



# **THAI AGRICULTURAL STANDARD**

**TAS 7020-2007**

## **VANNAMEI SHRIMP**

**National Bureau of Agricultural Commodity and Food Standards  
Ministry of Agriculture and Cooperatives**

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(3)

Shrimp is economically important fish species of high income to Thailand. However, some other countries can produce high quantity of fresh prawn with competitively low cost. Accordingly, Thailand has to develop both safety and quality of products to be acceptable and competitive in the world market. It is, therefore, deemed necessary for the Ministry of Agriculture and Cooperatives to establish Thai Agricultural Standard on Vannamei Shrimp.

The provisions of this standard is based on the Study of Vannamei Shrimp Quality Control conducted by National Bureau of Agricultural Commodity and Food Standards in collaboration with Department of Fisheries B.E. 2550 (2007).

***Remark:***

The standard title has been revised from “Thai Agricultural Commodity and Food Standard (TACFS)” to “Thai Agricultural Standard (TAS)” in accordance with the Agricultural Standards Act B.E. 2551 (2008).



**NOTIFICATION OF THE NATIONAL COMMITTEE ON  
AGRICULTURAL COMMODITY AND FOOD STANDARDS  
SUBJECT: THAI AGRICULTURAL COMMODITY AND FOOD STANDARD:  
VANNAMEI SHRIMP  
B.E. 2550 (2007)**

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The resolution of the 2/2550 session of the National Committee on Agricultural Commodity and Food Standards dated 28 August B.E. 2550(2007) endorsed the Thai Agricultural Commodity and Food Standards entitled Vannamei Shrimp. This standard would be of benefits for quality improvement, facilitating trade and protecting consumers.

By virtue of the Cabinet Resolution on Appointment and Authorization of the National Committee on Agricultural Commodity and Food Standards dated 19 November B.E. 2545 (2002), the Notification on Thai Agricultural Commodity and Food Standard entitled Vannamei Shrimp is hereby issued as voluntary standard, the details of which are attached herewith.

**Notified on 20 September B.E.2550 (2007)**

Mr. Teera sutabutr  
Minister of Agriculture and Cooperatives  
Chairperson of the National Committee on Agricultural Commodity and Food Standards

**THAI AGRICULTURAL STANDARD**  
**VANNAMEI SHRIMP**

**1 SCOPE**

This standard defines required quality of Vannamei Shrimp (*Litopenaeus vannamei*) of the family Penaeidae, commonly recognized as Pacific White Shrimp or Whiteleg Shrimp to be supplied as fresh.

**2 DEFINITION**

For the purpose of this standard:

2.1 **Vannamei Shrimp** means shrimps with straight rostrum. Upper rostrum has 7 - 8 teeth while lower rostrum has 2 - 3 teeth. The pair of antennae is pink. The swimmerlet is white.

2.2 **Fresh shrimp** means living shrimp or shrimp being harvested caught while they are alive. Shrimp will be washed and chilled immediately to preserve freshness.

**3 QUALITY**

(1) GENERAL REQUIREMENTS

Prawn shall be of the following qualities examined by visual inspection and organoleptic test:

- 1) fresh and clean with complete carapace, abdomen and tail,
- 2) without visible defects,
- 3) not newly molted shrimp
- 4) without parasite and infectious lesions,
- 5) free of foreign smells, or taint smells, and
- 6) free of foreign matters caused by improper hygienic practices.

(2) CLASSIFICATION AND TOLERANCES

3.2.1 Classification

Vannamei Shrimp in this standard, are classified in two classes defined below:

## 3.2.1.1 Extra Class

General characteristics and odor of shrimps indicating grade level 4 with respect to grading criteria in Annex A

## 3.2.1.2 Class I

Slightly lower quality compared to extra class, notably general characteristics and odor indicating at least grade level 3 with respect to criteria in Annex A.

## 3.2.2 Tolerances

Quality tolerances of fresh shrimp in each container shall be as follows:

## 3.2.2.1 Extra Class

Not greater than 5 % of the total number of fresh shrimps not complied with the extra class but meeting class I which all aspects are met the criteria in grade level 3.

## 3.2.2.2 Class I

No greater than 5 % of the total number of fresh shrimps not complied with the class I but all aspects are met the grade level 2.

## 4 SIZING AND TOLERANCES

### 4.1 SIZING

In case, there is no specific deal between buyers and suppliers, shrimp sizes are defined in Table I.

**Table I Sizing**

Number of shrimp per kilogram
< 31
31 – 33
34 – 36
37 – 39
40 – 44
45 – 49
50 – 54
55 – 59
60 – 64
65 – 69
70 – 74
75 – 79
80 – 84
85 – 89
90 – 94
95 – 99
>100

#### **4.2 TOLERANCES**

Not greater than 5 % of total weight of shrimp from immediate next levels of bigger or lower sizes is allowable.

### **5 ORIGIN**

Either catch source or origin or both shall be identified on label or aquatic animal movement document.

### **6 PACKING AND PACKAGING**

6.1 Containers must be appropriate

6.2 Containers shall be non-water absorbent, clean, hygienic, preventing contamination, free of odor and foreign matters, withstanding transportation and able to preserve fresh shrimp quality.

6.3 Shrimp in each container shall be derived from the same catch and origin.

6.4 If, in the chilling process, ice and/or water are used, they shall be obtained from clean sources according to requirements stipulated in the TAS No. 7410 (Code of Practice for Fish and Fishery Products VOLUME 1: General Requirements).

### **7 CONTAMINANTS**

In compliance with the provisions of the relevant laws and requirements under the Thai Agricultural Standard on Contaminants.

### **8 VETERINARY DRUG RESIDUES**

In compliance with the provisions of the relevant laws and requirements under the Thai Agricultural Standard on Veterinary Drug Residues.

### **9 HYGIENE**

9.1 Culturing, harvesting, post-harvesting management and transportation shall be complied with Good Aquaculture Practice: GAP and stipulated in the TAS No. 7410 (Code of Practice for Fish and Fishery Products VOLUME 1: General Requirements) to prevent deterioration and harmful contamination to human health.



9.2 Bacterial contamination found in whole fresh shrimp shall be complied with the relevant laws and requirements of the TAS on Bacterial Contamination in Agricultural Commodity and Food.

## **10 LABELLING**

Each container shall bear legible, indelible code, mark or statements without false or deceptive information as follows:

### **10.1 FRESH SHRIMP FOR WHOLE SALE**

- (1) Statement “Vannamei Shrimp” or “Fresh Vannamei Shrimp”
- (2) Name and address of the registered establishment of the wholesaler, supplier or packer together with the product identification (If any), and
- (3) Quality classification, size and net weight in metric system

### **10.2 FRESH PRAWN FOR FINAL CONSUMER**

- (1) Statement “Vannamei Shrimp” or “Fresh Vannamei Shrimp”
- (2) Name and address of supplier or re-packer or registered trade mark.
- (3) Quality classification, size and net weight in metric system
- (4) Storage instruction as follows:
  - 1) “Stored at 4 °C or lower”
  - 2) “Best before date” or “Expiration date”
  - 3) “Keeping in freezer will extend shelf-life but may cause lower quality.”

### **10.3 LANGUAGE**

If production is for domestic consumption, the language shall be Thai but if for exporting; preferable language is determined by importing country.

### **10.4 OFFICIAL CERTIFICATION MARK**

Certification Mark shall be complied with requirements of the inspection body or certification body and in compliance with this standard and such bodies shall be recognized by the Committee on Agricultural Standards.

## **11 METHOD OF ANALYSIS AND SAMPLING**

In compliance with the provisions of the relevant laws and requirements under the Thai Agricultural Standard on Method of Analysis and Sampling.

## ANNEX A

## GRADING CRITERIA FOR QUALITY CLASSIFICATION OF FRESH PRAWN

## (Section 3.2)

A1 Characteristics	Grade Level
<b>A 1.1 General Characteristics</b>	
Normal form with intact appendages, natural color, head tightly attached to body, moist and glint shell, firm and translucent flesh tightly attached to shell and hard to peel	4
Normal form with intact appendages, natural color, head moderately attached to body, glint shell, moderately firm flesh, translucent , flesh moderately attached to shell	3
Normal form, pale color, slightly hardened shell, flesh loosely attached with shell, slightly firm and dull flesh, head loosely attached to body, tissue around neck slightly torn	2
Normal form, extremely pale color, flesh loosely attached with shell, dull soft flesh, head very loosely attached to body , tissue around neck mostly torn	1
<b>A 1.2 Odor</b>	
Natural odor of fresh shrimp. No abnormal odor	4
Slightly fresh odor to neutral	3
Slightly fishy odor	2
Abnormal or undesirable odor such as strongly fishy, sour odor	1

**Remark:**

- (1) A test for muddy odor may require cooking before sensory evaluation
- (2) An evaluation and grading for prawn quality needs trained sensory specialist.

**ANNEX B****UNIT**

Measurement unit and symbols are referred to International System of Units or Le Système International d' Unités as allowable parameter listed below:

<b>Items</b>	<b>Unit name</b>	<b>Symbol</b>
Mass	Kilogram	kg
Temperature	Degree Celsius	<sup>0</sup> C