

Prof. Dr. Ir. Abdul Rauf, MP

Dosen Program Studi S1 Agroteknologi
Fakultas Pertanian
Universitas Sumatera Utara

✉ a.rauf1@usu.ac.id

🏢 Fakultas Pertanian USU

🌐 fp.usu.ac.id/id/dosen/abdul-rauf

Prof. Dr. Ir. Abdul Rauf, M.P., lahir di Binjai pada tanggal 17 September 1959, adalah seorang dosen Agroteknologi di Universitas Sumatera Utara yang mengkhususkan diri dalam bidang Konservasi Tanah dan Air dan Pengelolaan Daerah Aliran Sungai (DAS). Beliau menyelesaikan pendidikan terakhirnya pada Program Doktorat Ilmu Tanah, di IPB pada tahun 2004.

Sebagai seorang profesor, Prof. Dr. Ir. Abdul Rauf telah berkontribusi secara signifikan dalam pengembangan ilmu agroteknologi, terutama dalam aspek konservasi tanah dan air serta pengelolaan DAS. Dedikasinya terhadap pendidikan, penelitian, dan penerapan ilmu tersebut mencerminkan komitmen terhadap keberlanjutan pertanian dan pelestarian lingkungan di Universitas Sumatera Utara.

Publications

2026

Jurnal nasional terakreditasi

Evaluation of Peat Nutrient Content in Coconut Plantations: Palm oil (*Elaeis guineensis* Jacq.) In Paham Labuhanbatu

ABDUL RAUF

2025

Jurnal internasional bereputasi

Adoption of Good Agricultural Practices (GAP) among Arabica Coffe Farmers in Simalungun, Indonesia

FARID AULIA , R. HAMDANI HARAHAHAP , ABDUL RAUF , RAHMAWATY , ISFENTI SADALIA , ABDULLAH AKHYAR NASUTION

2025

Prosiding seminar internasional

System Research and Optimization of Coffee-Based Agricultural Land as a Sustainable Forest Management Alternative

BUDIYONO , ABDUL RAUF

2024

Jurnal nasional terakreditasi

Evaluation of Land Suitability For Durian (*Durio Zibethinus*) Plants In Parmaksian District, Toba Regency

FITRA SYAWAL HARAHAHAP , ABDUL RAUF , SIMON H SIDABUKKE

2024

Jurnal internasional bereputasi

System study and optimization of coffee-based agricultural land as a sustainable forest management alternative

BUDIYONO , ABDUL RAUF

2024

Jurnal internasional bereputasi

PHYSIOLOGICAL CHARACTERISTICS OF THE RED RICE WITH APPLICATION OF ASCORBIC ACID UNDER SALINITY STRESS CONDITIONS

ABDUL RAUF

2024

Jurnal internasional bereputasi

The effect of planting distance engineering treatment on the morphophysiology and yield of soybean varieties integrated with oil palm

ABDUL RAUF

2024

Jurnal internasional bereputasi

Belawan Harbour Environmental Monitoring Supports Welfare of Fisherman

ABDUL RAUF

2024

Jurnal internasional bereputasi

PHYSIOLOGICAL CHARACTERISTICS OF THE RED RICE WITH APPLICATION OF ASCORBIC ACID UNDER SALINITY STRESS CONDITIONS

ABDUL RAUF , WAN ARFIANI BARUS

2024

Jurnal nasional

Carbon Trading Literacy for Rural Communities

VITA CITA EMIA TARIGAN , MAHMUL SIREGAR , MOHAMMAD EKAPUTRA , ABDUL RAUF , Siti Hafsyah Idris

2024

Jurnal internasional bereputasi

PHYSIOLOGICAL CHARACTERISTICS OF THE RED RICE WITH APPLICATION OF ASCORBIC ACID UNDER SALINITY STRESS CONDITIONS

ANGGRIA LESTAMI , ABDUL RAUF , WAN ARFIANI BARUS , ASRITANARNI MUNAR

2024

Jurnal nasional

PENYULUHAN TENTANG PENTINGNYA STUDI EVALUASI LAHAN BAGI MASYARAKAT DI KECAMATAN BATANG TORU

ABDUL RAUF , T IRMANSYAH , RAHMAWATY

2024

Jurnal internasional bereputasi

Potential biodiversity of biopesticide plants in the Sopotinjak Sector, Batang Gadis National Park (BGNP), Mandailing Natal, North Sumatera

ABDUL RAUF , YUNUS AFIFUDDIN

2024

Jurnal internasional bereputasi

Reformulation of Persimmon Value-Added Model: Product Downstream Development Strategy for Farmers in East Java, Indonesia

RAHMAWATY , ABDUL RAUF

2024

Monograf

EFEKTIVITAS METODE PEMUPUKAN PADA PERTUMBUHAN DUA VARIETAS BIBIT KELAPA SAWIT (*Elaeis guineensis* Jacq.) DI PEMBIBITAN UTAMA (Main Nursery)

ERWIN JUNAIDI LUBIS , ABDUL RAUF , SARIFUDDIN

2023

Jurnal internasional bereputasi

Effectiveness of Fertilization Techniques on Growth Two Varieties of Palm Oil Seeds (*Elaeis guineensis* Jacq.) in Main Nursery

ABDUL RAUF , SARIFUDDIN

2023

Prosiding seminar internasional

Association of Amorphophallus gigas on rubber land cover in the Sabungan Village, South Labuhanbatu, North Sumatra

ABDUL RAUF , RAHMAWATY , ESTHER SORTA MAULI NABABAN , RIDAHATI RAMBEY

2023

Jurnal nasional terakreditasi

Study of N, P, K Nutrient Uptake In Paddy Plant With Total Soil Microbes In Sei Nahodaris Village, Panai Tengah District, Labuhanbatu Regency

ABDUL RAUF , FITRA SYAWAL HARAHAAP

2023

Buku referensi

Padi Beras Hitam (Black Rice)

DAFNI MAWAR TARIGAN , WAN ARFIANI BARUS , ABDUL RAUF , R. SABRINA

2023

Jurnal internasional bereputasi

Mangrove cover change (2005-2019) in the Northern of Medan City, North Sumatra, Indonesia

MOEHAR MARAGHIY HARAHAAP , RAHMAWATY , ABDUL RAUF , ARIF NURYAWAN

2023

Jurnal internasional bereputasi

Mangrove cover change (2005-2019) in the Northern of Medan City, North Sumatra, Indonesia

MOEHAR MARAGHIY HARAHAAP , RAHMAWATY , ARIF NURYAWAN , ABDUL RAUF

2023

Jurnal internasional

Response of four oil palm varieties to low frond desiccation in the main nursery with water stress conditions on peat

ABDUL RAUF

2023

Jurnal nasional

Penghijauan Bataran Sungai Bilah Di Desa Tebing Lingga Hara Kecamatan Bilah Hulu Kabupaten Labuhanbatu

FITRA SYAWAL HARAHAAP , ABDUL RAUF , SARIFUDDIN , ABU YAZID

2023

Jurnal internasional bereputasi

Mangrove cover change (2005-2019) in the Northern of Medan City, North Sumatra, Indonesia

ABDUL RAUF , RAHMAWATY

2023

Jurnal nasional terakreditasi

Persiapan Olah Tanah di Lahan Praktek Universitas Labuhanbatu pada Jenis Cacing Tanah di Beberapa Vegetasi Tanaman

ABDUL RAUF

2023

Jurnal nasional

PEMANFAATAN LIMBAH BAWANG MERAH YANG DIAPLIKASIKAN PADA TANAMAN SAWI (Brassica Juncea L.) SEBAGAI PUPUK ORGANIK CAIR (POC) DIDESA TEBING TINGGI PANGKATAN

ABDUL RAUF

2023

Jurnal nasional terakreditasi

Yield Evaluation of Upland Rice Varieties (Oryza sativa L.) in Several Levels of Soil Water Content

ABDUL RAUF , CHAIRANI HANUM L

2022

Jurnal nasional terakreditasi

Conservation of Medicinal Plants in North Sumatra for Sustainable Use

HAFIZAH ARINAH , RAHMAWATY , ABDUL RAUF

2022

Buku referensi

INVENTARISASI LAHAN KAWASAN HUTAN DENGAN TUJUAN KHUSUS

(KHDTK) IT-DEL

ABDUL RAUF , RAHMAWATY

2022

Book chapter nasional

PERAN GURU BESAR USU DALAM PEMECAHAN PERMASALAHAN BANGSA MELALUI PERSPEKTIF SUSTAINABLE DEVELOPMENT GOALS (SDGs)

ABDUL RAUF , RAHMAWATY , TAMRIN , ZULKIFLI NASUTION

2022

Jurnal internasional bereputasi

Cost Optimization of Aerobic-based Compost Production by System Dynamics Study in PT Eastern Sumatra Indonesia (PT ESI

ABDUL RAUF

2022

Prosiding seminar internasional

Rice production in North Aceh Regency based on N, P, K and C-organic studies

RAHMAWATY , DENI ELFIATI , ABDUL RAUF

2022

Jurnal internasional bereputasi

Analysis of land-use change over five- and ten- year periods in Hamparan Perak, North Sumatra, Indonesia

ABDUL RAUF , RAHMAWATY , MOEHAR MARAGHIY HARAHAP

2022

Jurnal internasional bereputasi

Preliminary study on C-organic and C-microbial biomass of peatland in Toba highlands

ABDUL RAUF , T SABRINA

2022

Jurnal internasional bereputasi

Comparison of the yield of different rice varieties treated with L-ascorbic acid on site-specific saline soil

CHAIRANI HANUM L , ABDUL RAUF , ROSMAYATI

2022

Jurnal internasional bereputasi

Comparison of the Yield of Different Rice Varieties Treated with L-Ascorbic Acid on Site-Specific Saline Soil

ABDUL RAUF

2022

Jurnal internasional bereputasi

Land cover change impact analysis: an integration of remote sensing, GIS and DPSIR framework to deal with degraded land in Lengan Watershed, North Sumatra, Indonesia

RAHMAWATY , MOEHAR MARAGHIY HARAHAP , ABDUL RAUF

2022

Buku referensi

BUKU MASTER PLAN PROGRAM KONSERVASI DAERAH TANGKAPAN AIR (DTA) DANAU TOBA DAN DAERAH ALIRAN SUNGAI (DAS) ASAHAN

ABDUL RAUF , RAHMAWATY

2022

Jurnal nasional terakreditasi

Gap Analysis in Deli Watershed Management Measured by Stakeholders' Social Factors Deli North Sumatera

R. HAMDANI HARAHAP , ABDUL RAUF

2022

Prosiding seminar internasional

Identification of Land Cover Types and Their Changes in Kutalimbaru Sub-

district, Deli-Serdang District, North Sumatra, Indonesia

MOEHAR MARAGHIY HARAHAAP , RAHMAWATY , ABDUL RAUF

2022

Prosiding seminar internasional

Analytical hierarchy process (AHP) application in the selection of plant types on the community's agroforestry land

ABDUL RAUF , RAHMAWATY , RIDWANTI BATUBARA

2022

Jurnal internasional bereputasi

Effectiveness of Organic Materials as Media in Sulfate Reducing Bacteria Inoculum to Changes on Acid Sulfate Soils

ABDUL RAUF , ASMARLAILI SAHAR

2021

Prosiding seminar internasional

Land cover changes monitoring over ten years in upstream watershed of Deli Serdang Regency North Sumatra Province

MOEHAR MARAGHIY HARAHAAP , ABDUL RAUF , RAHMAWATY

2021

Prosiding seminar internasional

Changes in dryland forest cover in several sub-districts in Deli Serdang Regency

MOEHAR MARAGHIY HARAHAAP , RAHMAWATY , ABDUL RAUF

2021

Prosiding seminar internasional

Improvement in Sandy Soil Chemistry Using Biogas Sludge Based on Organic Waste

ABDUL RAUF , HAMIDAH HANUM

2021

Jurnal internasional bereputasi

Rice production in North Aceh Regency based on N, P, K and C-organic studies

ABDUL RAUF

2021

Jurnal internasional

Dynamics of nutrition peat soil due the biochar of oil palm empty bunches application and nitrogen and kalium

ABDUL RAUF

2021

Prosiding seminar internasional

Land suitability assesment for Coffea arabica on the land overgrewed by Uncaria gambir

ABDUL RAUF , RIDWANTI BATUBARA , RAHMAWATY

2021

Prosiding seminar internasional

Comparison of land cover classification in Pakpak Bharat Regency using Landsat 8 OLI and Sentinel 1A satellite imagery

SAMSURI , BEJO SLAMET , ABDUL RAUF

2021

Jurnal nasional terakreditasi

Hubungan Curah Hujan dengan Pola Ketersediaan Air Tanah terhadap Produksi Kelapa Sawit (Elaeis guineensis Jacq) di Dataran Tinggi

ABDUL RAUF

2021

Prosiding seminar internasional

The limiting factor of land suitability for development of gambir cultivation (case-study in Sari Laba Jahe Village Deli Serdang North-Sumatra)

2021

Buku referensi

KAJIAN iMPLEMENTASI HASIL STUDI LAHAN KRITIS DAS ASAHAN HULU

RAHMAWATY , ABDUL RAUF

2021

Jurnal nasional terakreditasi

Kondisi dan Pengelolaan Kawasan Hulu DAS Belawan Hubungannya dengan Tingkat Bahaya Erosi pada Lahan Budidaya di Kabupaten Deli Serdang

MISWAR BUDI MULYA , ABDUL RAUF

2021

Prosiding seminar internasional

The application of Hydrogel (Super Absorbent Polymer) and chicken manure fertilizer to increase pH, N-total, C-organic and soil water content in Entisol

ABDUL RAUF , SARIFUDDIN

2021

Prosiding seminar internasional

Assessment of land cover change over a period of five years in Deli Serdang, North Sumatra

RAHMAWATY , MOEHAR MARAGHIY HARAHAP , ABDUL RAUF

2021

Prosiding seminar internasional

Land Suitability for kemenyan cultivation in Sari Laba Jahe Village, Sibiru-biru Sub-district, Deli Serdang District, North Sumatra Province

ABDUL RAUF , RAHMAWATY , RIDWANTI BATUBARA

2021

Jurnal nasional

Upaya Rehabilitasi Tanah Sawah melalui Program Komposisasi Massal di Desa Serdang Kecamatan Beringin Kabupaten Deli Serdang

ABDUL RAUF

2021

Jurnal internasional bereputasi

Comparison of land cover classification in Pakpak Bharat Regency using Landsat 8 OLI and Sentinel 1A satellite imagery

ABDUL RAUF , BEJO SLAMET , SAMSURI

2021

Jurnal internasional bereputasi

Growth and Production Response of MungBeans (Vigna radiataL) with Mycorrhizal and Penicillium sp Applications on Paddy Fields

ABDUL RAUF , T SABRINA

2021

Buku referensi

Budidaya Padi Di Tanah Salin

WAN ARFIANI BARUS , ABDUL RAUF

2020

Jurnal nasional terakreditasi

EVALUASI KESESUAIAN LAHAN UNTUK TANAMAN KARET PADA AREAL PENGGUNAAN LAIN

RAHMAWATY , ABDUL RAUF

2020

Jurnal nasional terakreditasi

KARAKTERISTIK SIFAT FISIKA TANAH ULTISOL AKIBATPEMBERIAN BIOCHAR BERBAHAN BAKU SISA TANAMANKELAPA SAWIT

SUPRIADI , ABDUL RAUF

2020
Jurnal nasional terakreditasi

Pengaruh Aplikasi Tandan Kosong Kelapa Sawit dan Arang Sekam Padi terhadap Beberapa Sifat Kimia Tanah pada Tomat

ABDUL RAUF

2019
Jurnal nasional terakreditasi

Development for Food and Energy Security

ABDUL RAUF

2017
Jurnal internasional bereputasi

Controls of water and energy fluxes in oil palm plantations: Environmental variables and oil palm age

ABDUL RAUF

2010
Jurnal internasional bereputasi

Pesticides and tropical biodiversity

ABDUL RAUF

Researches

2025
Ipteks

Penelitian

ABDUL RAUF

Community Services

2025
Ipteks Bagi Masyarakat

Ketua Dewan Pakar Masyarakat Agroforestri Inonesia (MAFI)

NURHENI WIJAYANTO , ABDUL RAUF , BUDIADI

2025
Ipteks Bagi Masyarakat

TIM PELAKSANA PENYUSUNAN DOKUMEN STUDI KELAYAKAN INVESTASI DI KAWASAN PERTANIAN TERPADU KABUPATEN SAMOSIR (KPT) DESA HARIARA PINTU KECAMATAN HARIAN TAHUN 2024

YUSAK MARYUNIANITA , ABDUL RAUF , HELENA TATCHER PAKPAHAN , ZULFENDRI , T IRMANSYAH

2024
Ipteks Bagi Masyarakat

MITIGASI DAN ADAPTASI BENCANA HIDROMETEOROLOGI (ASPEK LINGKUNGAN, SOSIAL DAN EKONOMI) DI DESA HABEAHAN KECAMATAN LINTONG NIHUTA KABUPATEN HUMBANG HASUNDUTAN SUMATERA UTARA

ABDUL RAUF , FIKARWIN , T IRMANSYAH

2024

Koordinasi Program Pengabdian kepada Masyarakat Tematik T.A.2024 dengan Tema “Mitigasi dan Adaptasi Bencana Hidrometeorologi di DTA Danau Toba (Percontohan Kabupaten Humbang Hasundutan)” di Kantor Dinas Lingkungan Hidup, Kabupaten Humbang Hasundutan, pada tanggal 16-17 Januari 2024.

ABDUL RAUF , ODING AFFANDI , MEUTIA NAULY , T IRMANSYAH

2024
KKN Pembelajaran Pemberdayaan Masyarakat

Mitigasi dan Adaptasi Bencana Hidrometereologi (Aspek Lingkungan, Sosial, dan Ekonomi) di Desa Habeahan Kecamatan Lintong Nihuta Kabupaten Humbang Hasundutan Sumatera Utara

NUR ULINA WARNISYAH SEBAYANG , ABDUL RAUF

2024

Ipteks Bagi Masyarakat

Carbon Trading And Climate-Conscious Villages (USU And UITM Collaboration)

MOHAMMAD EKAPUTRA , MAHMUL SIREGAR , VITA CITA EMIA TARIGAN , ABDUL RAUF

2024

Ipteks Bagi Masyarakat

Kegiatan Mitigasi Dan Adaptasi Bencana Hidrometeorologi (Aspek Lingkungan, Sosial Dan Ekonomi) di Desa Habeahan Kecamatan Lintong Nihuta Kabupaten Humbang Hasundutan Sumatera Utara, pada tanggal : 15 Mei sampai dengan 30 November 2024.

ABDUL RAUF , T IRMANSYAH

2024

Ipteks Bagi Masyarakat

MITIGASI DAN ADAPTASI BENCANA HIDROMETEOROLOGI (ASPEK LINGKUNGAN, SOSIAL DAN EKONOMI) DI DESA HABEAHAN KECAMATAN LINTONG NIHUTA KABUPATEN HUMBANG HASUNDUTAN SUMATERA UTARA

YUSAK MARYUNIANTA , ABDUL RAUF , FIKARWIN , T IRMANSYAH , ALYA PUTRI NATANDINI , DASSIO JONATHAN SINAGA , DESTI ASTRIA PUTRI , ALDIAN SAPUTRA NASUTION , NOVRINA ANGELITA PANJAITAN , NAOMI ITTEN AMBARITA , MUHAMMAD SYAHID ZIDAN , MUHAMMAD FURQAN ALFIANSYAH , RENALDI PRAWIRA SIBURIAN

2023

Ipteks Bagi Masyarakat

Gerakan Bersih Sungai dan Penanaman Pohon Produktif di Bantaran Sungai Deli Areal Istana Maimun Medan dalam Rangka Memperingati Hari Lingkungan Hidup Sedunia

KEMALA SARI LUBIS , ABDUL RAUF

2017

Ipteks Bagi Masyarakat

Temu Kinerja Implementasi Program Kelompok Swadaya Masyarakat (KSM) Mitra Kerja Forum DAS Lingkup Wilayah BPDAS-HL Wampu Sei Ular Prov Sumut

BENNY HIDAYAT , ABDUL RAUF

2017

Ipteks Bagi Masyarakat

BUDIDAYA TANAMAN GAHARU DI LAHAN PERKEBUNAN DENGAN APLIKASI TEKNIK SILVIKULTUR

BENNY HIDAYAT , ABDUL RAUF

2013

Penelitian Unggulan Perguruan Tinggi

Rekayasa Model Agroekosistem Perkebunan Melalui Pendekatan Keterpaduan Wilayah

2012

MP3EI

Model peningkatan produktivitas kelapa sawit berkelanjutan melalui sistem Agrosi

Intellectual Property Rights

2023

Hak cipta nasional

Musik Mars Sungai Deli

ABDUL RAUF

2023

Hak cipta nasional

Karya Rekaman Video Mars Sungai Deli

ABDUL RAUF

2022

Paten nasional

METODE BIOPORI DENGAN MULSA VERTIKAL UNTUK PENGELOLAAN AIR DAN HARA PADA PERKEBUNAN KELAPA SAWIT PRODUKTIF

CHAIRANI HANUM L , ABDUL RAUF

2022

Hak cipta nasional

Budidaya Kelapa Sawit Berkelanjutan

ABDUL RAUF

2021

Hak cipta nasional

Budidaya Padi di Tanah Salin

ABDUL RAUF

2020

Paten nasional

Proses Pembuatan Rorak dan Mulsa Vertikal pada Kebun Kelapa Sawit menghasilkan

ABDUL RAUF , CHAIRANI HANUM L

2020

Paten nasional

Komposisi Media Tanam untuk Pembibitan Kelapa Sawit Berbasis Limbah Industri Kelapa Sawit

JONATAN GINTING , CHAIRANI HANUM L , ABDUL RAUF
