



# ACFS

National Bureau of Agricultural Commodity  
and Food Standards

Annual Report 2017



# Annual Report 2017

National Bureau of Agricultural Commodity and Food Standards



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# Foreword

## 2017

The year to strengthen agricultural standards for the sustainability

The Ministry of Agriculture and Cooperatives has declared 2017 as “The year to strengthen agricultural standards for the sustainability” with quality and efficiency. The focus has been on improving farm and food products which are produced along the whole supply chain from upstream to downstream, both for domestic and export market, to meet with higher agricultural standards which are recognized internationally. The policy has been to speed up the promotion of collaborative farming and the training of smart farmers and smart officers so that the production cost of the collaborative farms will be lower and their competitiveness will be strengthened with the larger farm size and larger production capacity. The Strategic Plan on Organic Farming 2017-2021

• focusing on empowerment of organic farmer groups also  
• contributes to the year to strengthen agricultural standards for the sustainability.

• In responding to the policy of the Ministry of Agriculture and Cooperatives ACFS has implemented according to the missions and functions of the agency by focusing on the development of product quality that meet safety standards as well as the organic standards. Also we have accelerated the improvement of the efficiency of conformity assessment process by reducing steps of work and transferring work to private parties. In addition we have improved administrative process, technology and innovation, and the link among the players in supply chain. Further, we have capacity building programs for the workforce along the whole supply chain. We have encouraged the producers to apply for safety or organic certification corresponding to the type of their production methods so that the confidence of consumers can be ensured. The goal of these work are on the increasing income and the better quality of life of the farmers and producers. The success of our work on the strengthening of agricultural standards for the sustainability is not possible without the strong collaboration of many agencies.



## Summary of major achievements in 2017

1. Standard setting for agricultural commodities and food products: Minimum of 15 standards has been set per year. There are 285 standards are in effect.

1.1 Voluntary standards, There are 285 standards in effect.

- Plants standards; There are 100 standards e.g. Rice, Longan, Durian, Oil Palm, Maize, Cassava, Sugar cane, Chili, Mushroom
- Livestock standards; There are 69 standards e.g. Chicken, Pig, Dairy Cattle, Beef Cattle, Goat, Bird nest
- Fisheries standards; There are 53 standards, Shrimp, Tilapia, Cephalopods, Soft Shell Crab
- Organic products standards; There are 8 standards, e.g. Marine Shrimp, Rice, Snakeskin gourami, bees
- There are 35 others standards,

1.2 Mandatory standards, There are 6 standards in effect.

- Peanut kernels: Requirements for Aflatoxin Limit
- Code of Practice for Sulphur Dioxide Fumigation of Fresh Fruits
- Good Aquaculture Practices for Hatchery of Disease Free Pacific White Shrimp (*Litopenaeus vannamei*)
- Good Manufacturing Practices for Milk Collection Center
- Code of Practice for Mushroom Culture
- Good Manufacturing Practices for Frozen Durian



## 2. Overseeing the enforcement of 5 mandatory standards

- Peanut kernels: Requirement for Aflatoxin Limit (since 6 January 2017)
- Code of Practice for Sulphur Dioxide Fumigation of Fresh Fruits (since 4 May 2016)
- Good Aquaculture Practices for Hatchery of Disease Free Pacific White Shrimp (*Litopenaeus vannamei*)(since 18 June 2017)
- Good Manufacturing Practices for Milk Collection Center (since 17 October 2017)
- Good Manufacturing Practices for Frozen Durian (since July 2017)

## 3. Groundwork preparation with stakeholders for the application of one mandatory standard to be enforced

- Code of Practice for Mushroom Culture

## 4. Participation in international standard setting process

### 4.1 International standards

#### Codex

- Maximum level of lead in fishes and fruits
- Standard for medicinal and

spices: Pepper,

- Code of Practice for National Food Control System

#### OIE

- Antimicrobial resistance drugs
- Code of Practice for the

Coordination between Public and Private Organization on Disease Control IPPC

- Transboundary Movement of Seeds

- Transboundary Movement of Plants for Planting with Planting Media Eradication of Plant Pest in Plant Products

### 4.2 ASEAN Standards

- Organic Products
- Soursop, Baby Corn, Coconut, Sweet Potato, Chick Pea, Taro
- MRLs i.e. Buprofezin in Long Eggplant, Spinetoram in Mango



## 5. Perform conformity assessment and authorize certification and inspection bodies.

5.1 There are 20 audits for the accreditation on 4 different scopes.

- GMP/HACCP; 12 audits
- GAP; 4 audits
- Food Safety Management System; 3 audits
- Organic; 1 audit

5.2 The accreditation on the scope of GAP has been accomplished for 6 IBs.

5.3 ACFS has been recognized by PAC (Pacific Accreditation Cooperation) and IAF (International Accreditation Forum) in the scope of Food Safety Management System.



## 6. Registration of laboratories with ISO/IEC 17025 for agricultural and food products testing

There are 106 laboratories registered. Some examples are the laboratories of following agencies.

- National Food Institute
- Thailand Institute of Scientific and Technological Research
- Central Laboratory (Thailand) Ltd.
- SGS (Thailand) Ltd.



## 7. Negotiation for market access or resolving of SPS issues in trade

### 1) Market access negotiation

- Negotiation for market access of processed ducks to New Zealand market
- Exportation of Mango varieties Choke Anan and Keaw Sawei to Japan
- Exportation of fresh chicken to Korea

### 2) Negotiation for trade resolution on SPS issues

- Shrimp export to Korea and Australia
- Exportation of rice, shrimp, fancy fishes, and honey to China
- Exportation of fancy fishes to Japan

## 8. Dissemination of trade regulations and measures imposed by partner countries

### 8.1 ACFS early warning system via email

### 8.2 seminar and publication

- 1) European Regulation on Novel Food
- 2) Code of Practice for export of halal food
- 3) FSMA
- 4) Labeling rules for food allergen imposed by various countries



## 9. Promotion of TAS Standards

9.1 Planning for a campaign of the year to strengthen agricultural standard for the sustainability  
The plan comprises 6 strategies.

- 1) Strategy on the development of national organic agriculture
- 2) Strategy for driving forward the management of agro-chemicals
- 3) Strategy for setting higher standard for collaborative farming
- 4) Improve the efficiency of certification system
- 5) Integration of agencies' work programs in setting higher standards
- 6) Create public awareness and correct perceptiveness on food safety in agriculture and organic farming

9.2 Integration of work program in relation to the policy on organic and collaborative farming

### 9.2.1 Collaborative farming

- 1) Create food processing model factory for adding value to five products comprising

- Two rice mills (Patthalung and Srisaket Provinces) with a combined capacity of 110 tons per day.

- Three packing houses for fruits and vegetables (Phitsanulok, Ratchaburi and Kampeangphet provinces) with a combined capacity of 6 tons per day.

- 2) Knowledge transfer program on GAP production to producers of four farm products

- Maize for animal feed production to 300 producers in Phetchaburi and Lopburi provinces

● Pineapple production for canning industry to 265 producers in Prajeub khirikhan province

● Rice and corn seeds production to 283 producers in Tak province

● Peanut after paddy production to 129 producers in Ubon Ratchathani province

#### 9.2.2 Organic farming

1) Create two model mills for rice according to GMP Standard with a capacity of 10 tons per day.

2) Knowledge transfer on group certification to six farmer groups in Sukhothai, Yasothorn, Srisaket, and Mahasarakham provinces

#### 9.3 Extend food education program for continuous learning

1) Knowledge integration for food safety in school (Q school) in Nan Province

2) Collaboration with 9 Agricultural Colleges in Southern Thailand to create 120 new generation farmers

#### 9.4 Create link between production and market for Q products

1) Certification of places supplying Q products

(1) Q Restaurants in 77 provinces with the participation of more than 3000 locations/branches

(2) Q markets in 62 provinces with the participation of more than 700 vendors

(3) Q modern trade with the participation of 618 stores

2) Integration of work program with the Ministries of Trade, Interior, and others in regard of marketing for certified products

3) Produce 10 pieces of media/ brochure for public use as the guide to food safety and organic farming

### 10 Food and farm products traceability

10.1 Knowledge transfer and the introduction to the application of QR Trace for 292 producers/farmers who are the application users. They can be classified into 3 groups.

1) Fruits and vegetables groups with 204 users

2) Rice group with 63 users

3) Food and processed products with 25 users

10.2 There are more than 5000 farmers in the network with the production area of 70,000 Rai and more than 200,000 tons per year



A close-up photograph of a business meeting. Several hands are visible, pointing at and holding documents with various charts and graphs. A laptop keyboard is partially visible in the background. The scene is brightly lit, suggesting an office environment. A semi-transparent dark grey rectangle is overlaid in the center, containing the text 'Performance outcomes' in white.

# Performance outcomes

# Standard Setting

## International Standards: Collaboration for the Recognition and Market Expansion of Thai Agricultural Products

### ASEAN MRA

ACFS has advocated on the agreement on the ASEAN Mutual Recognition Arrangement (ASEAN MRA) in the Prepared Foodstuff Product Working Group (PFPWG) since 2005. Thailand by ACFS has the honor to be the Co-chair of this working group. The Agreement has been signed by Member States during the 49 session of the Meeting of Economic Ministers (AEM) in September 2017 in Manila. The objective of the Agreement is to lay down the basis for Member States on how to mutually recognize the processes of

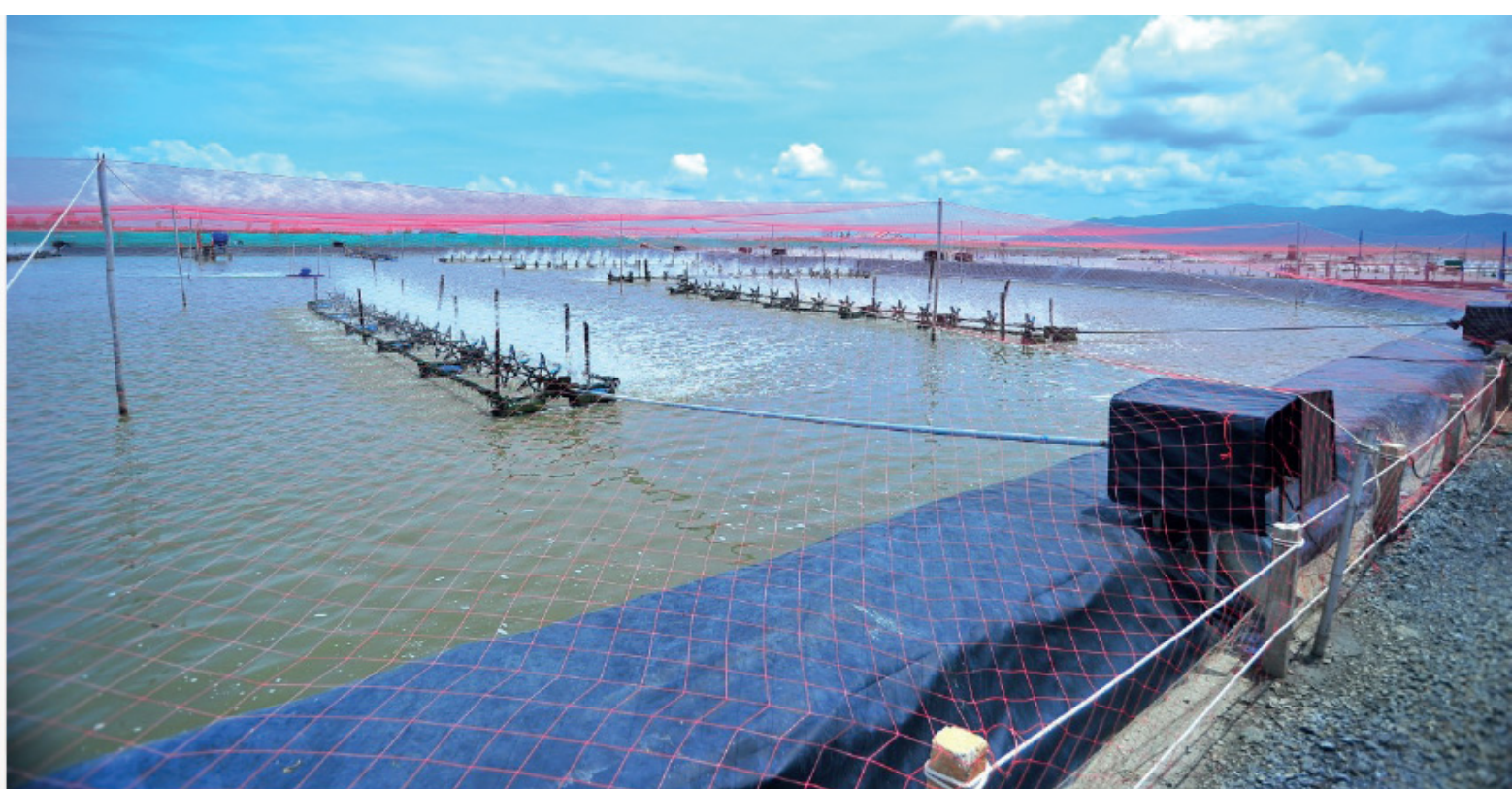
agricultural production under category 16 - 22 of the HS code each other.

With this Agreement, Member States have agreed to recognize the GMP/HACCP certification of each other without the need for an importing party to send their officials to certify the premises of food production in the exporting party. The Agreement thus reduces the duplication of work, facilitate trade, and improve trade movement of raw material and food products among Member States. The Agreement also increases

consumer protection in ASEAN leading to the complete integration into ASEAN Economic Community as the goal of Member States in the reduction of obstacles in trade and investment among them.

Nevertheless, the Agreement coverage is determined only by product item and not by other requirements on the limits of chemical residues, contaminant, foreign matter, labeling, or other quality standards of which exporter need to remain observing the requirement of importing countries.





## An approach for the determination of MRLs of Veterinary drug residues in fisheries products

Codex Committee on Residues of Veterinary Drugs in Foods: CCRVDF has the duty on setting the Maximum Residues Limits or MRL values and elaborating guidelines for various practices associating with the control of veterinary drugs. Up until 2016 there have been 63 MRL values for veterinary drug residues. Most values are for drugs used in cattle, swine, sheep, chicken and turkeys. Currently there are only 10 drugs used in aquatic animals on the assessment list of JECFA for the establishment of MRL values. Among the 10 drugs, there are 4 drugs i.e. chloramphenicol, gentian violet, malachite green and oxolinic acid which MRL values cannot be determined due to the lack of Acceptable Daily Intake value or ADI. There are 5 MRL values which JECFA has proposed for fishes, mostly salmon and trout.

The approach to further advance the work in this area is to study on the grouping of fishes and identify the representing species for the study before expanding the scope of MRLs setting to other close species base on scientific information and safety for human health.





## Standards for Zoonotic Diseases and World Organization for Animal Health

ACFS was representing Thailand at the 85<sup>th</sup> General Session of the World Assembly of Delegates of the OIE during 21-26 May 2017 in Paris, France. Thailand was successful at the meeting with the adoption of our proposal for the withdrawal of giant fresh water prawn from the list of disease susceptible species

The Aquatic Animals Health Standards Commission of OIE has requested a working group to consider a new scientific study presented by Thailand which opposed the listing of giant fresh water prawn as a susceptible species to infectious hypodermal and hematopoietic necrosis disease, IHNN disease. The infected giant fresh water prawns showed stunted growth with reduced development, deformation, and were variable in size. The meeting concluded that giant fresh water prawns disagreed with the criteria to be classified as susceptible species to the disease and thus justified the withdrawal from the list of susceptible aquatic animal to the disease. The withdrawal has been beneficial for Thailand in the cost reduction of the control measure for aquatic animal diseases especially on the targeted surveillances and preventive control. It is beneficial also in enabling Thailand to declare the disease free status.



## Standards for Sampling Method

Thai Agricultural Standard on the General Guideline for Sampling Method was established as a guide for setting criteria for the inspection of agricultural and food products on quality and safety. The Codex General Guideline for Sampling (CAC/GL 50 - 2004) was used as a basis to prepare 2 standards.

**1. Glossary and General Principle:** This standard defines the terms commonly used in sampling procedures and the main principle, which includes the steps of work.

**2. Sampling Plan:** This standard defines the approach for the planning or plan selection of sampling method suitable for the inspection of agricultural commodity and food.

These standards will assist expert working groups with responsibility on standard setting in their consideration for the determination of the requirements for sampling plan of the products. Also it will be a guidance to assist competent authorities in choosing a proper sampling plan in situation where dispute with trading partners occurs in international trade. The enforcement of these two standards will be notified in 2018.

## Food Safety Standard and the Antimicrobial Resistance

Antimicrobial resistance or AMR has become a critical problem which affects human and animal health as well as environment worldwide and also causes economic loss. During the 71<sup>st</sup> Session of the UN General Assembly, Prime Minister Gen. Prayut Chan-o-cha has delivered a statement, as the Chairman of G77 Group, at the High Level Meeting on Antimicrobial Resistance showing the determination of G77 Nations in solving the problem at the global scale focusing on collaboration of institutions and all parties. As a consequence, the Cabinet Meeting on 17 August 2016 has adopted the Strategic Plan for the Management of Antimicrobial Resistance 2017-2021 as a National Strategy. The Cabinet has appointed the Ministry of Agriculture and Cooperatives and The Ministry of Public Health to prepare a work plan for the implementation of this strategy. The Cabinet has also assigned other Ministries such as Foreign Ministry, the Ministry of Education, Defence Ministry and Finance Ministry to undertake related actions to this strategy.

The Ministry of Agriculture and Cooperatives has then commanded ACFS, the Department of Livestock Development, Department of Agriculture, and Department of Fisheries to integrate the implementation responsively to the problem of antimicrobial resistance. The work will be in collaboration with the Veterinarian Council and the Faculties of Veterinary Sciences in Universities. The Ministry of Agriculture and Cooperatives also guided that all government agencies and the private sector must act in the same direction to decrease the extent of this problem by the cooperation in strategy planning. The objectives are to reduce the use of antimicrobial drugs in livestock, reduce resistant microbes in the food chain, develop surveillance system for the use of antimicrobial drugs in plants, regulate and monitor the use of antimicrobial drugs in animal hospitals, develop campaign to improve knowledge for people in plant and animal industries on the appropriate use of the drugs.



# The Development of Thai Agricultural Standards :Improving Agricultural Production and Living Standard of Farmers



## Mandatory Standard: Frozen Durian

Frozen durian has become an important export product. Custom Department has shown that there was a volume of 22,187.16 tons of frozen durian export in 2015 with the value of 1944.77 million baht. The Department of Agriculture has also indicated that there was 12,865 tons of frozen and chilled durian with phytosanitary certificates exporting with the value of 1043.52 million baht mainly to China and USA.

Currently the export of frozen durian is increasingly accelerated year by year. However there have been reports of interception of products with quality

problem, containing foreign material or with the presence of microbial exceeded the acceptable limit. The problem arose likely because some producers lack quality control of raw material. These producers were not certified and they did not follow the good hygiene practices for food production. The incident affected the export of frozen durian and therefore it was necessary to impose the control of the standard for the production process of frozen durian. The aim was to ensure the confidence of importing markets, prevent economic loss and the impact on export. The control measure

for frozen durian has been implemented in line with international standard.

The Minister of Agriculture and Cooperatives has signed the Ministerial Regulation on 26 June 2017, requiring the standard compliance to be mandatory for the production of frozen durian. The Regulation has been published in the Royal Gazette since 30 July 2017. The detail of the Regulation "Mandatory Good Manufacturing Practices for Frozen Durian for Export 2017" and the Standard for Good Manufacturing of Frozen Durian (TAS 9046-2017) can be found at [www.acfs.go.th](http://www.acfs.go.th).





### The Objectives of the Standard of Frozen Durian

Upgrading production process for frozen durian



Establishment of standard in line with Codex for international recognition



Mandate the compliance to the standard for exporter



Upgrade frozen durian production to meet the requirement of the standard for export ensuring the confidence of importer

# Thai Rice Standards

The Ministry of Agriculture and Cooperatives has declared several standards related to rice covering the whole production chain. These standards have been used for the promotion to upgrade the rice production and in the certification of rice farm and the milling. There are 11 standards related to rice.

“

**1.** The standards for Production system are Good Agricultural Practices (GAP), for rice seed, Thai Hom Mali rice, Rice, Organic Rice as well as Good Manufacturing Practices (GMP) for Rice Mill and Germinated Brown Rice.

”

“

**2.** Product standards are Thai Hom Mali Rice, Thai Aromatic Rice, Thai Rice, Germinated Brown Rice, and Geography indication Rice. Therefore rice is the product for which standards have been completely established.

”

## Rice samples of the varieties with red seed coat

Hom Daeng Rice



Sunkhod Patthalung Rice



Hom Kularb Daeng Rice



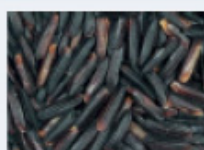
Hom Kadung Nga 59 Rice



RD 69 (Tubtim Chumpae) Rice



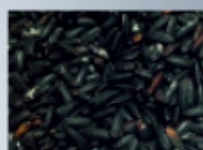
## Rice samples of the varieties with Purple/Dark Purple seed coat



Mali Nil Surin Rice



Luempua Glutinous Rice



Dam Chomaipai Glutinous Rice

**On July 11<sup>th</sup>, 2017, ACFS has revised and published four standards related to rice as described below.**

1. A system standard i.e. Good Agricultural Practices for Rice Seed (TAS 4406-2017) was amended to set the provisions on seed quality of various rice varieties to be in line with the rules of the Rice Department associating with the newly released rice varieties.

2. Three product standards i.e. Thai Hom Mali Rice (TAS 4000-2017), Thai Aromatic Rice (TAS 4001-2017), and Rice (TAS 4004-2017) of which the following provisions have been amended.

- Quality of paddy such as moisture content, amount of colour kernel, amount of immature paddy, undeveloped kernel, etc., have been amended to improve the quality of rice products and to solve the problem on the impurity of rice. The quality classification based on the amount of whole kernel or head rice has been cancelled.

- Quality classes of germinated rice and white rice have been amended to match with the classification adopted by the Ministry of Trade for the reason of practicality. The Ministry of Agriculture and Cooperatives by the Rice Department, the Department of Agriculture and ACFS have been involved in the classification process of the Ministry of Trade.

- The Thai Aromatic Rice in the category of tender non-glutinous has been expanded to cover Khao Dok Mali 105 and RD15 varieties and Thai Jasmine Rice was adopted as their category name in addition to Thai Aromatic

Rice and Thai Fragrant Rice. The additional category name was to enable the standardization of Hom Mali rice from other provinces so that they can also be eligible for commercialising as aromatic rice. The amendment was also made on the standard of germinated rice and white rice in the three aromatic groups with different kind of texture indexing by amylose content. These texture groups are Tender non-glutinous (low amylose), Friable non-glutinous (medium amylose), and Hard non-glutinous (high amylose). The rice will be classified into a certain texture group if it contains 80% or more of that particular texture. The amendment was to satisfy the market demand and to improve competitiveness in international market. In the case of rice which was traded with specific variety name, the content of that variety must be at least 90%. The purpose of the standard amendment was to highlight uniqueness of Thai rice and to ensure confidence of

consumer.

- Thai Rice standard (varieties other than Hom Mali rice and Aromatic rice) has also been updated by cancelling the requirement on purity of rice variety because it is common for producers to mix several varieties to satisfy market demand. However, there must be no less than 90% of the specified variety when the product is traded with specific variety name.

- In the amendment, there is now the additional requirement at farm level for Good Agricultural Practices and the requirement for Good Manufacturing Practices at milling factories to improve production and ensure confidence in Thai rice products.

- The amendment also added boiling method for testing rice purity in addition to the dyeing with iodine solution method and the disintegration of rice grain in alkali solution. The purpose was to increase options for lower cost and simplification of the testing.

## Rice purity testing by Boiling method

### Boiling and glass pressing



**Impurity in  
Hom Mali rice**

# Agricultural Standards

One of the major missions of ACFS is to set standards that can improve the efficiency and strengthen the agricultural production to its sustainability. The mission contributes to the improvement of farmers' living standard by improving their income gaining from a higher price of the products they produce with higher standards, lower production cost, and gaining greater market access. The standards are used also as the references for assessing import from ASEAN Member States in response to the opening up of the market due to the regional free trade agreement. They also provide as a tool for consumer protection. This year ACFS has developed standards of many important agricultural products which are having good economic outlook, in order to ensure their quality.

## Lime

Lime production is mainly produced for domestic household consumption. Export is still limit to not so many countries such as China, Lao PDR, Malaysia, Cambodia, Myanmar, Singapore and Brunei. In 2017 export value was 12.5 million baht. Even though the export value is not so high but there is potential for future expansion. ACFS therefore has commissioned a project to study the major characteristics which can be used as indicators of quality and as criteria for quality classification including size coding. The study was in collaboration with the Faculty of Agriculture, Kasetsart University at Kampaengsean. The data from the study together with the information from the Codex Lime standard as well as the Lime standard of the UN Economic Council for Europe (UNECE) were used to draft a national standard. The standard is to apply with lime in a package of commercial varieties i.e. Mexican lime (*Citrus aurantifolia* Swingle) and Tahiti lime (*Citrus latifolia* Tanaka) which are destined directly to consumers.

## Cucumber

Cucumber is mainly the produces for domestic consumption. Export is limit to countries in the region such as Myanmar, Malaysia, Sri Lanka, and Cambodia. The Thai standard covers several varieties with scientific name *Cucumis sativus* L. of family Cucurbitaceae which are produced for marketing as fresh produces. The essential parts of the standard are the minimum requirement, quality classification, sizing code, tolerance limit, packaging, labeling and marking, contamination, residues, hygiene, method for analysis and sampling. The ASEAN Working Group on Horticultural and Other Food Crops has also established cucumber standard.



## Deer Farming

Deer is a new and interesting economic animal because they are the source of high quality protein with low cholesterol. Deer meat or venison contains 21.6% of protein in comparison with 18.5, 16.5, and 15.7 in beef, lamb, and pork respectively. They are abundant with mineral iron and the content of cholesterol is lower than other animal meat. Therefore the deer meat is the product which has a good market trend both in domestic and export markets. In addition to the meat, deer also provide other

products such as tails, pizzles and sinews, and blood which can be consumed as nourishment to invigorate strong health. The velvet antler is also a stimulant. The skin can be used for leather products such as wallet, bag, shoes, and belt because they are soft and durable. Deer is also an animal that can feed on varieties of food crops as well as crop leftover such as corn cobs. Therefore a decision was made for ACFS to establish standard for deer farm. The standard is to cover several practices such as the selection of farm site, the disease control, and the drug usage. The selection of farm site is required to suit different type of raising practices whether the animal is raised in a pen, a ranch field, or free grazing, also to suit the management plan for housing deer yard with ramp for animal transferring or animal selection. The disease control is required to have a plan put in place for animal diseases control and the availability of veterinarian to manage the control. The drug usage requires that anesthetic drug is prohibited while cutting the antler because there may be residues remaining in the product.

## Organic Silk

Sericulture is an occupation requiring traditional wisdoms on silkworm culture, silk yarn threading, and weaving. The important element for preserving quality of Thai silk products is the use of high quality cocoon and high quality silk yarn. However, the safety of the products to consumers and the environment has now also received quite a lot of attention. Organic products such as textile, cosmetic and paper sheet produced from silk are therefore become increasingly popular. Hence, Thai silk producers should take a consideration to adjust the production into organic system to benefit from the increasing business opportunity. The organic certification for organic product is a must for ensuring confidence of consumers. However the products certification using international standard is costly. Therefore it is necessary for the elaboration of a national standard to provide as a basis for the development of domestic organic silk products in a systematic manner. The Department of Sericulture is the agency which can act as certification body.

ACFS has then developed the standard on 'Organic Silk Part.1: Silk Cocoon, Silk Filament Sheet, and Silk Yarn'. The standard covers provisions for good organic agriculture practices for the production of cocoon, filament sheet and silk yarn. The guidelines have therefore been established for the production process of raw material with acceptable safety quality. The production of organic silk will be a new challenge that improves Thai silk products to the next level. The value added to Thai silk by the organic production system will be a trade strategy to keep buyers' confidence persistently in the quality of the product.



The detail and additional information of Thai Agricultural Standards on product, system or general requirement standards can be found and downloadable at [www.acfs.go.th](http://www.acfs.go.th) and at the mobile application TAS2GO.

# Accreditation of Agricultural and Food Certification System

ACFS is the National Accreditation Body (AB) for agriculture and food sector. The agency has been peer reviewed for the recognition of its competency by the Pacific Accreditation Cooperation, PAC, and the International Accreditation Forum, IAF. ACFS has therefore been enabled to provide accreditation services for certification bodies (CB) and inspection bodies (IB). The standards available for the accreditation of the competency of CB are ISO/IEC 17021-1, ISO/IEC 17065, and ISO/TS22003. For the accreditation of IB the standard available is ISO/IEC 17020. The services delivered in 2017 are described below.

## 1. Accreditation of new CB and IB

ACFS has accredited the competency of a new CB and 2 new IBs. The new CB, GAP09 Limited Company has been accredited with ISO/IEC 17065 for organic production of food crops and rice. The two new IBs are the TPS Assessment Global Group limited Company and the Asian Laboratory and Medical Research Centre limited Company. Both have been accredited with ISO/IEC 17020 for good agricultural practices.

## 2. Accreditation of new scope for existing CB

There have been applications to expand scopes from three existing CBs namely TUV Nord (Thailand) limited Company, Certification Institute for Agricultural Products, Maejo University, and Central Laboratory (Thailand) Limited Company. TUV Nord has been accredited with ISO/IEC 17021-1 in the scope of GMP/HACCP for plastic packaging manufacture and ISO/IEC 17065 in the scope of good agricultural practices. Maejo University has been accredited with ISO/IEC 17065 in the scope of organic production of food crops and rice, as well as the scope of good agricultural practices for rice and food crops. The Central Lab. Ltd. Co has been accredited with ISO/IEC 17065 in the scope of product certification and with ISO/IEC 17020 for IB in the scope of good agricultural practices for swine and chicken.

## 3. Annual monitoring of all CBs

ACFS has strict policy to monitor accredited CBs and IBs to ensure that they maintain their competencies throughout the entire period of their accreditation. The list of CBs and IBs can be viewed online at [www.acfs.go.th/cb.php](http://www.acfs.go.th/cb.php) where farmers and producers can find the information and choose for desired services from those CBs.



# Food Safety Modernization Act (FSMA)

The promulgation of the Food Safety Modernization Act, FSMA, by the USFDA has directly affected the export of agricultural and food products from Thailand. The Act focuses on the use of preventive measures to control risks of unsafe food rather than relying on reactive control measures. The rules and regulations as well as the inspection process related to this law will be intensified on imports. ACFS therefore needed to prepare to deal with the enforcement of the law. Following preparation has been made.

## **1. Established a network of training institutes to provide relevant knowledge to producers by**

1) Signing MOU with 18 agencies from both government and private sectors on 1 November 2016 to establish a network of training institutes to provide training course on Preventive Controls Qualify Individual, PCQI as required by the rule on Preventive Controls for Human Food under FSMA.

2) Constructing ACFS Training Provider webpage at [www.acfs.go.th/trainingproviders/list.html](http://www.acfs.go.th/trainingproviders/list.html) to provide information on training courses of the Food Safety Preventive Controls Alliance, FSPCA, on Preventive Controls for Human Food, and to provide database of PCQI trained individuals. Currently there are more than 600 names of individual in the database.

## **2. Dissemination of the knowledge on FSMA by**

1) Organizing seminars on US Food Production Law, 21CFR 117 (Preventive Control for Human Food, PCHF). The seminars were organized twice, first time on 22 March 2017 and second time on 6 June 2017. There were 235 participants

2) Organizing a seminar on Preventive control for animal food, PFAF, to inform relevant parties such as producers and exporters of animal food, officers of relevant government agencies and staffs of academic institutes, on 31 July 2017 with 98 participants.

3. Acquired for the recognition of ACFS accreditation system from USFDA to prepare for the future accreditation services in the scope of PCHF and PCAF under the Third Party Certification Program. There were 2 activities completed under this undertaking.

1) The development of a guideline for the accreditation and the arrangement of a seminar forum on the same topic to create understanding among certification bodies so that they can make necessary preparation for providing services in line with the requirements of the law. The seminar was organized on 27 December 2017 with 87 participants.

2) The application for the recognition of ACFS as a Recognized AB under FSMA law was submitted to USFDA. They will dispatch an assessment team to ACFS in 2018.

The benefit of the recognition on the status as Recognized AB will ensure the confidence in certificates and results of the inspection of Thai food and agricultural products exporting to USA. The recognition will also facilitate the trade between Thailand and USA by reducing the repeated inspections.

# Peer Review by PAC for Mutual Recognition of Product Certification

ACFS has been recognized by the Pacific Accreditation Cooperation, PAC, on the scope of Product Certification since 17 June 2010, and by the International Accreditation Forum, IAF, since 16 September 2010. The recognition was valid for 4 years. The first re-evaluation by PAC for the extension of the recognition has been made in 2013.

In 2017 PAC has made the second re-evaluation by dispatching a team of assessors to ACFS. The team composed of three assessors, one each from Malaysia, India and Vietnam. The assessors were satisfied with the overall performances of ACFS which was found to correspond with the standard ISO/IEC 17011 and the mandatory requirements of

IAF. Therefore the recognition of the Product Certification scope has been maintained for another 4 years until 2021.

The recognition by PAC and IAF has benefitted ACFS as the product certification system of ACFS can be recognized also by all WTO Member States. The recognition will be useful for trade facilitation by reducing the need for repeated inspections.





## Recognition of Peanut Import from India

ACFS has declared the mandatory standard on Peanut: Aflatoxin tolerance level (TAS 4702-2014) under the virtue of Thai Agricultural Standard Act 2008. The standard has entered into force since 6 January 2017 and it has affected the import of raw peanut kernels without shell which needed to meet the same requirements of the standard as those domestic produced peanuts. The Custom Department has shown that 7.71% of peanut imported into Thailand was from India. ACFS therefore decided

to send an auditor team to assess and verify the certification system for peanut in India with the aim to facilitate trade and reduce steps for the inspection of peanut imported from India as suggested by article 29 of the Thai Agricultural Standard Act 2008.

The auditor team, composing of officials from ACFS and the Department of Agriculture, has visited the Indian Agricultural and Processed Food Products Export Development Authority (APEDA), which was the competent

authority controlling agricultural export including peanut during 21 - 25 November 2016. The auditor team found that the control and certification system under the authority of APEDA could be accepted as equivalence to the requirement of TAS 4702-2014.

The Minister of Agriculture and Cooperatives has therefore notified on 9 February 2017 that Indian peanut with export certificates from APEDA could enter without a certificate as required by the mandatory standard.



## Thai-Cambodia Cooperation on the Development of Accreditation System

ACFS has signed MOU or Technical Cooperation on Accreditation System with the Cambodian Department of Accreditation, DA. The Department is the Accreditation Body of Cambodia. The signatory took place on 6 March 2017. The objective was to provide technical assistance to Cambodia in the area of accreditation system for agricultural and food products. The focuses were on the exchange of experiences in the development of quality management system of accreditation body and to

build capacity of assessor in Cambodia.

ACFS has sent an expert group to provide training on international standards necessary for and relevant to agricultural and food certification such as ISO/IEC 17065, ISO/IEC 17021-1, and ISO/IEC 22000 GMP/HACCP. Cambodia also sent 6 trainee assessors from DA as observers in two witness assessment trips performing the assessment in accordance of ISO/IEC 17065.

The cooperation has contributed to the strengthening of close

relationships between the two countries. Besides it has reflected the strong potential of ACFS as the leader in the area of standards and standard certification in ASEAN. The technical assistance offered by ACFS has also strengthened our own certification system. In addition it has helped in improving the standards of agricultural and food products in neighboring countries which will benefit the whole ASEAN region.

# The Approach for Delegating the Mission on Certification to Private Bodies

The Ministry of Agriculture and Cooperatives has adopted a policy to delegate the mission on the certification of agricultural and food standards to private sector. ACFS has therefore put in place necessary steps to prepare for the transition.

1. Increase the number of auditors as guided by S-Curve strategy of ACFS. This has been carried out in several ways.

- Short term plan: Set up a program to develop auditors from the pool of human resources of ACFS such as retirees, Q volunteers, trainee auditors, and also from external persons. The implementation will be completed in 2018.

- Long term plan : Formulation of curriculum jointly with various universities such as Kasetsart university, Thammasart university, Naresuan university, Mahasarakham university, and Khonkean university. The course for lead auditor in fisheries sector has been already on offer at the Faculty of Fisheries, Kasetsart university.

- Setup funding system to support the delegation of the mission. The study for setting up the funding system will be completed in 2019 - 2020.



- Develop website to compile, in a database format, auditor names in order to register them in a pool of workforce which can support the work of the delegated mission. The website will be completed in 2018.

2. Expand scopes to be delegated.

- Add the scope on Good Manufacturing practices for Food in accordance with the notification of the Ministry of Public Health.

- Add the scopes on standards and guidelines for good practices of factories producing products from plant, such as TAS 9023, TAS 9024, TAS 9035, etc.

- Add scope on IB for organic products.

3. Signing MOU with Thai FDA and TISI on the collaboration on certification of IB and CB in food sector. The signatory was organized on 9 June 2017. The objectives were to collaborate on registration of IB and CB of food operator in accordance with Food Act 1979 and also to strengthen food control system in consistent with international standard.



# Laboratory Registration

Laboratories accredited with ISO/IEC17025 are beneficial to food producers especially those whose products were destined for export market. The benefit arises because the producers can use the test results from these laboratories to apply for health certificates for export at relevant competent authorities, such as the Department of Fisheries, Department of Livestock Development and Department of Agriculture, without a need for a repeated analysis. ACFS has realized the benefit and therefor has served to facilitate the producers in following manners.



At present there are 106 laboratories which have been registered with ACFS. They are classified in the following 3 categories.



# Negotiation on SPS Issues and Market Access

## Thai – Japan Cooperation on Food Safety 10 years anniversary under JTEPA

After signing a deal in 2007 on the Japan-Thailand Economic Partnership Agreement: JTEPA, Thailand and Japan have always had a close cooperation on the issue of food safety. The Special Sub Committee on Food Safety has been formed as a mechanism to implement the cooperation work and the Secretary General of ACFS play the role as the head of Thai delegation in the Special Sub-Committee. The Sub-Committee meets once a year and the two sides take turn in hosting the Meeting. ACFS is the coordinator to manage among associating agencies such as the Department of Fisheries, Department of Agriculture, Department of Livestock Development, Rice Department and Thai FDA.



During the past 10 years the two sides have met to negotiate the market access between them on several issues. As a result, Japan has opened up their market for pumelo variety Thong Dee, fresh poultry meat, and mangoes varieties Keaw Sawey and Choke Anan. Thailand also has opened the market for 7 varieties of Japanese oranges and beef. In addition Thailand has relaxed the strictness of inspection for radioactive contamination in agricultural and food imported from Japan. On the other hand, Thailand has received technical support from Japan every year. The support has been on the technical training, seminar on legal issues to provide information on rules and regulations, and

the exchange of experts. The support has benefitted agencies in both public and private sectors on gaining knowledge which is useful for the export of agricultural and food to Japan. The support has created trade opportunity and facilitated trade between each other.

In 2017 which was the 10<sup>th</sup> anniversary of the JTEPA Cooperation on food safety, Thailand and Japan have set up a Sub Committee on General Review, SCGR, as a forum for consultation on the review of the past outcomes in order to strengthen the cooperation. ACFS on behalf of Thailand has proposed to expand the scope of the cooperation on food safety to be in consistent with the WTO Agreement on

the Application of Sanitary and Phytosanitary Measures as well as other bilateral or multilateral agreements on SPS in which Thailand is a party, especially the Regional Comprehensive Economic Partnership, (RCEP) where both Thailand and Japan are members. Thailand also proposed to adjust the approach on the technical cooperation by setting a mechanism with a well-defined format in which the two sides determines the topics of common interests for an annual cooperation so that future cooperation on food safety between Thailand and Japan will be more efficient and have a positive impact on the economy of both countries.



JAPAN

# Thai Crickets: Novel Food for Global Supply

“Insects” have been looked at as a sustainable source of protein for our world. FAO has reported that crickets have protein level of 12.9%, fat 5.54%, carbohydrate 5.1%. Crickets, which can reproduce and grow fast, with short life cycle, can be raised with low production cost and can provide a high quality protein with complete nutrition. Therefore many countries have been interested in producing crickets as human food. The crickets can be processed and utilized in many ways such as making protein powder to mix with flour used in food and beverages, producing processed food, or blending as raw material used in animal feed.





## การสัมมนา เรื่อง “โอกาสทองวิ่งหนีไทยไปอยู่ : แมลงเศรษฐกิจเปลี่ยนโลก” วันพฤหัสบดีที่ 27 ตุลาคม 2559

โดย สำนักงานมาตรฐานสินค้าเกษตรและอาหารแห่งชาติ  
ร่วมกับ สำนักงานคณะผู้แทนสหภาพยุโรปประจำประเทศไทย และ มหาวิทยาลัยขอนแก่น  
ณ โรงแรมอวานี ขอนแก่น โฮเทล แอนด์ คอนเวนชั่น เซ็นเตอร์



Thailand has a potential and skill for the production of crickets in commercial scale. At present, there is a production of 600 tons of crickets per year, creating jobs providing income to a great number of farmers. The production is good alternative for farming in area unsuitable for plant production. This is especially true to the area in Northeastern part of the country where the extension work has been undertaken for cricket farming in collaborated land such as that at Jing Reed village, Pong district, Khonkean province. ACFS therefore has established a standard on good agricultural practices for cricket farming to be used as a guide in the extension work. The standard also contribute to a built up of consumer confidence in safety

of crickets particularly those of the varieties Ban (Sading), Thongdang, and Thongdam. The standard has set requirements on the farm features, farm management, environment management, and record keeping.

In 2015 the European Union has adopted the Regulation (EU) 2015/2283 on the registration of novel food which was defined as food items which have never been produced or consumed in the EU before 1997. Cricket was therefore fall also under this definition. A consequence of the adoption of the regulation was the introduction of import requirements for registration as well as certification of the products safety by the European Food Safety Authority prior to a lawful placement in the market.

ACFS has taken the action to monitor and evaluate the impact of the enforcement of the Regulation. ACFS also has committed to the development of good agricultural practices for cricket farming as a national standard based on the international standard. ACFS has helped farmer groups and other stakeholders to make necessary preparation by improving their awareness and knowledge. ACFS has also obtained technical information for preparing dossier for the application to gain market access as soon as the Regulation on novel food is enforced in 2018. The GAP certification for cricket farming has been prepared to support the sustainable growth of cricket farming industry in Thailand.

# White Bird's Nest: the Return of Bird's Nest Leader in Chinese Market



The Chinese General Administration of Quality Supervision, Inspection and Quarantine: AQSIQ, has published a notification since 28 August 2017 regarding the permission for the import of bird's nest products from Thailand. At the initial stage of this permission, China allowed just the import of white, yellow, or golden bird's nest. China still remained to consider the addition information for the import of red bird's nest because five years ago China has banned the import of all kind of bird's nest from Malaysia due to nitrite content was found to be over the limit. The ban has affected Thailand by causing the drop in the price of local bird's nest. As Thailand is a major producer, price drop has an impact on producers of both cave and house bird's nest.

The Ministry of Agriculture and Cooperatives, has had ACFS and the Department of Livestock Development to negotiate with China and eventually an agreement was reached for the signing of the Protocol of Inspection: Quarantine and Hygiene Requirements for the Importation of Bird Nest Products from Thailand to China. China has then notified that bird's nest from Thailand can be imported this year showing the confidence

of China in bird's nest control system of Thailand from upstream to downstream and from cave, packing house to final products.

System has been put in place for the registration process, quality control including disease and hygiene management, and prevention of residues especially nitrite which was the cause of import ban from all export countries. The production location of bird's nest exported from Thailand shall be registered at the Department of Livestock Development. Quality control and traceability shall also be certified by the Department of Livestock Development. This year there are two exporters which have been certified namely Siam Southern Sea Bird's Nest

Company and Siam International Bird's Nest Company.

At present China has imported bird's nest from three countries i.e. Thailand, Indonesia and Malaysia. China is the largest export market for bird's nest from Thailand. Chinese consider that bird's nest is premium gift for all ages and bird's nest has been dubbed as 'Pearl of Asia'. Bird's nest is often served to people with illness. It is popular to present as a gift. Thai bird's nest has been widely admired because of the high quality, firm texture, fragrance, softness but not easily dissolved. Lifting of import ban from China is expected to escalate the price of domestic bird's nest further.



# Trade of Organic Products between Thailand and USA





The popularity of organic products in response to the trend in health and environment consciousness has induced a spiral increase in the production from farms certified with a national or a third party standard. USA, due to its diversity of races, has become a major producer, processor, and market of organic, natural and innovative products to satisfy the lifestyles and values of new generation.

ACFS has, in many different ways, a continuing support for the gaining of market access for certified farm and food products especially those produced with technology and innovation. For example, Public awareness has been promoted directly to consumers in target market. ACFS has also made a presence in the Natural Product Expo West (NPEW), at Anaheim Convention Center, Los Angeles, California. The exposition has been recognized as the world biggest event for organic and natural farm products.

The market potential and the popularity of organic products have prompted ACFS to set priority

on the promotion and the certification of organic standard TAS 9000-2009 to motivate a wide acceptance and the utilization of this standard. ACFS also set the aim at the arrangement for mutual recognition between Thai organic standard and the standards of four major markets i.e. USA, China, Japan and the European Union. The purpose is facilitate the certification for organic farmers and producers of primary products. Since the USDA organic standard is widely acknowledged in international market, ACFS has therefore decided to pay a visit to the National Organic Program (N.O.P.) of the US Department of Agriculture to seek for a consultation on the arrangement for a mutual recognition between USDA and Thai organic standards. The work plan for the mutual recognition arrangement has been set for the implementation in 2018 in collaboration with the Department of Agriculture, Department of Fisheries, Department of Livestock Development and Rice Department.



## The Motivation for the Utilization of Standards

## Human Resources Development for a Sustainable Standardization

ACFS is the central agency for driving the agenda on the implementation of food safety in the Ministry of Agriculture and Cooperatives. ACFS has realized the importance of capacity building program for improving efficiency of human resources who operate the work. The program is in consistent with the Government policy to develop smart officer who has the ability

to employ knowledge in their work and is able to transfer the knowledge to train smart farmers. ACFS also has a work plan on the preparation of young generation to join force in the coalition to drive the policy into practice to get the concrete outcome. The young generation will continue to be an important part in the network of the Ministry of Agriculture and Cooperatives.

During the past several years ACFS has had integrated projects or activities on human resources development with other agencies to build capacity in the area of knowledge transfer and the promotion for the utilization of GAP and organic standards. The integrated capacity building projects have been implemented in three groups as described below.

## Human Resources of ACFS

Standard Smart Leader, SSL: A human resources development program under the concept of 'noble, capable, Q - personnel' was a course to prepare ACFS human resources who were knowledgeable, skilful and possessed high competency which was important and necessary for the advocacy and being responsive to keep safety of agricultural products. The Standard Smart Leader was expected to be able to operate work in an integrated team with people from other agencies. The first group had 38 graduates. The outcomes can be concluded in three different levels.

- At individual level, there have been the skills built up in the area of public relation work using social media such as Facebook, Line and YouTube to provide information on their training activities, as well as roles and missions of ACFS to the public.

- At team level, there were group work projects for upstream, midstream and downstream teams on the building up of confidence in safety of upstream agricultural products, the connectivity of online market chain for certified agricultural products, and the campaign for making choices on buying Q products from collaborative farms or Q4U project.

- At group level, Q4U shop has been established to be the distribution center for safe farm produces.

## Human Resources of Other Agencies

Agricultural standard consultants for farmers: This training project aimed at extension officers as the target group, comprising district extension officers and other extension officers who supervised farmers. The training has already been organized for eleven groups of 564 officers. Among these eleven groups, ten groups were trained on GAP standard for food crop and one group was on organic standard.

The subjects comprised proper theoretical and practical knowledge and skill on GAP for food crop and organic standards, strategies for transferring knowledge, group certification and pre audit methodology for certifying food crop and organic products in accordance to the standards. The training has enabled the extension officers to provide training and supervising for farmers in their districts on how to comply with the requirements set in the standards, and on how to get themselves ready for the certification by relevant agencies.





## Training for Private Sector/Farmers

### 1) Q volunteer project :

The target group of this project was farmer leaders who supposed to provide consultation to other farmers on how to adjust into the system of good agricultural practices. The volunteer works with provincial or district extension officers and ACFS officers, on the pre-audit and supervises farmers who apply for GAP certification. From 2016 until present there have already been 184 trained volunteers.

The objective of this project is to produce individual who can be assumed the

role of ACFS representative capable of connecting ACFS information to relevant persons in the area and capable of providing consultation to farmers on the modification to good agricultural practices by training them to understand the principle and necessary steps for managing good practices of safe food production. The volunteer is capable of transferring food safety knowledge to farmers in the area.





## 2) Agriculture for livelihood project “New Generation Farmer, Attentive to Standards”

The target group of this project is the students from vocational college of agriculture and technology. The project started first at colleges in southern provinces. There have already been three groups with a total of 721 students. In 2018 the project will be extended to other three colleges in central provinces namely Kanchanaburi, Ratchaburi and Petchburi provinces.

The objectives of this project are to build up the knowledge of agricultural standards, the potential, and the opportunity for Young Smart Farmer so that they can improve their skill and are able to assume agriculture as their occupation. The shall be new generation farmer with understanding in the application of standards for the production of farm and food products along the whole supply chain. They shall be capable to disseminate knowledge to their family, community and put into practice in their own farm. The project intended to build up new attitude toward agriculture as an occupation to be proud of. There were activities such as New Generation Farmer - Attentive to Standards Camp, Project planning for Farm with standards contest, Study visit to standard farm and manufacture factory, extension for the utilization of standards in farms, Standard Farm Challenge, and award presentation to the winner of standard farm challenge. The students who have been trained in this course can use the knowledge to continue in a capacity building program on the pre auditor course.





### 3) Q school Project

The target group of this project is the students at primary and secondary levels of Ratprachanukro School and other schools in Bangkok, Kalasin, Khonkean, Nongkhai, Sukothai, Nan, Tak, Yala, and Songkla provinces, etc. At present there are 2072 students who have been trained in this course.

This project focuses on the dissemination of knowledge on food safety standards for fruits, vegetables, fishes, and animal production, and on making choice for buying safe farm products with Q mark, as well as on production of safe produces. The students will be able to demonstrate safe food production to be used for school lunch. They will form networking of safe food producers in school to disseminate knowledge to other students, families, and community. The activities comprise lectures, practices and information exchange.




# ANIC GAP



## 4) Q restaurant project

This project is an integrated project on setting up the link between producers of Q products and consumers. The project has been undertaken since 2010. ACFS has implemented the so called “Q Restaurant” project. There are currently 2542 restaurants nationwide. Among these, 2012 are single location restaurants and 422 are multiple location restaurants. During 2016 – 2018 ACFS has extended the project by setting up collaboration with universities. Initially, ACFS has collaborated with Kasetsart University under “Q Restaurant Universities” project to cater food with quality and safety for students.





# The Project on the Extension System to Promote Collaborative Farming

Guided by the Government policy on the promotion of collaborative farming to reduce production cost, and strengthen competitiveness of farm products, the Ministry of Agriculture and Cooperatives which is the core Ministry responsible for farming production industry therefore has driven forward for the realization of the policy. The Ministry has accomplished by promoting the farm production to meet standards and gain added value. This is important because farming is considered as upstream production in food supply chain, therefore it must supply good quality and safe raw material to the mid and downstream. The promotion is linked to the improvement of the manufacture in mid - and downstream production such as collecting houses and processing facilities. ACFS has therefore responded to this policy by integrating its mission on standardization into the implementation of work in the collaborative farms in order to join the driving force for the realization of the policy. ACFS has undertaken eleven projects in nine provinces.

1. The development of the peanut cultivation after rice crop applying GAP standard in collaborative farm, Ubon Ratchathani province
2. Farmer training on the preparedness for transformation into group farming and group certification of GAP for corn production, Petchaboon and Lopburi provinces
3. The improvement of rice seed production to meet GAP standard, Tak province
4. The improvement of corn seed production to meet GAP standard, Tak province
5. The model for comprehensive Q rice production, Srisaket province
6. The development of rice mill to meet standard, Pattalung province
7. The development of Ratchaburi province as the Q center for rice, vegetables and pineapple
8. The development of packing house/collecting center for vegetables with GMP standard, Kamphangphet province
9. The production with owner standard for Tubtim rice variety, Kamphangphet province
10. The development of packing house/collecting center for fruits and vegetables with GMP standard, Phitsanulok province
11. Pracharat project for quality development of pineapple for canning industry, Prachuabkhirikhan province

Progress has been reported for two following projects.

## Model System for Comprehensive Q Rice Production

The project was undertaken in Srisaket province. It was designed to become the model for the development of rice production to meet completely with relevant standards from GAP at farm level, GMP at rice mill, to product standards. The project was implemented with the integration of several agencies i.e. Srisaket province, the Rice Department, Cooperative Promotion Department and Department of Agricultural Extension.

In 2017 there was an activity for the development of the Kantraluk Cooperative Limited to become the model for Q rice production. There was participation of 36 Cooperative members from Ban None Sansuk village with the area of 507 Rai. They became model farmers for the production of paddy in a collaborative farm of Srisaket province. These farmers were the center of the development for the improvement of the production system that complied with GAP standard (TAS4400-2009). A meeting with the farmers was organized to explain the objectives of the project and to provide detailed knowledge for the production improvement in all steps in accordance with the GAP standard for the Thai HOM Mali rice. The rice mill was also motivated to adapt to GMP codex standard to enable the comprehensive production of Q rice in conjunction with the paddy production. Training was provided for the staffs of the rice mill and the farmers. The training was on 5 following topics.

- (1) Principle and guideline for Q rice production in compliance with product certification for rice (TAS 4000-2017)
- (2) GMP production system for rice mill producing Q rice
- (3) Quality and standard for Hom Mali rice



- (4) Workshop on chemical and physical inspection for rice

- (5) GAP production system for paddy regarding residue inspection according to residue standard (TAS 9002-2013)

The Pre audit was performed in order to prepare for the certification of the Q rice for the rice mill. The Rice Department has subsequently audited and certified the Kantraluk Cooperative rice mill on 8 September 2017. In the first year, twelve tons of Q rice have been produced.





### The market promotion has been conducted in following ways.

1. Traceability system of the rice mill has been put in place through QR Trace application. The products can be traced from the rice mill to the farmer who produced the paddy.
2. The rice product has been launched at Q4U shop for market testing and the market very well responded to the product.
3. The Kantraluk Cooperative has additional distribution channel through the website [www.dgtfarm.com](http://www.dgtfarm.com) which is an online business matching website for Q products.

The concrete outcome of the project was the increase of the profit the farmer received from increased price of the paddy while the rice mill was also able to sell the rice product at higher price.

## The Development of the Peanut Cultivation after Rice Crop Applying GAP Standard in Ubon Ratchathani Province, 2017

The development of the peanut cultivation after rice crop applying GAP standard has been conducted in a collaborative farm in Ubon Ratchathani province. The TAS 9001-2013 standard on good agricultural practices for food crop was used for the certification. The peanut cultivation after rice crop also provided supplementary income to farmers. The implementation has been an integrated project with collaboration of the Department of Agriculture and Department of Agricultural Extension. The Department of Agriculture was represented by the Office of Agricultural Research and Development Region 4 and Ubon Ratchathani Field Crop Research Center. The Ubon Ratchathani Provincial Agriculture Office represented the Department of Agriculture Extension.

### Farmers and Project Location

ACFS and Ubon Ratchathani Provincial Agricultural Office have selected farmers and suitable location based on availability of water source and irrigated land. There were 130 farmers selected with area for peanut cultivation of 200 Rai in five collaborative farms. The farmers had no prior experience in peanut cultivation or had given up peanut cultivation for long time. The farmers were therefore needed to be familiarized with the good practices standard for peanut cultivation. The farmers were also supported on the GAP certification so that their produces would match the market demand. Peanut seeds variety Tainan 9 and rhizobium were also supplied.



## Farmer Training has been organized in three topics.

1. The development of peanut cultivation in compliance with GAP standard for food crop TAS 9001-2013, and GAP standard for peanut TAS 4900 - 2010. The course was designed to educate farmers on how to cultivate peanut in dry season after rice crop, manage land preparation, irrigation, and pest control.

2. The preparation for GAP certification with good agricultural practices standard for food crop (TAS 9001-2013). The course was designed to inform the farmers on the requirements and GAP checklist. There was an assistance provided for the application of GAP certification. The cropping area was also monitored so that proper recommendation could be made to farmers for improving the practices and for problem solving.

3. Peanut harvest and postharvest technologies to suit the market demand. The course was designed to teach farmers on how to harvest peanut to meet the market demand, the condition for customer purchasing. The review was made to see if the farmers were already fit to apply for GAP certification. The cultivation area was also monitored for offering the advice on proper harvesting and fixing the problem of pests.



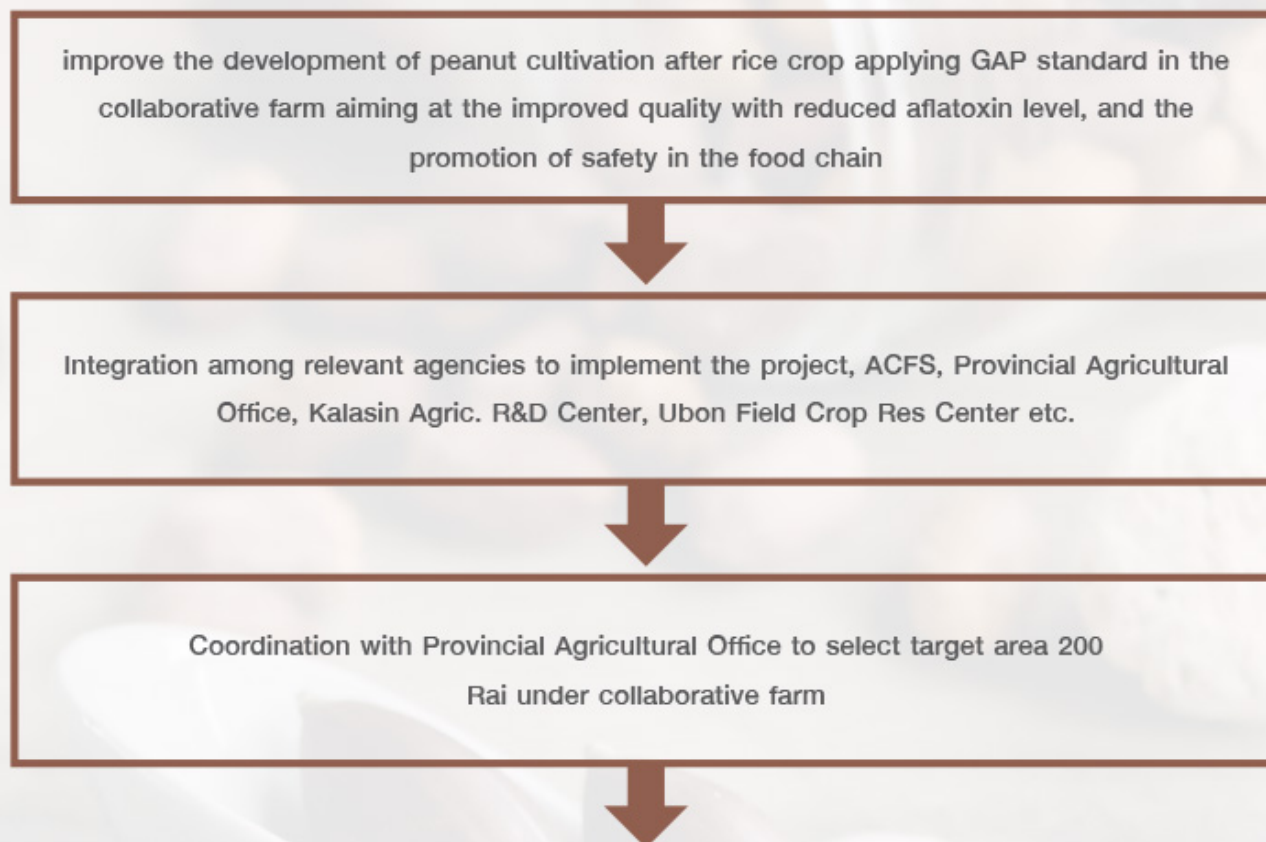


Among the 130 participants, there were 114 farmers who qualified for the application for GAP certification with TAS9001-2013. There were 87 farms or 76.31% have been certified.

Collaborative farm (District)	Farmers (numbers)	Area (Rai)	GAP applied (numbers)	GAP certified farmers (numbers)	Certified farms (numbers)	% certified farms
1. Nongkhon	23	20	22	18	18	90
2. Yangsak	16	30	16	10	10	33.33
3. Sangko	29	50	29	21	31.50	63
4. Napin	29	60	29	24	30.50	50.83
5. Nayear	33	40	18	14	16.75	41.87
	130	200	114	87	106.75	53.38



## The development of the peanut cultivation after rice crop applying GAP standard in Ubon Ratchathani province, 2017



Integrated GAP Promotion	GAP Certification in coordination with DOA	Marketing In coordination with private sector
<ul style="list-style-type: none"> <li>- Training</li> <li>- inputs support</li> <li>- Postharvest KM</li> </ul>	<ul style="list-style-type: none"> <li>- Training</li> <li>- support on preparation for GAP assessment</li> <li>- GAP certified for 87 farms (76.31%)</li> </ul>	<ul style="list-style-type: none"> <li>- shelling plant</li> <li>- major peanut trader</li> <li>- local trader</li> </ul>



# Innovation for Standardization by Digital Technology 4.0

Thai Government has a strong political will in the sustainable development of the country and has adopted Thailand 4.0 as the vision to guide the policy on transforming economy into the one led by innovation. Agriculture has been an important part of Thai economy because a majority makes their living on agriculture. The development of innovation

in agriculture will create a strong momentum for a rapid transformation on the economy of the country.

ACFS, being the agency driven with innovation, has introduced information technology to apply in three systems.

1. QR Trace on Cloud is a traceability system using cloud computing technology for SME producers

2. Website [www.dgtfarm.com](http://www.dgtfarm.com)

is a business matching website for Q product producers.

3. Two online services were introduced One is the system for licensing producers, exporters, or importers of products with mandatory standards and notifying of export or import (TAS - License). The second one is the e-Coding System on Certification.

# Traceability System on Cloud Technology

In order to strengthen farmers, producers, village enterprises, cooperatives, and businesses so that they can maintain their competitiveness in farm and food sector Government needs a tool to create confidence in farm products. Traceability is one of the tools which can be used as a support for that matter. ACFS has therefore developed QR Trace on Cloud system which is a traceability system for SMEs producers, using cloud computing technology. The system is the extension of the former QR Trace system which serves only a limited scope of products i.e. fruits, vegetables, primary processed and food products. The improvement has been made to match with the advance in technology. The new system can be used with smart devices, and uses cloud computing technology. The new system is more efficiency and is equipped with 4 new features.

1. The new system can support additional products i.e. rice, eggs, fisheries and livestock.

2. The service is available everywhere at all hour.

3. Data recording is efficient for performing traceability and production management.

4. Recorded data can be used to generate QR code as a tool to connect traceability information to consumer. The information which is available to consumer after they scan the QR code with their smart phones are product related information such as product names, lot numbers, producer names, address, standard certified, location of farm producing raw material and farmer names, with other detail of production location, farm standard, and farm certified. The information will ensure the confidence of consumers.



Just type  
“ **tas2go** ”  
in App Store or  
Play Store

# DGTFarm

“New Dimension Online of Thai Agricultural Products”

Modern Business Matching Where Thai Farmers Meet Buyers Online.



Sign up



Shopping



Trade  
Matching

## Online Market Website [www.dgtfarm.com](http://www.dgtfarm.com)

The employment of digital technology is able to increase efficiency and add value to national gross domestic production. An online market of farm products has been regarded as the application of internet technology to improve competitiveness in an online world. The online market is growing in an increasing trend. The online market provides the link from farmers producing high quality products directly to consumers. It has also elevated and strengthened the farm sector. ACFS therefore has developed the website [www.dgtfarm.com](http://www.dgtfarm.com) as a virtual location for supplying certified farm products directly from farm producers. The website offers three types of market described below.




**1. Organic and Green Market** is where organic certified products can be found.



**2. Collaborative Farm and GAP Market** is where produces and products from GAP certified farms or collaborative farms can be found.



**3. QR Trace Product Market** is the market to find farm products with product traceability using QR code.



The three main features on the website are i) the system for business matching between producers and buyers, ii) the system for management of virtual shop such as template for homepage construction and promotion campaign with member alert system, and iii) the system for monitoring progress of trade contracts. The website facilitates trade transactions and provides increased trade opportunity for farmers or producers. The introduction of digital technology as a tool to drive trade procedures will benefit and strengthen farm sector in the following dimensions.

1. It will add more trade opportunity without additional cost, time wasted or time and place restriction, for farm producers who produce safe products with certified quality.

2. Consumers have more options for shopping of safe farm products with certified quality of their choices directly from producers.

3. The use of digital technology will improve competitiveness of farm sector and efficiency of trade.







# Online Services for Standard Control

ACFS is the agency responsible to overseeing of agricultural standards in accordance with Agricultural Standards act 2008. The missions comprise standard setting, accreditation system and standard control. On the part of standard control, there are mechanisms for providing services on licensing, import-export declaration, Q mark display. These are the functions to be performed by businesses in compliance with the law, rules, provisions and procedures, which have been put in place by ACFS.

Two online services which ACFS has on offer are the TAS Licensing system and the e - Coding System on Certification. The TAS Licensing system has been designed to provide services on the licensing of producers, exporter or importers and to be the channel for the declaration of the export and import of products with mandatory standards. The e-Coding System on Certification has been designed for allocating electronic coding for standard certification of products with mandatory standards.

## TAS Licensing System

### Mandatory standards which are already enforced

	Sulphur Dioxide Fumigation of Fresh Fruits, TAS 1004-2014 (4 May 2016)
	Peanut kernels without shell, TAS 4702-2014 (6 January 2017)
	Frozen Durian, TAS 9046-2017 (30 July 2017)
	Disease Free Pacific White Shrimp, TAS7432-2015 (18 June 2017)
	Milk Collection Center, TAS 6401-2015 (17 October 2017)
 Mushroom Culture, TAS 2507-2016 (12 April 2018)	



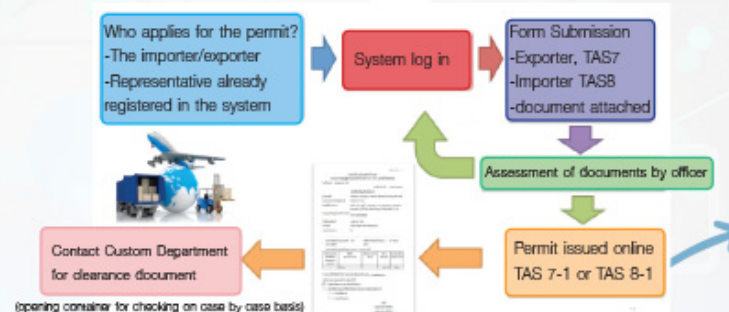
ACFS has regulations put in place on mandatory of six standards. Any producers, exporters and importers of farm products under these standards shall have to obtain a license for the operation in accordance with Agricultural Standard Act 2008.

ACFS has therefore developed the TAS Licensing system for providing online services for licensing of the operators and the declaration of export and import. The system also provide as the database of information of activities related to products under mandatory standards. The system operation is supported by personal computer and smart phone enabling universal accessibility.

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graph TD; A[Users<br/>-operators (producer,importer,<br/>exporter)<br/>-Shipping<br/>-operator representatives] --> B[Registration on line<br/>-individual/legal corporate<br/>-enclosed documents<br/>-transmission of code for<br/>system connection]; B --> C[Form Submission<br/>-Producer, TAS1<br/>-Exporter, TAS2<br/>-Importer TAS3]; C --> D[Assessment of documents by officer]; D --> E[Fee payment]; E --> F[License delivered by post]; F --> G[License received];
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The flowchart illustrates the process of applying for an Import License in Indonesia. It begins with the user (operator, producer/importer/exporter, shipping, or operator representative) submitting an application. The application is then processed through the registration system, which involves submitting documents and a code for system connection. The next step is the submission of the form, which includes the producer's TAS1, the exporter's TAS2, and the importer's TAS3. The application is then assessed by an officer. Following the assessment, the fee is paid, and the license is delivered by post. Finally, the license is received. An image of an Import License (Surat Izin Impor) is shown on the left.

### Import-Export permit system for agricultural products

[illegible]

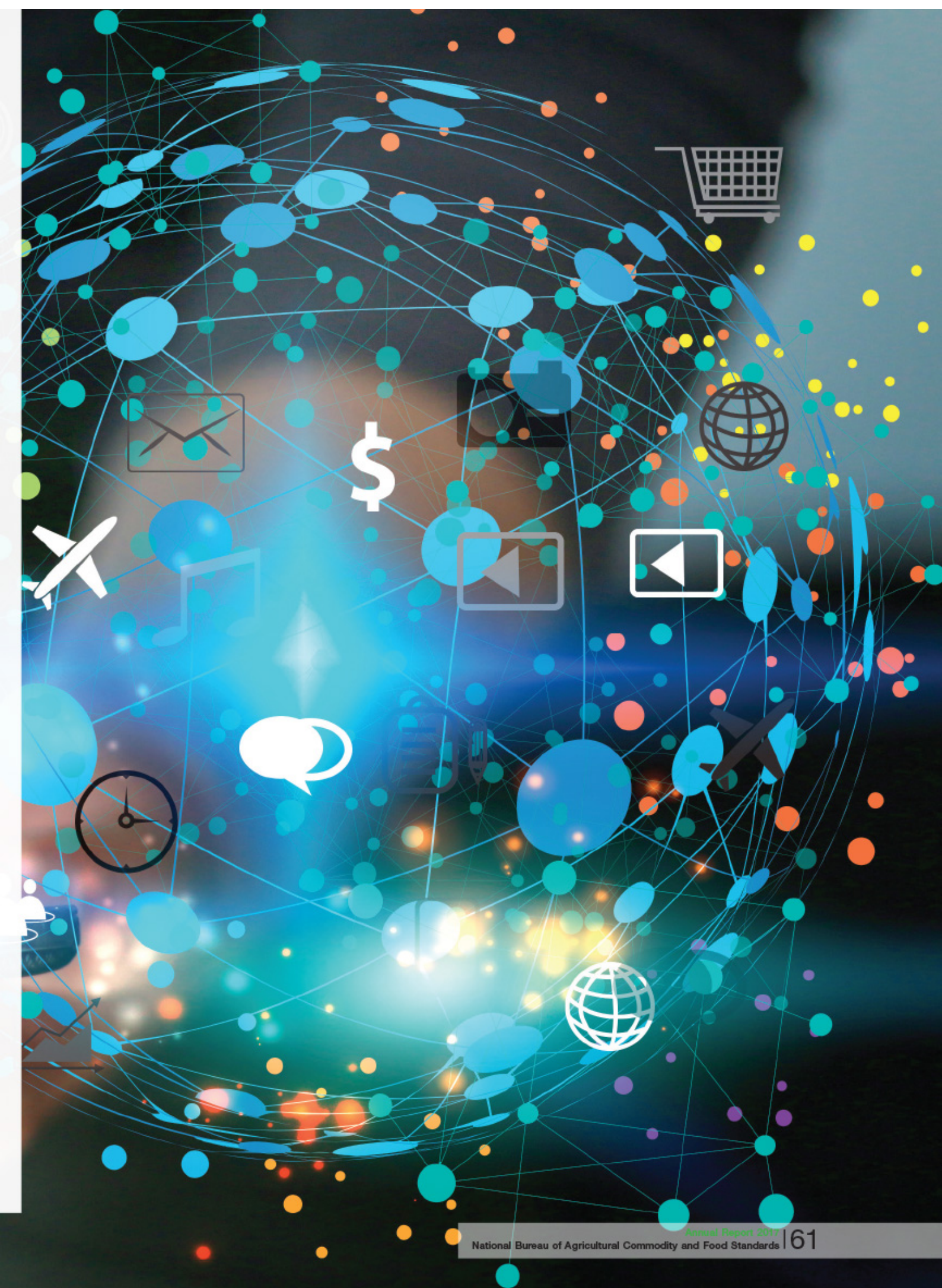
## e-Coding System on Certification

Usually when producers apply standards, product or system standards, and earn certification from a Certification Authority or a private Certification Body, the producers are then entitled to make a claim according to the standard certified by displaying the Q mark with code number. ACFS has developed the e - Coding System on Certification to facilitate the allocation and the record keeping of the certified codes so that traceability can be performed on the products, operators and certification providers from the coding numbers.

The procedure of the e-Coding System on Certification is started at the certification body who will submit a copy of certificate with a request for the certification code. The officer in charge of the e-Coding System will then examine the request and submit it to ACFS Secretary General for the approval. The officer in charge then will inform the result through the e-Coding System where farmers, producers and certification bodies can check the result regarding the approved code on any web browser. The system allows an online application for certification code without a need to visit any office. The system is also regarded as the national database for a rapid and reliable way of retrieving and tracing all certificates.

Number	Certification body	Number of request	code numbers
1	Global Certification Services Ltd.	30	195
2	TUV Nord Ltd.	7	8
3	MASCI	3	5
4	TISTR	26	152
5	Intertech Industry and Certification Services (Thailand) Ltd.	34	85
6	SGS (Thailand) Ltd.	13	37
7	Bureau Veritas Certification	5	9
8	Central Laboratory (Thailand) Ltd.	9	19
	Total	127	508

\* Data on 31 October 2017





## Quality Marks of Thailand







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