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Irda Safni, S.P., M.CP, Ph.D., born in Surabaya on March 22, 1971, is an Agrotechnology lecturer at the Universitas Sumatera Utara. She earned her Doctorate in Microbiology from The University of Queensland in 2014.

Education Profile:

- Bachelor's degree from Universitas Sumatera Utara
- Master's degree from the University of Adelaide, Australia
- Ph.D. from the University of Queensland, Australia

With an extensive educational background and plant pathology and bacteriology expertise, Irda Safni provides valuable contributions to developing agrotechnology science. As a lecturer, she is dedicated to mentoring students and contributing to research in plant pathology, enhancing understanding and innovation in agriculture.

Publications

2020

Prosiding seminar internasional

The effect of the rice white tip nematode, *Aphelenchoides besseyi* Christie, on the yield components of rice cultivars in a glasshouse condition

DR LISNAWITA SP, MSI , IRDA SAFNI

2024

Prosiding seminar internasional

Analysis of The Relationship of Wind Speed and Rainfall on the Development of Coffee Leaf Rust (*Hemileia vastatrix* B. & Br.) on Sipirok Arabica Coffee Plants in South Tapanuli District, Indonesia

DR LISNAWITA SP, MSI , IRDA SAFNI , GUNTORO , PROF DR IR AHMAD RAFIQI TANTAWI. MS

2020

Prosiding seminar internasional

Physiological Tests on Soybean Mutant Lines against Stem Rot Disease *Athelia rolfsii* Curzi

REVANDY I M DAMANIK , DIANA SOFIA HANAFIAH , IRDA SAFNI , LUTHFI AZIZ MAHMUD SIREGAR

2026

Jurnal internasional bereputasi

Antifungal Effects of Silver Nanoparticles, Synthesized Using *Trichoderma harzianum*, on *Ganoderma boninense* causes of basal stem rot on oil palm.

IRDA SAFNI

2021

Jurnal internasional bereputasi

Genetic analysis of soybean mutant lines resistance to stem rot disease (*Athelia rolfsii* curzi)

DIANA SOFIA HANAFIAH , REVANDY I M DAMANIK , LUTHFI AZIZ MAHMUD SIREGAR , IRDA SAFNI

2019

Jurnal nasional

Uji efektifitas beberapa jenis rizobakteri pemacu tumbuh tanaman (RPTT)

untuk mengendalikan penyakit rebah kecambah (*Athelia rolfsii* (curzi) pada tanaman kedelai (*Glycine max* (L.) Merrill)

AMEILIA ZULIYANTI SIREGAR , IRDA SAFNI

2017

Artikel ilmiah

Potensi jamur entomopatogen untuk mengendalikan ulat grayak *Spodoptera litura* F. pada tanaman tembakau in vivo

IRDA SAFNI

2018

Jurnal internasional bereputasi

Selection individual on mutant genotype of soybean (*Glycine max*l.merrill) in m⁵ generation based on resistance of stem rot disease *Athelia rolfsii* (curzi)

LUTHFI AZIZ MAHMUD SIREGAR , M Rahmah , DIANA SOFIA HANAFIAH , IRDA SAFNI

2024

Prosiding seminar internasional

In-vitro endophytic bacteria activity against *Ralstonia syzygii* subsp. indonesiensis, the causal agent of bacterial wilt disease in tomato (*Solanum lycopersicum*) to achieve ...

IRDA SAFNI , DR LISNAWITA SP, MSI , Triwanto Nababan

2021

Jurnal internasional bereputasi

Screening of Indonesian rice cultivars against bacterial leaf blight disease under acidic soil condition

IRDA SAFNI

2023

Prosiding seminar internasional

Bacteriophage as a biocontrol agent in bacterial blood disease of banana in Indonesia

DR LISNAWITA SP, MSI , IRDA SAFNI

2019

Artikel ilmiah

Uji Efektivitas Pengendalian Kimiawi dan Biologi terhadap Hama Penggerek Polong (*Maruca testulalis* Geyer.) pada Tanaman Kacang Hijau: Effectivity Test of Chemical and ...

IRDA SAFNI

2017

Artikel ilmiah

Potensi Jamur Entomopatogen untuk Mengendalikan Ulat Grayak *Spodoptera litura* F. pada Tanaman Tembakau In Vivo: Potency of Entomopathogenic Fungi to control Oriental Leafworm ...

IRDA SAFNI

2022

Jurnal nasional terakreditasi

Spread of bacterial wilt disease on potato in three villages in Silimakuta District, Simalungun, North Sumatra, Indonesia

IRDA SAFNI , MUKHTAR ISKANDAR PINEM

2025

Jurnal nasional terakreditasi

Induksi Ketahanan Tanaman Tomat terhadap *Ralstonia syzygii* subsp. indonesiensis Menggunakan Bakteri Endofit dan Asam Salisilat : Induction of Resistance in Tomato Plants Against *Ralstonia syzygii* subsp. indonesiensis Using Endophytic Bacteria and Salicylic Acid

IRDA SAFNI

2021

Genetic analysis of soybean mutant lines resistance to stem rot disease (*Athelia rolfsii* curzi)

IRDA SAFNI

2018

In vitro antagonism of five rhizobacterial species against *Athelia rolfsii* collar rot disease in soybean

Widya Antastia , IRDA SAFNI

2018

Uji Ketahanan Beberapa Varietas Padi Sawah Terhadap Hama Kepinding Tanah (*Scotinophara coarctata*) Di Rumah Kasa

IRDA SAFNI

2020

Resistance level of several soybean lines of M6 generation to stem rot disease *Athelia rolfsii*

ANGGRIA LESTAMI , DIANA SOFIA HANAFIAH , IRDA SAFNI , REVANDY I M DAMANIK , LUTHFI AZIZ MAHMUD SIREGAR

2020

Resistance level of several soybean lines of M6 generation to stem rot disease *Athelia rolfsii*

IRDA SAFNI

2024

Characterization of basal stem rot pathogen in oil palm tree in Adolina Seed Center, North Sumatra, to support sustainable food security

DR LISNAWITA SP, MSI , IRDA SAFNI

2024

The Survey of Leaf Blight Disease (*Exserohilum turcicum*) on maize (*Zea mays* L) in Pancur Batu District, Deli Serdang Regency to Contribute the Food Security Sustainability

IRDA SAFNI , Fizra Nazli Syakira

2023

Kelimpahan Jamur Non-Patogenik Pada Rhizosfer Daerah Endemik Patogen *Magnaporthe grisea* Penyebab Penyakit Blas Pada Tanaman Padi (*Oryza sativa* L.)

IRDA SAFNI , DR LISNAWITA SP, MSI , Muhammad Faqih Aulia

2018

Use of organic waste as biofumigant for controlling root knot nematodes (*Meloidogyne* spp.) on potato

IRDA SAFNI

2019

***Spodoptera litura* as a main pest in oil palm peat plantation**

IRDA SAFNI

2025

Plant Cases

DR LISNAWITA SP, MSI , IRDA SAFNI

2020

The Control of Panicle Blight Bacterial Pathogen on Rice Seeds Through In Vitro Treatments

DR LISNAWITA SP, MSI , IRDA SAFNI

2014

Jurnal internasional bereputasi

Polyphasic taxonomic revision of the *Ralstonia solanacearum* species complex: Proposal to emend the descriptions of *Ralstonia solanacearum* and *Ralstonia syzygii* and reclassify current *R. syzygii* strains as *Ralstonia syzygii* subsp. *syzygii* subsp. nov., *R. solanacearum* phylotype IV strains as *Ralstonia syzygii* subsp. *indonesiensis* subsp. nov., banana blood disease bacterium strains as *Ralstonia syzygii* subsp. *celebesensis* subsp. nov. and *R. solanacearum* phylotype I and III strains as *Ralstonia pseu*

IRDA SAFNI

2020

Jurnal internasional bereputasi

Distribution of narrow brown leaf spot disease of rice (*Cercospora oryzae* Miyake) in North Sumatra

IRDA SAFNI

2024

Jurnal nasional terakreditasi

Salicylic Acid Accumulation in Tomato Root Induced by Endopytic Bacteria and Exogenous Salicylic Acid Response to *Ralstonia syzygii* subsp. *indonesiensis* Infection

IRDA SAFNI , DR LISNAWITA SP, MSI , Triwanto Nababan

2020

Jurnal internasional bereputasi

The effect of the rice white tip nematode, *Aphelenchoides besseyi* Christie, on the yield components of rice cultivars in a glasshouse condition

IRDA SAFNI

2020

Jurnal internasional bereputasi

Mapping bacterial leaf blight disease of rice (*Xanthomonas oryzae* pv *oryzae*) in North Sumatra

IRDA SAFNI

2018

Jurnal internasional

Morphology Variation Of *Metarhizium anisopliae* From Soil In North Sumatra Areas

IRDA SAFNI

2020

Prosiding seminar internasional

Mapping bacterial leaf blight disease of rice (*Xanthomonas oryzae* pv *oryzae*) in North Sumatra

IRDA SAFNI , SAFRIZAL , DR LISNAWITA SP, MSI

2019

Jurnal internasional bereputasi

Screening for disease resistance in rice varieties against bacterial panicle blight disease (*Burkholderia glumae*) in Northern Sumatra of Indonesia

IRDA SAFNI

2018

Prosiding seminar internasional

Selection individual on mutant genotype of soybean (*Glycine max*l. *merrill*) in m5 generation based on resistance of stem rot disease *Athelia rolfsii* (*curzi*)

DIANA SOFIA HANAFIAH , IRDA SAFNI , LUTHFI AZIZ MAHMUD SIREGAR

2025
Jurnal internasional

Detection and identification of fungi causing strawberry wilt disease in North Sumatra, Indonesia

IRDA SAFNI , Cadrak Perdamenta Simanjuntak

2020
Jurnal internasional bereputasi

Abundance and diversity of bacteria associated with healthy and infected oil palm rhizosphere of *Ganoderma boninense* in Bahilang, North Sumatra

IRDA SAFNI

2024
Prosiding seminar nasional

Analisis pengaruh cuaca terhadap produksi kopi di Tapanuli Utara, Sumatera Utara

DR LISNAWITA SP, MSI , GUNTORO , IRDA SAFNI , PROF DR IR AHMAD RAFIQI TANTAWI. MS

2022
Jurnal internasional

Prevalence and Incidence of Bacterial Wilt Disease (*Ralstonia syzygii* subsp. *indonesiensis*) on Tomato in Simpang Empat District Karo

DR LISNAWITA SP, MSI , IRDA SAFNI

2022
Jurnal nasional terakreditasi

Spread of bacterial wilt disease on potato on three villages in Silimakuta district, Simalungun, North Sumatra, Indonesia

IRDA SAFNI , MUKHTAR ISKANDAR PINEM

2018
Jurnal internasional bereputasi

Ecology, epidemiology and disease management of *Ralstonia syzygii* in Indonesia

Mark Fegan , SITI SUBANDIYAH , IRDA SAFNI

2024
Jurnal internasional bereputasi

Analysis of The Relationship of Wind Speed and Rainfall on the Development of Coffee Leaf Rust (*Hemileia Vastatrix* B. & Br.) on Sipirok Arabica Coffee Plants in South Tapanuli ...

PROF DR IR AHMAD RAFIQI TANTAWI. MS , DR LISNAWITA SP, MSI , IRDA SAFNI , GUNTORO , GUNTORO

2021
Jurnal internasional bereputasi

Distribution of sheath blight disease (*Rhizoctonia solani* Kuhn) on rice (*Oryza sativa* L) in Northern Sumatera, Indonesia

DR LISNAWITA SP, MSI , IRDA SAFNI , SYAHRIAL OEMRY

2019
Artikel ilmiah

Uji Efektifitas Beberapa Jenis Rizobakteri Pemacu Tumbuh Tanaman (RPTT) untuk Mengendalikan Penyakit Rebah Kecambah (*Athelia rolfsii* (Curzi)) pada Tanaman Kedelai (*Glycine max* L. & Merr.)

IRDA SAFNI

2025
Book chapter internasional

Laboratory guide for identification of plant pathogenic bacteria

Carolee T Bull , T Coutinho , K Bophela , S Timilsina , Jeffrey B Jones , IRDA SAFNI

2018
Jurnal internasional bereputasi

The potential of soil fungi associated with potato rhizosphere to control root knot nematode (*Meloidogyne* spp.) on potato

IRDA SAFNI

2018

Jurnal internasional bereputasi

Isolation and characterization of rhizobacteria for biological control of root-knot nematodes in Indonesia

DR LISNAWITA SP, MSI , IRDA SAFNI , PROF DR IR AHMAD RAFIQI TANTAWI. MS , R SURYA MURTHI

2021

Prosiding seminar internasional

Microtubers production by using Temporary Immersion System (TIS) bioreactor to potato varieties

LUTHFI AZIZ MAHMUD SIREGAR , IRDA SAFNI

2023

Jurnal internasional bereputasi

PRODUCTION OF MICROSHOOT USING THE TEMPORARY IMMERSION SYSTEM (TIS) IN POTATO CULTIVARS

SISWA PANJANG HERNOSA , LUTHFI AZIZ MAHMUD SIREGAR , SEPTI ANDRIANI , IRDA SAFNI

2024

Prosiding seminar internasional

In-vitro endophytic bacteria activity against *Ralstonia syzygii* subsp. indonesiensis, the causal agent of bacterial wilt disease in tomato (*Solanum lycopersicum*) to achieve sustainable agriculture

IRDA SAFNI , DR LISNAWITA SP, MSI

2024

Jurnal nasional terakreditasi

Salicylic Acid Accumulation in Tomato Root Induced by Endopytic Bacteria and Exogenous Salicylic Acid Response to *Ralstonia syzygii* subsp. indonesiensis Infection

DR LISNAWITA SP, MSI , IRDA SAFNI

2021

Jurnal internasional bereputasi

Resistance level of several soybean lines of M6 generation to stem rot disease *Athelia rolfsii*

REVANDY I M DAMANIK , DIANA SOFIA HANAFIAH , IRDA SAFNI , LUTHFI AZIZ MAHMUD SIREGAR

2024

Jurnal nasional terakreditasi

Induksi Ketahanan Tanaman Tomat terhadap *Ralstonia syzygii* subsp. indonesiensis Menggunakan Bakteri Endofit dan Asam Salisilat

TRIWANTO NABABAN , DR LISNAWITA SP, MSI , IRDA SAFNI

2022

Buku referensi

Global Plant Health Assessment

IRDA SAFNI

2026

Prosiding seminar internasional

Biosynthesis and characterization of silver bio-nanoparticles using bacteria *Arthrobacter* sp. and *Bacillus thuringiensis* as agrotechnological approaches towards sustainable agriculture

IRDA SAFNI

2024

Jurnal nasional terakreditasi

In Vitro Assay of Lytic Bacteriophage to Suppress the Growth of *Ralstonia syzygii* subsp. indonesiensis, the Causal Pathogen of Potato Wilt Disease

IRDA SAFNI , Nur Azizah

Researches

2024

Penelitian Fundamental

Karakterisasi Nanobiofungisida dan pengungkapan gen pertahanan kelapa sawit terhadap *Ganoderma boninense* melalui Whole Genome Sequencing

PROF DR IR AHMAD RAFIQI TANTAWI, MS, WISMAROH SANNIWATI BR SARAGIH, DR LISNAWITA SP, MSI, IRDA SAFNI

2021

Penelitian Unggulan Perguruan Tinggi

Pengendalian Hayati penyakit Darah Pisang (*Ralstonia syzygii* subsp. *celebesensis*)

DR LISNAWITA SP, MSI, IRDA SAFNI

2022

Penelitian Kerjasama Antar Perguruan Tinggi

GREEN SYNTHESIS NANOPARTIKEL PERAK (AGNPs) MENGGUNAKAN EKSTRAK DAUN *Diplazium esculentum*, *Rivina humilis* UNTUK MENGENDALIKAN *Ganoderma boninense* DI PERKEBUNAN KELAPA SAWIT

DR LISNAWITA SP, MSI, IRDA SAFNI

2024

Penelitian Tim Pasca Sarjana

Karakterisasi Morfologi dan Molekuler *Ganoderma* spp. pada Tanaman Kelapa Sawit di Kebun Balai Benih Adolina Kabupaten Serdang Bedagai Sumatera Utara

DR LISNAWITA SP, MSI, IRDA SAFNI

2025

Kerjasama Luar Negeri dan Publikasi Internasional

***Ralstonia syzygii* genomic epidemiology and virulence evolution**

WIDHI DYAH SAWITRI, ALAN SOFFAN, ADY BAYU PRAKOSO, SITI SUBANDIYAH, TRI JOKO, IRDA SAFNI

2022

Penelitian Unggulan Perguruan Tinggi

Pengendalian Hayati penyakit Darah Pisang (*Ralstonia syzygii* subsp. *celebesensis*)

IRDA SAFNI

2023

Pendidikan Magister Doktor Sarjana Unggul

Induksi Ketahanan Tanaman Tomat (*Solanum Lycopersicum*) terhadap Patogen *Ralstonia syzygii* subsp. *indonesiensis* Menggunakan Bakteri Endofit dan Asam Salisilat

DR LISNAWITA SP, MSI, IRDA SAFNI

2022

Penelitian Unggulan Perguruan Tinggi

Analisis gen-gen terkait virulensi *Ralstonia syzygii* subsp. *celebesensis* penyebab penyakit darah pada pisang untuk mendukung pengembangan bakterisida berbasis small-RNA

IRDA SAFNI, Siti Subandiyah

Intellectual Property Rights

2024

Patent nasional

PROSES UNTUK MENDAPATKAN GALUR MUTAN KEDELAI

DIANA SOFIA HANAFIAH, EVA SARTINI BAYU, EMMY HARSO KARDHINATA, RATNA ROSANTI LAHAY, REVANDY I M DAMANIK, LUTHFI AZIZ MAHMUD SIREGAR, IRDA SAFNI
