



愛媛大学
EHIME UNIVERSITY

CERTIFICATE

Proudly Present to:

Dr. Ir. Sukenadahs. MSc

as a Plenary Speaker

**in International Seminar Cooperation Between
Agriculture Faculty UPN "Veteran" Jawa Timur and
EHIME UNIVERSITY JAPAN**

"Play an Active Role in the Industrial Revolution 4.0 Through Value Added Agricultural Products"
17th September 2019 at Giri Pasca UPN "Veteran" Jawa Timur.

Dean Of the Agriculture Faculty



DR. IR. RA NORA AUGUSTIEN K., MP

NIP. 19590824 198703 2001



UPN VETERAN JATIM

DIVERSIFICATION PRODUCTS OF KOPYOR COCONUT

**Dr. SUKENDAH, MSc, Agriculture Faculty, Indonesia
International Seminar : Value Added Agricultural Products
Surabaya, 17 September 2019**



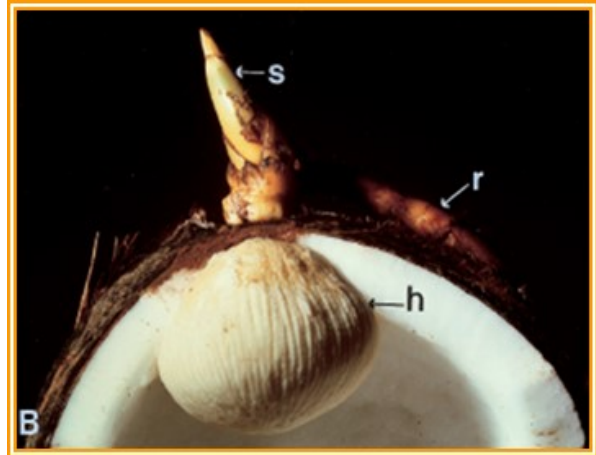
Kopyor: Abnormal/Broken Coconut



Embryo fail to germinate



Embryo utilize the endosperm for germination





Germplasm of Kopyor Coconut

Four centers of kopyor coconut:

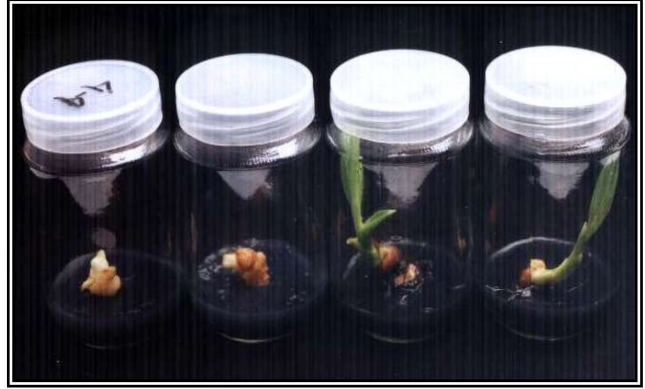
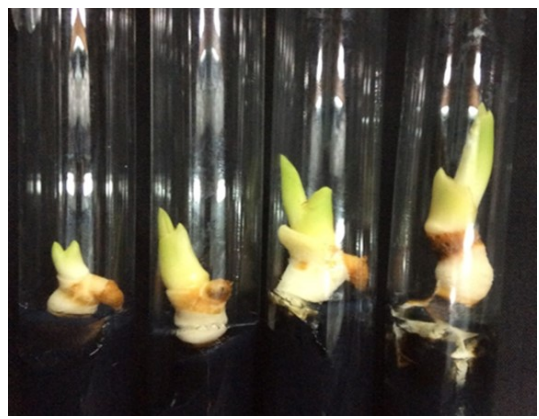
- Kalianda-Lampung
- Pati-Central Java
- Jember-East Java
- Sumenep-East Java

The Varieties: Tall, Dwarf, and Hybrid





Embryo Rescue of Kopyor Coconut-Tissue Culture





Waste Problem in the Production of Kopyor Coconut Seedling



Kopyor Coconut Water



Kopyor Coconut Meat



Kopyor Coconut Husk



Kopyor Coconut Shell

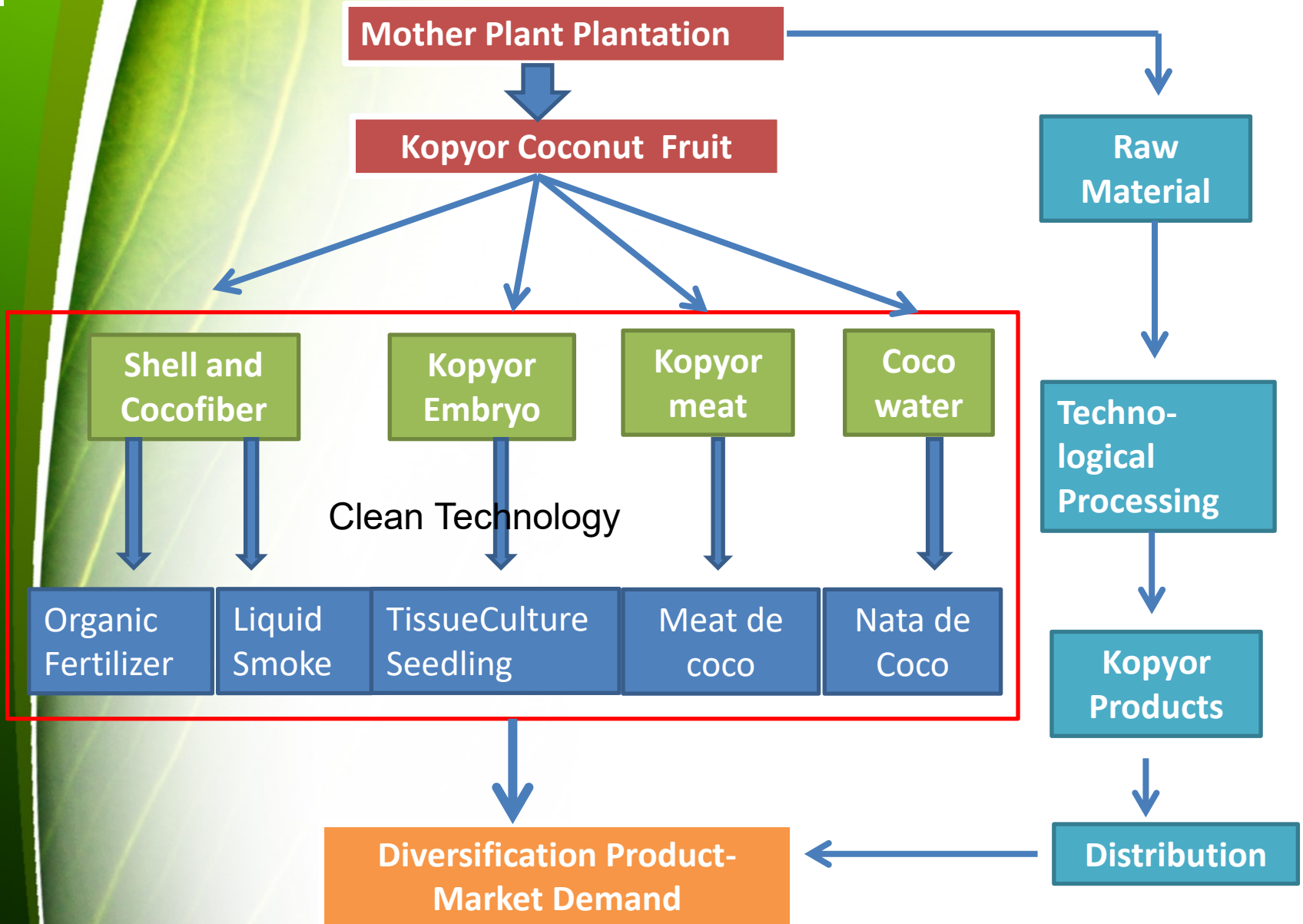


Added Value
Products



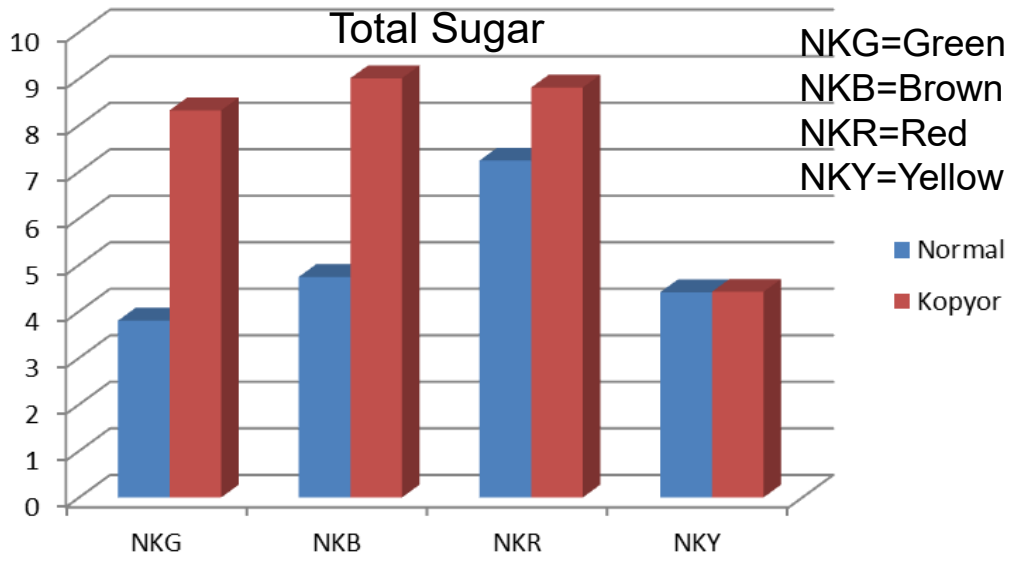


SUSTANAIBLE KOPYOR COCONUT AGRICULTURE SYSTEM





Water & Meat Nutrition



Coconut Water



	Coconut Meat	Water content (%)	Lipid content (%)	Protein (%)	Total Sugar (%)
Normal:					
- Green		48,95	33,70	4,33	6,67
- Brown		51,51	29,30	4,67	9,72
- Red		74,94	16,12	4,41	6,34
- Yellow		61,71	24,83	2,99	5,66
Kopyor:					
- Green		87,98	4,96	1,95	4,48
- Brown		86,14	5,99	1,69	5,70
- Red		89,12	4,13	1,58	4,34
- Yellow		61,50	22,28	3,32	6,62



PROCESSING WATER OF KOPYOR COCONUT

Nata de Kopyor

Sugar Content and Time of Fermentation	Thickness (mm)	Yield
Sucrose 6%, 7 days	3,66	73,590
Sucrose 8%, 7 days	2,24	61,175
Sucrose 10%, 7 days	2,13	26,835
Sucrose 6%, 10 days	3,65	60,900
Sucrose 8%, 10 days	2,23	56,445
Sucrose 10%, 10 days	2,48	33,280
Sucrose 6%, 13 days	3,35	54,860
Sucrose 8%, 13 days	2,25	49,235
Sucrose 10%, 13 days	1,85	35,770



Sucrose 6% in 7,10,13 days of fermentation

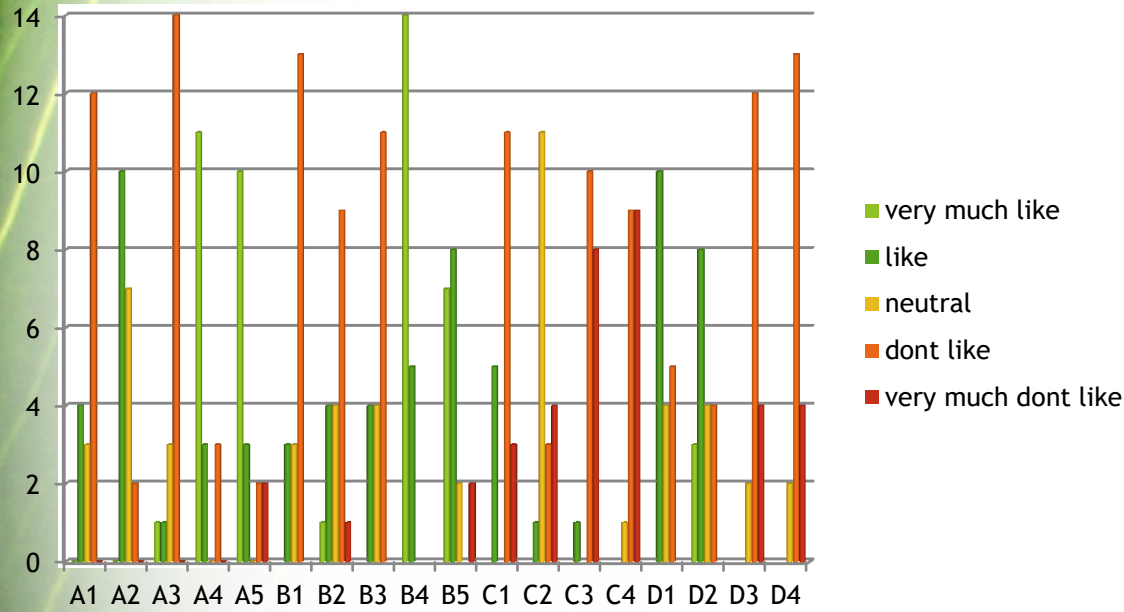


Frozen Meat and Ice Cream

Kopyor Meat



Frozen: dried cell in the low temperature
 Preserve the texture and taste
 -Temperature: -5, 0, +5
 -Dried Cell: salt and sucrose



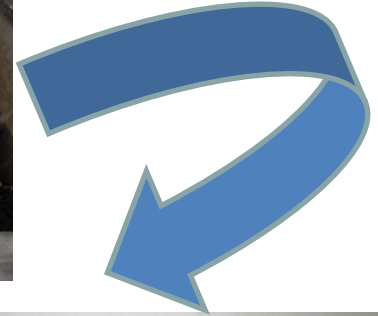
Organoleptic test on taste of ice cream



18 Formulas:
 B4 the most=5% salt and 20% sucrose



PROCESSING OF COCONUT HUSK



waste of coconut husk

Liquid fertilizer

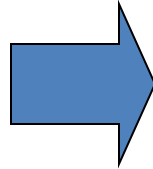


microorganism

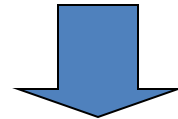




Waste of coconut shell



Charcoal



Liquid Smoke



Thank You