PROGRAM BOOK

THE 1st SEAFAST INTERNATIONAL SEMINAR 2017

"Current and Emerging Issues of Food Safety: Innovation Challenges"

20 - 21 November 2017
IPB International Convention Center
Bogor - Indonesia

Organized by :

SEAFAST CENTER

Department of Food Science & Technology IPB

Collaboration with :

ILSI

Patpi

Supported by :

RICH'S 3M Indofood BIO-RAD DUPONT

Media Partner :

FOODREVIEW INDONESIA

PROGRAM & ABSTRACTS
THE 1st SEAFAST INTERNATIONAL SEMINAR 2017
"Current and Emerging Issues of Food Safety: Innovation Challenges"

IPB International Convention Center
Bogor – Indonesia
20 - 21 November 2017

Organized by:

Southeast Asian Food & Agricultural Science & Technology (SEAFAST) Center Bogor Agricultural University

Department of Food Science & Technology
Bogor Agricultural University

Collaboration with:

International Life Sciences Institute Southeast Asia Region

Indonesian Association of Food Technologists

Supported by:

Rich Products Corporation

3 M Asia Pacific

PT. Indofood Sukses Makmur Tbk.

Bio-Rad Laboratories (S) Pte Ltd

DuPont (Danisco Singapore Pte.Ltd)

Media Partner:

Food Review Indonesia

SEAFAST CENTER

Department of Food Science & Technology IPB

SEAFAST INTERNATIONAL SEMINAR PROGRAM

Day 1: 20 November 2017	
Time	**Activity**
08:00-08:30	Registration
08:30-08:45	**Opening Remarks** **Dr.-Ing. AB Sitanggang** - *Chairman of the Organizing Committee; SEAFAST Center & Dept. Food Science and Technology, Bogor Agricultural University* **Prof. Dr. Nuri Andarwulan** - *Director and Scientist of SEAFAST Center; Dept. Food Science and Technology, Bogor Agricultural University*
Keynote Speech	
08:45-09:15	**Keynote speaker 1: Indonesian Integrated Food Safety System** **Dr. Penny Kusumastuti Lukito** - *Head of Indonesia National Agency of Drug and Food Control*
09:15-09.45	**Keynote speaker 2: Indonesian Integrated Food Standardization System for Ensuring the Safety of Distributed Foods** **Prof. Dr. Bambang Prasetya** - *Head of National Standardization Agency of Indonesia*
09.45-10.15	**Break:** • *Tokens of appreciation + Photo session + Refreshment* • *Press conference*
Plenary Talks **Moderator: Prof. Dr. M. Aman Wirakartakusumah (Senior Scientist of SEAFAST Center IPB)**	
10.15-10.45	**Updates on Food Processing Contaminants** **Prof. Dr. Purwiyatno Hariyadi** - *Vice-Chair Codex Alimentarius Commission (CAC), Senior Scientist of SEAFAST Center*
10.45-11:15	**Recent Updates on Aflatoxin** **Siew-Moi Wee** - *International Life Sciences Institute (ILSI) Southeast Asia Region*
11.15-11:45	**The Use of Whole Genome Sequencing for Improvement of Foodborne Surveillance System** **Dr. Chai Lay Ching** - *Institute of Biological Sciences, Faculty of Science, University of Malaya, Malaysia*
11.45-12.15	• Paneled discussion • Tokens of appreciation for speakers and moderator
12:15-13:30	Break: • Poster session • Lunch + Praying
Technical Sessions	
13:30-16:30	Oral presentation - Parallel A: **Current Research Findings on Food Safety Related Issues**
	Oral presentation - Parallel B: **Current Research Findings on Food Processing, Food Quality and Nutrition**
	Food Product Development Competition (FPDC)

Day 2: 21 November 2017	
Time	**Activity**
Technical Sessions	
08:30-12:00	Oral presentation - Parallel A: **Current Research Findings on Food Safety Related Issues**
	Oral presentation - Parallel B: **Current Research Findings on Food Processing, Food Quality and Nutrition**
12.00-13.00	**Break:** • Poster session • Lunch + Praying
Plenary Talks **Moderator: Prof. Dr. Winiati Pudji Rahayu** **(Vice President of IAFT/PATPI & Senior Scientist of SEAFAST Center IPB)**	
13:00-13:30	**Current Approaches in Food Safety Management** **Prof. Dr. Ratih Dewanti-Hariyadi** - *Senior Scientist of SEAFAST Center; Dept. Food Science and Technology, Bogor Agricultural University*
13:30-14:00	**Innovation in Molecular Detection of Emerging Food Pathogen** **Janejira Fuangpaiboon** - *3 M Asia Pacific*
14.00-14.30	• Paneled discussion • Tokens of appreciation for speakers and moderators
14:30-14:45	**BREAK**
Moderator: Ir. Adhi Lukman (Chairman of GAPMMI)	
14:45-15:15	**Food Authentication: Techniques and Emerging Approaches** **Prof. Dr. Dedi Fardiaz** - *Joint WHO/FAO SEAR Food Safety Expert; Senior Scientist of SEAFAST Center, Bogor Agricultural University*
15:15-15.45	**Innovative Strategies to Facilitate Effective Communication on Food Risks and Benefits** **Romeo J.P. Leu, Ph.D.** - *Director of International R&D and New Platform Development Director of Asia R&D Rich Products Corporation*
15.45-16.15	• Paneled discussion • Tokens of appreciation for speakers and moderator
16.15-16.45	**Announcements:** 1. Best oral presenter 2. Best poster presenter 3. FPDC: • Winner (1,2 and 3rd) • Best displayer • Best innovation idea 4. DuPont Speech
16:45-17:00	Closing Remarks **Ir. Suseno Hadi Purnomo, MBA** - *Managing Director of Food Review Indonesia* **Dr. Feri Kusnandar** - *Head of Dept. Food science and Technology, Bogor Agricultural University*

S-FP06

Pannelists Acceptance and Nutritive Value in Juice of Red Seaweeds *Halimenia Durvilae*

Rarung L.K., Sanger G. and Kaseger B.E
Faculty of Fishery and Marine Science, Sam Ratulangi University Manado 95115
Corresponding author: lexyrarung@unsrat.ac.id

Abstract

This study aimed to produce functional drink product of seaweeds which was mixed with pinaple. The juice product used natural flavorings, without using synthetic agent. The treatment of the research consisted of: A. Consentration of seaweed and pineapple (a1= 80:20; a2= 70:30 and a3= 60:40) and B. Consentration of sugar (b1 = 55%; b2 = 60% and b3 = 65%). The analysis of panelists acceptance was odour, taste, and colour and the analysis of nutritive value was water content, protein, fat, dietary fiber and ash. The result showed that the highest score of panelist acceptance with formula: seaweed 70%, pinaple 30% and sugar 6o%. The nutritive value approximately, for water contant (54.25 – 58.3. %); Protein (3.32 – 4.37%); Fat (1.105 – 3.75); and ash (2.57 - 7.78%). The score of organoleptic Tests were 6.56 - 8.25. and range of pH were 4.3 to 4.8 and the colour of juice was pink.

SEAFAST CENTER
PUSAT UNGGULAN IPTEKS PERGURUAN TINGGI INDONESIA

Department of Food Science & Technology IPB

CERTIFICATE

No. 1504 /S-SC/2017

This certificate is awarded to

Grace Sanger

as oral presenter

on the 1st SEAFAST International Seminar 2017

"Current and Emerging Issues of Food Safety : Innovation Challenges"

Bogor, 20 - 21 November 2017

Prof. Dr. Ir. Nuri Andarwulan, MSi
Director of SEAFAST Center LPPM IPB

Dr.-Ing. Azis Boing Sitanggang, STP., MSc
Chairman of Organizing Committee

SEAFAST Center LPPM IPB
Certificate No. 234552
ISO 9001:2008

PANNELISTS ACCEPTANCE AND NUTRITIVE VALUE IN JUICE OF RED SEAWEEDS *Halimenia Durvilae*

Rarung L.K., Sanger G. and Kaseger B.E.

Faculty of Fishery and Marine Science, Unsrat Manado

- **INTRODUCTION**

Macroalgae have been reported to have more then 2400 natural poducts of profitable significance in pharmaceutical, biomedical and nutraceutical industries.

They have been utilized as ingredients in human and animal food preparations owning to their outstanding source of bioactive compounds which consist of sulfated polysaccharides, polyphenols, diterpenes, protein, essential fatty acids, dietary fiber vitamins and minerals ((Chinnadurai et al., 2013, Özkan and Bilek, 2014, Chandihi *et al.*, 2007).

Although seaweeds possess extensive applications in food and pharmaceutical industries, many types of seaweeds in Indonesian area are still unexplored. *H.durvilae* is a red algae mostly grows in tropical region.

In South East Asean, *H. durvilae* is cultivated used by human as food, it is usually served raw as salad. Hence, the present study was proposed to handling and process to make juice. *H.durvilae* which grows plentifully in North Sulawesi.

Metodology

- **Sampel**
- Red seaweed *Halimenia durvilae was collected* From North Sulawesi Coastal Area of Indonesia. The sample was thoroughly was with seawater and fresh water to remove epiphytes and dirt particles. The sample delivery to laboratory and were stored at -20°C.
- Pineaple was pealed and washed with salt water then rinsed with fresh water

I. The treatment of the research consisted of:

- *A. Consentration of seaweed and pineapple a1= 70:30 and a2= 60:40)*
- *B. Consentration of sugar*

  b1 = 55%; b2 = 60% and b3 = 65%.

II. The analysis of panelists acceptance were odour, taste, and colour and the

Analysis of nutritive value were protein, fat, dietary fiber and ash.

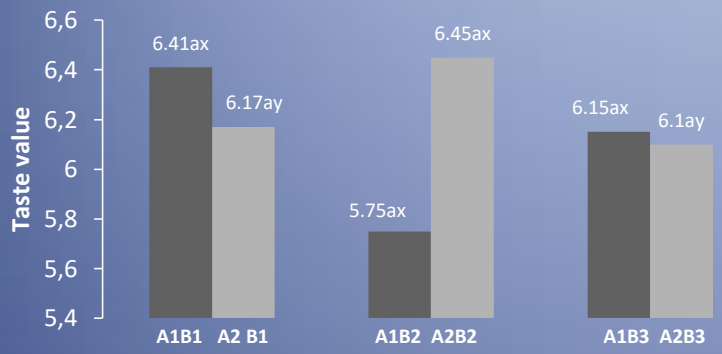
Formulation of seaweed (*H.durvilae*) Juice

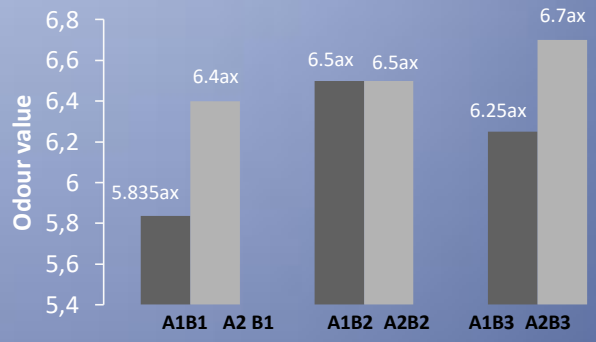
No	Treatment	Seaweed and pineaple	Sugar (%)
1.	A1B1	70 : 30	55
2.	A1B2	70 : 30	60
3.	A1B3	70 : 30	65
4.	A2B1	60 : 40	55
5.	A2B2	60 : 40	60
6.	A2B3	60 : 40	65

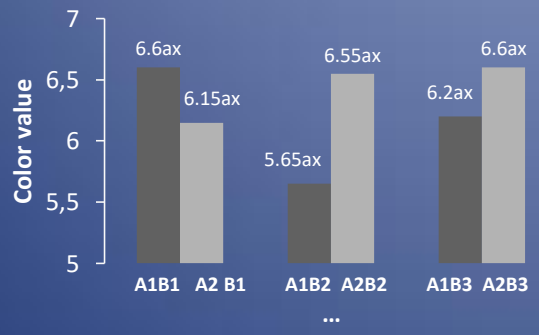
Prosedure of research

- 1. seaweed and peaple blend separately.
- 2. Seaweed, pinaple and sugar mixed and then boiled for 15 minute, after that poured with lemon extract and boiled again. The juice was stored in room temperature for future analizis.

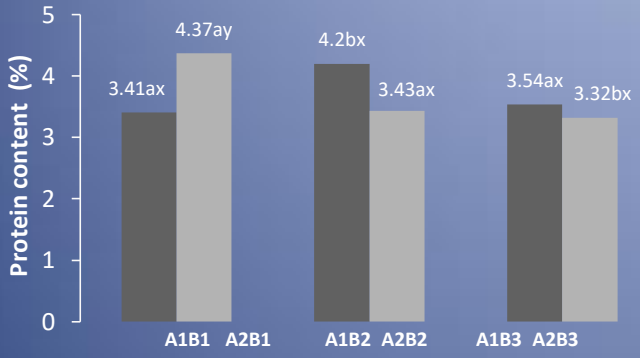
Sensoric value

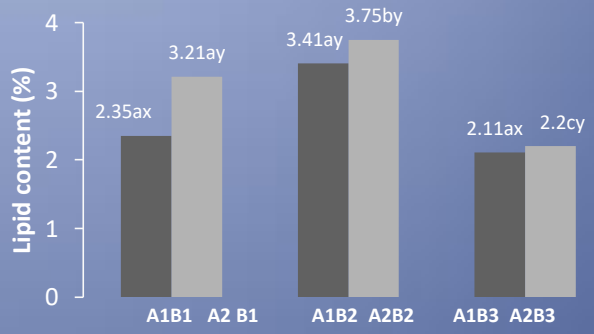


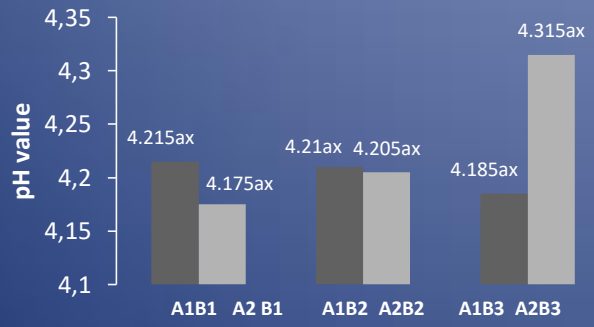


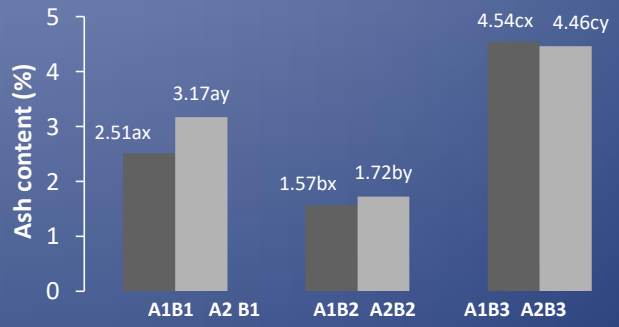


Nutritive value









- The sensoric test show that the treatment aproximately accepted by panelist with the value 5.76 – 6.7
- The nutritive value aproximately are protein 3.32-4.37, Fat 1,105-3.75, mineral 2.56-75%.
- Pineaple and lemon cause the taste and odour of seaweed in juice is significan. Pinaple have strong taste component, was identified as metil-3-metiltiopropionat and etil-3-methiltioropionat. This component can netralize the sweet taste. (Morton and Macleod 1982).

- Lemon content volatile compound that solute in water. Lemon have odour: sharp, harsh and pungent, sweet fresh, terpen parfume. And taste: sharp, astringen, green, slight fragrance, fresh after taste segar and cool. The major componen of limone are d-limonene, α-pipene, β-pipene, dipentene, β bisabolene, terpinolene, etral, linalool, geraniol, terpineol, borneol, terpinene-4-ol (Heath and Pharm, 1977).

The red seaweeds are a diverse eukaryotic lineage, characterized by accessory photosynthetic pigments phycoerythrin, phycocyanin and allophycocyanins arranged in phycobilisomes.

Seaweed juice of H. durvilae is function as source of mineral and PUFA. The main mineral content of seaweed are iodine and calcium. The fat content of this jiuce are 2.00-3.75%. kalsium (Fitton, 2005).

- Red seaweed and brown seaweed contain high amount of fatty acid with 20 carbon such as eikosapentanoic acid and arachidonad acid (Burtin, 2005). These fatty acid have function to prevent inflamatory and artery schelerosis diseases.

Conclution

- **Formulation of juice which was processed from H. durvilae mixed with peaneple and lemon juice showed high sensoric test, there for it can be produced as fresh drink as a source dietary fiber, mineral and PUFA.**