

PROGRAM BOOK

The 1st International Seminar on Land Use
Transformation System (ISOTRANS)

2023

**PUI BLASTS
JAMBI UNIVERSITY**



*The 1st International Seminar on Land-Uses Transformation System (ISoTranS)
Integration of Production, Social and Ecological Functions
on the land uses sustainable management*

PROGRAM BOOK

**THE 1ST INTERNATIONAL SEMINAR ON LAND USE TRANSFORMATION
SYSTEM (ISOTRANS)**

**BLASTS CENTRE OF EXCELLENT
UNIVERSITY OF JAMBI**

*The 1st International Seminar on Land-Uses Transformation System (ISoTranS)
Integration of Production, Social and Ecological Functions
on the land uses sustainable management*

FOREWORD

We are grateful to Allah SWT that the 1st International Seminar on Land-Use Transformation System (ISoTranS) was successfully held by PUI-PT BLasTs University of Jambi on 15-16 November 20223. The purpose of this seminar was to provide a platform for discussion, exchange of information and experiences from research carried out, in order to enrich the knowledge repertoire and discover new findings in both theory and application.

Alhamdulillah, the seminar was attended by several universities and participants from both Indonesia and abroad. Keynote Speakers from Indonesia, Germany, Switzerland, and Malaysia were present to share their insights.

We would like to extend our gratitude to all parties that supported the implementation of this seminar. We apologize for any shortcomings that may have occurred during the event.

Jambi, 15 November 2023
Sincerely,
Head of Organizing Committee

Dr. Ir. Rahmi Dianita S.Pt., M.Sc. IPM

*The 1st International Seminar on Land-Uses Transformation System (ISoTranS)
Integration of Production, Social and Ecological Functions
on the land uses sustainable management*

TABLE OF CONTENT

	Page
FOREWORD	ii
TABLE OF CONTENT	iii
RUND DOWN INTERNATIONAL SEMINAR	1
VOLUNTARILY PAPERS SESSION 2	3
I SCHEDULE OF OFFLINE PRESENTATION	4
II SCHEDULE OF ONLINE PRESENTATION	4
PRODUCTION	5
SOCIAL AND ECONOMIC	6
ECOLOGY	7
III ABSTRACT OF OFFLINE PRESENTATION	8
Optimization of Input Management for Citrus Cultivation through SMART FARMING Technology Based on the Internet of Things (IoT) and Artificial Intelligence (AI) towards Sustainable Entrepreneurship in Jujun Village, Kerinci Regency	9
Analysis of Agroforestry Development Efforts in Community Forests (Hkm) through People's Business Credit Loans (Kur) in Air Terjun Village, Kerinci Regency, Jambi Province	10
Level of Implementation of Cattle Waste Management Techniques in Tanjung Jabung Barat District	11
Study of Subsistence Farming of Suku Anak Dalam (SAD) Isolated Communities in Sarolangun District Jambi Province	12
Level of Success of The Government Program in Increasing the Cattle Population in the Period of 2011 - 2022 in Jambi Province	13
The Competitiveness of ISPO-Certified Independent Oil Palm Smallholders in Bajubang District Batanghari Regency	14
Analysis of Consumer Behavior Base on Gender Differences at The Coffee Shop in Sungai Penuh City Jambi Province	15
Socio-Ecologinomic Challenges in Vegetable Production Narrow Lands Spread Across Urban Areas in Tropical Ecosystems	16
Growth of <i>Melaleuca cajuputi</i> , <i>Alstonia pneumatophora</i> , and <i>Dyera lowii</i> on Burnt Peatlands in Tahura Orang Kayo Hitam	17

*The 1st International Seminar on Land-Uses Transformation System (ISoTranS)
Integration of Production, Social and Ecological Functions
on the land uses sustainable management*

IV ABSTRACT OF ONLINE PRESENTATION	18
PRODUCTION	19
Implementation of A Double-spacing Planting Programme for Rubber Plantations in Musi Rawas District	20
Eco Enzyme Fertigation in Drip Irrigation System for Horticulture Crop Cultivation	21
Prevent Motile Aeromonas septicemia (Mas) Disease in Catfish with Utilization of Nipa (<i>Nypa fruticans</i> Wurmb) Leaves Meal on Feed	22
Ecological Farming Using Liquid Organic Fertilizer for Improving Rubber Productivity in South Sumatra	23
Growth Increase of Gelam (<i>Melaleuca leucadendron</i>) Burnt Peatland Through the Provision of Soil Conditioner (Study in Londerang Peat Protection Forest)	24
Analysis of Community Income in the Ecosystem Restoration with Agroforestry Pattern in Bram Hitam Peat Protected Forest Jambi Province	25
Kepok's Banana (<i>Musa acuminata balbusiana</i>) Farming Sustainability in The Outermost Island of Enggano North Bengkulu Regency	26
Performance of the shallot Supply Chain in Kerinci Regency Jambi Province	27
SOCIAL AND ECONOMIC	28
The Social, Economic, and Environmental Benefits of Initiatives for Enhancing Economic Resilience in Forest-Adjacent Communities: Lessons from Banyumas	29
Analysis of Policy Strategy to Control the Conversion of Rice Field Function to Non-Agriculture in Palembang City, South Sumatera	30
The Role of Cooperative Entrepreneurship as Supporting Food Independence of Wetland Farmers Households, South Sumatra Province	31
The Role of The KOSTRATANI Agricultural Extension Center (BPP) and Agricultural Extenders in Supporting the South Sumatera Independent Food Movement in Lahat District	32
The Relationship between The Effectiveness of Filed Agricultural Instructor Communication and the Application of Paddy Seed Breeding Techniques in Senaning Village, Pemayung District, Batanghari Regency	33
Farmers Affection for The Conversion of Rice Fields into Fish Ponds in Lubuk Ruso Village, Pemayung District, Batanghari Regency	34
Livelihood Strategy for Pineapple Farmers in Tangkit Baru Village, Sungai Gelam District, Muaro Jambi Regency	35

The 1st International Seminar on Land-Uses Transformation System (ISoTranS)
Integration of Production, Social and Ecological Functions
on the land uses sustainable management

Sesion 2: Online (11.15 – 13.00)		
Moderator: Dr. Mirawati Yanita., S.P., M.M Zakky Fathoni., S.P., M.Sc		
ONLINE		
PRODUCTION		
Time	Title	Authors
11.15-11.25	Implementation of A Double-spacing Planting Programme for Rubber Plantations in Musi Rawas District	Shobery Yulanda Putra, M. Mustopa Romdhon
11.25-11.35	Eco Enzyme Fertigation in Drip Irrigation System for Horticulture Crop Cultivation	Hilda Agustina, Edward Saleh, Herlin Noventa, Kartini Sulastri
11.35-11.45	Prevent Motile Aeromonas septicemia (Mas) Disease in Catfish with Utilization of Nipa (<i>Nypa fruticans</i> Wurmb) Leaves Meal on Feed	Retno Cahya Mukti, Tanbiyaskur, Aulia Marwah Paradhiba
11.45-11.55	Ecological Farming Using Liquid Organic Fertilizer for Improving Rubber Productivity in South Sumatra	D Setyawan, S J Priatna, H Hanum, Z S Marpaung, F Bashri
11.55-12-10	Growth Increase of Gelam (<i>Melaleuca leucadendron</i>) Burnt Peatland Through the Provision of Soil Conditioner (Study in Londerang Peat Protection Forest)	Rike Puspitasari Tamin, Jenny Rumondang, Richard R.P. Napitupulu, Rizky Ayu Hardiyanti
12.10-12.20	Analysis of Community Income in the Ecosystem Restoration with Agroforestry Pattern in Bram Hitam Peat Protected Forest Jambi Province	Maria Ulfa, Fazriyas, Ahyauddin, Rahmad Nurmansah
12.20-12.30	Kepok's Banana (<i>Musa acuminata balbusiana</i>) Farming Sustainability in The Outermost Island of Enggano North Bengkulu Regency	Muhamad Mustopa Romdhon, Andi Irawan, Putri Suci Asriani, Ellys Yuliarti
12.30-12.40	Performance of the shallot Supply Chain in Kerinci Regency Jambi Province	Ira Wahyuni, Suandi, Endy Efran, Arollita and Fendria Sativa

Ecological Farming Using Liquid Organic Fertilizer for Improving Rubber Productivity in South Sumatra

D Setyawan^{1,4}, S J Priatna¹, H Hanum², Z S Marpaung³ and F Bashri¹

¹Department of Soil Science, Faculty of Agriculture, Universitas Sriwijaya, Km 32 Indralaya, Ogan Ilir 30669, Indonesia

²Department of Mathematics, Faculty of Mathematics and Science, Universitas Sriwijaya, Km 32 Indralaya, Ogan Ilir 30669, Indonesia

³Department of Public Administration, Faculty of Social and Political Sciences, Universitas Sriwijaya, Km 32 Indralaya, Ogan Ilir 30669, Indonesia

email : dsetyawan@unsri.ac.id

ABSTRACT

Liquid organic fertilizer (LOF) gains great attention recently for its practical preparation, use and environmental value. Many agricultural waste may be used as raw material, thus in turn may contribute to cleaner and safer agriculture practice. This research aims to compare various sources of agricultural waste applied with two dosages for improving rubber latex production. A field experiment was conducted in Payaramen Timur of Ogan Ilir Regency in South Sumatra using a split design comprising five LOF as main plot (P1 pineapple and watermelon; P2 watermelon; P3 pineapple peel; P4 lemon fruit; P5 cabbage and brassica) and two dosages of application weekly (40 and 50 ml/L). Thirty trees were used as samples. Latex was collected weekly. Initial results before LOF application indicate a great variation in weekly latex production (12 to 260 gram per tree). After one week average latex production remains low or high being consistent with the initial values. Several trees indicate a sharp increase in latex production being the best by fruit waste compared with vegetable source. The final production may reach 100 to 200 gram per tree weekly. With this limited time of measurement, LOF demonstrates a potential use as provisional source of fertilizer for rubber plantation

Keywords: LOF, Fertilizer, Rubber