

**3rd INTERNATIONAL CONFERENCE ON SECURITY
IN FOOD, RENEWABLE RESOURCES, AND NATURAL
MEDICINES 2019 (SFRN 2019)**

September 25-26, 2019

**Convention Hall Politeknik Pertanian Negeri Payakumbuh
INDONESIA**

***"QUANTUM-LEAP OF AGRI-FOOD SYSTEM 4.0 AND
DELIVERY OF SUSTAINABLE DEVELOPMENTS GOALS
(SDGS)"***

Organizer by:

**Politeknik Pertanian Negeri
Payakumbuh**

Universitas And las



Welcome Message
Conference Chair
The 3rd International Conference on Security in Food, Renewable resources, and Natural Medicines (SFRN) 2019



Dear Honorable ladies and gentlemen,

Good Morning and Assalamu'alaikumwr.wb

On behalf of the SFRN 2019 organizing committee, I am really honoured and delighted to welcome all of you to the 3rd International Conference on Security in Food, Renewable resources, and Natural Medicines (SFRN) 2019 at the State Polytechnic of Agriculture Payakumbuh, West Sumatra Indonesia

Our technical program is rich and varied with 8 keynote speeches and 4 invited talks and more than 170 technical papers split between 8 parallel oral sessions and 1 poster sessions. The speakers and participants came from 8 different countries, consist of Academicians, Scientists, Researchers, Practitioners, Professionals, and Government Officials in multidiscipline branch of knowledge, who gathered here today to share and discuss new findings and applications of innovations for promoting Food Security, Renewable Energy, Sustainable Resources and HealthCare Free for All, in particular for those who in needs. As the chairman of conference 2019 SFRN, I know that the success of the conference depends ultimately on the how many people who have worked in planning and organizing both the technical program and supporting social arrangements. This year, the conference is jointly organized by the Payakumbuh State Agricultural Polytechnic and Andalas University. We also thank to the steering committee for their wise and brilliant advice on organizing the technical program; and also to the the Program Committee, both from the Payakumbuh State Agricultural Polytechnic and Andalas University, for their thorough and timely reviewing of the papers and to the Director of Payakumbuh State Agricultural Polytechnic and the rector of Andalas University, and the Head of the Institute for Research and Community Service of Andalas University, and Payakumbuh State Agricultural Polytechnic. Our recognition should go to the Organizing Committee members who have all worked really hard for the details of the important aspects of the conference programs and social activities, and then we extend our gratitude to our students who bore the arduous burden for preparing this event.

We hope this event is also a good step in gaining strength and cooperation between our universities as we know that the State Agricultural Polytechnic of Payakumbuh is part of the Andalas University previously, of course the psychological relationship between the State Agricultural Polytechnic and the Andalas University is really close.

Finally on behalf of the committee, we apologize profusely for all the shortcomings and everything that is not properly in organizing this event and hopefully AES-Network contributes significantly to the research and technology for the good of humanity.

Thank you

Fithra Herdian, S.TP, MP

Message from Afro-Eurasia Scientific (AES)Network

3rdInternational Conference on Security in Food, Renewable resources, and Natural Medicines (SFRN) 2019

Dear Honorable and Distinguished guests,
Ladies and gentlemen,

Assalamu'alaikum Warahmatullahi Wabarakatuh and Good Morning

On behalf of the AES Network, I am honored and delighted to welcome you to the 3rdInternational Conference on Security in Food, Renewable resources, and Natural Medicines (SFRN) 2019 at the Agricultural State Poly Technique of Payakumbuh, Indonesia. I believe we have chosen a venue that guarantees a successful technical conference amid the culture, delicacy and scenery of Payakumbuh, the city of "Rendang".



The AES-Network aims to Promote Livelihood Through Food Security, Promote Future Smart and Green Mobility by Using Renewable Energy, Promote Prosperity by Equally Managing and Distributing the Sustainable Resources and Promoting Enjoyable Long-Life by using Natural Medicines With Free Health Care For All. The AES-Network was established in 2018 and already have memberships from 12 countries. Our members consist of Academicians, Scientists, Researchers, practitioners, professionals, and government officials from multidiscipline branch of knowledge, who gathered and contributed their expertise to share and discuss new findings and applications of innovations for promoting Food Security, Renewable Energy, Sustainable Resources and Free Health Care for All. In particular, the network aims to alleviate the condition of those who in dire needs. In the future, we also expect to provide technical demonstrations, and numerous opportunities for informal networking for Promoting Food Security, Renewable Energy, Sustainable Resources and Free Health Care for All. In this opportunity, we invited you to become our members and join our efforts for a better life to all of mankind.

As a team, we acknowledge the existence of mutual interest among university and college educators, researchers, activists, business sector, entrepreneurs, policy makers, and all society members. We must promote the need to strengthen cooperation for establishing Security in Food, Renewable Resources, and Natural Medicines in Africa, Europe, and Asia.

The AES-Network believe, a firm foundation for mutual collaboration with the spirit of equality and partnership and thereby contribute towards sustainable development in these three regions.

Therefore, through networking, friendships, and joint efforts, the capacity of our network can be enhanced to address major challenges in securing the Food, Renewable Resources, and Natural Medicines in Africa, Europa, and Asia. Our Network goals are to increase the awareness of educators, researchers, scientific community, business sector, entrepreneurs, and policy makers in Africa, Europa, and Asia, that the future of a better world, lies within their responsibilities, and to improve the networking, mobility and mutual collaboration of scientific community, business sector, entrepreneurs, and policy makers in Africa, Europe, and Asia to energize the delivery of Sustainable Development Goals.

Finally, I hope that, by registering our network, you will be provided a common platform and support the exchange of knowledge, while at the same time, we offer constructive dialogue across and within the various interest and stakeholder groups, including the intended beneficiaries, and arrived at the best solutions to our terminal goal, Promoting Food Security, Renewable Energy, Sustainable Resources and Free Health Care based on scientific evidence in Africa, Europa, and Asian region.

Thank You for Joining us!

President

Assoc. Prof. Dr. Eng. Muhammad Makky



Welcome Message
Head of Institute for Research and Community Service
Universitas Andalas



Dear Honorable and Distinguished guests,
Ladies and gentlemen,

Assalamu'alaikum Warahmatullahi Wabarakatuh and Good Morning

It is with great pleasure that I welcome the participants of the SFRN 2019 in Payakumbuh, the city of "Rendang", the prime of Indonesian delicacy.

In this esteem event, we share the knowledges, and imparted it to the people. The quest for knowledge has been from the beginning of time but knowledge only becomes valuable when it is disseminated and applied to benefit humankind. It is hoped that this conference will become a platform to gather and disseminate the latest knowledge which can be adopted for securing the food, resources, and health for mankind, in Asian, European and African region.

Academicians, Scientist, Researchers and practitioners from multidiscipline branch of knowledge who gathered here today will be able to share and discuss new findings and applications of innovations for ensuring food security, in particular for those who reside in developing countries. It is envisaged that the intellectual discourse will result in future collaborations between universities, research institutions and industry both locally and internationally. In particular it is expected that focus will be given to issues on environmental and sustainability. Therefore, we urge to all participants, to establish a scientific network that will voice the needs

Researchers in the multi sectoral aspects related to the benefit of mankind have been progressing worldwide. Food is a basic right, while energy drive the world. Human need a lot of resources so the civilization can be flourished. But human is not immune, and thus, ones need to take care of their health regularly. Modern Agri-food systems is the foundations of a decent life, a sound education and the achievement of the Sustainable Development Goals. Over the past decade, we have witnessed a chain reaction that threatens the very foundations of life for millions of the world's people. Rising energy prices drove up the cost of food and ate away the savings that people otherwise would have spent on health care or education. Unsustainable plantation management induced forest fire and posed haze hazard to the whole Sumatra island and our neighboring countries.

The human cost of the food and energy crisis has been enormous. Millions of families have been pushed into poverty and hunger. Thousands more suffering from the collateral effects. Over the past year, food insecurity led to political unrest in some 30 countries. Yet because the underlying problems persist, we will continue to experience such crises, again and again -- unless we act now. That is why we are here today.

We must make significant changes to feed ourselves, and most especially, to safeguard the poorest and most vulnerable. We must ensure safety nets for those who cannot afford food, or energy, nor even a health service. We must transform agricultural development, markets and how resources is distributed. We must do so based on a thorough understanding of the issues. That is the only possible way we can meet the Goals of Sustainable Development.

Thank You,
Assoc. Prof. Dr.-Ing. Uyung Gatot S. Dinata,MT.

Opening Ceremony Rector of Andalas University



Dear Honorable and Distinguished guests,
Ladies and gentlemen,

Assalamu'alaikum Warahmatullahi Wabarakatuh and Good Morning

I welcome the opportunity to address you at this important event.

It gives me great pleasure in welcoming you to this 3rd Conference on "Security in Food, Renewable resources, and Natural Medicines (SFRN)" 2019. I am delighted that so many have accepted our invitation. I am particularly happy that we have in this room, dedicated individuals from so many stakeholder groups — including our most respected and distinguished guest "The ministry of Agriculture of the Republic of Indonesia". We also welcome the mayor of Payakumbuh and the Regent of Lima Puluh Kota. We extend our welcome to the civil society, the private sector, international organizations; the science community; and others dedicated to help create an environment in which people can escape food insecurity. Imagine what we can do together if we make the security for all as an our top priority, and pull in the same direction. We can make a difference in the lives of millions.

Food is a basic right. Food security are the foundations of a decent life, a sound education and the achievement of the Sustainable Development Goals Access to medicines - a fundamental element of the right to health. Health is a fundamental human right, indispensable for the exercise of many other rights in particular the right to development, and necessary for living a life in dignity. Moreover, human rights principles and language are being used to support resource access claims as rights-based approaches empower individuals and groups to gain or maintain access to natural resources

Much progress has been made during the last decades but much more needs to be done. Millions of people are Insecure worldwide, meaning that they either starve or they do not know from where their next meal, health care or resources will come. Much of the progress on security has occurred at the expense of our environment. With business as usual, we foresee that the production improvements during the next decade will be less than the last one, while the environmental degradation will continue, and health will deteriorate significantly. Without available resources to seek, mankind will become endanger species in a very short time.

Solutions to the security problems need to be designed and implemented within a new and rapidly changing environment. Globalization and sweeping technological changes offer new opportunities for solving these problems. A number driving forces or trends must be taken into account in developing appropriate action. Some of the action needed, such as appropriate technology for small farms, is not new but it must be cast in the new and changing global and national environment, taking into account new opportunities and risks. I hope that by providing a forum for knowledge exchange, this conference will help identify the action to be taken. Furthermore, this conference will help to provide constructive dialogue across and within the various interest and stakeholder groups, including the intended beneficiaries, and arrive at the best solutions.

In conclusion, even if those responsible give high priority to achieving sustainable security for all and back it up with action, the world may not achieve the goal by 2030. But we will be much closer than with business as usual. I urge all of us to provide the strongest support for this event, to enable securing the food for all in the closest time possible. It is my sincere optimism that through the accomplishment of the objectives of this event, we will come to an important step nearer to secure the food for all.

Finally, I would like to thank the organizing committee who have spent their utmost efforts to prepare and manage this event successfully. Let me conclude my remarks by wishing our guests happiness, good luck and great success in the conference.

May I announce now the opening of the “3rd International Conference on Security in Food, Renewable resources, and Natural Medicines (SFRN) 2019” in Payakumbuh.

Thank you.

Rector,
Prof. Tafdil Husni, SE, MBA, PhD



Welcome Message
Director of Politeknik pertanian negeri payakumbuh



Dear Honorable ladies and gentlemen,

Good Morning and Assalamu'alaikumwr.wb

I congratulate to all participants on the invitation and participate at our beloved campus Payakumbuh State Agricultural Polytechnic. I feel really honoured to welcome all of you at our event, the 3rd International Conference on Security in Food, Renewable Resources, and Natural Medicines (SFRN) 2019 at the Payakumbuh State Agricultural Polytechnic, Indonesia.

Food security is a very important aspect in a country's sovereignty. Food also determines the future direction of a nation. Many social and political fluctuation can also occur if food security is disrupted. Food availability that is smaller than its needs can create economic instability. This critical food condition can even endanger economic and national stability. In the current situation, there are many challenges in exteriorize food security, such as climate change, population, limited natural resources and other challenges both locally, regionally and globally.

Renewable resources are also our starting point to start sustainable development. Research on renewable resources is also very important as the solution in meeting the principles of sustainable development. As we know that Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainability is the foundation for today's leading global framework for international cooperation - the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs)

The discovery of treatment based on local culture also contributes greatly to the good of humanity. Unfortunately, there are still many treatments that have not been carried out by scientific research. So, through this conference we hope it can be a trigger to increase in traditional plant-based treatments that not go through complex chemical processes, so that the effectiveness of the pillars can be further suppressed and also contribute to the community's economy.

Finally, I would like to express my gratitude to all people who involved in organizing this event and to all of stakeholders who have helped to make this event go on successfully. Please accept my apologize for any shortage, Assalamu'alaikumwr.wb.

Thank you

Ir. Elvin Hasman, MP

SFRN2019 COMMITTEE

PATRON

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Assoc. Prof. Dr.-Ing. Uyung Gatot S. Dinata, MT
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SFRN2019 PROGRAM

DAY 0: Tuesday September 24, 2019

ARRIVAL OF PARTICIPANTS

DAY 1: Wednesday, September 25, 2019

VANUE : Gedung Serba Guna, Politeknik Pertanian Negeri Payakumbuh

No	Time	Activities
1	07.00 – 08.00	Registration
2	08.00 – 09.00	Opening Ceremony Venue: Gedung Serba Guna, Politeknik Pertanian Negeri Payakumbuh
		Recitation of the Holy Quran National Anthem (Indonesia Raya) Performance : Welcome Dance “Tari Pasambahan”
		Report from the Conference Chair
		Remarks from the Rector of Andalas University
		Welcome message from Director of Politeknik Pertanian Negeri Payakumbuh
3	09.00 – 09.45	Remarks and Opening Ceremony by the Ministry of Agriculture of the republic of Indonesia
4	09.45 – 12.15	Plenary Session 1 Venue: Gedung Serba Guna, Politeknik Pertanian Negeri Payakumbuh

5	12.15 – 13.00	Lunch Break
6	13.00 -13.30	Poster Session
7	13.30 –14.30	Plenary Session 2 Venue: Gedung Serba Guna, Politeknik Pertanian Negeri Payakumbuh
8	14.30 – 15.30	Parallel Sessions 1 Venue: Parallel Rooms Gedung Serba Guna, Politeknik Pertanian Negeri Payakumbuh
9	15.30 – 16.00	CoffeeBreak
10	16.00 – 18.00	Parallel Sessions 2 Venue: Parallel Rooms Gedung Serba Guna, Politeknik Pertanian Negeri Payakumbuh

DAY 2: Thursday, September 26, 2019

VANUE : Gedung Serba Guna, Politeknik Pertanian Negeri Payakumbuh

No	Time	Activities
1	08.00 – 11.00	Parallel Sessions 3 Venue: Parallel Room Gedung Serba Guna, Politeknik Pertanian Negeri Payakumbuh
2	11.00 – 12.00	Closing Ceremony Venue: Room Gedung Serba Guna, Politeknik Pertanian Negeri Payakumbuh
3	12.00 – Finish	Campus Visit and City Tour

Parallel Session

14.30-15.30 Breakout Session I

GSG 1 Session Chair: Syarmila devi Note Taker : Ulva mohtar	GSG 2 Session Chair: Hudia Note Taker : Latifa hanum	GSG 3 Session Chair: Resa yulita Note Taker : Iis ismawati	GSG 4 Session Chair: M. Riza N Note Taker : Yuni Ernita	KBN 1 Session Chair: Yuliandri Note Taker : Neni Trimedona	KBN 2 Session Chair: Hidayat raflis Note Taker : Eka Susila	KBN 3 Session Chair: Muflihayati Note Taker : Ramon S	KBN 4 Session Chair: Nahda Kanara Note Taker : Toni Malvin
FS-01	FS-19	FS-37	SR-01	SR-20	PCI-01	PCI-14	PCI-27
FS-02	FS-20	FS-38	SR-02	SR-21	PCI-02	PCI-15	PCI-28
FS-03	FS-21	FS-40	SR-03	SR-22	PCI-03	PCI-16	PCI-29
FS-04	FS-22	FS-41	SR-04	SR-23	PCI-04	PCI-17	PCI-30
FS-05	FS-23	FS-42	SR-05	SR-24	PCI-05	PCI-18	PCI-31
FS-06	FS-24	FS-43	SR-06	SR-25	PCI-06	PCI-19	PCI-32
FS-07	FS-25	FS-44	SR-07	SR-26	PCI-07	PCI-20	PCI-33
FS-08	FS-26	FS-45	SR-08	SR-27	PCI-08	PCI-21	PCI-34
FS-09	FS-27	FS-46	SR-09	SR-28	PCI-09	PCI-22	PCI-35

Parallel Session

16.00-18.00 Breakout Session 2

GSG 1 Session Chair: Syarmila devi Note Taker : Ulva mohtar	GSG 2 Session Chair: Hudia Note Taker : Latifa hanum	GSG 3 Session Chair: Resa yulita Note Taker : Iis ismawati	GSG 4 Session Chair: M. Riza N Note Taker : Yuni Ernita	KBN 1 Session Chair: Yuliandri Note Taker : Neni Trimedona	KBN 2 Session Chair: Hidayat raflis Note Taker : Eka Susila	KBN 3 Session Chair: Muflihayati Note Taker : Ramon S	KBN 4 Session Chair: Nahda Kanara Note Taker : Toni Malvin
FS-10	FS-28	FS-47	SR-10	SR-29	PCI-10	PCI-25	PCI-41
FS-11	FS-29	FS-48	SR-11	SR-30	PCI-11	PCI-26	PCI-42
FS-12	FS-30	FS-49	SR-12	SR-31	PCI-12	PCI-27	PCI-43
FS-13	FS-31	NM-01	SR-13	SR-32	PCI-13	PCI-28	PCI-44
FS-14	FS-32	NM-02	SR-14	SR-33	PCI-23	PCI-29	
FS-15	FS-33	NM-03	SR-15	SR-34	PCI-24	PCI-40	
FS-16	FS-34	NM-04	SR-16	SR-35			
FS-17	FS-35	NM-05	SR-17	SR-36			
FS-18	FS-36		SR-18	SR-37			
			SR-19				

[A] Keynote/Invited Speakers

SUB-THEME	AUTHOR (S)	TITLE
Page A1	Shinichiro Kuroki	Freshness evaluation of leafy vegetables with based on the cell membrane properties
Page A2	B. Yogesha	Composite materials - An insight to a new era
Page A3	Mohammad AnasAzmi, Darius El Pebrian	Precisions of Tractor Operations with Soil Sensor Implementusing Manual and Autopilot-automated Steering Systems on Oil Palm Replanting Area in Malaysia
Page A4	SamsuzanaAbd Aziz	Precision Agriculture: Digitization in Farming
Page A5	Muhammad Makky*, Konstantinous A. Paschalidis, Ji Hong Liu, Panagiotis F. Sarris	Sustainable-Resources-Based Smart-Mobility in ASEAN: a New Concept of the Next-Generation Green-Transportation
Page A6	Fri Maulina	Parasitoid as a Biological Control Agent of Rice Bug (<i>Leptocorisa oratorius</i> Fabricius): Effort Towards Food Security
Page A7	Vasu Udompetaikul	Intelligence Farming for Sustainability

[B] FOOD SECURITY (FS)

SUB-THEME	NO. REG	AUTHOR (S)	TITLE
FS-01	O-116/UA/PLT/IC-SFRN 2019	Safni, Syukri, Trisna Olinovela, Hazanita Jumiatty	Pesticides removal on tomato using variety of washing treatment
FS-02	O-252/UA/PLT/IC-SFRN 2019	Wellyalina, Fauzan Azima, Alfi Asben,	Determination of phytochemical compounds and antrimicrobial activities of rendang spices
FS-03	O-254/UA/PLT/IC-SFRN 2019	Kurnia Sari, Atha Raihan Rusdi	Some perspectives on food security for children: the case of rendang for kids in west sumatera

FS-04	O-243/UA/P LT/IC-SFRN 2019	Husmaini, Sabrina and Firda Arlina	Effect of sex ratio to fertility and hatchability of kamang ducks
FS-05	O-244/UA/P LT/IC-SFRN 2019	Sabrina, Husmaini and Firda Arlina	Effect of rearing male kamang ducks with and without pool using dietary energy levels on performance and growth rate
FS-06	O-210/UA/P LT/IC-SFRN 2019	Jaswandi, Masrizal, Mundana, and H. Suhada	Reproductive performan simental cows under tropical environment
FS-07	O-235/UA/P LT/IC-SFRN 2019	Juli Yusran, Yonariza, Elfindri, Mahdi, Rikardo Silaban	Revival of shifting cultivation pattern in subdistrict of mapattunggul selatan, pasaman regency, west sumatera province, indonesia
FS-08	O-073/UA/P LT/IC-SFRN 2019	Irwan Roza, Evawati, Rince Alfia Fadri dan Gusmalini	Aplication of mangosteen (<i>garcinia mangostana</i> l.) Powder in making mangostahurt instant.
FS-09	O-117/UA/P LT/IC-SFRN 2019	Salwati and Lutfi Izhar	Improved planting index for supporting location-specific agricultural policies and innovations
FS-10	O-078/UA/P LT/IC-SFRN 2019	Wiwik Hardaningsih, Ngakumalem Sembiring, Idris Sharif, and Bohari M Yamin	Morpholgy and elemental distribution of sweet potato (<i>ipomoea batatas</i> l.), and corn potato (<i>solanum tuberosum</i>)
FS-11	O-076/UA/P LT/IC-SFRN 2019	Shahrai, N.N., Babji, A.S., Maskat, M. Y. and Yusop, S. M	Effect of marbling and shear force on sensory acceptability

FS-12	O-075/UA/P LT/IC- SFRN 2019	Bohari M Yamin, Salma B Muhamad Yusof, Nurul Nuraliya B Shahrai, Nur Fatin Hananie B. Mohd Jamal, Idris Sharif and Wiwik Hardaningsih	Cilembu and other varieties of sweet potatoes.
FS-13	O-178/UA/P LT/IC- SFRN 2019	Yulianti Fitri Kurnia, Ade Sukma, Endang Purwati	The antioxidant activity and panelist preference for fermented milk (lactobacillus fermentum pe2) with addition of carrot juice (daucus carrota l)
FS-14	O-139/UA/P LT/IC- SFRN 2019	Yopa Dwi Mutia, Nalwida Rozen, Gustian	Hydration-dehydration to improve the physiological quality of sorghum (sorghum bicolor l.) Seeds.
FS-15	O-156/UA/P LT/IC- SFRN 2019	Trizelia, Reflinaldon, Martinius	Colonization of chilli by entomopathogenic fungi beauveria bassiana and its effect on seed germination and seedling growth
FS-16	O-148/UA/P LT/IC- SFRN 2019	Desi Hernita, Eva Salvia, and Jon Hendri	Characterization of morphology and potentials of curly chilli genetic resources in kerinci plateau of jambi province
FS-17	O-111/UA/P LT/IC- SFRN 2019	Zurai Resti, Yenny Liswarni, Martinius	Consortium of endophytic bacteria as biological control of bacterial leaf blight disease and plant growth promotion of rice (oryza sativa. L)
FS-18	O-150/UA/P LT/IC- SFRN 2019	Holidi, Sumini dan Samsul Bahri	The evaluation and mapping of brown planthopper on paddy of tugumulyo subdistrick
FS-19	O-069/UA/P LT/IC- SFRN 2019	Asmah Indrawaty, Suswati, Rizal Aziz, Eka Prasaditya Ramadhani	The growth of fhia-17 banana seedlings with application of paitan green fertilizer (titonia diversifolia) and cow manure

List of paper Based on Sub-Theme

FS-20	O-071/UA/P LT/IC-SFRN 2019	Suswati, Asmah Indrawaty	The effectiveness of endomycorrhiza species on the growth of barangan banana seedlings
FS-21	O-212/UA/P LT/IC-SFRN 2019	Yulia Yellita, Ferdinal Rahim	Study the red blood cell, leucocyte count, hemoglobine concentration, and hematocrite of the local female swamp buffaloes (<i>bubalus bubalus</i>) raised in different location in west sumatera
FS-22	O-161/UA/P LT/IC-SFRN 2019	Ratna Sani Tambunan, Nurdiatul Hasnah, P.K. Dewi Hayati	Evaluation of f2 and f3 of thress populations of padang cucumber crosses (<i>cucumis sativus</i> l.)
FS-23	O-202/UA/P LT/IC-SFRN 2019	Henny Herwina, Mairawita, Muhammad Nazri Janra, Siti Salmah, Buti Yohenda Christy, Jasmi, Yaherwandi	The variety of stingless bees (<i>hymenoptera: apidae: meliponini</i>) morphological characters in universitas andalas limau manis campus complex, west sumatra
FS-24	O-074/UA/P LT/IC-SFRN 2019	Salvia.S. Irzal Irda, Reni Novia	The influence of chlorella sp as supplements on efficiency of broiler feed
FS-25	O-227/UA/P LT/IC-SFRN 2019	Jon Hendri and Busyra Buyung Saidi	Effect of land amelioration on growth and rice production on new constructed rice field affected by sea water intrusion
FS-26	O-160/UA/P LT/IC-SFRN 2019	Trisna Olinovela, Hazanita Jumiaty, Syukri Darajat, Safni Safni	Study of washing treatment for pesticides removal from cabbage
FS-27	O-234/UA/P LT/IC-SFRN 2019	Riyandhi Praza, Nurasih Shamadiyah, Noni Novarista	Relation analysis of the proportion of food expenditures with food security of farmer households in north aceh regency

FS-28	O-118/UA/P LT/IC-SFRN 2019	Lutfi Izhar, Arni Diana and Salwati	Palm oil seed premeditated acclaim in jambi
FS-29	O-114/UA/P LT/IC-SFRN 2019	Risa Meutia Fiana, Netty Sri Indeswari, Windi Surya Ningsih	Variation cinnamon leaves (cinnamomum burmanni) drying temperatures of chemical component and organoleptic herbal tea
FS-30	O-199/UA/P LT/IC-SFRN 2019	Etti Swasti, Yusniwati, Ayu Kurnia Illahi	Interaction of genetic x environment for new superior red rice lines in west sumatera
FS-31	O-258/UA/P LT/IC-SFRN 2019	Ramaiyulis, Nilawati, Eva Yulia	Additional of feed supplement and concentrate to increase the rumen degradability of rice straw fermented on cattle ration
FS-32	O-058/UA/P LT/IC-SFRN 2019	Mirnawati, Gita Ciptaan and Ferawati	Broiler performance on utilization of fermented palm kernel cake with bacillus subtilis in ration
FS-33	O-064/UA/P LT/IC-SFRN 2019	Zulheri Noer, Ferius Larosa, Azuan	Respons of variety of north sumatra local rice to bacterial leaf blight disease (xanthomonas oryzae pv. Oryzae)
FS-34	O-059/UA/P LT/IC-SFRN 2019	Zaituni Udin; Masrizal, Hendri and Syafri Nanda	Evaluation of difference technique recovery oocyte and time storage of ovarium on quality and quantity of bovine in vitro maturation
FS-35	O-060/UA/P LT/IC-SFRN 2019	Arief, Rusdimansya hand SSowmen	Milk quality, ration consumption and digestibility ration of etawa crossbred dairy goat fed various palm kernel cake, tithonia (tithoniadifersifolia) and corn waste
FS-36	O-056/UA/P LT/IC-SFRN 2019	Hasnelly1), Syafrimen Yasin2), Agustian2), Darmawan2)	Application of poc from leachate landfill on growth and yield of maize (zea mays).
FS-37	O-063/UA/P LT/IC-SFRN 2019	Zulheri Noer, Siswadi, Retna Astuti, Maimunah	In vitro study of jengkol (dogfruit) pod extract effects on the development of colletotrichum capsici and fusarium oxysporum

List of paper Based on Sub-Theme

FS-38	O-055/UA/P LT/IC-SFRN 2019	Kesuma Sayuti, Rini dan Nurul Ayu Syafitri	The comparison of "kolang-kaling" and mulberry fruit on the characteristics of the slice jam
FS-40	O-053/UA/P LT/IC-SFRN 2019	Rahmi Awalina1, Eri Gas Ekaputra2, Isril Berd2	Paraku rationality in irrigation system management in jorong situgar nagari tanjung bonai kecamatan lintau buo utara
FS-41	O-261/UA/P LT/IC-SFRN 2019	My Syahrawati1), Ulfa Fitri2), Diego Mahestu Prada2), Martinius1)	Adaptability of brown planthopper from west sumatera to newly introduced host
FS-42	O-048/UA/P LT/IC-SFRN 2019	Yun Sondang*1, Khazy Anty2, Netti Yuliarti3, Ramond Siregar4	Potential of indole acetic acid producing bacteria as biofertilizer in increasing production of corn (zea mays l.)
FS-43	O-165/UA/P LT/IC-SFRN 2019	Indri Juliyarsi, Sri Melia, Deni Novia	The influence of solar tunnel dryer on the quality of karupuak jangek (case study : aulia msme in jorong aro kandikia, tilatang kamang, agam regency)
FS-44	O-196/UA/P LT/IC-SFRN 2019	Linda Suhartati, Isyana Khaerunnisa, Asep Gunawan, Rukmiasih, Sri Darwati and Cece Sumantri	Identification of the exon 1 myostatin gene polymorphism and its association with slaughtered weight in indonesian kampung and meat type chicken
FS-45	O-050/UA/P LT/IC-SFRN 2019	Hendri, Zairuni Udin, and Masrizal	Comparative reproductive performance of local cow by using arificial insemination (ai) in lengayang district of south pesisir region in west sumatera
FS-46	O-167/UA/P LT/IC-SFRN 2019	Fradilla Swandi, Eri Sulyanti, Darnetty, Reflin	Severity of sclerotium rolfsii cause of stem root disease on peanut in west sumatra

FS-47	O-168/UA/P LT/IC- SFRN 2019	Eri Sulyanti, Darnetty	Isolation and identification of arbuscular mycorrhizal fungi (amf) by microscopic (amf) in rhizosphere of banana plant (musasp.) In padang pariaman regency
FS-48	O-162/UA/P LT/IC- SFRN 2019	Desi Hernita, Roedhy Poerwanto, Anas D Susila dan Syaiful Anwar	Determination of nitrogen status on duku (lansium domesticum) seedling
FS-49	O-41/UA/P LT/IC- SFRN 2019	Muhammad Makky, Santosa Santosa, RennyEkaPut ri1, Kohei Nakano	Determination of Moisture Content for Rice Using Non-destructive UV/VIS/NIR Spectroscopy

[C] SUSTAINABLE RESOURCES (SR)

SUB-THEME	NO. REG	AUTHOR (S)	TITLE
SR-01	O-144/UA/P LT/IC- SFRN 2019	Indira Adnani, Fitrimawati	Sustainability and agrosilvopastoral development models: farmers perception in west sumatera
SR-02	O-146/UA/P LT/IC- SFRN 2019	Sakti Hutabarat	Palm oil renewable resource: its contribution to sustainable development goals
SR-03	O-149/UA/P LT/IC- SFRN 2019	Vivi Sisca, S Drajat , Zilfa and N Jamarun	Effect the catalytic activity of precipitated calcium carbonate for biodiesel production
SR-04	O-067/UA/P LT/IC- SFRN 2019	Renfiyeni1*,D jong Hon Tjong2, Bastian Nova3, Elmanita Gozalia4, Jamsari Jamsari5	Improvement of chili (capsicum annum l.) Resistance on yellow leaf curl diseaseby the application of jasmonic acid

List of paper Based on Sub-Theme

SR-05	O-128/UA/PL T/IC-SFRN 2019	Nilla Kristina, Mimien Harianti	Effect of za fertilizer as source of sulfur and organic fertilizer on growth and yield of shallot (<i>allium ascalonicum</i> l.) In lowland
SR-06	O-231/UA/PL T/IC-SFRN 2019	Yulnafatmawita, Syafrimen Yasina, and Zainal A. Haris	Stock and particulate organic matter of ultisols under selected land use in wet tropical area, west sumatra, indonesia
SR-07	O-066/UA/PL T/IC-SFRN 2019	Nelson Elita, Rita Erlinda, Agustamar	The effect of biofertilizer dosage containing azotobacter, pseudomonas fluorescents bacteria with the efficiency of fertilizer n, p on rice production sri method and quality of wetland soil
SR-08	O-065/UA/PL T/IC-SFRN 2019	Felga Zulfia Rasdiana, Erliza Hambali, Pudji Permadi	Formulation and performance test of asphaltene dissolver with the application of anionic surfactant from palm oil
SR-09	O-151/UA/PL T/IC-SFRN 2019	Nurbailis, Reflinaldon and Nori Rahayu	Composting of cow manure by using trichoderma viride as decomposer and its potential for controlling fusarium wilt disease (<i>fusarium oxysporum</i> f.sp cubense) and increase of banana seedling growth
SR-10	O-153/UA/PL T/IC-SFRN 2019	Muhammad Nazri Janra, Henny Herwina, Aadrean	Libellulidae (odonata: anisoptera) in four habitat types in jambi province, indonesia: potential predator for pest insects in oil-palm and rubber plantations.
SR-11	O-158/UA/PL T/IC-SFRN 2019	Wizna, Mirzah, and Zurmiati	Effect of fermentation chicken slaughter waste with waretha on dry matter, crude protein, and bacterial population
SR-12	O-198/UA/PL T/IC-SFRN 2019	Dendy Detafiano Prakasa Afner, SP	Soil aggregate stability index as indicators of 35 years old tea plantation in several slopes in gunung talang sub-district, solok district
SR-13	O-169/UA/PL T/IC-SFRN 2019	Fajar Restuhadi, Yelmira Zalfiatri*, Angelia	Utilization of microalgae (<i>chlorella</i> sp.) Symbiosis with variation of agrobost addition to decrease pollution level of palm oil mill effluent
SR-14	O-174/UA/PL T/IC-SFRN 2019	Gusmini, Giska Oktabriana, Adrinal	Improvement of former gold mine land by providing clay, biochar, rice husk and manure on growth and production of local rice plants
SR-15	O-177/UA/PL T/IC-SFRN 2019	Rina Alfina, Rasdanelwati, dan Auzia Asman	Soil soup test as liquid organic fertilizer for use (poc-tg) with several levels of dose to increase the availability of soil and plant nutrients.

List of paper Based on Sub-Theme

SR-16	O-182/UA/P LT/IC-SFRN 2019	Rusfidra	Variation of morphological and bioacoustics traits of kokok balenggek chicken; a poultry genetic resources in west sumatera province - indonesia
SR-17	O-176/UA/P LT/IC-SFRN 2019	Nika Rahma Yanti, Feri Arius, Rusnam	Geoelectrical investigation depth of groundwater table potential in west bungus padang city
SR-18	O-184/UA/P LT/IC-SFRN 2019	Linda Hevira, Rahmiana Zein, Zilfa, Rahmayeni	Utilization of terminalia catappa l. Shells as sustainable resources to adsorpt methylene blue dyes in aqueous solution
SR-19	O-190/UA/P LT/IC-SFRN 2019	Yurma metri, Evitayani, Suyitman, Lili Warly	Biodegradation of lignin with pleurotus ostreatus to palm midrib nutrition content
SR-20	O-191/UA/P LT/IC-SFRN 2019	Elly Roza, Salam N. Aritonang, Winda Habsani and Rizqan	The estimating of weight and linear measurements of buffalo body from swamp and river buffalo crossing in humbang hasundutan district north sumatera
SR-21	O-193/UA/P LT/IC-SFRN 2019	Irriwad putri, Putri wulandari zainal	Physcal and mechanical charakteristics of pinang (areca catechu l.)
SR-22	O-194/UA/P LT/IC-SFRN 2019	Putri Ramadhani, Zulkarnain Chaidir, Zilfa, Rahmiana Zein	Shrimp shell (metapenaeus monoceros) waste as a low-cost adsorbent for metanil yellow dye removal in aqueous solution
SR-23	O-255/UA/P LT/IC-SFRN 2019	Fauzan Azima, Diana Sylvi, and Adegesia	Effect of carrageenan addition to yam bean starch on characteristic of yang bean paper
SR-24	O-226/UA/P LT/IC-SFRN 2019	Y. Yetmaneli, B. P. Purwanto, R. Priyanto, W. Manalu	Effect of temperature humidity index on thermoregulation responses of pesisir cattle raised in lowland and highland areas in west sumatera

SR-25	O-204/UA/P LT/IC-SFRN 2019	Elara Resigia, Aswaldi Anwar, Yusniwat	Efforts to callus induction from anther gambir (uncaria gambier hunter (roxb.))
SR-26	O-207/UA/P LT/IC-SFRN 2019	M. Ikhsan Rias, Ismet Iskandar, Riza Andesca Putra, Fuad Madarisa	Base analysis and land carrying capacity of buffalo developing in sijnjung regency
SR-27	O-080/UA/P LT/IC-SFRN 2019	Yulensri, Darneti, Noveri	Compatibility of some bacteria as pesticides and biological fertilizers and the formulations on various organic materials
SR-28	O-208/UA/P LT/IC-SFRN 2019	Bori Heria Fadli	Soil aggregates capability in exchanging cations in 35 years old tea plantations on > 45% slope, in gunung talang sub- district, solok regency
SR-29	O-209/UA/P LT/IC-SFRN 2019	Riza Syofiani	Amelioration of the land of former gold mine by providing kirinyuh weeds and agricultural waste to increase paddy production in sijnjung regency
SR-30	O-213/UA/P LT/IC-SFRN 2019	Imam Rifai, Yulmira Yanti, Nurbailis	Mechanism of indigenous rizobacteria isolate growth inhibition of ganoderma boninense
SR-31	O-221/UA/P LT/IC-SFRN 2019	Tertia Delia Nova, Yulia Yelita, Eka Suryadi	The effect of plant utilization salvinia molesta (kiambang) as an environmentally friendly duck feed
SR-32	O-223/UA/P LT/IC-SFRN 2019	Mairawita, Henny Herwina, Halimah Tus Sakdiah, Fithria Diniyati	Paratrechina sp. (hymenoptera: formicidae) as invasif ant along high elevation on marapi mountain, west sumatera
SR-33	O-224/UA/P LT/IC-SFRN 2019	Mairawita, Henny Herwina, Fithria Diniyati, Halimah Tus Sakdiah	Spiders as potential bioindicator in agricultural area of marapi mountain : the argiope sp. (araneae, araneidae)

SR-34	O-100/UA/P LT/IC-SFRN 2019	Rince Alfia Fadri, Kesuma Sayuti, Novizar Nazir, Irfan Suliansyah	Wet method production process and quality testing of arabica coffee powder (coffea arabica l) solok regency, west sumatera
SR-35	O-113/UA/P LT/IC-SFRN 2019	Hasan Ibrahim, Rinda Yanti, Elsa Nandes Putri	Empowerment of farmer women in managing sustainable food mandiri village based on local wisdom (in nagari koto tuo, harau district, limapuluh kota district).
SR-36	O-044/UA/P LT/IC-SFRN 2019	Fithra herdian1, Irwan A2	Modification and technical evaluation of tub-type grain dryer for coffee drying
SR-37	O-045/UA/P LT/IC-SFRN 2019	Giska Oktabriana. S, SP, MP1, Riza Syofiani, SP, MP2	Utilization of organic material insitu to increase the absorption n, p, k and soybean results on gold mining fields in sijunjung districts

[D] NATURAL MEDICINES (NM)

SUB-THEME	NO. REG	AUTHOR (S)	TITLE
NM-01	O-105/UA/P LT/IC-SFRN 2019	Faizah Hamzah	The fraction of industrial rubber plant leaf bioaktif and antimicroorganism (study on bioactive fraction havea brasiliensis. Mill., leaves and in some pathogenic bacteria and fungi)
NM-02	O-125/UA/P LT/IC-SFRN 2019	Sumaryati Syukur, Syafrizayanti, Mutiarra Ismet and Zulkifli	Isolation and molecular characterization of probiotic as antimicrobial in several products of virgin coconut oil from padang west sumatra.
NM-03	O-206/UA/P LT/IC-SFRN 2019	Sujatmiko, Jansen Silalahi, Urip Harahap, Masfria	Effect of ethanolic extract of elephantopus scaber l. Leaf on blood biochemicals, meat nutrients composition and histology changes in the liver of broiler.
NM-04	O-057/UA/P LT/IC-SFRN 2019	Mutia Elida, Gusmalini 1, and Iza Ayu Saufani	Efficiencies of carrageenan extrusion-skim and bio-capsule antimicrobial activity probiotic lb. Paracasei ssp paracasei ml3

NM-05	O-049/UA/P LT/IC-SFRN 2019	Neni Trimedona1*, Rahzarni1, Syuryani Syahrul1, Yenni M1, Irwan Roza1	Antioxidant properties of red dragon fruit peel herbal drink with the addition of ginger
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[E] POLICY, COMMERCIALIZATION AND INNOVATION (PCI)

SUB-THEME	NO. REG	AUTHOR (S)	TITLE
PCI-01	O-046/UA/P LT/IC-SFRN 2019	AMELIA R. NICOLAS	Indigenous knowledge on hunting feral colonies of honeybees (apis sp.) And stingless bees (tetragonulabiroi friese) for economic purposes in bicol, philippines
PCI-02	O-259/UA/P LT/IC-SFRN 2019	Donard Games, Hanalde Andre, Amri Syahardi	Enhancing innovation performance and commercialization in an emerging market economy: the case of universitas andalas
PCI-03	O-236/UA/P LT/IC-SFRN 2019	Wahyu Kamilatul Fauziah, Muhammad Makky, Santosa	Non destructive evaluation of ffb based on thermal properties (literature review)
PCI-04	O-250/UA/P LT/IC-SFRN 2019	Ismed, Rina Yenrina, Risa Meutia Fiana	Comparison of drying methods on physico-chemical properties of crude ficin enzyme prepared from ficus racemosa stem latex
PCI-05	O-188/UA/P LT/IC-SFRN 2019	Firda Arlina, Rusfidra, Dicky Andriano and Cece Sumantri	The variety of kukuak balenggek chicken song reared by association of kukuak balenggek chicken lovers in west sumatra
PCI-06	O-240/UA/PL T/IC-SFRN 2019	Melidawati, Dinah Cherie, Khandra Fahmy	Best method for optical- based nondestructive evaluation of ffb: literature review
PCI-07	O-237/UA/P LT/IC-SFRN 2019	Melidawati, Dinah Cherie, Khandra Fahmy	Non destructive evaluation of cpo based on optical properties (literature review)

PCI-08	O-242/UA/P LT/IC-SFRN 2019	Fauzan Azima Neswati, Ismed, Rini, Sri Utami*)	Shelf life of rendang
PCI-09	O-072/UA/P LT/IC-SFRN 2019	Gunarif Taib	Analysis of industrial components in small scale food industry clusters in west sumatra.
PCI-10	O-126/UA/P LT/IC-SFRN 2019	Alliyya Rizqi Putri, Kurnia Herlina Dewi and Marniza	The study on the influence of filler material to the spiciness level of chili block
PCI-11	O-127/UA/P LT/IC-SFRN 2019	RennyEkaPutri, Rizka Fadhilah, Dinah Cherie, AzkiyaWahyu Novianda	Analysis Of Energy Consumption And Performance Test On Rice Planting Using Rice Transplanter : A Case Study In West Sumatera Province, Indonesia
PCI-12	O-134/UA/P LT/IC-SFRN 2019	Salam N. Aritonang, Elly Roza, Afriani Sandra	Application of bacteriosin from lactic acid bacteria isolated from okara as a natural preservatives
PCI-13	O-067/UA/P LT/IC-SFRN 2019	Amelira Haris Nasution, Nirmala, Salvia	Community partnership program processing cassava into mocaf in a group of female farmers in petapahan district
PCI-14	O-077/UA/P LT/IC-SFRN 2019	Zulqarnain, Norsida Man, Juwaidah Sharifuddin, Salim Hassan	Attitude towards technology transfer and adoption among permanent food production park (pfpp) program participantation in peninsular malaysia.
PCI-15	O-239/UA/P LT/IC-SFRN 2019	Aflizar, Jamaluudin, Amrizal, Roni Afrizal, Edi Syafri	3d evaluation of land capability for gambir (uncaria gambir robx) gardens in mahat watershed using surfer tool
PCI-16	O-251/UA/PL T/IC-SFRN 2019	Rina Yenrina, Ismed, Daimon Syukri	Characteristics of crude ficin enzyme prepared from ficus padana burm.f. Stem latex with different of drying methods

PCI-17	O-104/UA/P LT/IC-SFRN 2019	Mohammad Riza Nurtam, Edi Joniarta, Trinovita Zuhara Jingga, M. Ilhamdi Rusydi, Khandra Fahmy	Automated ph and ec control system for indoor hydroponics cultivation.
PCI-18	O-047/UA/P LT/IC-SFRN 2019	Dinah Cherie1,*, Muhammad Makky 1 and Rini Rini	Nondestructive evaluation of oil palm fresh fruits bunch (ffb) ripeness using nir spectrometer
PCI-19	O-062/UA/P LT/IC-SFRN 2019	Gusriati, Riska, Herda Gusvita, and I Ketut Budaraga	Model for development of rice demand and factors affecting rice demand in mentawai island district
PCI-20	O-219/UA/P LT/IC-SFRN 2019	Dang Sri Chaerani, Asdi Agustar	Marketing margin onion bima brebes in kayu aro kerinci
PCI-21	O-215/UA/P LT/IC-SFRN 2019	Helmi Ali, Syafuruddin Karimi, Rudi Febriamansyah	Analysis of export performance and export competitiveness of the indonesian palm oil industry with rspo (roundtable sustainable palm oil) in india and eu markets
PCI-22	O-195/UA/P LT/IC-SFRN 2019	Cesar Welya Refdi, Gita Addelia Nevara	Nutrient contents of parboiled rice as affected by palm oil addition
PCI-23	O-203/UA/P LT/IC-SFRN 2019	Noni Novarista,	Determining factors and the elasticity of demand chicken eggs household consument in sijnjung district
PCI-24	O-192/UA/P LT/IC-SFRN 2019	Rafnel Azhari, Yulianti Fitri Kurnia	Innovation strategy of increasing the competitiveness of micro, small and medium enterprises rendang of 50 kota district west sumatera
PCI-25	O-201/UA/P LT/IC-SFRN 2019	Efrina, Anwar Kasim, Tuty Anggraini	Characterization of rigid foam from gambir extract (uncaria gambir roxb.) With the mixing of albumin powder

PCI-26	O-200/UA/P LT/IC- SFRN 2019	Suryani Suryani, Sariani Sariani, Tuty Taslim, Yustitia Akbar, Yunita Sabri, Yusnawety	The optimalization of making virgin coconut oil (vco) through varied coconut milk extraction which traditionally fermented.
PCI-27	O-185/UA/P LT/IC- SFRN 2019	Fery Andrianus, Utri Safri Yetmi	How is the welfare of second generation resettlement households in west sumatra (case of koto panjang and sitiung).
PCI-28	O-140/UA/P LT/IC- SFRN 2019	Eliza, Shorea Khaswarina, Ermi Tety	Production factors affecting taro production in sinaboi sub-district rokan hilir regency
PCI-29	O-187/UA/P LT/IC- SFRN 2019	Verry Yarda Ningsih, Noviyanto, Nenny Wahyuni, Nila Suryati, Heriyanto	Comvetitiveness sensitivity of palm oil farming on suboptimal land at musirawas residence
PCI-30	O-163/UA/P LT/IC- SFRN 2019	Amna Suresti, Uyung Gatot S. Dinata, Alizar Hasan, James Hellyward, Rahmi Wati	Strategies for developing smes (small and medium industries) of rendang with strengthening regional innovation systems in payakumbuh city
PCI-31	O-051/UA/P LT/IC- SFRN 2019	Andi Eviza#, I r z a l*, Musdar Effy Djinis*Rilma Novita	Engineering economic analysis of west sumatra kahwa daun's roaster
PCI-32	O-189/UA/P LT/IC- SFRN 2019	Rian Hidayat, Lora Triana	Study of application internet marketing, product standardization and packing design in small and medium industries (industri kecil dan menengah) coffee powder in tanah datar district
PCI-33	O-147/UA/P LT/IC- SFRN 2019	Fitrimawati, James Hellyward, Ratna Aisuwarya	Mobile commerce development for livestock market in west sumatera: an approach to analysis of system needs

PCI-34	O-186/UA/P LT/IC-SFRN 2019	Hanalde Andre Donard Games Amri Syahardi	Andalas university product innovation readiness: challenge to industry
PCI-35	O-230/UA/P LT/IC-SFRN 2019	Reni Mayerni, Benni Satria, Dwika Karima Wardhani, Sari Rukmana Okta Sagita Chan	Effect of auxin (2,4-d) and cytokinin (bap) in callus induction of local patchouli plants (pogostemon cablin benth.)
PCI-36	O-52/UA/P LT/IC-SFRN 2019	Veronicea*, Fajrib, Darnettic	Study the role of stakeholders in the development of agricultural technology parks (agrotechnopark) limapuluh kota regency west sumatra province
PCI-37	O-061/UA/P LT/IC-SFRN 2019	I Ketut Budaraga	Test liquid smoke toxicity for cocoa skin (theobroma cacao, l) with the blst (brine shrimp lethality test) method at different pyrolysis temperatures
PCI-38	O-043/UA/P LT/IC-SFRN 2019	Irfan Suliansyah1, Yusniwati1, Elara Resigia1, Shalati Febjislami1	Multiplication of west sumatera coffee (rajo coffee) through biocellular technology
PCI-39	O-232/UA/P LT/IC-SFRN 2019	Dodi Devianto, Putri Permathasari, M. Fajri Nazar, Maiyastri	The human resources mapping based on indonesian youth development index
PCI-40	O-42/UA/P LT/IC-SFRN 2019	Uyung Gatot S. Dinata	Performance Test of Blower as Turbine with Variation of Runner Diameters for a Low-Cost Picohydro Power Plant
PCI-41	O-107/UA/P LT/IC-SFRN 2019	Rince Alfia Fadri, Sri Kembaryanti Putri, Salvia, Yulismawati, Zulkifli	Stunting Occurrence Determinant to Elementary School Students In Kapur Ix Subdistrict Lima Puluh Kota Regency

Policy, Commercialization and Innovation

PCI-26

THE OPTIMALIZATION OF MAKING VIRGIN COCONUT OIL (VCO) THROUGH VARIED COCONUT MILK EXTRATION WHICH TRADITIONALLY FERMENTED

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Abstract—This study aim was to determine the optimal yield of Virgin Coconut Oil (VCO) by varying the extraction of traditionally fermented coconut milk. The extraction used were 1). Tap water, 2) The mixture of tap and coconut water, 3) Coconut water. There were several ways of making VCO, namely by means of inducement, centrifugation, and tradition or fermentation. Making VCO through coconut milk fermentation has new information features. So far, the cause of VCO becoming more beneficial was its lauric acid content. However, it was revealed in this study that besides having lauric acid content, the fermented VCO also consisted of lactic acid bacteria containing bacteriocin in it. Bacteriocin is generally defined as a peptide produced by bacteria which can kill pathogenic bacteria, and is harmless to good bacteria. This study was performed into three stages, namely 1) The 1st stage was making VCO by varying the extractor, 2) The 2nd stage was by conducting the analysis of BJ, viscosity, pH, lauric acid content using GC-MS chromatography, moisture content of the VCO produced, and 3) The 3rd stage was carrying out the isolation of lactic acid bacteria using dilution method. VCO where coconut milk was extracted with coconut water alone contained 54.5% lauric acid, pH = 6.5, acid number 1,0165 its saponification 317,8 its lactic acid bacteria 97 isolates, and apparently contained bacteriocin which was capable to kill the pathogenic bacteria E. Coli, Listeria Monocytogenes, Pseudomonas aureginosa, Klebsiella and Salmonella typosa.

Keywords— Lauric Acid; Lactic Acid Bacteria; Virgin Coconut Oil; Bacteriocin; Antimicrobial

PCI-27

How is the welfare of second generation resettlement households in West Sumatra (Case of Koto Panjang and Sitiung)

Fery Andrianus, Utri Safri Yetmi

Abstract—The construction of dams to produce electricity has an impact on the removal of households, mostly farmers. In West Sumatra there are two locations which are displaced areas due to dam construction, namely the Koto Panjang area in Lima Puluh Kota and the Sitiung area in Dharmasraya. Resettlement of households impacts welfare. Several studies have concluded that in general households that move away feel better welfare than in their original location. New problems arise when there are households that have children (second generation) going to get married or build a new family, known as a family fraction. The family faction did not get land and building rations from the government, so they began to feel difficulties in their new lives. This study examines how the welfare conditions of the second generation use an objective and subjective indicator approach. The results of this analysis are displayed in the form of spider web (SWA) analysis, and examine the

factors that influence the welfare conditions of involuntary resettlement households using Logistic Regression and how the level of household inequality uses the Gini index. The results found that second generation households experienced low welfare levels and were below the provincial minimum wage. While household characteristics such as gender, education, and age affect household welfare and household income inequality is at moderate inequality.

Keywords— family fraction income, second generation welfare, inequality

