technology and Food Processing of Agricultural Products

Lecture:

Bioactive Components of Tropical Wetlands and Their Utilization

RESEARCH ROADMAP

Identification and Utilization of Bioactive Compounds in Food Ingredients

Identification of bioactive compounds from post-harvest tropical agricultural products

Development of Post-Harvest Handling Technology to Maintain Bioactive Compounds

Optimal post-harvest handling and storage methods to minimize the degradation of bioactive compounds

Development of Functional Food Products Based on Bioactive Compounds

Formulation and development of functional food products incorporating bioactive compounds preserved through post-harvest handling

Clinical Testing for Commercial Purpose

Clinical testing of bioactive-based functional food products

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Plant protection, Plant-Insect Interaction

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Barchelor of Agriculture
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Master of Science In Entomology
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Recent Publication:

1. The use of animal manure for improving chemical properties of degraded Ultisol, yield, and secondary metabolic of Zingiber montanum, 2023
2. Effect of Soil Tillage on Weed Growth and Soybean Plant Production (*Glycine max* (L.) Merrill), 2023
3. BSR1, a Rice Receptor-like Cytoplasmic Kinase, Positively Regulates Defense Responses to Herbivory, 2023
4. PGPR-induced rice plant defense against brown planthopper, 2023
5. PGPR Suppresses Herbivore Attacks and Promotes The Growth Of Common Bean (*Phaseolus vulgaris* L.), 2023
6. Herbivore-induced and constitutive volatiles are controlled by different oxylipin-dependent mechanisms in rice, 2021
7. Ethylene functions as a suppressor of volatile production in rice, 2020
8. The role of hormonal signaling in rice defense against herbivores with focus on ethylene function, 2020
9. Nonglandular silicified trichomes are essential for rice defense against chewing herbivores, 2020
10. Soy and Arabidopsis receptor-like kinases respond to polysaccharide signals from Spodoptera species and mediate herbivore resistance, 2020

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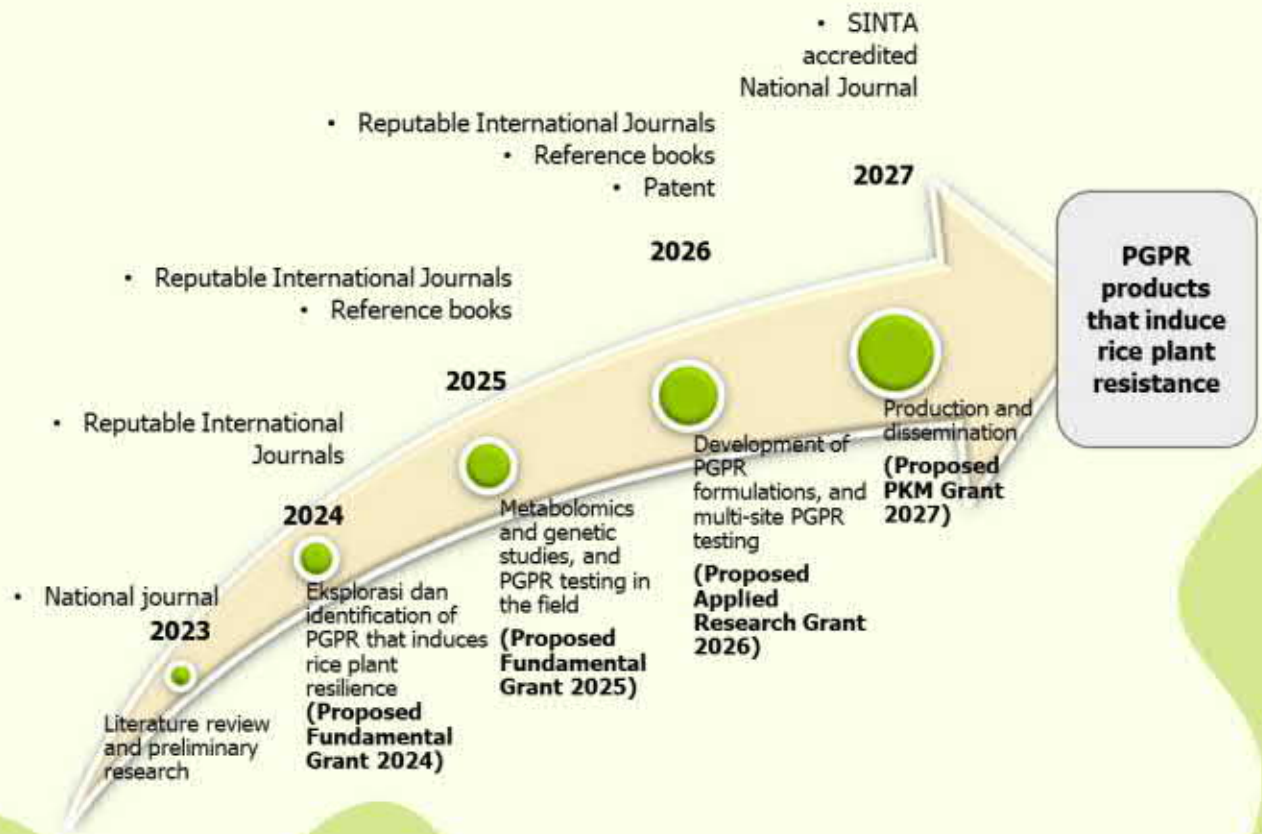
Research Interest:

Plant protection, Plant-Insect Interaction

Lecture:

1. **Plant Resistance to Pests and Pathogens**
2. **Pesticide Toxicology**

RESEARCH ROADMAP



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Research Interest:
Soil Genesis and Classification, Soil Conservation

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Orchid ID:
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Formal Education:

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Recent Publication:

1. Soil Developed from Mud and Sand Rocks for Coating of Former Coal Mine Piles in Teluk Dalam, East Kalimantan, 2023
2. Semi-Quantitativ Evaluation of Soil Fertility Of Upland and Lowland Rice Areas By Using Multivariate Analysis, 2023
3. Suitability of Rubber Plantation on Old Volcanic Parent Material at Barong Tongkok, East Kalimantan, 2023
4. Land Reclamation Identification, Revegetation and Post-Mining Land Resources Evaluation in East Kalimantan, 2023
5. Morphological characteristics of top soiling in the reclamation areas of post-coal mining at Kutai Kartanegara and Kutai Timur Regencies, 2023
6. The growth of Paraserianthes falcataria at three different plant ages and soil thickness classes on reclamation sites of post-coal mining areas in East Kalimantan, Indonesia, 2022
7. Identification and Evaluation of Land Resources in Post-Coal Mining Land Reclamation Areas in East Kalimantan, 2022
8. Land Characteristics, Morphology and Soil Fertility Based on Slope Position (*Toposequence*) in East Kutai Regency, 2022
9. Regional Pedology of Characteristics, Potentials, Constraints and Management for Agricultural Development in Kalimantan, 2022
10. Improving the Efficiency of Foliar Fertilization in Ultisol by Using Coal Fly Ash, 2021

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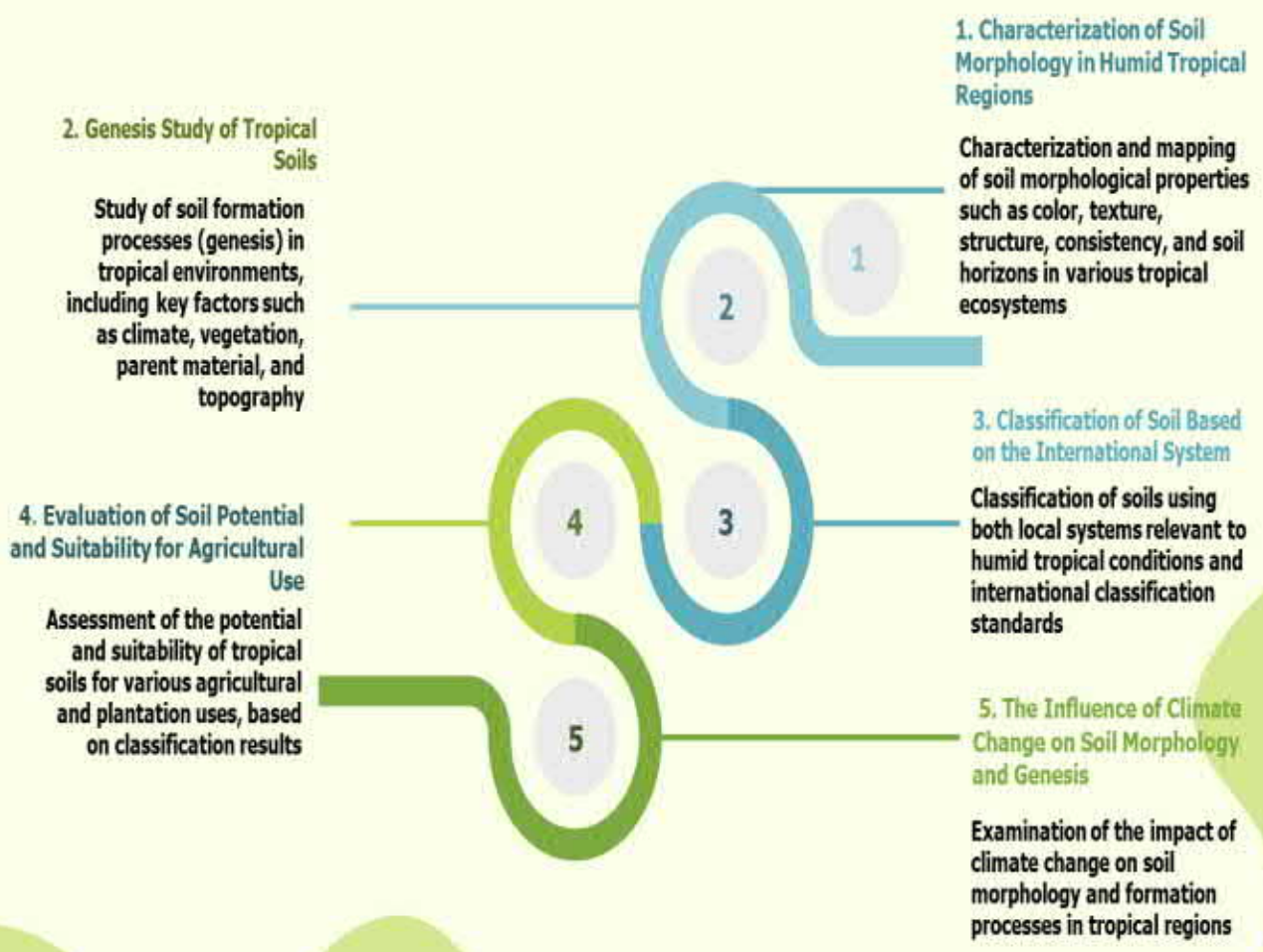
Research Interest:
Soil Genesis and Classification, Soil Conservation

Lecture:

1. Pedogenesis of Humid Tropics
2. Impact of Land Use in Mining and Plantation Areas

RESEARCH ROADMAP



Prof. Dr. Ir. Zulkarnain, MS

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Research Interest:
Soil Conservation, Land Use Management

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Orchid ID:
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Recent Publication:

1. Erosion Rate in Post-Coal Mining Reclamation Area in Kutai Kartanegara District, Indonesia, 2023
2. Analysis of Surface Flow Rate (Runoff) on Land use Case Study in Loa Bakung Sub-Districtt, 2023
3. Stem Flow On Some Types of Tress, 2022
4. Study on the Status of Land Damage for Biomass Production in Marangkayu District, Kutai Kartanegara Regency, 2022
5. Analysis of several soil physical properties as indicators of soil damage in dry land, 2022
6. The Effect of Flooding On Content Nutritional Elements N, P, K in Ultisols, 2022
7. The Effect Of Bokashi And Their Incubation Period On Some Chemical Properties Of Ultisols Soil, 2022
8. Study of some Chemical Properties of Ultisols Soils Based on the Existence of Earth Worms, 2022
9. Policy Analysis, Geospatial And Economic Value Of Plantation Areas In The Province Of East Kalimantan, Indonesia, 2022
10. Physical and Chemical Properties of Various Products of Composting Process on Palm Oil Middle Waste, 2022

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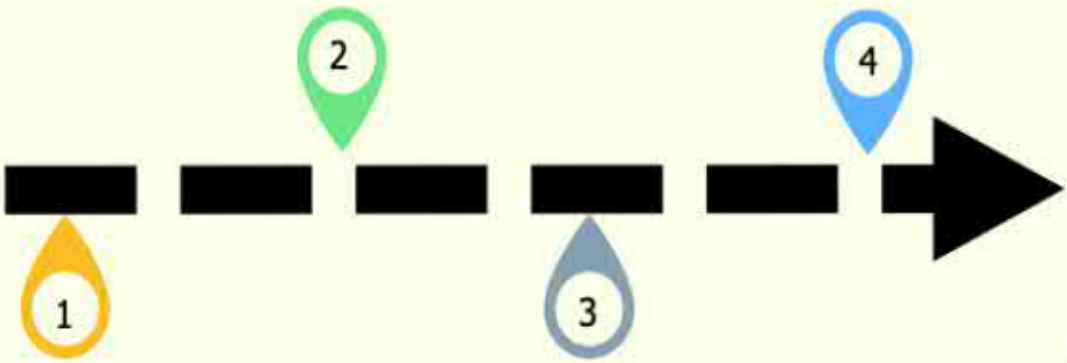
Research Interest:
Soil Conservation, Land Use Management

Lecture:

1. Advanced Regional Development
2. Impact of Land Use in Mining and Plantation Areas

RESEARCH ROADMAP



1 — Identification of Soil Degradation and Water Availability
Mapping areas affected by soil and water degradation, and collecting baseline data for conservation planning

2 — Development of Soil and Water Conservation Technology
Soil and water conservation technologies that are adaptive to humid tropical environments, ready to be implemented in the field

3 — Regional Planning Based on Soil and Water Conservation
Designing regional plans that integrate soil and water conservation principles to ensure the sustainability of natural resources

4 — Monitoring and Evaluation the Impact of Conservation Programs
Conducting comprehensive evaluations of the effectiveness of soil and water conservation programs, with recommendations for future policies

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Soil Biology,
Soil Fertility

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Barchelor of Agriculture
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Magister of Agriculture
Brawijaya University, 2002

Doctoral of Agriculture
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Recent Publication:

1. Changes in pH, Exchangeable Aluminum and Phosphorus Available Ultisol due to Organic Fertilizer Application of Banana Stems and Coal Fly Ash, 2023
2. Absorption of Iron Heavy Metal (Fe) by Phytoremediation Method in Rice Field Soil using Water Kale Plants (*Ipomoea aquatica*), 2022
3. Literature Review: The Use of Plant Growth Promoting Rhizobacteria (PGPR) to Increase Growth and Reduce the Use of Inorganic Fertilizers in Agricultural Crops, 2022
4. Soil Quality Mapping with Geographic Information System Analysis in Samarinda City, 2021
5. Evaluation of Land Suitability of Shallot Plants (*Allium ascalonicum* L.) in Tanjung Perangat Village, Sambaliung District, Berau Regency, 2020
6. Improvement of Several Chemical Properties in Post-Coal Mining Soils by Dosing Bokashi Kiapu (*Pristia stationes* L.) and Krinyu (*Choromolaena odorata* L.), 2019
7. Development of Tomato (*Lycopersicum esculentum* Mill.) Roots in Every Growth Stage in Flooding Conditions, 2019
8. Farmers' Attitudes in Receiving Agricultural Extension Materials and Media in Sengkotek Village, Loa Janan Ilir District, Samarinda City, 2019
9. Effect of Inundation on Cation Exchange Capacity and Soil Base Saturation, 2019
10. Effect of Inundation on Cation Exchange Capacity and Soil Base Saturation, 2019

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Research Interest:
Soil Biology,
Soil Fertility

Lecture:

Advanced Soil Biotechnology

RESEARCH ROADMAP

01

Understanding and Identifying Key Soil Chemical Issues

- Conduct lab experiments to understand the chemical behavior of post-coal mining soils
- Test different chemical amendments (lime, biochar, etc.) on soil samples

02

Testing and Validating Chemical Treatments in the Field

- Apply treatments on small field plots
- Monitor soil properties (pH, nutrient levels) and plant growth

03

Scaling up and Commercializing Treatment Solutions

- Collaborate with mining companies to implement large-scale treatment solutions
- Develop commercial applications and policy guidelines for widespread use

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Recent Publication:

1. Towards the New National Capital (IKN) in Indonesia: Premises and Challenges of Food Security, 2023
2. Analysis of Land Carrying Capacity in Kutai Kartanegara Regency, 2023
3. What Driving Gross Domestic Product of Agriculture? Lessons from Indonesia (2014-2021), 2023
4. Spatial distribution of paddy field's heavy metals diversity contamination in Samarinda using remote sensing imagery, 2023
5. Application Of Maggot Fertilizer To Plant, Soil Chemical Properties Development and Production of Sawi Hibrida (*Brassica juncea* L), 2023
6. Channeling Information and Reviewing FFB Productivity Disruptions of Residents' Palm Oil Gardens in Saliki Village (Muara Badak District, Kutai Kartanegara Regency), 2022
7. Suitability of Paddy Rice Fields in Bumi Rapak Village and Selangkau Village, East Kutai Regency, 2022
8. Understanding Market Behavior on Corn Commodity: Phenomenon at Year End, 2022
9. Analysis of Soil N-Total Content and pH of Leguminosae Cover Crops (LCC) at Different Planting Ages and Liming Doses, 2022
10. Effect of Soil Damage on Carrying Capacity of Biomass Production: A Lesson from Tanjung Selor District–Tanjung Redeb, Indonesia, 2022

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Lecture:

1. Ecology and Land Management
2. Post-Mining Land Management

RESEARCH ROADMAP

Development of Technology-Based Land Survey Methods

Integration of technologies such as GIS, drones, and soil sensors to enhance the accuracy and efficiency of soil surveys

Soil Characteristics Mapping

Collect soil samples from various locations

Analyze key parameters such as texture, pH, organic content, and soil nutrients

01

03

05

Preparation of a Sustainable Land Management Model

Develop an integrated land management model

Test the implementation of the model in the field and evaluate its success

02

04

Evaluation of Land Suitability for Agriculture

Determine land suitability classes based on land potential and limitations

Provide recommendations for optimal land use for specific crops

Assessment of Land Use Impact on the Environment

Study the effects of land conversion on soil quality and the environment

Recommend environmentally friendly agricultural practices

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Agricultural economy

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Scopus ID:
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Recent Publication:

1. Side Business Contributions (Trigona Bee Farming) and The Main Business for Household Income, 2024
2. Analysis Of Determinant Of The Human Development Index In The Province Of East Kalimantan, 2024
3. Financial Feasibility Analysis of Product Diversification Development in Kangbejo Agrotourism, Balikpapan City, East Kalimantan, 2022
4. Behavior of Oil Palm Farmers in the Self-Help Pattern Facing Fluctuations in Fresh Fruit Bunches Prices, 2022
5. Performance Of Agricultural Extension Worker In The Work Area Of Agricultural Extension Center Of Jempang, Regency Of West Kutai, 2022
6. The Role Of Agricultural Extension in the Development of Farmer Groups in Tanah Abang Village Long Mesanggat Subregency East Kutai Regency, 2021
7. Contribution of the Karya Bhakti Mandiri Cooperative to the Broiler Chicken Farming Business in Bengalon District, East Kutai Regency, 2020
8. Potential of Plants in Post-Coal Mining Reclamation Land as Animal Feed, 2020
9. The Role of Field Agricultural Extension Workers in Increasing Rice Production (*Oryza sativa* L.) in Pulau Atas Village, Sambutan District, Samarinda City, 2020

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Research Interest:
Agricultural economy

Lecture:

1. Advanced Production Management in Agribusiness
2. Institutional Economics of Agribusiness
3. Advanced International Trade

RESEARCH ROADMAP

01 — Analysis of the Structure and Role of Agricultural Institutions
(Field study on existing institutions in the agricultural sector and identification of institutional weaknesses and areas for improvement)

02 — Strengthening the Capacity of Agricultural Cooperatives
(Evaluation of the effectiveness of cooperatives in distributing agricultural products. Includes training and managerial capacity-building for cooperative administrators)

03 — Sustainable Institutional Model Development
(Designing resilient and sustainable agricultural institutional models to enhance farmers' competitiveness)

04 — Implementation of Digital Cooperatives and Institutional Networks
(Encouraging the digitalization of cooperatives and strengthening institutional networks within the context of agricultural supply chain integration)

Prof. Dr. Ir. H.M. Aswin, M.M.

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Research Interest:
Development Economics, Macroeconomics, Agribusiness Management

Sinta ID:
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Scopus ID:
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Orchid ID:
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Formal Education:
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Recent Publication:

1. Strategy For Improving Public Services Case Study At The Office Of The Regional Technical Implementation Unit Of The Regional Revenue Office Of East Kalimantan Province In Samarinda, 2024
2. Analysis Of Community Perception And Welfare On The Impact Of Corporate Social Responsibility In Tenggarong District, Kutai Kartanegara Regency, 2023
3. The Impact of Fiscal Decentralization on the Performance of Regency/City Governments with the Balanced Scorecard Approach, 2015
4. Rural Agricultural Economic Development, 2011
5. The Impact of Fiscal Decentralization Policy on the Performance of City Regency Governments with a Balanced Scorecard Approach, 2007

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Research Interest:
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Lecture:
1. Advanced Managerial Economics
2. Policy for Agricultural and Agribusiness Development in Humid Tropics
3. Advanced Production Management in Agribusiness
4. Institutional Economics of Agribusiness

RESEARCH ROADMAP

Agricultural Development Policy Analysis
Analyze prevailing agricultural development policies and assess their impact on farmer welfare and the sustainability of the agricultural sector

Development of Institutional Management Strategies
Formulate effective institutional management strategies to support inclusive and sustainable agricultural development

Implementation of Data-Based Development Policies
Develop data- and technology-driven decision-making systems for agricultural policy implementation

Evaluation of Institutional and Policy Impacts on Agricultural Development
Conduct case study evaluations to assess the impacts of policies and institutions on agricultural development

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Orchid ID:
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Formal Education:
Barchelor of Agriculture
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Magister of Agriculture
Mulawarman University

Doctoral of Agriculture
Mulawarman University

Recent Publication:

1. Composition and Structure of Mangrove Species in Sekurau Bawah Hamlet, East Kutai Regency, East Kalimantan, 2023
2. The dietary, productivity, and economic value of swiftlet (*Aerodramus fuciphagus*) farming in East Kalimantan, Indonesia, 2021
3. The ecology, productivity and economic of swiftlet (*Aerodramus fuciphagus*) farming in Kota Bangun, East Kalimantan, Indonesia, 2020

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Research Interest:
Agricultural Economics, Financial Management

Lecture:

1. Agribusiness Financing Management
2. Advanced International Trade

RESEARCH ROADMAP

4. Optimization of Cooperative and Agribusiness Financial Management

Training in financial management for cooperatives and agribusiness enterprises. Implementation of digital financial management systems to increase transparency and efficiency

3. Agricultural Financial Risk Management

Evaluation of financial risks faced by farmers, such as price volatility and natural disasters. Development of affordable and effective agricultural insurance schemes

2. Development of Inclusive Financing Models

Design of inclusive and sustainable financing models for the agricultural sector, including microfinance, cooperatives, and banking systems

1. Analysis of Agricultural Financing Systems

Field study on smallholders' access to financing. Identification of obstacles in obtaining agricultural credit and other financial support

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Agricultural Economics,
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Formal Education:

Barchelor of Agriculture
Mulawarman University, 1989

Magister
Mulawarman University, 2003

Doctoral
The University of Tokyo, Japan, 2010

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Recent Publication:

1. Technology Adopters versus Non-Technology Adopters on the Sustainability of Agricultural Cooperatives, 2024
2. The Impact Of Mining Excavations (Voids) On The Water Quality Management In The North Kalimantan Province, 2024
3. Analysis of the level of land suitability and finance for the development of kaliandra energy plants (*Calliandra callothyrsus*) at the location of the former coal mine of PT Padangsubur Biomasa Kaltim, 2024
4. Technology Adopters versus Non-Technology Adopters on the Sustainability of Agricultural Cooperatives: The Case of the East Kutai Regency Scale, 2023
5. Evaluation of the Performance of Field Agricultural Extension Workers and the Effectiveness of the Use of Social Media at the Agricultural Extension Center, Linggang Bigung District, Kutai BaraT Regency, 2023
6. Study of Local Knowledge on the Practices of Swidden Agriculture to Increase Productivity and Sustainable Land: Case Study on the Kenyah and Bahau Dayak in East Kalimantan, Indonesia, 2022
7. Understanding local peoples' participation as "Means" and "Ends" in protected areas management: A qualitative study in the heart of Borneo, 2022
8. Planning of Cropping Patterns in Penajam Paser Utara District, 2022
9. Contribution of Sumalindo Company: In Managing Forest Resources with Local Communities: Mahakam Ulu-East Kalimantan, 2022
10. Contribution of Sumalindo Company: In Managing Forest Resources with Local Communities: Mahakam Ulu-East Kalimantan, 2022

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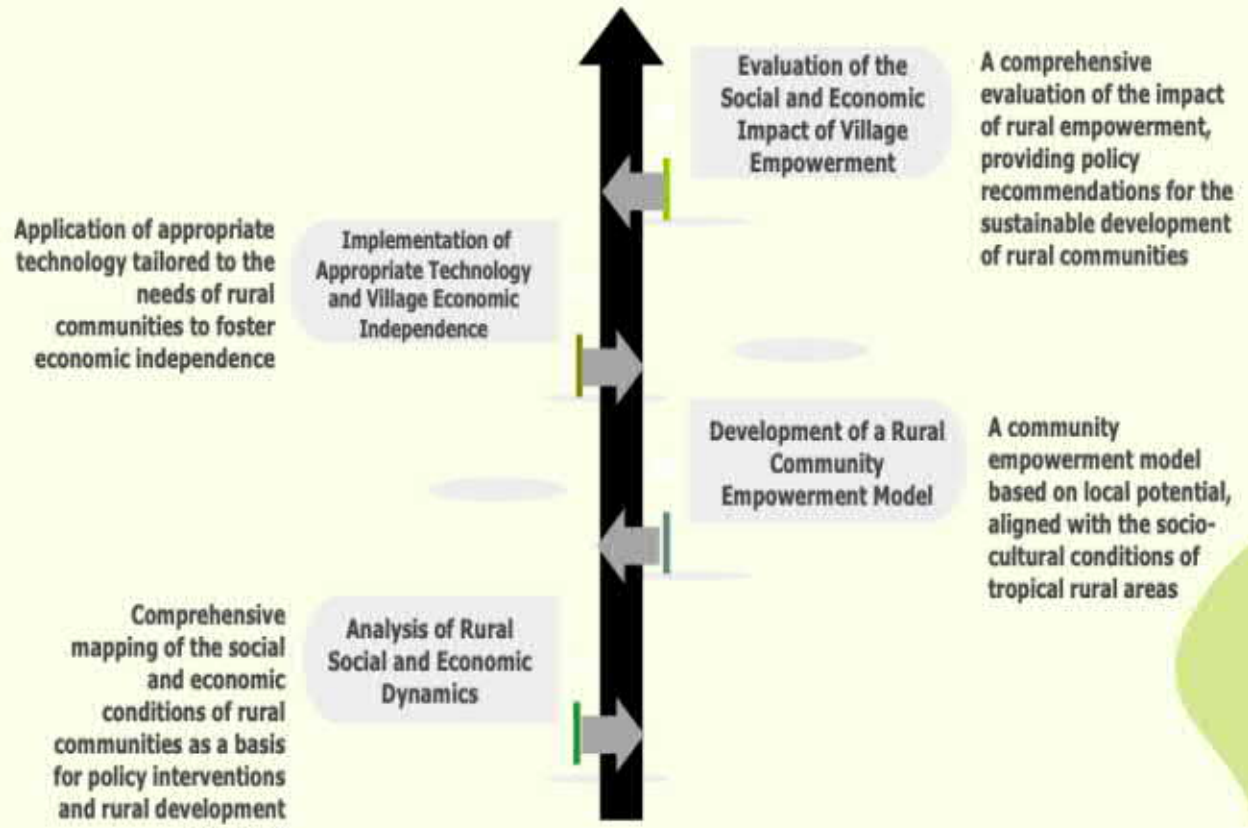
Research Interest:
Agricultural Economics,
Development Economics

Lecture:

1. Policy for Agricultural and Agribusiness Development in Humid Tropics
2. Institutional Economics of Agribusiness
3. Advanced International Trade

RESEARCH ROADMAP



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Research Interest:
Agricultural economy

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Scopus ID:
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Orchid ID:
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Formal Education:

Barchelor of Agriculture
Mulawarman University, 1997

Magister
Mulawarman University, 2000

Doctoral
University of Malaysia Sarawak, 2014

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Recent Publication:

1. Improving Psychomotor Skills of Elementary School Students Through Hand Skills Training Made from Beads and Shoelaces, 2024
2. Static Arch and Shear Adhesive Strength of Rubber Type Laminated Wood (*Hevea brasiliensis*) Based on Compression Time Variation, 2024
3. Development of Student Worksheets Integrated Islamic Values in Number Materials, 2023
4. Perception and Behavior of Extension Participants in Household Waste Management in Bangun Rejo Village, Kutai Kartanegara, 2023
5. The allometric equations for estimating above-ground biomass in a 50 years-old secondary forest in East Kalimantan, Indonesia, 2023
6. Utilization of cracked wood (*Vatica* sp.) from unused land as building construction materials, 2023
7. The Role of Health, Education, and Financial Institutions in Supporting Agricultural Development in West Kutai Regency, 2023
8. Community Knowledge About Coconut Bonsai Ornamental Plants in Bukit Biru Village, Kutai Kartanegara Regency, 2023
9. Leading Sectors in West Kutai Regency and Their Contribution to Labor Absorption in East Kalimantan Province, 2022
10. Socialization of Abandoned Land Use by Planting Local Plants in Kalimantan as a Soil and Water Conservation Effort, 2022

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Research Interest:
Agricultural economy

Lecture:

1. Advanced Managerial Economics
2. Advanced Production Economics

RESEARCH ROADMAP

RESEARCH AND DEVELOPMENT → TECHNOLOGY → PRODUCT → MARKET

2024-2026
Availability, Management, and Utilization of Agricultural Resources (2015-2023).
Analysis of Farming Economics (Costs, Revenues, and Income) (2017-2022).
Factors Affecting Farmers' Income and Strategies to Increase Farmers' Income (2014-2023).
Potential, Planning, Development of Agricultural Areas, and Investment in Agriculture (2014-2023).
Competitiveness and Business Development Strategies (2015-2020).

2014-2023
Efficiency in Resource Utilization.
Distribution and Utilization of Resources by Consumers.
Consumer Welfare.
Factors Influencing Consumer Consumption and Spending Patterns.
Policies on Pricing, Supply, Distribution of Production Facilities, and Agricultural Development.
Market Opportunities, Sales Volume Determination, Marketing Territories, and Marketing Risks.

2027-2029
Methods for Increasing Farming Efficiency and Enhancing Farmer Welfare.
Techniques for Improving Consumer Satisfaction and Well-being.
Strategies for Increasing Agricultural Production and Developing Agricultural Areas.
Revamping Marketing Systems for Production Facilities and Agricultural Products.

2030-2032
Application of Optimal Resource Allocation and Production Levels.
Design and Development of Consumer Service Applications.
Formulation of Programs and Activities to Increase Agricultural Production and Develop Farming Areas.
Design and Implementation of Marketing Systems and Applications for Production Facilities and Agricultural Products.

2033-2034
Efficient and Effective Coaching, Development, and Support Activities for Agricultural Product Businesses.
Production and Commercialization of Service Applications, and Marketing of Production Facilities and Agricultural Products for Producers, Marketers, and Agricultural Institutions.
Agricultural Policy Recommendations for Production and Development of Agricultural Areas.
Development of Profitable Marketing Systems for Agricultural Products.

Dr. Mariyah, SP, M.Si.

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Research Interest:
Agricultural Commerce Administration

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Scopus ID:
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Orchid ID:
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Formal Education:

Agricultural Socioeconomics (Bachelor)
Mulawarman University, 2003

Agricultural Socioeconomics (Magister)
Bogor Agricultural Institute, 2008

Agricultural Socioeconomics (Doctor)
Bogor Agricultural Institute, 2018

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Recent Publication:

1. Analysis Of Determinant Of The Human Development Index In The Province Of East Kalimantan, 2024
2. Analysis Of Sweet Corn Farming And Marketing In Rontik Village, Babulu District Penajam Paser North Regency, East Kalimantan Province, 2023
3. Bookkeeping and Financial Recording Assistance for Small and Micro Business Actors in Suliliran Baru Village, 2023
4. Analysis of Seed Cost Proportion and Comparison of Productivity of Cigeulis and Infrari Rice Farming Varieties in Jambuk Makmur Village, 2023
5. Performance Evaluation Of Agricultural Intentions And The Effectiveness Of Using Social Media In Agricultural Counseling Centers, Linggang Bigung Sub-District Kutai Barat Regency, 2023
6. Analysis of Hydroponic Vegetable Sales Forecasting in vegetables. com Samarinda City, 2023
7. Analysis of Consumer Behavior in Purchasing Curly Red Chili (*Capsicum annum* L) at SayurYuk. com Samarinda City, 2023
8. Financial Feasibility Analysis of Product Diversification Development in Kangbejo Agrotourism, Balikpapan City, East Kalimantan, 2022
9. Analysis of the Forecast of Liquid Organic Fertilizer Sales at Jimmy Hantu Company Tenggarong Branch, 2022
10. The Cropping Pattern And Capital Source Of Farming In Jembayan Village, Loa Kulu District, Kutai Kartanegara Regency, 2022

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Research Interest:
Agricultural Commerce Administration

Lecture:

1. Advanced Production Economics
2. Advanced Agricultural Marketing

RESEARCH ROADMAP

Analysis of the Agricultural Business Value Chain

Study of the supply chain and distribution of agricultural products. Identify gaps in the value chain that affect product efficiency and pricing

Development of a Sustainable Business Model

Development of agricultural e-commerce platforms. Enhancement of farmers' access to direct markets and reduction of distribution chain lengths

Integration of Smallholders into Global Markets

Integrating smallholders into global markets through product standardization, certification, and increased competitiveness of local agricultural products

Evaluation of the Impact of Regulatory Policies on Farmers' Welfare

Analysis of subsidy policies, market regulation, and trade protection. Examination of the impact of business system programs on farmers' income and the sustainability of distribution systems

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Research Interest:
Engineering of agricultural product processes and processing of vegetable oils/fats

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Orchid ID:
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Formal Education:
Agronomy (Bachelor)
Mulawarman University, 1997

Agricultural Industrial Technology (Magister)
Bogor Agricultural Institute, 2007

Food Science (Doctor)
Brawijaya University, 2023

Recent Publication:

1. The Potential for Development of Red Palm Oil Industry in East Kalimantan, 2024
2. Processing of olein fraction red palm oil with minimal refining method and optimization of deodorization process, 2022
3. Development Strategy of Sago Plants (*Metroxylon sago* Rottb) as a Leading Commodity in Paser Regency, East Kalimantan Province, 2019
4. Effect of Jackfruit Seed Processing Method (*Artocarpus heterophyllus*) on the Sensory Quality of Chocolate Bars, 2019
5. Formulation Study of Several Vegetable Oils in the Making of Solid Bath Soap, 2018
6. Study on Red Palm Oil Characteristics Produced from CPO (*Crude Palm* Oil), 2017
7. Blood Glucose Response and Quality of Salak Skin Herbal Drink with Natural Flavor, 2017
8. Blood Glucose Response And Quality Of Herbal Of Skulk Bark With A Natural Flavor, 2017
9. Effect of Adding Carrageenan with Different Levels on Chemical Composition, Physical Quality, Sensory and Microstructure of Chicken Sausage, 2016

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Research Interest:

Engineering of agricultural product processes and processing of vegetable oils/fats

Lecture:

Agricultural Product Processing Techniques

RESEARCH ROADMAP

01 — Characterization and Analysis of Fat and Oil Quality

Identification of the physicochemical properties and characteristics of fats and oils, including fatty acid composition, oxidation index, and nutrient content

02 — Development of Fat and Oil Processing Methods

Study of safer and more environmentally friendly methods for oil extraction. Optimization of refining, bleaching, and deodorizing processes for vegetable oils

03 — Production of Functional Fats and Oils

Development of fat and oil products with health benefits, such as oils fortified with omega-3 fatty acids or products low in saturated fats

04 — Evaluation of the Stability and Safety of Fat and Oil Products

Assessment of the oxidative stability, food safety, and shelf life of fat and oil products during storage and distribution

Dr. Sukmiyati Agustin, S.TP, M.Sc.

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Food/agricultural product process engineering

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Formal Education:

Agricultural Industrial Technology (Bachelor)
Bogor Agricultural Institute, 2003

Food Science (Magister)
Bogor Agricultural Institute, 2011

Food Science (Doctor)
Gadjah Mada University, 2016

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Recent Publication:

1. Chemical and Sensory Characteristics of Margarine Based on Olein-Stearin Fraction of Palm Oil with the Addition of Yellow Pumpkin Juice, 2024
2. Study Of Spontaneous Fermentation Time Effect On The Physico - Chemical Characteristics Of Betung Bamboo Shoots Flour (*Dendrocalamus Asper* Backer), 2023
3. Synthesis and Characterization of Bacterial Cellulose-Based Transparent Bioplastics, 2022
4. Agropolymer-Based Bioplastics: Alternative Solutions to the Plastic Waste Problem, 2022
5. Incorporation of pectin during biosynthesis of bacterial cellulose by Gluconacetobacter xylinus InaCC B404: Possibility for producing green food packaging, 2021
6. Production and characterization of bacterial cellulose-alginate biocomposites as food packaging material, 2021
7. Overrun, kecepatan leleh, kadar vitamin C, dan karakteristik sensoris es krim rosela (*Hibiscus sabdariffa* L.) dengan variasi jenis penstabil, 2020
8. Effect of rabbit meat formulation and purple sweet potato (*Ipomoea batatas* L.) on the chemical and organoleptic properties of meatballs, 2019
9. Development of Bacterial Cellulose - Chitosan Biocomposite as a Potential Edible Coating for Fresh Cut Frutis, 2019
10. Assessment Of Rhodamine B, Microbiological Quality And Sanitation Of Street-Vended Food-Snack Around School In Samarinda, Indonesia, 2019

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Research Interest:

Food/agricultural product process engineering

Lecture:

Advanced Agricultural Product Analysis

RESEARCH ROADMAP

Characterization of the Chemical Structure of Carbohydrates

Study of the chemical composition and molecular bonds of carbohydrates from natural sources. Evaluation of physicochemical properties viscosity, water-binding ability, and crystallinity

1

Production of Functional Carbohydrates and Prebiotics

Production of prebiotics from natural carbohydrate sources through microbial fermentation

2

Development of Carbohydrate Processing Technology

Techniques for starch modification and enzymatic hydrolysis to produce carbohydrate derivative products

3

Application of Modified Carbohydrates in the Food

Application of modified carbohydrates or their derivatives in food

4