



THAI AGRICULTURAL STANDARD

TAS 7423-2011

**GOOD AQUACULTURE PRACTICES
FOR GIANT FRESHWATER PRAWN FARM**

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

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**Technical Committee on the Elaboration of Thai Agricultural Standard on
Good Aquaculture Practices for Giant Freshwater Prawn**

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Aquatic animals and their products are gaining economic importance for export. Presently consumers worldwide are more concerned about food safety and impact of aquaculture on the environment. The Agricultural Standards Committee deems it necessary to establish the standard on Good Aquaculture Practices for Giant Freshwater Prawn Farm to be used as guidelines for rearing giant freshwater prawn in order to ensure that it is of good quality and safety for consumption as well as environmental integrity and social responsibility. Ultimately, giant freshwater prawn from Thailand will be more acceptable by both domestic and international consumers in the future.

This standard is based on the following documents:

Joint FAO/WHO Food Standards Programme, FAO, Rome. 2005. Code of Practice for Fish and Fishery Products. CAC/RCP 52-2003, Rev 2-2005.

Department of Fisheries. 2008. Research Project on Good Aquaculture Practices for Giant Freshwater Prawn.



NOTIFICATION OF THE MINISTRY OF AGRICULTURE AND COOPERATIVES
SUBJECT: THAI AGRICULTURAL STANDARD:
GOOD AQUACULTURE PRACTICES FOR GIANT FRESHWATER PRAWN FARM
UNDER THE AGRICULTURAL STANDARDS ACT B.E. 2551 (2008)

Whereas the Agricultural Standards Committee deems it necessary to establish an agricultural standard on Good Aquaculture Practices for Giant Freshwater Prawn Farm as a voluntary standard in accordance with the Agricultural Standards Act B.E. 2551 (2008) to promote such agricultural commodity to meet its standard on quality and safety.

By virtue of Section 5, Section 15 and Section 16 of the Agricultural Standards Act B.E. 2551 (2008), the Minister of Agriculture and Cooperatives hereby issues this Notification on the Establishment of Thai Agricultural Standard: Good Aquaculture Practices for Giant Freshwater Prawn Farm (TAS 7423-2011), as a voluntary standard, details of which are attached herewith.

Notified on 25 October B.E. 2554 (2011)
Mr. Theera Wongsamut
Minister of Agriculture and Cooperatives

THAI AGRICULTURAL STANDARD
GOOD AQUACULTURE PRACTICES FOR GIANT FRESHWATER
PRAWN FARM

1 SCOPE

This Thai Agricultural Standard applies to Good Aquaculture Practices (GAP) at all stages of farm practices in giant freshwater prawn culture, including harvesting and post-harvest handlings before the giant freshwater prawn is transported off the farm in order to ensure that the production of giant freshwater prawn is of high quality and safe for consumption. However, this standard does not cover for the stages of hatching and nursing of post-larval giant freshwater prawn.

2 DEFINITIONS

For the purpose of this standard:

2.1 **Giant freshwater prawn** means a type of prawn that lives in freshwater and lays its eggs in brackish water. *Macrobrachium rosenbergii* (de Man, 1879) is a scientific name referred to as “prawn” in this standard.

2.2 **Giant freshwater prawn farm** means premises where prawn is reared for commerce, comprising rearing ponds, areas for preparing prawn feed and storing prawn feed, buildings, and areas for necessary sanitation facilities.

2.3 **Rearing pond** means a pond built on the land to hold water for rearing prawn, such as an earthen pond, cement pond or plastic pond.

2.4 **Veterinary drug** means any substance applied or administered to any food-producing animal, whether used for diagnostic, therapeutic or prophylactic purpose or for modification of physiological functions or behaviour (TAS 9032-2552).

2.5 **Residues of veterinary drug** means residues of a veterinary drug as defined in 2.4, no matter if it is the parent drug or related metabolites and associated impurities, that remain in the animal tissue, produce or products thereof intended for human consumption (TAS 9032-2552).

3 REQUIREMENTS

3.1 There are two levels of requirements for Good Aquaculture Practices for Giant Freshwater Prawn Farm as follows:

3.1.1 **Major requirements** mean the requirements that must be practiced, in case of non-compliance, they will cause a direct or serious effect on the consumer safety. It means also the requirements that must be complied with relevant laws and regulations.

3.1.2 **Minor requirements** mean the requirements that should be practiced, in case of non-compliance, they will cause a direct effect on the health and quality of prawn, environment and society or indirect effect on the consumer safety.

3.2 Requirements and levels for Good Aquaculture Practices for Giant Freshwater Prawn Farm are shown in Table 1.

Table 1 Requirements and Levels
(Section 3)

Item	Requirements	Level
1. Farm Site	1.1 Prawn farmers shall register as aquatic animal producers with the Department of Fisheries or an assigned agency so that related agencies will have official information on the location of the farm, species and other details.	Major
	1.2 The farm should be located far from sources of pollution or should not be affected by pollution, to ensure that the produced prawn is not affected or contaminated by the pollution.	Minor
	1.3 There should be a system for water transferring in and out of the farm, and among rearing ponds to facilitate farm management and prevention of contamination.	Minor
	1.4 Transportation within and outside the farm should be convenient to facilitate farm management and the transport of the production inputs and the produce.	Minor
	1.5 There should be necessary basic infrastructure or other sufficient systems to facilitate farm operations.	Minor
2.General Management	2.1 The farmer should follow recommended aquaculture procedures, such as the Department of Fisheries' manual of giant freshwater prawn farming, or any other procedures according to the technical recommendations.	Minor
	2.2 The farmer should have a farm layout for convenience in farm management.	Minor
	2.3 The farmer should attend training courses on aquaculture management, the use of production inputs, harvesting and related laws and regulations.	Minor

Item	Requirements	Level
3. Production Inputs	3.1 The farmer shall select post larval prawn that is healthy and disease-free in order to produce high survival rates. The post larva must come from a farm that is certified according to GAP for giant freshwater prawn hatchery and nursery or the one that has good practices for the prevention of veterinary drug residue contamination.	Major
	3.2 The farmer shall have a Fry Movement Document (FMD) from the hatchery and nursery for traceability.	Major
	3.3 For production inputs that are required registration , the farmer shall use feed, feed additives or vitamins that are registered with regulatory authorities (the Department of Fisheries or the Department of Livestock Development, as the case may be). The products shall be clearly labeled with ingredients or nutritional values, dates of production and expiration, name and address of the manufacturers. The nutritional values of such inputs should be appropriate with the sizes and stages of growth. No expired feed, feed additives or vitamins shall be used.	Major
	3.4 For feed prepared on farm, the raw materials used shall be free of prohibited veterinary drugs and substances according to the relevant official notifications (Food and Drug Administration, Department of Fisheries and Department of Livestock Development) to prevent veterinary drug residues in the produce.	Major
	3.5 For the safety of consumers, feed prepared on farm shall be hygienically produced without using any expired or deteriorated raw material. The feed shall meet the nutritional requirements of the prawn.	Major
	3.6 If the farmer uses other types of inputs, such as lime, salt or tea seed cake, they shall not be contaminated with any prohibited veterinary drug residues or substance used in aquaculture according to the official notifications.	Major
	3.7 Production inputs should be stored properly in an appropriate area, not directly contact with the floor, to prevent quality deterioration. Also, there shall be preventive measures against disease carrier animals.	Minor

Item	Requirements	Level
4. Health Management	4.1 The farmer should prepare the rearing ponds, equipment and tools properly in order to prevent any potential disease to the prawn.	Minor
	4.2 The farmer should frequently check the prawn health by random sampling. If any abnormal sign is found, the farmer should not immediately use veterinary drugs or other chemicals to treat the prawn but take into account the management practices and the cause investigation instead. All abnormality and the corrective actions should be recorded.	Minor
	4.3 If abnormal signs of prawn health are found and the use of veterinary drugs or chemicals is necessary to treat the sick prawn, the farmer should use only veterinary drugs and chemicals that are officially registered with the relevant regulatory authorities, and should strictly follow their label instructions. The use of veterinary drugs or chemicals should be recorded for traceability.	Major
	4.4 Farmers shall not use veterinary drugs or chemicals prohibited official notifications of relevant government agencies in order to prevent veterinary drug residues.	Major
	4.5 If a number of dead prawns found or there is suspicion of an outbreak, the farmer should immediately inform the relevant regulatory authority, including apply appropriate methods for the disposal of dead prawn and water from the infected ponds in order to prevent the spread of disease to the nearby farms and environment .	Major
5. Farm Sanitation	5.1 The waste water from household shall be separated from the prawn rearing water system to ensure that no household waste water or sewage contaminates or drains into the water system of the rearing ponds or their surroundings.	Major
	5.2 Toilets shall be separated from the areas of the rearing ponds. The toilets shall be cleaned and hygienically maintained with an appropriate waste disposal system to prevent any contamination from refuse or wastes to the rearing system.	Major

Item	Requirements	Level
	5.3 The farmer shall have an appropriate and hygienic management system of waste from rearing in order to prevent microbial, veterinary drug and chemical contamination, e.g. dead prawn and used containers or expired veterinary drugs and chemicals.	Major
	5.4 The farmer should keep all tools and equipment clean and sanitary and appropriately store them in an orderly manner. The tools and equipment should be always maintained to be ready for use.	Minor
	5.5 Pets should be kept away from the areas of rearing ponds to prevent contamination.	Minor
	5.6 Waste should be discarded in a designated area. An appropriate system for waste management and disposal should be provided.. The waste disposal area should be separated and kept distance from the rearing ponds to prevent flies, cockroaches, rats and animal digging.	Minor
6. Harvest and Post-Harvest Handlings	6.1 Plan for harvest and distribution should be set in advance to maintain the quality and freshness of prawn.	Minor
	6.2 Movement Document (MD) shall be accompanied the shipment to identify the source of origin.	Major
	6.3 The prawn produce shall not contain veterinary drug or chemical residues over the Maximum Limits.	Major
	6.4 Hygienic practices should be managed and handled during the harvest and post-harvest.	Minor
7. Environmental and Social Responsibility	7.1 The farm location should not obstruct any customary accessible pathway and/or should not affect the livelihoods and daily activities of local community.	Minor
	7.2 The farmer should participate in any activities that promote relationship between the farm and the community.	Minor
	7.3 The farmer should participate in any activity of prawn farmers associations or related organization.	Minor
	7.4 The farmer should attend seminars or technical training on the aquaculture conservation, animal health and welfare including food safety.	Minor

Item	Requirements	Level
	7.5 Legal labour shall be hired. .	Major
	7.6 Basic welfare should be provided to farm employees appropriately.	Minor
	7.7 Prior to discharging into the environment, effluent shall be treated to meet the quality criteria, notified by the Ministry of Natural Resources and the Environment on the Control Standards of Discharged Water from Freshwater Aquaculture Ponds.	Major
8. Record Keeping	8. Important information should be recorded including rearing management, origin of post larva , feeds and feeding, usage of veterinary drugs and chemicals, sources of production inputs, water quality analysis, prawn health check, FMD and MD, and harvesting data. Those records should be regularly updated for the review and improvement of the farm.	Minor

4. JUDGMENT CRITERIA

The judgment criteria for inspection and evaluation according to the standard requirements are as follows:

4.1 The farm shall pass every “Major requirement”.

4.2 The farm shall pass at least 60% of the “Minor requirements”, or get an overall aquaculture practice evaluation score of at least 60% of the minor requirements in order to be certified, provided that the farm shall improve its aquaculture practices to pass 80% of the minor requirements within 2 years.