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*Dr. Ir. Hamidah Hanum, M.P., born in Siantar on May 2, 1969, is a lecturer in Agrotechnology at the Universitas Sumatera Utara. She has special expertise in soil science. Dr. Hamidah Hanum graduated from the Universitas Sumatera Utara with bachelor's and master's degrees, then continued her studies at the Institut Pertanian Bogor (IPB) to obtain a doctoral degree in 2004.*

*As an academic and researcher, Dr. Hamidah Hanum has made essential contributions to the development of soil science, especially in agriculture. Her dedication to education and research reflects a commitment to contributing to human resource development and increased agricultural productivity in Indonesia.*

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## Publications

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2018

Prosiding seminar internasional

### **Response of tomato (*Lycopersicon esculentum* Mill) infected by *Phytophthora infestans* (Mont.) de Bary with the treatment of copper and potassium phosphate on plant development**

DR LISNAWITA SP, MSI , HAMIDAH HANUM , ASTINI

2023

Jurnal internasional bereputasi

### **Isolation and molecular characterization of potassium-solubilizing bacteria from limestone mountain of Bahorok, Langkat District, Indonesia**

HAMIDAH HANUM , T SABRINA

2023

Prosiding seminar internasional

### **The role of Molybdenum in relation to *Rhizobium* sp. in increasing biological Nitrogen fixation and soybean growth**

YAYA HASANAH , NAUFAL ADLY HARAHAP , ALFITRAH SALAM HARAHAP , HAMIDAH HANUM

2022

Jurnal nasional terakreditasi

### **Bioentrepreneurship for orphanages by making kokedama and capillary system plant cultivation**

LISA MAWARNI , HAMIDAH HANUM , YAYA HASANAH

2017

Jurnal nasional

### **Aplikasi Bahan Organik dan Biochar untuk Meningkatkan C - Organik, P dan Zn tersedia Pada Tanah Sawah**

HAMIDAH HANUM , BENNY HIDAYAT

2022

Jurnal internasional bereputasi

### **Physiological Characteristics of Shallot (*Allium ascalonicum*) Varieties in Highlands and Lowlands**

HAMIDAH HANUM , YAYA HASANAH , LISA MAWARNI

2020

Jurnal nasional terakreditasi

### **FIELD SCHOOL OF ORGANIC FARMING AS AN EFFORT TO INCREASE**

# ORGANIC RICE PRODUCTION

HERLA RUSMARILIN , YAYA HASANAH , HAMIDAH HANUM

2017

Jurnal nasional

## **Aplikasi Bahan Organik dan Biochar untuk Meningkatkan C-Organik, P dan Zn Tersedia pada Tanah Sawah Berkadar P Tinggi**

BENNY HIDAYAT , HAMIDAH HANUM

2017

Prosiding seminar internasional

## **Agronomic effect of empty fruit bunches compost, anorganic fertilizer and endophytic microbes in oil palm main nursery used Ganoderma endemic soil**

DR LISNAWITA SP, MSI , HAMIDAH HANUM , PROF DR IR AHMAD RAFIQI TANTAWI. MS

2020

Jurnal nasional terakreditasi

## **Organic Rice Cultivation System to Support Food Security**

YAYA HASANAH , HAMIDAH HANUM , HERLA RUSMARILIN

2019

Prosiding seminar internasional

## **Rice husk biochar application and the planting times effects on dry weight and water use efficiency of upland rice varieties**

ABDUL RAUF , CHAIRANI HANUM L , HAMIDAH HANUM

2025

Jurnal nasional terakreditasi

## **Optimizing shallot plant growth and plant nutrient through site-specific fertilizer dose evaluation**

SARIFUDDIN , HAMIDAH HANUM , Jogy Hendro Pratama Solagracya

2022

Jurnal internasional

## **Cations-Base Application in Rubber Plantation: The Change of Calcium, Magnesium, and Potassium Status in the Soil and Leaves and Its Relation to Latex Yield**

HAMIDAH HANUM , EDISON PURBA , IRWAN AGUSNU PUTRA , Radite Tistama

2020

Jurnal internasional

## **Nutrient content of Soybean varieties under dry land conditions as affected of technological packages application**

YAYA HASANAH , HAMIDAH HANUM

2014

Prosiding seminar internasional

## **The Soil Characteristis Under Palm Oil which Infected Ganoderma**

DR LISNAWITA SP, MSI , HAMIDAH HANUM , PROF DR IR AHMAD RAFIQI TANTAWI. MS

2015

Prosiding seminar internasional

## **Compost Oil Palm and Indigenous Endophytic Fungi Effect on Basal Stem Rot in Oil Palm Seedling**

DR LISNAWITA SP, MSI , HAMIDAH HANUM , PROF DR IR AHMAD RAFIQI TANTAWI. MS

2020

Jurnal nasional terakreditasi

## **Organic Rice Cultivation System to Support Food Security**

HAMIDAH HANUM , YAYA HASANAH , HERLA RUSMARILIN

2017

Buku referensi

## **Kimia Tanah Teori dan Aplikasi (Edisi kedua)**

SARIFUDDIN , HAMIDAH HANUM , MUKHLIS

2023  
Jurnal internasional bereputasi

## **Isolation and molecular characterization of potassium-solubilizing bacteria from limestone mountain of Bahorok, Langkat District, Indonesia**

HAMIDAH HANUM , IMAM HARTONO BANGUN , T SABRINA

2021  
Jurnal internasional bereputasi

## **Vegetative, physiological and yield components observation of rice varieties with specific plant spacing in integrated mature-4 by smallholder of oil palm**

ALRIDIWIRSAH , HAMIDAH HANUM , ERWIN MASRUL HARAHAP

2015  
Prosiding seminar internasional

## **The Increasing of N, P, and K Nutrient in Palm Oil Under Prenursery Seedling By Application of Palm Oil Waste Compost and Endofitic Microbes**

DR LISNAWITA SP, MSI , HAMIDAH HANUM , PROF DR IR AHMAD RAFIQI TANTAWI. MS

2024  
Jurnal internasional bereputasi

## **Role of Molybdenum in Relationship with Rhizobium sp. and its Effect on Physiological Characteristics and Soybean Production**

NAUFAL ADLY HARAHAP , ALFITRAH SALAM HARAHAP , YAYA HASANAH , HAMIDAH HANUM

2022  
Jurnal internasional bereputasi

## **Genetic diversity of shallots (*Allium ascalonicum* L.) from several locations in North Sumatra, Indonesia based on RAPD markers**

YAYA HASANAH , LISA MAWARNI , HAMIDAH HANUM

2015  
Prosiding seminar nasional

## **Pemanfaatan Kompos Limbah Kelapa Sawit dan Mikroba Endofit untuk Meningkatkan Hara N, P dan K Tanah di Pembibitan Kelapa Sawit Prenursery**

DR LISNAWITA SP, MSI , HAMIDAH HANUM , PROF DR IR AHMAD RAFIQI TANTAWI. MS

2015  
Jurnal nasional

## **Uji Antagonisme Cendawan Endofit Terhadap Ganoderma Penyebab Penyakit Busuk Pangkal Batang Tanaman Kelapa Sawit**

PROF DR IR AHMAD RAFIQI TANTAWI. MS , DR LISNAWITA SP, MSI , HAMIDAH HANUM

2017  
Jurnal nasional

## **Aplikasi Bahan Organik dan Biochar untuk Meningkatkan C-Organik, P dan Zn tersedia Pada Tanah Sawah: Application of Organic Matter and Biochar to Increase Organic Carbon, P and Zn ...**

BENNY HIDAYAT , HAMIDAH HANUM

2023  
Jurnal internasional bereputasi

## **Differences in Cultivation Methods and Their Effects on Production and Physiological Characteristics of Shallots in the Highlands**

HAMIDAH HANUM , YAYA HASANAH , LISA MAWARNI

2010  
Buku referensi

## **Kesuburan Tanah dan Pemupukan**

SARIFUDDIN , HAMIDAH HANUM

2020  
Jurnal internasional bereputasi

## **Exploration and effectiveness test of the potassium solvent bacteria originating from limestone mountain of Bahorok Langkat**

T SABRINA , HAMIDAH HANUM

2024  
Jurnal nasional terakreditasi

## **Evaluation of Macro Nutrition in Some Hybrid Clones of Eucalyptus spp. on Andisol and Inceptisol Soil in North Sumatra**

NINI RAHMAWATI , HAMIDAH HANUM

2016  
Prosiding seminar internasional

## **Survey of Basal Stem Rot Disease on Oil Palms (*Elaeis guineensis* Jacq.) in Kebun Bukit Kijang, North Sumatera, Indonesia.**

DR LISNAWITA SP, MSI , HAMIDAH HANUM , PROF DR IR AHMAD RAFIQI TANTAWI. MS

2019  
Jurnal internasional

## **Effects of Composting on Growth and Uptake of Plant Nutrients and Soil Chemical Properties After Composting with Various Comparison of POME**

HAMIDAH HANUM , BENNY HIDAYAT

2011  
Buku referensi

## **Kimia Tanah Teori dan Aplikasi**

SARIFUDDIN , MUKHLIS , HAMIDAH HANUM

2015  
Jurnal nasional

## **Compost Oil Palm and Indigenous Endophytic Fungi Effect on Basal Stem Rot in Oil Palm Seedling**

PROF DR IR AHMAD RAFIQI TANTAWI. MS , DR LISNAWITA SP, MSI , HAMIDAH HANUM

## **Researches**

2019

## **PERAN MAGNESIUM DALAM PERUBAHAN PARTISI FOTOSINTAT UNTUK MENINGKATKAN PRODUKTIVITAS KEDELAI DI LAHAN KERING**

YAYA HASANAH , LISA MAWARNI , HAMIDAH HANUM , BAYU ARDI , MUHAMMAD REZA NASUTION

2022  
Penelitian Fundamental

## **PERAN MOLIBDENUM DALAM HUBUNGANNYA DENGAN RHIZOBIUM PADA PENINGKATAN FIKSASI NITROGEN BIOLOGIS DAN PRODUKSI KEDELAI SEBAGAI PANGAN FUNGSIONAL**

YAYA HASANAH , HAMIDAH HANUM

2017  
Penelitian Dana Lokal Perguruan Tinggi

## **Peningkatan Kandungan Isoflavon Kedelai Melalui Aplikasi Elisitor Kitosan dan Asam Salisilat serta Prekursor Fenilalanin**

YAYA HASANAH , MARIANI BR SEMBIRING , HAMIDAH HANUM

2022  
Penelitian Unggulan Perguruan Tinggi

## **Evaluasi Potensi Produksi, Karakter Morfologi dan Kandungan Quersetin Bawang Merah asal TSSdi Dataran Tinggi dan Rendah untuk Mendukung Pengembangan Food Estate dan Pangan Fungsional**

YAYA HASANAH , LISA MAWARNI , HAMIDAH HANUM

2022  
Penelitian Unggulan Perguruan Tinggi

## **Evaluasi Potensi Produksi, Karakter Morfologi dan Kandungan Quersetin Bawang Merah asal TSSdi Dataran Tinggi dan Rendah untuk Mendukung Pengembangan Food Estate dan Pangan Fungsional**

YAYA HASANAH , LISA MAWARNI , HAMIDAH HANUM , KLERY RUGUN MANURUNG , ANAS MUHTAROM KUSRIARMIN

## **Pertanian Presisi untuk Peningkatan Produktivitas Padi Sawah dan Gogo melalui Modifikasi Interaksi Iklim-Tanah-Tanaman di Sumatera Utara**

HAMIDAH HANUM , CHAIRANI HANUM L

2026

## **Integrasi Morfofisiologi dan Biokimia Tanaman Padi Gogo Lokal sebagai Landasan Pertanian Presisi: Studi Karakteristik Varietas dalam Meningkatkan Produktivitas**

HAMIDAH HANUM , CHAIRANI HANUM L

2020

## **PERAN SULFUR DAN PAKLOBUTRAZOL DALAM PERUBAHAN PARTISI FOTOSINTAT UNTUK MENINGKATKAN PRODUKTIVITAS DAN KUALITAS BAWANG MERAH ASAL TRUE SHALLOT SEED**

YAYA HASANAH , LISA MAWARNI , HAMIDAH HANUM , MUHAMMAD THOHA RHAMADHAN , LISDA BR TARIGAN

## **Community Services**

2020

## **PEMANFAATAN ECO ENZYME SEBAGAI PUPUK ORGANIK CAIR UNTUK MENINGKATKAN PRODUKSI PADI ORGANIK DAN DESINFEKTAN DALAM UPAYA UNTUK MENCEGAH PENYEBARAN COVID-19**

YAYA HASANAH , HAMIDAH HANUM

2021

Ipteks Bagi Masyarakat

## **PEMBERDAYAAN PANTI ASUHAN MELALUI BIOENTREPRENEURSHIP PEMBUATAN KOKEDAMA DAN BUDIDAYA TANAMAN SISTEM KAPILER**

YAYA HASANAH , LISA MAWARNI , HAMIDAH HANUM , RAHMAH RAMADHANI , TASYA , DADIN RAHMADHAN , KHAIRUL ICHSANA , AULIA DELFIYANTI

2020

Ipteks Bagi Masyarakat

## **PEMANFAATAN ECO ENZYME SEBAGAI PUPUK ORGANIK CAIR UNTUK MENINGKATKAN PRODUKSI PADI ORGANIK DAN DESINFEKTAN DALAM UPAYA UNTUK MENCEGAH PENYEBARAN COVID-19**

YAYA HASANAH , LISA MAWARNI , HAMIDAH HANUM , AGUS SETIAWAN SYAHPUTRA , MUHAMMAD THOHA RHAMADHAN

2021

## **INTENSIFIKASI TANAMAN KOPI PADA PERKEBUNAN MASYARAKAT DI KECAMATAN ULU PUNGKUT KABUPATEN MANDAILING NATAL**

ADRIAN HILMAN , NAZIF ICHWAN , HAMIDAH HANUM , FUAD HASAN

2020

Ipteks Bagi Kewirausahaan

## **Pendampingan Desa Binaan USU : Peningkatan Kemandirian Masyarakat Di Desa Semangat Kecamatan Merdeka Kabupaten Karo**

SARIFUDDIN , NINI RAHMAWATI , TAVI SUPRIANA , HAMIDAH HANUM , TATI VIDIANA SARI , HASANUDDIN

2020

## **PEMBIBITAN KOPI UNTUK MENDUKUNG KESEJAHTERAAN PETANI KOPI PADA MASA PANDEMI COVID 19 DI KECAMATAN ULU PUNGKUT KABUPATEN MANDAILING NATAL**

NAZIF ICHWAN , HAMIDAH HANUM , FUAD HASAN

## **Intellectual Property Rights**

2015  
Paten nasional

# **KOMPOSISI KOMPOS DIPERKAYA MIKROBA ENDOFIT, METODE PEMBUATAN, DAN PENGGUNAAN KOMPOSISI TERSEBUT**

DR LISNAWITA SP, MSI , HAMIDAH HANUM , PROF DR IR AHMAD RAFIQI TANTAWI. MS

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