

ISSN: 2089-1202



Bogor Agricultural University The Indonesian Sago Palm Society

Proceedings of The 10th International Sago Symposium Sago for Food Security, Bio-energy, and Industry

from Research to Market

Bogor, Indonesia October 29-30, 2011

Supported by :













Proceeding of The 10th International Sago Symposium

"Sago for Food Security, Bio-energy, and Industry, from Research to Market"

October 29-31, 2011

IPB International Convention Center, Bogor

Editors:

Iskandar Z Siregar
Tahlim Sudaryanto
Hiroshi Ehara
Suwardi
Iskandar Lubis
Sintho Wahyuning Ardie

Supported by:

Bogor Agricultural University
The Indonesia Sago Palm Society

IPB International Convention Center
Bogor, Indonesia

Foreword from the Chairman of Organizing Committee

His Majesty Ministry of Agriculture, Republic of Indonesia Rector of Bogor Agricultural University Regional Reffresentative or DPD Head of Meranti, Jayapura, and West Halmahera districts (Bupati) Invited Person, Presenters and All of Attendants

Good Morning and Assalammu'alaikum warokhmatullahhi wabarakatuh

This Symposium is the 10th of Asean Sago Association symposium. With the topic "Sago for Food Security, Bio Energy and Industry, from Research to the Market".

In two days symposium, It will be presented 5 invited papers, 30 oral presentasion and 27 posters, and attended by 141 participants. In the third day, it will be held excursion for limited participants. Participants came from several asean countries namely: Japan, Malaysia, South Korea and Philippinnes and participants from Indonesia came from several sago producer regions such as: Moluccas, Papua, West Kalaimantan, Center of Sulawesi, Meranti District and other regions.

Thank you very much to Indonesian Companies: *National Sago Prima*, *Antam*, *Nusa Ina*, *Meranti District Goverment*, and Directorate and Programs in Bogor Agricultural University that have supported this symposium.

For all participants please enjoy the program, and we ask your apologize if our preparation has not perfect.

Thank you and Wa'alaikumsalam Warokhmatullahi Wabarakatuh.

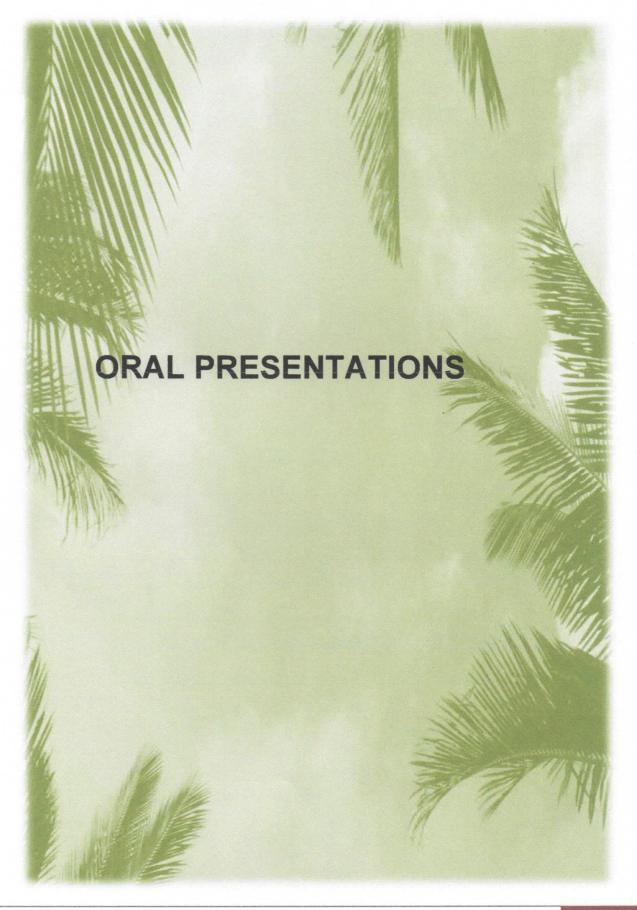
Chairman of Organizing Committe

Dr. Ir. Iskandar Lubis, MS.

LIST OF ORAL PRESENTATION

Author	Title	Page no.
Sayed Azam Ali	Prospect of Sago as Food for the Future	9
Yoshinori Yamamoto	State of the Art Sago Research in Asia Pacific	10-15
M. H. Bintoro	Progress of Sago Research in Indonesia	16-34
Dwi Asmono	Sago Plantation Experience and Business Prospect	35-41
Kopli Bujang	Sago Post-Harvest Handling and Processing	36-41
N. Haska	Ex-vitro Propagation for Large-Scale Production of Sago (Metroxylon sagu Rottb.) Seedling.	42
F.S. Jong	Growth and Yield Parameters of Natural Sago Forests for Commercial Operations	43-45
Margaret Chan Kit Yok	Mycorrhizal Colonization of Sago Palm (Metroxylon sagu Rottball). Plantlets	46-47
Evi Gusmayanti	Sago Palm Cultivation Practices in Flour Sago Producing Villages in West Kalimantan	48-49
I.B. Ipor	Diversity and Carbon Stock of Weed Flora in Sago	50
Albertus Fajar Irawan	How far the size of sago palm (<i>Metroxylon sagu</i> Rottbl.) suckers influenced their early growth during nursery period?	51-53
Masatoshi Sasaoka	The Influence of 'Sago-Based Vegiculture' on Forest Landscapes in Central Seram, Eastern Indonesia	54-56
Ornprapa Anugoolprasert	Nutrient Accumulation in Plant Tissues of Sago Palm in the Rosette Stage at Different Levels of Soil pH in South Thailand	57-58
Quevedo, M. A.	Comparative Study on Breaking Resistance of Palm Leaflets	59-60
Hasnain Hussain	Omics Approach for Determination of Contributory Factors in Trunking and non-Trunking Sago Palm	61-63
Natelda R. Timisela	Characteristic of Sago Food Home-Industry in Mamala Village, Leihutu Subdistrict, Central Maluku Regency	64-65
Inta PN Damanik	Contribution of Sago to Fulfill the Household Food Need in Latuhalat Village Sub-district of Nusaniwe Ambon City	66-68
Wardis Girsang	Sago Revitalization for Food Security in Small Islands: Socio-Economic Factors to Influence the Declining of Sago Consumption in Small Islands Maluku	68-69
Diyah Yumeina R. Datu	The Possibility of Sago Starch Marketing in Japan from Sago Producing Areas in The Eastern Part of Indonesia	70-71
Takashi Mishima	Glucosemade from Sago Residue	72-74
Suraini Abd	Production of Bio-Butanol from Sago Pith Residues	75-77

Author	Title	Page no.
Awg-Adeni	Ethanol Fermentation from Waste Starch of Sago	78-81
	Processing Industry by Commercial Baker's Yeast	
P. Peristiwati	Bio-ethanol Production from Sago Pith Flour Hydrolyte	82
	by Yeasts and Zymomonas Mobilis	
Alfi Asben	Study of Sago Hampas' Cellulose Conversion to	83-84
	Glucose In Batch Fermentation	
L. Suroso	Lactic Acid Production from Sago Pith by Bath Fermentation	85
Abdul Rahim	Characteristics of Butyrylated Arenga Sago Starch	86-87
D. M. A. Manan	Wet Sago Starch Preservation Alternatives for Home Industry	88-90
Abadi Jading	Design of Fluidized Bed Dryer for Small Scale Sago Starch Processing	91-92
D. M. A. Manan	Optimization of Sago Starch Extraction using Drum Raspier	93-95
Masanori OKAZAKI	Behavior of Water Molecules in the Structure of Sago Starch	96-97
Darma	Prototype - 2 of Mixer Rotary Blade of Sago Starch	98
	Extractor Powered by Internal Combustion Engine	
Erna Retnawati	Consumer Preference of Sago Wet Noodle with Soybean Flour Fortifications	99
Febby J. Polnaya	Properties of Biodegradable Films from Hydroxypropyl Sago Starch	100-101
Shanti Fitriani	Physical Properties and Sensory Evaluation of Dry Sago Noodle from Riau Province with Heat Moisture Treatment (HMT) of Sago Starch	102-104
N. Haska	Study Effect of Storage of the Pilled Sago Log, Grating and Slice of Sago Pith, on the Yield and Characteristics of Sago Starch.	105



Contribution Of Sago To Fulfill The Household Food Need in Latuhalat Village Subdistrict Of Nusaniwe Ambon City

Inta P. N. Damanik and Meilvis E. Tahitu

Faculty of Agriculture, Pattimura University intadamanik@ymail.com (081343050306); tahituelvis@ymail.com (081343008362)

Abstract

Sago is one of the Moluccan local food that can be used to support food security, but now, it's contribution to fulfill the food need is declining. This study aims to analyze the contribution of sago in fulfilling the household food of Moluccas indigenous by taking Latuhalat Village as the location of the study. Latuhalat was choosed based on the consideration that it is one of the villages in Ambon city with a majority of the population are indigenous people of Mollucas and the village has good accessibility to the City Ambon as a growth center. The results showed that the sago was no longer as a main food in Latuhalat village community. Currently, sago has been the third choice as a food beside rice and wheat. It means that the contribution of sago began to decline. The decreased contribution of sago in Latuhalat and villages in Mollucas generally need attention because it will make the permanent dependence of rice is getting higher and become one of the challenges in creating local food security if we let it unchecked. It needs some necessary efforts to improve the recontribution of sago, both in the public for no longer looking sago as an inferior food, as well as on the processors of sago and their supporters to produce innovative products to meet tastes of consumers. In the next turn, it will increase the income of farmers and processors of sago.

Key words: contribution of sago, local food, food security

Background and Objectives

Until now, rice is still the staple food of Indonesia. Therefore, demand for rice is always increasing which requires an increase in rice production. According to Abubakar (2008), efforts to increase rice production are facing serious constraints due to the pace of land conversion to non-agricultural fields of about 110 thousand hectare/year, but in the last 10 years there was not a significant increase in harvested area. Considering this, diversification of food is the right choice.

The government needs to seriously look at the potential for food because the concept of diversification expects each region to pursue local food security in accordance with its potential (Hariyadi 2010). The availability of local food can help people to meet household food needs and can reduce dependence on rice. One of the local foods for the people in Maluku is sago, but the contribution of sago to local communities in meeting their food needs is decreasing. This situation is certainly very ironic when foods diversification program is being encouraged. Accordingly, this study aims to identify the main types of food consumed by villagers so we can see the importance of sago in meeting the food needs of the community in Latuhalat.

Research Method

The experiment was conducted in the Latuhalat Village District of Nusaniwe Ambon City which is a coastal mountain village on the outskirts of Ambon, so there are various livelihoods of the population in the broad sense of agriculture in addition to other livelihoods; accessibility to and from the village Latuhalat is good enough that people have access to food centers outside the village; and the dominant population is the indigenous people. of Maluku.

The population study were all households in the village of Latuhalat, selected by simple random sample of 10% (125 heads of households). The data collected consists of primary and secondary data. Primary data collection is done through direct interviews with respondents, in-depth interviews and direct observation. Secondary data is obtained from the relevant authorities and other parties deemed necessary to support this research. Data analysis was performed descriptively to answer the research problems that subsequently gave conclusion of the study.

Research Results

Major Types of Household Food

Rice is still the main food consumed by people in the village of Latuhalat, next is wheat (bread) followed by sago and cassava (Table 1).

Table 1. Main Type of Food Community in Last Four Weeks

No.	Main Food	% Respondents (100,00)		
1.	Rice			
2.	Wheat Fluor	(89,19)		
3.	Sago (78,38)			
4.	Cassava	(68,92)		
5.	Banana	(52,70)		
6.	Taro	(41,89)		

The results showed that the type of local food is no longer a priority for public consumption, whereas sago was once considered a staple of the Maluku diet. Now, sago is the third most common food after rice and wheat flour. It became one of the challenges in creating local food security.

The reason people prefer the rice is in terms of practicality. Cooked rice is easy, especially with the rice cooker electric appliance; still good to eat even though if cold; more easily combine with side dishes, and easily available for purchase at the stalls nearby. Wheat flour is generally consumed in the form of bread. There are many bread makers and sellers in the Latuhalat, even many who sell it outside the village. Bread is rated as a practical food and preferred by young and old. Besides in the village, bread can also be purchased outside the village because of the adequate transportation facilities. Associated with household income, it turns out the amount of income affects the type of food chosen by the community. Especially for sago, the higher the income, the less they consume sago (Table 2).

Table 2. Type of Food According to Respondents Income

Household Income (Rp/month)	% Respondents Which Consumed					
	Rice	Wheat Flour	Sago	Cassava	Banana	Potatos
≤ 500.000	100,00	80,00	80,00	60,00	50,00	40,00
>500.000 - 2.000.000	100,00	100,00	80,00	100,00	35,00	25,00
> 2.000.000-3.500.000	100,00	87,50	75,00	60,00	30,50	12,50
> 3.500.000-5.000.000	100,00	100,00	50,00	0,00	25,00	0,00

In addition, the taste factor also plays an important role in determining the type of food to be consumed. The results showed that high consumption of flour in the form of bread because of the tastes and habits and in terms of practicality as well.

Conclusion

- 1. Local food is no longer a major source of food for the community in Latuhalat. It means sago contribution is lower than rice and wheat flour.
- 2. The main food types consumed by people in the village of Latuhalat sorted by the percentage of consumers from the highest to lowest are rice, wheat (bread), sago, cassava, bananas, and taro.

References

Abubakar, M. 2008. Kebijakan Pangan, Peran Perum Bulog, dan Kesejahteraan Petani.

http://www.setneg.go.id/index.php?option=comcontent&task=view&id=1662&Itemid=192

Hariyadi, P. 2010. Beyond Food Security. http://seafast.ipb.ac.id/index.php/articles/38-foodanutrition/163-beyond-food-security