

**DIFFERENCES OR SIMILARITIES OF U.S. AND THAI NUTRIENT
LABELING AND HOW NUTRIENT LABELING HARMONIZATION HELPS
PROMOTE THE EXPORTS OF U.S. FOOD PRODUCTS TO THAILAND**

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TABLE OF CONTENTS

INTRODUCTION	3
LEGISLATION	3
GENERAL FOOD LABELING	4
NUTRITION LABELING.....	7
NUTRITIONAL CLAIMS	14
HEALTH CLAIMS	16
NUTRITION LABELING – TRADE PROMOTION OR POTENTIAL TRADE BARRIER	17
ROLE OF CODEX IN NUTRITION LABELING & CLAIMS	18
THE IMPACTS OF NUTRITION LABELING HARMONIZATION ON THE EXPORT OF U.S. FOOD PRODUCTS TO THAILAND	19
CONCLUSION.....	20

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INTRODUCTION

This term paper aims to address the differences and similarities between U.S. and Thai nutrition labeling. With the influx of various U.S. food and beverage products in the Thai market today, to be able to harmonize those two countries' nutrition labeling will likely to help promote the exports of U.S. food products to Thailand. Nutrition labeling enables companies to emphasize the nutritional properties of their products and guide consumers in making better food choices. Nutrition labeling harmonization will help prevent unnecessary non-tariff trade barriers that might incur from the labeling regulations imposed by Thailand. As Thailand is in their early stage of development of nutrition labeling, to study the possibility of harmonization of nutrition labeling with the US or comply with CODEX standard will absolutely help the U.S. manufacturers to export products with appropriate labeling and its presentation relative to nutrition labeling guidelines and approaches in Thailand. As nutrition-labeling efforts in Thailand have evolved, different approaches and legal requirements have been established. This creates difficulties in developing and harmonizing nutrition information listings, which have broad international applications. For these reasons, the Codex Guidelines on Nutrition Labeling plays an important role to provide guidance to member countries including Thailand when they want to develop their national regulations and to encourage harmonization of national standards with international standards.

This paper will emphasize on the comparison of Thai and U.S. nutrition labeling and possibility of labeling harmonization. The paper will enumerate the linkage of Thai nutrition labeling on the export of U.S. food products to Thailand and how CODEX can help to harmonize the nutrition labeling of these two countries.

LEGISLATION

In the US, Food and Drug Administration (FDA) is responsible for assuring that foods sold in the US are safe, wholesome and properly labeled. The Federal Food, Drug, and Cosmetic Act (FD&C Act) and the Fair Packaging and Labeling Act are the Federal laws governing food products under FDA's jurisdiction. The Nutrition Labeling and Education Act (NLEA) amended the FD&C Act requires most foods to bear nutrition labeling and requires food labels that bear nutrient content claims and certain health messages to comply with specific requirements. More details about U.S. Food Labeling can be found at <http://www.cfsan.fda.gov/label.html>. Thailand's food industry is governed by the Food Act of B.E. 2522 (1979)¹ and subsequent laws stipulated by the Ministry of Public Health. The Thai regulations on nutrition labeling are based on the Notifications of Ministry of Public Health No. 182

¹ http://www.qmaker.com/fda/new/images/cms/top_upload/1141813878_filena.pdf

of B.E. 2541 (1998) Re: Nutrition Labeling² and No. 219 of B.E. 2544 (2001) Re: Nutrition Labeling³. Although food labels were controlled under the Food Act, the mechanism of their development is shown as follows⁴:

The first law concerning with the control of food in Thailand was the Skimmed Milk Act 1927 (B.E. 2470) prohibited importation of skimmed milk into the Kingdom of Thailand in order to prevent the public from being deceived and from having products with insufficient nutrients.

In 1941 (B.E. 2484), a new law was declared and named as the Food Quality Control Act. The Minister of Interior and the Minister of Finance were empowered to execute the Act. Six additional Ministerial Regulations and a Notification of the Ministry of Public Health were then promulgated to specify standard requirements of some foods. The Food Quality Control Act 1941 (B.E. 2484) composed of many essential elements that were the core issues of the present Act. One of the elements was related to food labels, which prescribed definitions and descriptions of food labels and labeling.

The second edition of Food Quality Control Act 1959 (B.E. 2502) was promulgated eighteen year after the first one. Penalties were greatly amended.

In addition, Ministerial Regulations declared after the Act prescribed the conditions on the use of preservatives, color additives and the description of labels and labeling requirements for canned food. The Notification of the Ministry of Public Health B.E. 2503 (1960) which declared the appointment of authorized officials to perform duties in accordance with the Food Quality Act became officially effective.

The third edition of the Food Quality Control Act became officially effective in 1964 (B.E. 2507). Public Health was empowered to declare notifications prescribing controlled food and to notify the quality standards of foods.

The Act B.E. 2507 (1964) categorized controlled foods into three classes namely: 1) specifically-controlled foods; 2) Standardized foods; and 3) General Foods.

The Thai Food Act B.E.2522 (1979) categorized food into four categories as 1) Specific Controlled Food, 2) Standardized Food, 3) Food Required to Bear Label, and 4) General Food. Specifically-controlled food, standardized food, and food required to bear labels, are required to bear standard labels.

GENERAL FOOD LABELING

Food labeling in the US is regulated by several federal government agencies. The Food and Drug Administration (FDA), U.S. Department of Health and Human Services regulates most packaged food, produce, seafood, milk and eggs. The Food Safety and Inspection Service (FSIS), of the U.S. Department of Agriculture (USDA) regulate meat and poultry products. The U.S. Federal Trade Commission regulates

² [http://www.qmaker.com/fda/new/images/cms/top_upload/1147229682_182-41\(update\).pdf](http://www.qmaker.com/fda/new/images/cms/top_upload/1147229682_182-41(update).pdf)

³ [http://www.qmaker.com/fda/new/images/cms/top_upload/1148369767_219-44\(1\).pdf](http://www.qmaker.com/fda/new/images/cms/top_upload/1148369767_219-44(1).pdf)

⁴ Malai Boonyaratankornkit, Institute of Food Research and Product Development, Kasetsart University, Thailand Country Papers under “Food Standards and Labeling Systems in Asia and the Pacific”, Asian Productivity Organization.

food advertising. However, food labeling in Thailand is regulated by the Thai Food and Drug Administration (Thai FDA).

In Thailand, either imported or domestic food products, which are categorized as specifically-controlled food, standardized food, and food required to bear labels, are required to bear standard labels. A Thai label must be applied where needed prior to entry. Failure to apply the label before entry will lead to a product seizure by the FDA. As products imported for sale may not enter into Thailand with standard U.S. labels only, stick-on labels, meeting local requirements must be affixed. Note that the approved label, corresponding to its food package size, must be applied to every single item of food. There is no exemption for any industrial container for distribution purpose that a Thai label shall be applied only on the main outer package.

Based on the Ministerial Notification No. 194 B.E. 2543 (2000)⁵, the details in standard labeling requirement are different between food products directly sold to consumers and these food products sold to food manufacturers as production ingredients.

Labeling of Food Products Directly Sold to Consumers

Labels for food products directly sold to consumers must be presented in Thai with or without a foreign language and have the following details, except for those allowed to be omitted by the FDA:

1. Name of food.
2. Food serial number.
3. Names and addresses of producers or re-packers of food which is produced within the country, names and addresses of importers and country of producers as the case may be. For foods, which are produced within the country, names and addresses of head office of producers or re-packers may be expressed instead.
4. Net content of food in metric system.
 - a. Powdered, dry or solid food products shall display net weight.
 - b. Liquid food products shall display net volume.
 - c. Semi-solid or semi-liquid food products can display either net weight or net volume.
 - d. Other food products shall display net weight.
 - e. Food products in sealed containers shall display net content as well as drained weight except food ingredients cannot be separated from the liquid part.
5. Essential ingredients listed as percentage of the total, starting with the major ingredient. For concentrated products or those needing to be diluted or dissolved before consumption, the proportion of the products when diluted or dissolved must be displayed.
6. Declaration of “Utilizing preservatives” for any usage.
7. Declarations of “Natural color” or “Artificial color” for any usage cases.

⁵ [http://www.qmaker.com/fda/new/images/cms/top_upload/1147232514_194-43\(update\).pdf](http://www.qmaker.com/fda/new/images/cms/top_upload/1147232514_194-43(update).pdf)

8. Declaration of "Utilize offor flavor enhancer" (the blank is for the name of flavor enhancer used.)
9. Declaration of "Utilize ofas food artificial sweetener" (the blank is for the name of artificial sweetener.) by alphabets of not smaller than 2 millimeter height and color of the text shall be highly contrast with the background of the label.
10. 10.Declarations of "Natural flavor", "Identical artificial flavor", or "Artificial flavor" as the applicable case.
11. Date, month and year of manufacture; month and year of manufacture; date, month and year of expiry; or date, month and year within which food remains in good quality or conforms to the standard. Accompanied by the word "Manufactured", "Expire" or "Use Before", as the case may be, note that:
 - a) The date, month and year of manufacture; the date, month and year of expiry; or the date, month and year within which food remains in good quality or conforms to the standard is used to described food which can be stored for not more than 90 days.
 - b) The month and year of manufacture; the date, month and year of expiry; or the date, month and year within which food remains in good quality or conforms to the standards is used to describe food which can be stored for more than 90 days.
 - c) The date, month and year of expiry is used to describe certain food products specified by the FDA e.g. modified milk for infants, infant food, supplementary food for infants and children, etc.
12. The food manufacturer or importer may request the FDA to display the date, month and year of expiry for other types of food not stipulated. The information on item (a) and (b) mentioned above shall be presented in the "Principal Display Panel" whereas the information concerning item (c) can be displayed either in the "Principal Display Panel" or on the top or the bottom part of the container. If displayed at the bottom part of the food container, there shall be a statement indicating where to check for the manufactured date, expiry date or the date within which the food still remains in good quality or conforms to the standard.
13. Storage instructions, if any.
14. Preparation instructions, if any.
15. Specific texts to be displayed clearly are usually for food products that need precautions before use. For example, "Not Used as Infant Food" and "Not to Replace Milk for Infant" shall be presented.
16. Instructions on use and other useful information for products for use by a specific group of consumers e.g. a table showing baby-feeding schedule.
17. Labels with statements, pictures, photographs, signs, trademarks, etc. shall not give misleading or exaggerating implications about the products.
18. The label shall not contain pictures, photographs, signs, trademarks, and etc., which either explicitly or implicitly advertise other products.

Labeling of Food Products sold to Food Manufacturers as Production Ingredients

A Thai label is required except for imported products where the English label is allowed. The label must at least contain the following:

1. Name and type of food
2. Food serial number
3. Net content of food in metric system
4. Name and country of the manufacturer

In this case, although a label containing Thai language is not required for imported products, the products must have the FDA's product registration number or label approval number.

Both Thailand and the US have basic regulations that state in details whether a product needs to carry a label and describes the basic requirements for a label. The most prominent difference is that the requirements for labeling are far more comprehensive in the US than in Thailand.

NUTRITION LABELING

Labeling is widely used by governments as a regulatory tool in the nutrition area and companies are eagerly marketing the nutrition attributes of their products. Nutrition has been a focus of labeling policies in many high-income countries because diet is related to several leading causes of death. Nutrition labeling is seen as an effective method of encouraging consumers and giving them the nutrient content information necessary to change their diets to be in closer alignment with those recommended by health professionals.

The use of labeling policies for nutrition displays the full range of possible options. The US has the most extensive system of labeling, including mandatory nutrition information panels showing nutrient content and strict regulation of voluntary nutrient and health claims. Under the label's "Nutrition Facts" panel, manufacturers are required to provide information on fifteen core components. The table below compares the requisite nutrient information between the US and Thailand.

U.S. Nutrition Facts	Thailand Nutrition Facts
Total calories	Total Energy
Calories from fat	Energy from fat
Total fat	Total fat
Saturated fat	Saturated fat
Trans fat*	
Cholesterol	Cholesterol
Sodium	Sodium
Total Carbohydrate	Total Carbohydrate
Dietary fiber	Dietary fiber
Sugars	Sugars
Protein	Protein
Vitamin A	Vitamin A
Vitamin C*	
Calcium	Calcium
Iron	Iron

	Vitamin B1*
	Vitamin B2*

* Represents the differences between U.S. and Thailand requisite nutrition information

The Nutritional Labeling and Education Act of 1990 (NLEA) requires that food labels follow a standard format and provide this nutrition information⁶:

- Standardized serving sizes based upon the amount of food the average person usually eats at one time.
- Servings per container.
- Total calories per serving.
- Total calories from fat per serving.
- “Daily values” of total fat, saturated fat, cholesterol, sodium, total carbohydrate, and dietary fiber per serving. Daily values are based on current nutrition recommendations for a 2,000-calorie diet.
- If package size allows, a footnote lists recommended daily values for total fat, saturated fat, cholesterol, sodium, total carbohydrate, and dietary fiber for diets of both 2,000 and 2,500 calories.
- Ingredients listed from most to least according to weight.
- Percentages of vitamins A and C and as well as percentages of the minerals calcium and iron needed to fulfill the daily value recommendations. Food companies may voluntarily list other vitamins and minerals.
- Figures that allow consumers to calculate calories per gram from fat, carbohydrates, and protein.
- If a label uses a term such as “free,” “low,” “reduced,” or “light,” the food must conform to standardized requirements for using those terms.
- If a label makes health claims, the claims must meet specific nutrient levels or fulfill other nutrition requirements as determined by FDA or USDA.
- Other voluntary components allowed on the Nutrition Fact panel are calories from saturated fat, polyunsaturated fat, monounsaturated fat, potassium, soluble fiber, insoluble fiber, sugar alcohol, other carbohydrate, percent of vitamin A present as beta-carotene, and other essential vitamins and minerals.

⁶ Nutrition Labels, Guide E-136, Revised by Martha Archuleta, Extension Food and Nutrition Specialist (http://www.cahe.nmsu.edu/pubs/_e/E-136.pdf)

Standard Format:

Sample Label for Macaroni and Cheese

Start Here

Limit these
Nutrients

Get Enough
of these
Nutrients

Footnote

Nutrition Facts	
Serving Size 1 cup (228g)	
Servings Per Container 2	
Amount Per Serving	
Calories 250	Calories from Fat 110
% Daily Value*	
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 1.5g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%
* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

Quick Guide
to % DV

5% or less
is low
20% or more
is high

NLEA permits a simplified label format for foods that contain insignificant amounts of seven or more major nutrients. “Insignificant” means that a declaration of zero could be made in nutrition labeling, or, for total carbohydrate, dietary fiber, and protein, the declaration states “less than 1 g”. The simplified label, commonly used on vegetable oils and soft drinks, must include the serving size, total calories, total fat, sodium, total carbohydrates and sugars, and protein.

Simplified Format:

Nutrition Facts	
Serving Size 1 Tbsp (14g)	
Servings Per Container 64	
Amount Per Serving	
Calories 130	Calories from Fat 130
%Daily Value*	
Total Fat 14g	22%
Saturated Fat 2g	10%
Polyunsaturated Fat 4g	
Monounsaturated Fat 8g	
Sodium 0mg	0%
Total Carbohydrate 0g	0%
Protein 0g	
Not a significant source of cholesterol, dietary fiber, sugars, vitamin A, vitamin C, calcium, and iron.	
*Percent Daily Values are based on a 2,000 calorie diet.	

FDA Simplified Format
(Vegetable Oil)

Nutrition Facts	
Serving Size 1 can (360mL)	
Amount Per Serving	
Calories 140	
%Daily Value*	
Total Fat 0g	0%
Sodium 20mg	1%
Total Carbohydrate 36g	12%
Sugars 36 g	
Protein 0g	0%
* Percent Daily Values are based on a 2,000 calorie diet.	

FDA Simplified Format
(Soft Drink)

In Thailand, local food manufacturers, importers and distributors abide by the Food Act of B.E. 2522 (1979). Currently, the food regulation does not require mandatory nutrition labeling for food products. The regulations on nutrition labeling are based on the Ministerial Notification No. 182 of B.E. 2541 (1998) and No. 219 of B.E. 2544 (2001). However, nutritional labeling is mandatory for the following types of food.

- Food making a specific nutritional claim;
- Food which makes use of nutritional values in sale promotion;
- Food stating specific groups of consumers for sale promotion e.g. students, executives, elderly people, etc;
- Other foods as prescribed by the Food and Drug Administration with the approval of the Food Committee.

Exemptions from these nutrition-labeling regulations (as defined in Ministerial Notification No. 182) are infant food, supplementary food for infants and children and other types of food for which labeling requirements have been otherwise regulated; food not directly sold to consumers; and food packed in small containers, which aims to be repacked and sold in a larger container. Nutrition labeling must be presented in Thai and a foreign language is optional. However, the standard U.S. nutrition fact panel is not acceptable as Thai Recommended Daily Intakes are not identical to the U.S. Recommended Daily Intakes. In addition, differences may exist in serving size and reference amount. The labeling format is similar to the U.S. nutrition fact panel but not identical. Details on serving size and servings per container may be omitted where the reference on serving size cannot be determined due to the nature of that food. Hence, instead of the statement “Amount per serving”, the statement “Amount per 100 g” or “Amount per 100 ml” shall be used as appropriate.

Formats of Nutrition Data Display Box must be displayed in only one format of the followings:

1.1 Full-Form of Nutrition Data Display Box Format

(1) Standard Full-Form of Nutrition Data Display Box Format

Part 1	Nutrition Facts	
	Serving size : (.....)	
Part 2	Servings per :	
	Nutrition Value per serving size	
Section 1	Total Energy kilocalories (Energy from Fat .....kilocalories)	
	% of Recommended Daily Intake*	
Section 2	Total Fat g.%
	Saturated Fat g.%
	Cholesterol mg.%
	Protein g.	
	Total Carbohydrate g.%
	Dietary Fiber g.%
	Sugar g.	
	Sodium mg.%
Section 3	% of Recommended Daily Intake*	
	Vitamin A%	Vitamin E1%
	Vitamin B2%	Calcium%
	Iron%	
Part 3	*Percentage of nutrients for Thai recommended daily intakes for ages of 6 years and up, (1 hai RDI), are based on the energy demand of 2,000 kilocalories/day.	
	The energy demand for individual may be different. The person whose energy demand of 2,000 kilocalories / day, shall receive nutrients as follows:	
	Total Fat	Less than 65 g.
	Saturated Fat	Less than 20 g.
	Cholesterol	Less than 300 mg.
	Total Carbohydrate	300 g
	Dietary Fiber	25 g.
	Sodium	Less than 2,400 mg.
	Energy (kilocalories) per gram : Fat = 9 ; Protein = 4 ; Carbohydrate = 4	

(2) Horizontal Full – Form of Nutrition Data Display Box Format, for label, which has vertical area limited and have area of 250 sq. cm. and up.

Nutrition Facts	Nutrition Value per serving size	% of Recommended Daily Intake*	*Percentage of nutrients for Thai recommended daily intakes for ages of 6 years and up (Thai RDI) are based on the energy demand of 2,000 kilocalories / day.		
Serving size : (.....)	Total Fat g.	.....%	The energy demand for individual may be different. The person whose energy demand of 2,000 kilocalories per day, shall received nutrients as follows:		
Servings per :	Saturated Fat g.%			
	Cholesterol mg.%			
	Protein g.				
Total Energy kilocalories (Energy from Fat .....kilocalories)	Total Carbohydrate g.	.....%	Total Fat	Less than	65 g.
	Dietary Fiber g.	.....%	Saturated Fat	Less than	20 g.
	Sugar g.		Cholesterol	Less than	300 mg.
	Sodium mg.	.....%	Total Carbohydrate		300 g.
			Dietary Fiber		25 g.
			Sodium	Less than	2,400 mg.
	Percentage of Recommended Daily Intake*		Energy (kilocalories) per gram : Fat = 9 ; Protein = 4 ; Carbohydrate = 4		
	Vitamin A%	Vitamin B1%	Vitamin B2%		
	Calcium%	Iron%			

(3) Horizontal Full – Form of Nutrition Data Display Box Format, for label, which has vertical area limited and have area less than 250 sq. cm.

Nutrition Facts	Nutrition Value per serving size	% of Recommended Daily Intake*
Serving size :		
Servings per :		
Total Energy kilocalories	Total Fat g.%
(Energy from Fat .....kilocalories)	Saturated Fat g.%
	Cholesterol mg.%
	Protein g.	
	Total Carbohydrate g.%
	Dietary Fiber g.%
	Sugar g.	
	Sodium mg.%
*Percentage of nutrients for Thai recommended daily intakes for ages of 6 years and up. (Thai RDI), are based on the energy demand of 2,000 kilocalories / day.		
	Percentage of Recommended Daily Intake*	
	Vitamin A%	Vitamin B1% Vitamin B2%
	Calcium%	Iron%

(4) Continuous Full – Form of Nutrition Data Display Box Format, for label, which has area less than 80 sq. cm.

Nutrition Facts	Serving size : (.....) ; Servings per :
Nutrition Value per serving size : Total Energy..... kilocalories; Energy form Fat .....kilocalories; Total Fat g. (.....%)*; Saturated Fat g. (.....%)*; Cholesterol mg. (.....%)*; Protein .....g. (.....%)*; Total Carbohydrate g. (.....%)*; Dietary Fiber g. (.....%)*; Sugar g.; Sodium mg. (.....%)*; Vitamin A (.....%)*; Vitamin B1 (.....%)*; Vitamin B2 (.....%)*; Calcium (.....%)*; Iron (.....%)*	
*Percentage of nutrients for Thai recommended daily intakes for ages of 6 years and up (Thai RDI), are based on the energy demand of 2,000 kilocalories / day.	

1.2 Short-Form of Nutrition Data Display Box Format

This format is the optional use to display in case 8 and up out of 15 prescribed nutrients to be displayed in full-form format part 2 are in insignificant quantity nearly zero. Any prescribed nutrients, to be displayed in the full-form of nutrition data display box format but are not prescribed to be displayed in the short-form format, must also be displayed in short-form of nutrition data display box format when those nutrients are in significant quantities.

(1) Standard Short-Form of Nutrition Data Display Box Format

Nutrition Facts	
Serving size : (.....)	
Servings per :	
Nutrition Value per serving size	
Total Energy kilocalories	
Total Fat g. Protein g. Total Carbohydrate g. Sugar g. Sodium mg.	% of Recommended Daily Intake* % % %
*Percentage of nutrients for Thai recommended daily intakes for ages of 6 years or up (Thai RDI), are based on the energy demand of 2,000 kilocalories / day.	

(2) Horizontal Short-Form of Nutrition Data Display Box Format, for label, which have vertical area limited.

Nutrition Facts Serving size : (.....) Servings per : <hr style="width: 100%;"/> Total Energy kilocalories *Percentage of nutrients for Thai recommended daily intakes for ages of 6 years and up. (Thai RDI), are based on the energy demand of 2,000 kilocalories per day.	Nutrition Value per serving size Total Fat g. Proteing. Total Carbohydrate g. Sugar g. Sodiummg.	% of Recommended Daily Intake* % % %
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(3) Continuous Short–Form of Nutrition Data Display Box Format, for label, which have area less than 80 sq. cm.

Nutrition Facts Serving size : (.....); Servings per : Nutrition Value per serving size : Total Energy kilocalories; Total Fat g. (.....%)*; Protein g.; Total Carbohydrate g. (.....%)*; Sugar g.; Sodium mg. (.....%)* *Percentage of nutrients for Thai recommended daily intakes for ages of 6 years and up (Thai RDI), are based on the energy demand of 2,000 kilocalories / day.
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1.3 Dual Nutrition Data Display Box Format

The display of dual nutrition data box format is used when a product is mixed with other ingredients and/or processed to follow the instruction as displayed on the

label. In this case, the nutrition data of the product at the time of distribution and after the food has been prepared according to the direction on the label must be shown.

Nutrition Facts		
Serving size : (.....)		
Servings per :		
Nutrition Value per serving size	Product	Product after preparation
Total Energy kilocalories	.....	.....
(Energy from Fat .....kilocalories)	.....	.....
Nutrition Value of products	% of Recommended Daily Intake*	
Total Fat g.%%
Saturated Fat g.%%
Cholesterol mg.%%
Protein g.		
Total Carbohydrate g.%%
Dietary Fiber g.%%
Sugar g.		
Sodium mg.%%
Vitamin A%%
Vitamin B1%%
Vitamin B2%%
Calcium%%
Iron%%
*Percentage of nutrients for Thai recommended daily intakes for ages of 6 years and up(Thai RDI), are based on the energy demand of 2,000 kilocalories / day.		
The energy demand for individual may be different. The person whose energy demand of 2,000 kilocalories per day, shall receive nutrients as follows:		
Total Fat	Less than	65 g.
Saturated Fat	Less than	20 g.
Cholesterol	Less than	300 mg.
Total Carbohydrate		300 g.
Dietary Fiber		25 g.
Sodium	Less than	2,400 mg.
Energy (kilocalories) per gram : Fat = 9 ; Protein = 4 ; Carbohydrate = 4		

NUTRITIONAL CLAIMS

Nutrition claim means the displaying of expressions or any information related to food nutrition such as indicated quantity of energy, protein, fat, carbohydrate, including vitamins or minerals. As the Thai FDA generally uses Codex and U.S.

FDA standards as guidelines, the descriptors used in nutrient content claim (e.g. low in cholesterol) and comparative claims (e.g. “less”, “reduced”) generally have very similar definitions to those of U.S. food labeling. However, there may be some differences in the use of certain terms such as “good source of”, “rich in”, etc. Note that differences may exist in serving size, reference amount and local recommended daily intakes⁷. Nutrition claims in Thailand are classified into 3 categories; nutrient content claim, comparative claim, and nutrient function claim.

- A. Nutrient content claims are a nutrition claim that described the level of nutrient contained in a food. Examples are “source of calcium”, “high in fiber and low in fat”, etc. A food that is by its nature low in or free of the nutrient that is the subject of the claim shall not include the term “low” or “free” in the name of the food. Instead, a claim statement may be made in a general form that refers of all foods of that type e.g. vegetable oil, a cholesterol-free food. However, foods that have been specially processed, altered, formulated or reformulated so as to lower the amount of nutrient in the food or remove the nutrient from the food may bear such a claim.
- B. Comparative claims are claims that compare the nutrient levels and/or energy value of two or more foods. Examples are “less than”, “fewer”, “more than”, “reduced”, “lite/light”, etc. Comparative claims can be made if the foods being compared or “reference foods” are different versions of the same food or similar foods that are representative of the same type available in the market. The identity of the reference food shall be given and a statement of the amount difference in the nutrient content or energy value shall be expressed as a percentage or fraction, higher or lower than that of the food being compared. Also, the nutrient content per serving shall be provided. Full details of the comparison are needed. Comparative claims are not allowed in the case where reference foods already contain “low” or “very low” level of nutrient content or energy value according to the established conditions of such terms.
- C. Nutrient function claims are claims relating to the function of a nutrient to the body. Examples are “Calcium aids in the development of strong bones and teeth” and “Iron is a factor in red blood cell formation”. Nutrient function claims are permitted provided the following conditions are met.
 - a) Nutrient claim shall be prescribed in Thai recommended daily intakes for ages of 6 years and up (Thai RDI) attached to this Notification of the Ministry of Public Health.
 - b) The nutrient content of the claimed product in the level of reference serving size and serving size as displayed on the label shall be classified as “source of”. For the case of non prescribed serving size, and that food is not similar in consumption behavior to the food with

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[http://newsser.fda.moph.go.th/food2/file/Laws/Notification of Ministry of PublicHealth/Law03P182.pdf](http://newsser.fda.moph.go.th/food2/file/Laws/Notification%20of%20Ministry%20of%20PublicHealth/Law03P182.pdf)

prescribed serving size, the quantity of serving size of the product shall be calculated per 100 g. or 100 ml.

- c) The claim must be made with reference to the nutrient not particularly to the product.
- d) The claim must be based on reliable scientific evidence.
- e) The claim must not be expressed or meant to lead the consumers to understand that the consumption of such nutrient is able to prevent or cure of any diseases.
- f) Examples of nutrient functional claim
- g) "Calcium is the important composition of bones and teeth"
- h) "Calcium assists in building process of bones and strong teeth."
- i) "Folate is an important composition to build red corpuscle"
- j) "Vitamin B1 and vitamin B12 assist in function of nervous system"

HEALTH CLAIMS

With the increasing market for health foods, functional foods and food supplements, health claims have become an important marketing tool. Health claims in the US are designed to educate consumers and encourage consumption of healthful foods. Health claims have been permitted in the United States since 1994. Claims are regulated under the Food, Drug and Cosmetic Act (1938) as amended by the Nutrition Labeling and Education Act (1990, implemented 1994). The Food and Drug Administration (FDA) oversees these health claims in three ways⁸.

1. The 1990 Nutrition Labeling and Education Act (NLEA) provides for FDA to issue regulations authorizing health claims for foods and food supplements after FDA's detailed review of the scientific evidence submitted in health claim petitions. The FDA will authorize these types of health claims if they agree that the nutrient/disease relationship is well established and meets the significant scientific agreement standard. The approval of the claim is based on scientific consensus that can include epidemiological, clinical and animal studies to back them up.
2. The 1997 Food and Drug Administration Modernization Act (FDAMA) provides for health claims based on an authoritative statement of a scientific body of the U.S. Government or the National Academy of Scientific; such claims may be used after the submission of a health claim notification to FDA. For a complete explanation of how to use health claims based on authoritative statements, the process can be found on the website: www.cfsan.fda.gov/~dms/hclmguid.html. The FDAMA process is for foods only, and in the notification process the FDA must deny the claim petition within 120 days of submission or the claim can begin to be used in the marketplace.
3. The 2003 FDA Consumer Health Information for Better Nutrition Initiative⁹ provided for qualified health claim on foods and food supplements where the

⁸ The Scientific Substantiation of Health Claims with Particular Reference to the Grading of Evidence and Consumer Understanding, ISBN: 9081003712

⁹ See www.fda.gov/oc/nutritioninitiative/whitepaper.html

diet-health relationship does not achieve the significant scientific agreement standard required for an unqualified health claim, as described in (i), but where the weight of the scientific evidence is in favor of the relationship. This ability to make qualified health claims is a significant advance in FDA policy to reflect emerging science.

Thailand is now working on the draft of the Notification of the Ministry of Public Health regarding health claims and CODEX guideline has been used substantially by the involved Thai FDA regulators. The Thai FDA has also defined three types of health claims to be in accordance with CODEX guideline: nutrient function claims, other function claims (to include foods and food components), and reduction of disease risk claims. The main criteria implemented by the Thai FDA is that health claims must be based on update relevant scientific substantiation and the level of proof must be sufficient to substantiate the type of claimed effect as recognized by generally accepted scientific review of the data.

Problems and challenges in implementing the nutrition labeling regulations in Thailand include laboratory testing of food samples, which is costly and time consuming as the Thai FDA has a pre-marketing approval system for all food products. Another major challenge is the complexity of nutrition information, especially in relation to consumer understanding.

NUTRITION LABELING – TRADE PROMOTION OR POTENTIAL TRADE BARRIER

Food labeling regulations have the potential to restrict trade in several ways, notably¹⁰:

- By making it more difficult to import food into a country;
- By creating issues of transparency if the labeling requirements are detailed in content and format;
- By differentiating between domestic and imported products.

A significant proportion of countries follow the Codex guidelines by requiring voluntary nutrition labeling unless a nutrition claim is made. Countries currently initiating or further developing nutrition labeling regulations actively use the Codex. Significant differences remain between countries, potentially restricting trade. These differences may require food exporters to change their labels according to which country they export to, creating a potentially greater cost burden for small, relative to large, food manufacturers. Most significantly in the context of trade, some countries impose mandatory labeling. The US introduced mandatory nutrition labeling in 1990, despite the fact that this measure exceeded the Codex standard. When developing these regulations, the FDA fully recognized that the United States would not be in harmony with other trading partners, admitting that the regulations would require foreign firms to change their labels, would require additional nutrient testing and would be costly for food importers.

¹⁰ “Assessing the impact of revisions to the EU nutrition labeling legislation”; Lila Rabinovich, Jan Tiessen, Flavia Tsang, and Christian van Stolk

The classic example of Thailand nutrition labeling on specific five categories of snack products has been discussed and questioned by the U.S. exporters as whether this regulation has been imposed to limit snack food imports to Thailand or the measures for Thailand to tackle the problem of obesity in children¹¹.

ROLE OF CODEX IN NUTRITION LABELING & CLAIMS

The purpose of food labeling is to allow consumers to make an informed judgment of a product's overall value. Since there are many factors of a varied nature that are required to make such a decision, it is not surprising that the procedures and principles behind labeling are complex. International labeling requirements attempt to harmonize world thinking on the most effective ways of conveying sufficient information to consumers so that they can make rational choices. Thus a very significant responsibility rests with the label and the guidelines covering its design.

Food labels have become increasingly complex, particularly as products move from the status of basic commodities to highly processed, value-added products. Where several sub-products are part of an overall food's finished formulation, the list of ingredients can be very extensive. In fact, the level of details on a label can be so broad that it is often questioned whether this actually enhances the consumers' ability to judge a product or whether it simply confuses consumers as a result of excessive complexity. The name of the product, its list of ingredients, the expiration date, instructions for use and, where necessary, the country of origin, are the key elements to appear on the food label. Nutrition labeling, health claims, indications of genetic modification or irradiation and the environment-friendliness of the food packaging are also elements that find their way onto labels. Globally harmonizing all these elements on labels is an intimidating prospect and a key function of the joint FAO/WHO Codex Alimentarius Commission.

Many food manufacturers are not realize how diverse interpretations may be of what they consider a simple word, "nutrition" in Pakistan was understood as "rich, meaty, fatty food" whereas in Thailand it connoted "pasteurized no preservatives". "Healthy" in Philippines was understood as "a fat man in a Hawaiian shirt", but in Singapore it implied "going to run everyday". "Fortified" in Korea connoted "strong and robust" but Chinese understood this as "there must be something wrong with it in the first place" (Ogilvy and Mather, 2000). Codex has recognized the importance of labeling and has developed a guideline not only for standards for conventional labels, but also for model regulations to control unsubstantiated claims made on labels, as well as special regulations on nutrition labels and for health claims.

In the Codex framework, nutrition matters are the responsibility of the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU), while nutrition labeling falls under the Codex Committee on Food Labeling (CCFL). The CCFL has elaborated on basic nutrition labeling texts, including the General Standard for the Labeling of Pre-packaged Foods, General Guidelines on Claims, Guidelines on

¹¹ See "Proposed New Regulation on Food Labeling 2006" at <http://www.fas.usda.gov/gainfiles/200610/146249228.pdf>

Nutrition Labeling¹² and Guidelines on Use of Nutrition Claims¹³. Thailand has been developing their nutrition labeling and claim according to both U.S. standard and CODEX.

THE IMPACTS OF NUTRITION LABELING HARMONIZATION ON THE EXPORT OF U.S. FOOD PRODUCTS TO THAILAND

Thailand is not only a large exporter of food products; it is also an importer of food from many countries including the US. Data from Global Trade Atlas shows that China, New Zealand, the United States, Malaysia and Australia are the five top consumer-oriented agricultural trading partners of Thailand in term of imports into the country. Imports from the US have increased over the last five years. Therefore, to be able to harmonize food regulations including food labeling between Thailand and the US will absolutely help ease the U.S. food exports to Thailand. Many governments consider food exports an important source of foreign exchange.¹⁴ However, trade restrictions can emerge from increasing stringency of food regulations among trading countries including food standards, labeling, etc.

In spite of the broadly accepted guidelines of the Codex, some differences still exist between the food regulations of its member countries. For example, U.S. exporters exporting food products to Thailand require to change their labels to comply with Thai food labeling regulations, especially the difference of food labeling regulations involve the establishment of mandatory nutrition labeling such as Thai snack food labeling. However, there is limited available research on the actual impact on trade of labeling regulations, particularly mandatory nutrition labeling. However, while formal disputes have not arisen as a result of the implementation of mandatory nutrition labeling, the regulation has been used as a basis to reject imported food products. Therefore, the food regulatory authorities of both Thailand and the US have to exploit available opportunities to compare requirements, harmonize their food standards, methodology, definitions and other technical work underlying labels, and identify areas of equivalence. Equivalence could lead to not only identical requirements but ones that are in the range where regulators exercise enforcement discretion to refrain from regulatory action.

However the information that Thailand requires to put on their food labeling is quite different from the information that need to go on the food labeling in the US and the reasons behind as well as issues surround the harmonization of food labeling regulations of Thailand and the US can be categorized into three general categories as follows:

1. Cultural differences between Thailand and the US. The major food related consumer issues might be different between these two countries and this

¹² http://www.codexalimentarius.net/download/standards/34/CXG_002e.pdf

¹³ http://www.codexalimentarius.net/download/standards/33/CXG_001e.pdf

¹⁴ See <http://www.fao.org/DOCREP/W9474T/w9474t02.htm>

might lead to different labeling implications, for example the major concern in the US is the over consumption of food while the nation nutrition problem is the major problem in Thailand. Even countries in Southeast Asia, there are more differences than similarities in the regulations on nutrition labeling and claims among countries.¹⁵

2. Issues regarding the processes used to harmonize. The problems exist on the transparency, different interests and the level of participation by relevant groups who involve in the harmonization process whether in the area of WTO, CODEX, WHO meetings, etc.
3. Technical knowledge and human resources inequalities of these two countries.

CONCLUSION

Labeling policies can create non-tariff barriers to trade by making it more difficult for food to be imported into a country. They may pose continuing problems with transparency, especially when the label requirements are very detailed as to the content and format of required information, and of equal enforcement between domestic and imported products. It may not be possible for different countries to mutually recognize each other's labels if they have specific concerns about what information is delivered to consumers and how it is delivered. However, some coordination of labeling goals and policies has occurred. For example, the Codex Committee on Food Labeling has focused on considering voluntary and mandatory information provision for process attributes (organic produce and biotechnology issues), food safety and nutrition attributes (health and nutrition claims), and the trade impacts of non-SPS labeling issues (e.g. guidelines for the use of the term "Halal").

However, labeling policies may be an essential complement to mutual recognition between countries of regulatory programs that try to assure the quality of food products. For example, two countries or a country group may mutually recognize each other's regulation of value attributes, as is largely the case in the European Union. Therefore, CODEX labeling guideline may support the use of mutual recognition between countries, as in this case, Thailand and the US in particular. The Codex Alimentarius Commission is clearly crucial to the process of informing and guiding countries and of encouraging harmonization between differing practices. While nutrition labeling regulations have triggered a limited amount of discussion of trade-related issues, differences between health claims regulations may pose future challenges in this area. Greater cooperation between Thailand and the US is needed to encourage the development of regulations that recognize both countries' similarities and differences.

15

Tee ES Tamin S, Ilyas R, Ramos A, Tan WL, Lai DK, Kongchuntuk H; Current status of nutrition labeling and claims in the South-East Asian region: are we in harmony; Cardiovascular, Diabetes and Nutrition Research Centre, Institute for Medical Research, Kuala Lumpur, Malaysia