



National Research Council of Thailand



Volume 1

Kasetsart University





by National Research Council of Thailand

in collaboration with



This document was prepared in partial fulfillment of the research project on "Media Development of Knowledge Transfer and Public Relations for Thai Food to Global Market"

Thai Cuisine to Global Market



Published by National Research Council of Thailand and Kasetsart University, Bangkok,Thailand

Tel: +662-9428629-35 Fax: +662-9406455 Email: thaicuisinetoglobal@gmail.com Website: http://www.thaicuisinetoglobal.com

> First published in July 2017 Number of Pages: 44 Printing Quantity: 500

Published by the Printing Department, Extension and Training Office, *Kasetsart University* 50 Ngamwongwan Rd., Chatuchak, Bangkok 10900 Email: eto.printing@gmail.com Photographer: Sumet Powilai Graphic design: Somsak Kerdpoom, Sasina Ruang O Cha Advisors: Sirirurg Songsivilai, *National Research Council of Thailand* Napavarn Noparatnaraporn, *BEDO* Food Technology Experts: Warunee Varanyanond Gassinee Trakoontivakorn Phisamai Srichayet, Witcha Treesuwan U-Rai Phawsungtong, Yenjai Titatarn *Kasetsart University*

> Chanchana Siripanwattana, Naratip Poonnakasem Suan Dusit University

Technical Experts: Alexander G. Flor and Benjamina G. Flor Editor: Narong Sompong, *Kasetsart University* Editorial Team: Cherdpong Kheerajit, Sarinya Paisarnsombat *Kasetsart University*

Production collaborative organizations: National Research Council of Thailand Institute of Food Research and Product Development, Kasetsart University Department of Educational Technology, Faculty of Education, Kasetsart University

ISBN: 978-616-278-371-5

Please send your comments to: Website: http://www.thaicuisinetoglobal.com Email : thaicuisinetoglobal@gmail.com

©2017 All right reserved. Exclusive edition for National Research Council of Thailand



A AN

l

9 ANNA 1997 -		Page
	Preface	1
<image/> <image/> <text><text><text><text><text></text></text></text></text></text>	Thai Vegetarian Food	3
<text><text><text><text><text><text><text></text></text></text></text></text></text></text>	Massaman curry with textured vegetable protein	5
<text></text>	Thai style banana dessert	7
<image/> <text></text>	Thai Halal food	9
<image/> <image/>	 Panang	11

Page

<image/> <text><text><text><text><text><text></text></text></text></text></text></text>	 Khao Mok Gai13
<section-header></section-header>	Thai emulsion drinks
	Preparations of Thai emulsion drinks17
<image/> <text><text><text><text></text></text></text></text>	Ready to cook Thai food sauces
<image/> <image/> <section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header>	 Tom Kha Gai 21
	 Pad Ka Prao23
	 Hor Mok

Page

<image/> <text><text><text><text></text></text></text></text>	Four regional Thai food sauces	27
<image/> <image/> <image/> <text><text><text><text></text></text></text></text>	Kaeng Hang Le	29
	Pad Mee Korat	31
<image/>	Nam Tok Moo	33
<image/>	Chu Chi	35
<image/> <section-header><section-header><section-header><text><text><text></text></text></text></section-header></section-header></section-header>	 Nam Ya Poo	37







Preface

Promoting local and popular Thai food through this publication is not only cost-effective but also more efficient compared to travelling around both domestically and internationally. Researchers gathered and captured indigenous knowledge on local and popular Thai food that are good for health and packaged those in various communication platforms including online sources. The integrated media include online video, website, smartphone application, and Augmented Reality Technology (ART).

This brochure is the first volume of print media to promote Thai food for health to tourists and all interested persons, especially foreigners. Contents include information contained in the Thai food innovations on "Thai Cuisine to Global Market Research Project".

We do hope that the integrated media on promoting local and popular cuisine of Thailand can reach everyone who loves Thai food through this research project.

> Dr.Napavarn Noparatnaraporn Director of Research Project







Vegetarian food, as the name implies. contains no meat. It is composed of vegetables, fruits, whole grains, nuts, eggs, and daily products. In this new era, more people tend to vegetarian leading the be to mushrooming of vegetarian food processing businesses. It results in a high market potential of vegetarian food, especially for entrepreneurs in Thailand who have access to important resources including raw materials and cooking innovation available for creating tasty and healthy food.

Examples of Thai vegetarian food include:

- Vegetarian green curry with wheat gluten
- Massaman curry with textured vegetable protein
- Stir-fried tofu with cashew nuts
- Fried tofu and eggs with tamarind sauce
- Vegetarian Pad Thai
- Mushroom coconut soup
- Thai style banana dessert
- Soy pudding

Due to the significant health benefits of vegetarian food, researchers have created healthy Thai vegetarian recipes made available through ready-to-cook sauces. The purpose is to develop ready-to-cook vegetarian sauces that preserve the unique flavor of Thai herbs as well as its taste, which can be stored at room temperature.



Massaman Curry with Textured Vegetable Protein



Massaman curry with textured vegetable protein (TVP)... is similar to beef Massaman curry, but with TVP as beef substitute. The TVP sheet is soaked in water and then squeezed. The TVP is then cooked and simmered with Massaman curry paste until the TVP absorbs the sauce. Simmering helps reduce the unpleasant smell of soy protein. The texture of TVP is similar to real meat, but slightly chewier.

Ingredients for Massaman curry paste

Shallot, garlic, dried chili, vegan shrimp paste, coriander root, lemongrass, ground coriander seed, ground cumin, galangal, ginger, salt, ground cinnamon, mace, nutmeg seed, ground pepper, cloves, bay leaves

Preparations: Mince all ingredients into a fine paste then set aside.

Ingredients for Massaman curry

Diluted coconut milk, concentrated coconut milk, soaked TVP, Massaman curry paste, potato, Indian onion, palm sugar, tamarind paste, peanut, vegetable oil, salt, cardamom salt, bay leaves

Preparations:

1) Soak TVP in water and squeeze, then set aside.

2) Heat up a pan, stir in Massaman curry paste and oil, and slowly pour in concentrated coconut milk. Stir the mixture until aroma comes out. Pour in the rest of the concentrated coconut milk, followed by diluted coconut milk

3) Add the TVP, potato, peanuts, Indian onion. Season with salt, palm sugar, and tamarind paste. Simmer to get desired thickness; adjust the taste, and it is ready to serve.



Thai Style Banana Dessert

Benene dessert mix...is a ready-to-cook powder made from Apple banana, or *Latundan*, which can be prepared into two variants. First, mix the powder with milk and cook it in a pan like banana pancake. Second, is by using coconut milk and steaming the mixture to create a traditional Thai steamed banana cake.

Ingredients: Apple banana powder, sugar, coconut milk powder, glutinous rice floor, arrowroot flour, coconut powder, salt

Preparations:

1) Cut more-green-than-yellow ripening stage banana into small pieces;

2) Bake banana pieces in a hot air oven at 70°C for 4 hours;

3) Grind the banana into banana powder.

Preparations of banana pancake



1) Combine 100 g of banana dessert mix with 50 ml milk in a bowl;

2) Heat up a pan and put about 2 tablespoons of the liquid mixture into the hot pan; and

3) Wait until the batter is cooked on one side, and then flip it over until it is completely cooked.

Preparations of Thai steamed banana cake

1) Combine 100 g of banana dessert mix with 50 ml coconut milk; and

2) Pour the mixture into a bowl; steam until it is completely cooked.





That Halal Food

FLE

Halal food has become Thai an expanding marketing channel strategy especially to the Middle-East and Muslim communities. In order to promote and make Thai Halal food acceptable and compete in the world market, it has to be diverse and creatively presented. Moreover, Thai Halal food manufacturing meet international standards needs to both in management and quality control.



Examples of Thai Halal food include:

- Panang curry with beef	- Khao Mok Gai
- Red curry with roasted duck	- Chicken satay

- Wing bean spicy salad

Thai Halal food innovation is carried out by carefully following the Islamic law. The ready-to-cook sauce production technology used has created another identity for Thai food that provides nutritive value and economic gains. This innovation has allowed Thailand to export food products to Muslim nations thereby expanding their markets to most of the world.





Panang...is a red curry, well known among Thais. The unique taste of Panang depends on the full-flavour and good aroma of the curry paste, together with juicy meat stew that is full of coconut milk.

Ingredients for Panang curry paste

Shallot, garlic, dried chili, lemongrass, galangal, salt, coriander seed, dried Thai chili, peanut, ground pepper, cumin



Preparations:

Mince all ingredients into a fine paste then set aside.

Ingredients for Panang curry with beef

Coconut milk, Panang curry paste, palm sugar, fish sauce, vegetable oil, kaffir lime leaves, chili

Preparation:

1) Heat up a pan, fry Panang curry paste with oil, and stir in coconut milk, until aroma comes out.

2) Add beef and the rest of the coconut milk.

3) Adjust taste with palm sugar and fish sauce; simmer on a low heat to get desired thickness. Taste, and garnish with chili and kaffir lime leaves. Ready to serve.

Strength: High protein, high fat, high calories with fibre





Rhao Mok Gai

Khao Mok Gai, or rice with curried chicken

It is a well-known Thai Halal dish among Muslims. It is full of spices which gives the unique flavour of Khao Mok Gai. Cooking method for Khao Mok Gai, for both its curried chicken and rice, is very meticulous.

Ingredients

Chicken thigh, rice, minced shallot, vegetable oil, minced ginger, red chili, curry powder, sugar, salt, ground coriander seed, ground cumin, ground pepper, cardamom, bay leaves, turmeric powder, cloves

Preparations:

Prepare chicken by cutting into small pieces. Marinate the chicken with salt and sugar. Fry shallot, ginger, chili, and other spices with oil. Divide the fried mixture into half. Put the first half into the marinated chicken.

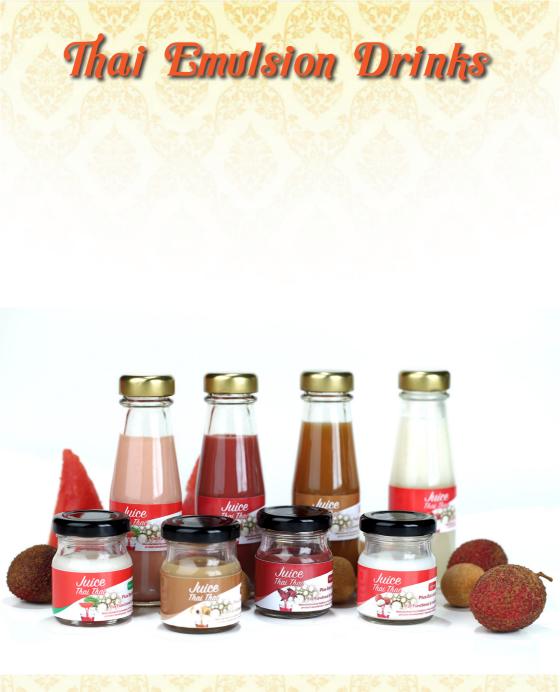
Prepare rice by rinsing with water, then mix it with the other half of the fried mixture. Put half of the mixed rice at the bottom of a rice cooker, followed by the chicken, then cover the chicken with the other half of the mixed rice. Add water and cook rice until it is done. Ready to serve.

Strength: Protein, carbohydrate, high fat, high calories with antioxidant from herbs













Thai emulsion drink...is a functional drink made from local raw materials in Thailand. The drink bioactive compound, contains а called "baicalein", which is extracted local vegetable called Pak from Pea Ga, or Broken Bones Tree, or Indian trumpet flowers. Baicalein is a phytonutrient with a wide variety of health benefits such as having antioxidant. antivirus. antibacteria. and anti-inflammatory actions; fighting cancer, preventing diabetes, lowering pressure blood and cholesterol levels. Addition of herbal extract to beverages Thai like longan. lychee, roselle. and watermelon drinks increases health benefits. also The drink helps lower anxiety resulting in better sleep. which is the best for health conscious people.

Health benefits of emulsion drinks over regular drinks

- 1. Emulsion drinks contain higher antioxidant activity than regular drinks
- 2. Emulsion drinks, especially lychee and longan, prevent highblood pressure and high sugar level
- 3. Emulsion drinks help maintain liver function and lower anxiety that cannot be found in regular drinks

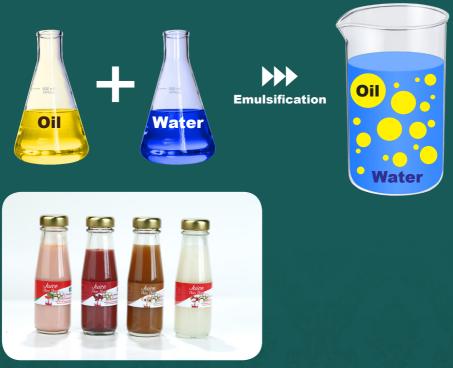




Preparations of emulsion drinks

Baicalein was first extracted from Pak Pae Ga. The extract appears as yellowish-green powder, which is then transformed into emulsion drinks using emulsification technique. Now, the emulsion drink is ready to be pasteurized and packed into beverages.

The study and development of emulsion drinks is useful for everyone involve in the beverage industry as well as health conscious customers and elders. This innovative emulsion drinks manufacturing technology provides ease of consumption along with maximizing health benefits from herbal extracts. Using traditional Thai fruits as raw materials is also an alternative to represent the identity and taste of Thailand.





Ready to Gook Thai Pood Sauces



Thai cuisine has a delicate cooking method in which its unique flavor come from many varieties of herbs and spices used for cooking. Thus, many Thai foods such as Tom Yum Kung, Kaeng Khiao Wan, Tom Kha Gai, Pad Ka Prao, and Panang are very popular among foreigners.

Not only does Thai food provide great taste but also rich in nutrition. Researches have shown that Thai food consisting of herbs and spices for example, lemongrass, galangal, and cumin provide a pleasant smell as well as increase fibre and are high in antioxidant. Moreover, herbs and spices such as lemongrass, kaffir lime leaf, holy basil, Thai basil, lemon basil, and fresh peppercorn in Thai food help lower risk of developing cancer.

Researchers aim to apply a low-temperature food processing technique to develop ready-to-cook Thai food sauces that preserve the unique taste of Thai food similar to freshly made quality, maintain its anti-oxidant action, and can be stored at room temperature. Thus, in order to achieve the goal, it is necessary for researchers to develop optimum recipe for the sauce.

Ready to cook sauces include:

- Thai coconut milk soup (Tom Kha)
- Stir-fried with holy basil (Pad Ka Prao)
- Thai steamed curry (Hor Mok)





Chicken in Thai coconut milk soup (Tom Kha Gai)

Ingredients

Young galangal, salt, minced galangal, lime juice, minced lemongrass, fish sauce, coriander root, soup base, kaffir lime leaves, coconut milk (Chao Koh), minced chili, chicken, mushroom

Preparations:

Cut chicken into small pieces. Put minced galangal, lemongrass, kaffir lime leaves, coriander root into a pot, add half of the coconut milk; heat it up.

Add chicken and boil until chicken is fully cooked. Add remaining coconut milk, salt, soup base, fish sauce, chili, and mushroom.

Turn off the heat. Add lime juice and garnish with coriander.

Cooking method using Tom Kha sauce:

Heat up Tom Kha sauce; bring it to boil.

Add chicken into the soup; bring it to boil. Leave it on heat until chicken is fully cooked.

Add your favorite vegetables; leave it on heat for little while. Now you can experience an authentic flavor and taste of Tom Kha Gai.



Pad Ra Prao

Stir-fried with holy basil (Pad Ka Prao) Ingredients

Holy basil, shrimp paste, chili (Chinda), fish sauce, garlic, palm sugar, shallot, fine salt, ginger, vegetable oil, ground black pepper, monosodium glutamate (MSG), xanthan gum, water

Preparations:

Blend xanthan gum with water. Mince chili with garlic, shallot, galangal, black pepper, and shrimp paste until well combined.

Coarsely mix holy basil into the mixture. Stir-fry the paste in oil until cook. Add salt, palm sugar, fish sauce, MSG, and xanthan gum water. Bring it to a boil.









Thai steamed curry (Hor Mok) Ingredients

Dried chili, shrimp paste, dried Thai chili, salt, garlic, shallot, coconut milk, fish sauce, sliced lemongrass, palm sugar, sliced galangal, kaffir lime zest, coriander root, fingerroot, ground pepper

Preparations:

Mix and mince all ingredients to get fine paste.

Stir-fry the paste with 1/3 of coconut milk. Once aroma and oil are released, add palm sugar and fish sauce; mix well.

Add remaining coconut milk; bring it to a boil.











Zappar

T

1

Į.

T

T T T T



food is one of Thai the most famous cuisines in the world with its natural appearance and mellow taste with perfectly blending of sweet, sour, salty, spicy taste. Many Thai and dishes have combined varieties of Asian seasoning and spices. Another signature of Thai food that is distinct from other cuisines is a taste enhancement by combining seasoning with various curry pastes.

Study of consuming culture of each region in Thailand aims to collect information and culture of Thais from the four regions within the country. These cultures are interesting that continuously impress tourists both Thais and foreigners.

Examples of Four Regional Thai Food sauces include:

- Northern Thai style pork curry (Kaeng Hang Le)
- Thai Korat style stir-fried rice noodle (Pad Mee Korat)
- Spicy grilled pork salad (Nam Tok Moo)
- Prawn in red curry sauce (Chu Chi)
- Crab meat curry (Nam Ya Poo)



Kaeng Hang Le

1

Northern Thai style pork curry (Kaeng Hang Le)

Ingredients for Hang Le curry paste

Seedless dried chili, minced galangal, sliced lemongrass, Thai garlic, sliced shallot, shrimp paste, sea salt, water

Ingredients for Hang Le curry



Hang Le curry paste, water, sea salt, sweet dark soy sauce, palm sugar, tamarind paste, minced pickled garlic, Kaeng Hang Le powder, sliced ginger, Thai garlic

Preparations:

First, prepare Hang Le curry paste by mincing dried chili with sea salt until it is well mixed. Stir in galangal and lemongrass. Add garlic, shallot, and shrimp paste; mince the mixture until it is well combined.

Put the curry paste in a pan; heat it up. Then add 1 cup of water; mix well. Bring it to boil using medium heat; then lower heat after it boils. Season with salt, dark soy sauce, palm sugar, and tamarind paste; mix well. Add pickled garlic, Kaeng Hang Le powder, ginger, and garlic. Let it boil. Now, it is ready to serve.





Thai Korat style stir-fried rice noodle (Pad Mee Korat)



Ingredients

Tamarind paste, water, palm sugar, sweet chili paste, and sweet chili paste oil

Preparations:

Add all ingredients in a pan, and cook on medium heat. Stir the mixture until well blended; bring it to a boil.

The sauce is then stir-fried with Korat rice noodle.





Spicy grilled pork salad (Nam Tok Moo) Ingredients

Fish sauce, lime juice, sugar, Thai chili powder, sliced shallot, seasoning sauce, ground roasted rice, Thai parsley, mint

Preparations:

Combine fish sauce, lime juice, sugar, and seasoning sauce together; and mix until sugar is completely dissolved.

Add chili powder, shallot, Thai parsley, and mint; stir just to mix it up.



Note: ground roasted rice is added when mixing the sauce with roasted meat.





Red curry sauce (Chu Chi)

Ingredients for Chu Chi curry paste

Shallot, garlic, salt, coriander root, peppercorn, dried chili, lemongrass, galangal, kaffir lime zest

Ingredients for Chu Chi curry

Chu Chi curry paste, concentrated coconut milk, palm sugar, fish sauce, oil

Preparations:

Blend the curry paste ingredients in a blender to get fine mixture. Heat a pan on medium heat, fry the curry paste in oil until aroma is released. Add concentrated coconut milk, fish sauce, and palm sugar; mix well. Simmer for another 30 minutes; take off from heat, and it is ready to use.







Crab meat curry (Nam Ya Poo)

Ingredients for Nam Ya Poo paste

Dried chili, salt, minced lemongrass, minced cumin, minced kaffir lime zest, fresh peppercorn, shrimp paste, water

Ingredients for Nam Ya Poo

Curry paste, Nam Ya Poo paste, palm sugar, concentrated coconut milk, diluted coconut milk, crab meat

Preparations

Prepare Nam YaPoo paste by mincing fresh peppercorn and kaffir lime zest to form a fine paste; set it aside.

Fry the paste with the concentrated coconut milk until a strong pleasant aroma is released. Add palm sugar and diluted coconut milk; bring it to a boil. Stir in crab meat; bring it to a boil. Ready to serve with fermented rice noodle.





Email : thaicuisinetoglobal@gmail.com Website : http://www.thaicuisinetoglobal.com