PNS/BAFS 281:202X

Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices

Working Draft As of April 25, 2025

1 Scope

2 3

This Code of Good Aquaculture Practices (GAqP) covers all stages of culture practices in Giant Freshwater Prawn hatchery and nursery operations including broodstock collection and management, and the harvesting, packing, handling and transport of larvae, and post larvae in order to produce good quality seed stock for nursery and/or grow-out culture. This Code addresses animal health and welfare, environmental integrity, and socio-economic welfare, and consists of compliance with legal requirements.

2 Normative References

The following documents are referred to in the text in such a way that some or all their contents constitute the requirements of this document. The latest edition of the referenced documents (including any amendments) applies.

 Bureau of Agriculture and Fisheries Standards (BAFS)-Department of Agriculture (DA). (2022). Veterinary Drug Residues in Food — Maximum Residue Limits (PNS/BAFS 48:2022).

Terms and Definitions

3.1

feed any single or multiple edible plants or animal materials, whether processed, semi-processed or live and raw, which is intended to be fed directly to domesticated animals to meet the nutrient requirements in order to maintain life, promote growth, production and reproduction without any additional substance except water (BAFS-DA, 2015)

For the purposes of this Standard, the following terms and definitions apply:

3.1.1

natural food

any live food item, usually plankton and/or brine shrimp (*Artemia spp.*) administered to the early stages (hatchlings, larvae, post larvae) in the life cycle of aquatic animals

3.1.2

formulated/artificial feed

any formulated/artificially prepared food (e.g. egg custard for larval stages) or supplemental feed (containing single material) or complete feed made to contain multiple dry and/or wet ingredients based on the nutritional requirements of the animal. Artificial feed or diets may be made on-farm using simple small-scale equipment or in bulk, in the case of commercial scale

PNS/BAFS 281:202X

Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices

Working Draft As of April 25, 2025

production. Formulated/artificial feeds are fed to the animal to maintain life, promote growth, production and reproduction.

3.2

larvae

newly hatched from eggs which consist of 11 stages and are reared in brackishwater (10-15 ppt)

3.3

post larvae (PL)

prawn fry that underwent 11 larval stages and are ready for rearing in freshwater:

3.4

broodstock

sub-adult or adult animal either male or female that shall be used for breeding purposes (BFAR-DA, 2009)

3.5

hatchery

facility where eggs are hatched and reared to the larvae stage (BFAR-DA, 2023)

3.6

nursery

facility where post larvae are reared to a larger size before stocking in growout ponds or net pens under controlled conditions to improve their survival and growth (BFAR-DA, 2023)

3.7

veterinary drug

any substance applied or administered to any food producing animal, such as meat or milk producing animals, poultry, fish, or bees, whether used for therapeutic, prophylactic, or diagnostic purposes or for modification of physiological functions or behavior (CAC, 2017)

4 Use

This Standard adheres to the principles outlined in PNS/BAFS 135:2024 (Good Aquaculture Practices — Code of Practice). It specifically establishes requirements for freshwater prawn hatchery and nursery. This document shall be used independently and serves as the basis for inspecting freshwater prawn hatcheries and nurseries for GAqP certification under relevant regulations of the competent authority.

PNS/BAFS 281:202X

Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices

Working Draft As of April 25, 2025

Other farmed species shall be assessed against existing species-specific GAqP standards. In the absence of such standards, the general provisions of PNS/BAFS 135:2024 shall apply.

5 Site Selection

5.1 Location

5.1.1 Hatchery shall be compliant to the existing environmental regulations by the competent authority such as securing Certificate of Non-Coverage (CNC) or Environmental Compliance Certificate (ECC) prior to the establishment of hatchery and nursery.

5.1.2 Hatchery should be located in environmentally suitable and sustainable areas where the risk of contamination is minimized or where sources of pollution can be controlled or mitigated according to national law and regulations.

Proof of legal rights, privileges or ownership of the farm area (License To Operate [LTO] or business permit from the Local Government Unit [LGU]) and its location map shall be available.

5.1.4 Hatchery and nursery shall be registered or accredited with the competent authority.

5.1.5 Hatchery and nursery should have access to transportation both inside and outside the farm, for quick operations and transport of post larvae.

5.1.6 Hatchery should have sufficient supply of freshwater and brackish water or seawater / saltwater where risk of pollution or contamination can be controlled or mitigated to an acceptable level.

5.2 Lay-out and design

5.2.1 Hatchery and nursery facilities should be used primarily for aquaculture purposes only

New hatchery shall not be located inside or beside the grow-out pond for biosecurity reasons. Existing hatchery shall have *a* distinct separation from the grow-out ponds and shall integrate biosecurity measures to prevent cross contamination.

Hatchery and nursery lay-out should be designed with proper space for its establishment and should integrate biosecurity measures to prevent cross contamination and disease outbreak.

Working Draft As of April 25, 2025

- Hatchery design and layout should prevent cross contamination and damage 140 141 142
- 143 5.2.5 Drainage system of septic tanks and toilet facilities should be well installed 144 and constructed to prevent contamination of hatcheries.
- 146 5.2.6 Reservoir ponds and tanks for incoming water should be available to ensure 147 sufficient water supply especially during heavy rainfall when seawater 148 pumping may not be advisable due to turbidity.
- 150 5.2.7 Settling ponds for effluent shall be available. 151

145

149

152

163 164 165

166

167

179

182

6.1

5.2.8

153 154 5.2.9 Hatchery and nursery should be designed, operated and maintained in ways 155 that prevent contamination from workers, sewage/toilets, domestic animals,

Buffer zone should be observed in accordance with existing regulation

- 156 machinery oil/fuel, and other possible sources in order to maintain hygienic conditions. 157 158
- 159 5.2.10 Paraphernalia, equipment, and vehicles for feed, seed, and harvested shrimp should be designed to ensure minimal physical damage to prawns 160 during growing and harvesting, and to allow adequate cleaning and 161 162 disinfection.
 - 6 **Facilities, Sanitation, and Waste Management**

Facilities

- 168 Disposal facilities for solid and liquid wastes should be in suitable and 169 6.1.1 170 confined areas, and waste disposal shall be in compliance with existing 171 regulations.
- 172 173 6.1.2 Fuel and chemical substances (e.g., sanitizer, fertilizer and reagents), 174 veterinary drugs should be stored in a storage facility and separated 175 according to manufacturer's instructions and as specified on the label.
- 176 177 6.1.3 Regular repair and maintenance should be undertaken to preserve the good 178 physical condition of the facility.
- 180 6.1.4 Mortality pits and designated burial sites (e.g., fish cemeteries), among 181 others, should be established for disposal of diseased or dead prawn.
- 183 6.1.5 Machines used in the hatchery shall be in good condition and used lubricants 184 shall be placed in an appropriate container and discarded properly. 185
- 186 6.1.6 There shall be a safe electrical system on the farm.

PNS/BAFS 281:202X

Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices

ft 5

105		Working Draft As of April 25, 2025
187 188	6.2	Sanitation
189 190 191 192 193	6.2.1	Wild and domesticated animals should not be allowed in the hatchery facility or production area or its vicinity to prevent fecal and other hazardous contaminations. However, they may be permitted under strict conditions, provided that measures are in place to prevent contamination.
194 195 196	6.2.2	Hatchery and its surroundings should be maintained in a clean and hygienic condition.
197 198 199	6.2.3	All facilities shall be hygienically maintained to prevent contamination within hatchery and nursery.
200 201 202 203	6.2.4	Adequate procedures for cleaning and disinfection of equipment, container, vehicle, and facilities shall be in place and implemented as part of biosecurity measures and to maintain its good condition to avoid contamination.
204 205 206	6.2.5	Bathrooms and toilets shall be hygienically maintained to prevent contamination to the hatchery and nursery facilities.
207 208 209	6.2.6	All hatchery and nursery inputs, materials, and tools shall be kept and segregated properly to prevent deterioration or contamination.
210 211 212	6.2.7	Cleaning materials and disinfectants should be properly handled and disposed to prevent contamination or pose no environmental hazards.
213 214 215 216 217	6.2.8	Proper disposal of garbage, veterinary drug containers, and hazardous substances shall be implemented in order to prevent cross-contamination and animal scavenging. Also, preventive measures against disease carrier animals shall be in place.
218 219	6.2.9	Pest control program shall be in place.
220 221 222	6.2.10	Area for cooking and dining shall be separated from the hatchery and nursery facilities.
223224	6.3	Waste Management
225 226 227 228	6.3.1	Waste disposal should be conducted daily and responsibly in accordance with applicable sanitation regulations. The farm should take appropriate measures to:
229 230 231 232		a) dispose solid wastes and garbage in an environmentally sound way; and b) dispose dead prawn in designated mortality pit or cemetery in hygienic manner especially after disease outbreak.

Working Draft As of April 25, 2025

Waste should be properly stored, and segregated (i.e., biodegradable, recyclable), and disposed to avoid contamination in accordance with local regulations.

6.3.3 Waste containers and the waste storage premises should be cleaned and sanitized after each use.

240241 7 Personnel Health and Hygiene

7.1 Workers should be trained on farm-level hygienic practices to ensure awareness of their roles and responsibilities for protecting aquaculture products from contamination and deterioration throughout the production cycle. This includes the following protocol:

Workers shall undergo an annual medical examination to ensure they are fit to work.

Workers who have shown signs of medical problems or conditions that may pose health risks shall be excluded from handling fishery products until deemed certified fit to resume work.

Workers should wear suitable and appropriate working clothes and protective gear. In areas and conditions where risk is high, protective gear shall be used.

7.1.4 Workers shall wash their hands each time before commencing work.

Wounds should be covered with waterproof bandages and clean, waterproof gloves or boots.

7.1.6 Smoking, spitting, or drinking alcoholic beverages in the working and storage premises shall not be allowed.

8 Hatchery and Nursery Management

8.1 Hatchery and nursery preparation

8.1.1 Practices for the preparation of hatchery and nursery facilities should minimize risk for cross-contamination.

8.1.2 Protocol for hatchery and nursery operations shall be established and implemented accordingly.

8.1.3 Hatchery and nursery facilities and implements should be disinfected after every operation and prepared properly prior to use.

Working Draft As of April 25, 2025

8.1.4 Biosecurity measures against the entry of pathogens shall be undertaken at all times.

8.1.5 Prohibited chemicals or biological substances listed in Annex A (List of prohibited chemicals or biological substances) shall not be used in hatchery and nursery preparation.

Fertilizers, prebiotics, and probiotics should be used in accordance with the manufacturer's instruction and/or recommendation of the competent authority.

8.1.7 Appropriate life support systems should be provided in the hatchery.

8.2 Water Management

8.2.1 Water used for hatchery land-based aquaculture should be properly filtered, settled, disinfected, aerated, and maintained as suitable for culture for the production of freshwater prawn.

8.2.2 Water inlets shall have filters to prevent the entry of undesirable species or materials.

8.2.3 Basic water quality parameters (i.e., temperature, salinity, pH, dissolved oxygen etc.) should conform with the existing standards set by the competent authority and be regularly monitored to ensure suitability and safety. The optimum water quality parameters/requirements for prawn is presented in Annex B (Optimum water quality requirement for the hatchery of freshwater prawn)

8.2.4 Water quality should shall be examined for hazards (chemical, biological, microbial and other contaminants) periodically

8.2.5 Discharge water from hatchery and nursery shall be held in effluent treatment pond/tank and shall comply with relevant laws and regulations.

8.2.6 In cases of disease occurrences, treatment of effluent water prior to release shall be implemented and recorded.

8.3 Broodstock Management

8.3.1 Stocking density should be optimum to the species and to the culture system involved.

8.3.2 Broodstock shall be healthy and disease-free or non-disease carrier.

8.3.3 Good quality, captive broodstock should be used for culture.

Working Draft As of April 25, 2025

327	

When wild-sourced stocks are used, they should be collected using responsible practices or in accordance with national laws and regulations where they exist.

Broodstock, imported or collected from the wild or pond, should be held in quarantine facility upon arrival and be screened for diseases prior transfer to breeding and spawning facilities.

8.3.6 Health certificate and Land Transport Permit (LTP) *shall* be issued by the competent authority for in-country transboundary movement of live broodstock.

8.3.7 Genetic background of broodstock should be available for traceability.

342 8.4 Feeds and Feeding (For larvae and broodstock)

8.4.1 Hatchery and nursery operators should administer the appropriate type of feeds according to the culture system used and conduct periodic sampling of the stocks for proper feed management.

8.4.2 If commercial feed is used, aquaculture operations should include procedures for avoiding feed contamination.

8.4.3 Commercial feeds, feed ingredients, additives, premixes and compound feeding stuff should be obtained from a company registered and monitored by the competent authorities.

8.4.4 Samples of commercial feeds should be inspected, monitored and tested for aflatoxin and chloramphenicol by the competent authority.

8.4.5 Imported formulated feeds shall be obtained from a company registered by the competent authority in compliance with existing regulations and in conformity with the existing standards.

Non-commercial feeds such as but not limited to live feeds, farm-formulated feeds, and natural food should be of good quality and suitable for the species.

8.4.7 If non-pelleted feeds or fresh feeds are used, the protocol on the preparation and administration of such shall be provided.

8.4.8 Feeds prepared in the hatchery should meet the nutrient requirements of shrimp and crabs as presented in Annex C (Nutrient requirements for shrimp and crabs). The feed ingredients used for formulation should be identified and recorded.

Working Draft As of April 25, 2025

8.4.9 Live, fresh, frozen, and natural feeds should be of good quality and should be free of pathogen and contaminants.

8.4.10 Live feeds and natural food should comply with the health certification from in-country trans-boundary movement from the competent authority.

8.4.11 Medicated and non-medicated feeds should be stored separately to minimize the risk of feeding to non-target animals.

8.4.12 The content of additives and veterinary drugs should comply with the existing regulations and conform with the existing standards.

8.4.13 Probiotics and other biological inputs shall be registered with, and approved by the relevant competent authorities.

8.4.14 Feeding practices should minimize the risk for biological, chemical, and physical contamination of feeds and animals.

8.4.15 Feeding practices should prioritize the maintenance of water and sediment quality to prevent nutrient overloading and minimize waste.

Feed packaging should be properly labeled with the description of composition, storage conditions, manufacturing date, expiry date, feeding rate and other necessary information and guidance in adequate language.

8.4.17 Efficient feeding management should be provided to meet the nutritional requirement of the broodstock, larvae, and post larvae.

 8.4.18 Feeds should be stored properly in a separate facility, which is cool, dry to maintain the feed quality and to prevent spoilage, mold growth and contamination. It should be organized to facilitate a first-in, first-out (FIFO) release and use.

8.5 Harvest, postharvest, and transport

8.5.1 Harvest

8.5.1.1 Harvesting and postharvesting equipment and paraphernalia should be cleaned, and sanitized. Such equipment should be stored properly.

8.5.1.2 Harvesting (total or selective) should be planned in advance and should be done early in the morning or during the cooler time of the day to avoid stress and mortality of the stocks

8.5.1.3 Harvested aquatic animals should be quickly and hygienically handled, using practices that do not cause contamination and physical damage to the product.

PNS/BAFS 281:202X

Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices

Working Draft As of April 25, 2025

421 8.5.2 Postharvest

8.5.2.1 Postharvest operations should be carried out quickly, hygienically and without damage to the product.

8.5.2.2 Clean and uncontaminated water should be available and used in sufficient amounts for handling and cleaning operations.

8.5.2.3 Larvae and post larvae shall be hygienically managed and handled to prevent contamination during the harvest and post- harvest.

8.5.2.4 Chemicals which are used in contact with products, shall be in compliance with prevailing legal requirements.

8.5.2.5 Postharvest wastes should be collected in designated areas and disposed of properly to minimize risk of cross contamination.

8.5.3 Transport

8.5.3.1 Prawn should be transported and handled under conditions which recognize their welfare specifically to prevent physical damage, stress, or other factors that could adversely affect their viability and quality.

8.5.3.2 For post larvae hatchery operators should use oxygenated bags during transport.

8.5.3.3 Packing methods, containers, equipment and packing density shall be appropriate to the size of larvae, post larvae and the duration of transport.

8.5.3.4 Local Transport Permit (LTP) accompanied by health certificate and laboratory result for post larvae shall be secured from the issuing competent authority prior to transport.

9 Animal Health and Welfare

Hatchery and nursery operators should develop and implement an aquatic animal health plan, following the existing protocols of the competent authorities for the health and management of aquatic animals.

Hatchery and nursery operators should formulate and implement biosecurity measures, in adherence to the recommended protocol of the competent authority, to prevent entry of disease into the farm and/or control its spread within the farm.

Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices

Working Draft As of April 25, 2025

- Hatchery and nursery operators should maintain a suitable culture environment throughout the production cycle of the species being raised to promote aquatic animal welfare.
- Hatchery and nursery operators should develop and implement handling protocols during sampling, harvesting, quarantine, and disease treatment to promote aquatic animal welfare.
- Hatchery and nursery operators shall adhere to the risk-based animal health surveillance program, which includes both passive and active schemes conducted by the competent authority, to ensure effective monitoring and management of aquatic animal health.
- **9.6** Aquatic animals, wild-sourced or captive propagated by registered 480 hatcheries, should be of good quality and clinically healthy, as confirmed 481 through screening and testing by the competent authority and its recognized laboratories before stocking.
- **9.7** All veterinary drugs and chemicals for use in aquaculture shall comply with national regulations, if applicable. If veterinary drugs and chemical treatment is necessary, farm operators shall follow the instructions on the manufacturers label or as advised by competent authority.
- **9.8** Veterinary drugs, medicated feeds, chemicals and biological substances
 490 should be properly stored according to instructions.
 491
- **9.9** Veterinary medicines should be used in a responsible manner and in accordance with applicable national legislation that ensure effectiveness for animal health with consideration of public safety and protection of the environment.
- Treatment and control of diseases with authorized veterinary drugs should be carried out only on the basis of a proper diagnosis.
- **9.11** Substances requiring prescription shall only be used under supervision by a qualified expert. Non-prescription substances should be used according to manufacturer's instructions and as specified on the label.
- **9.12** For hatchery and nursery administering chemicals, withdrawal periods shall be followed. Veterinary drug residues shall be within the limits set in the PNS/BAFS 48:2022 (Veterinary Drug Residues in Food Maximum Residue Limits).
- **9.13** A quarantine protocol should be established and implemented for the treatment and containment of diseased aquatic animals.

Working Draft As of April 25, 2025

9.14 Proper handling and disposal procedures for diseased aquatic animals shall be implemented to ensure effective disease control and prevent the spread of pathogens.

Movement of aquatic animals and aquatic animal products should take place in accordance with existing national regulations to prevent the entry or transfer of diseases and infectious agents pathogenic to aquatic animals while avoiding unwarranted sanitary measures.

10 Environmental Integrity and Sustainability

The site of aquaculture facilities shall be evaluated and permitted based on its proximity to ecologically sensitive or protected areas such as mangrove forests, coral reefs, and other biodiversity hotspots. The farm shall also adhere to zoning laws set by local government units (LGUs).

10.2 Environmental Impact Assessments (EIA) should be conducted, as prescribed by the national and local regulations, prior to the approval of establishment of aquaculture facilities.

Where possible, good quality, high health hatchery-bred stocks for use in seed production should be sourced out from Specific Pathogen Free (SPF) facilities. When wild-sourced brood stocks are used, they should be collected using responsible practices or in accordance with national laws and regulations where they exist.

10.4 Where genetic material of an aquatic organism is to be altered in a way that does not occur naturally, science-based risk assessment-shall be done to address possible risks.

10.5 Screens and barriers should be available to limit the incidence of escape to the natural environment of cultured species.

10.6 Measures should be adopted to promote efficient water management and use, as well as proper management of effluents to reduce impacts on surrounding land, and water resources.

10.7 Quality of discharge water from hatchery shall be held in effluent treatment pond/tank and shall comply with relevant laws and regulations.

10.8 Hatchery and nursery workers and managers should be trained in environmental management and mitigation of impact to ensure they are aware of their responsibilities in protecting the environment.

10.9 Regular monitoring of farm environmental quality should be carried out.

PNS/BAFS 281:202X

Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices

Working Draft As of April 25, 2025

10.10 In cases of disease occurrences, treatment of effluent water prior to release shall be implemented and recorded.

11 Socio-Economic Aspects

Workers should receive fair treatment, salaries, mandatory benefits, and incentives consistent with national rates and in accordance with existing laws, regulations, and any related agreements or arrangements between the employer and the workers.

Hatchery and nursery owners should provide separate and secure living quarters for female workers, distinct from those of male workers, to ensure privacy, safety, and comfort.

11.3 Potable water in adequate supply and appropriate suitable toilet facilities should be available and properly maintained.

11.4 Hatchery and nursery operations should observe the rights of host local communities minimizing potential adverse impacts on public land, infrastructures, fishing grounds, and water resources following existing laws and regulations.

11.5 Workers shall not be discriminated against on the basis of gender, race, religion, culture, age, etc.

Training on Occupational Health and Safety (OH&S) should be conducted for the workers to ensure safer work conditions.

11.7 Adequate quantity of first aid kits should be available and easily accessible at the production area, laborers should be able to demonstrate awareness and apply various first aid measures.

Harmonious, productive, and mutually beneficial relationship with the local community should be maintained to foster responsible business and social responsibility.

11.9 Proactive anti-child labor policy should exist in the farm and shall be compliant with the existing regulation and other applicable regulations.

11.10 Electrical connections, hazardous materials, farm inputs and implements which may pose danger, toxification, untoward accidents or eventual deaths to workers should strictly undergo regular inspections, inventory, check-up, repairs and replacements as necessary.

PHILIPPINE NATIONAL STANDARD PNS/BAFS 281:202X **Ginat Freshwater Prawn Hatchery and Nursery** — Code of Practice — Good Aquaculture Practices **Traceability and Record Keeping**

Working Draft As of April 25, 2025

Records of the following should be maintained for at least 24 months for 12.1 traceability purposes:

- a) organizational structure;
- b) hatchery and nursery lay-out and design; c) broodstock origin and management protocol;
- d) hatchery and nursery management protocol:

and corrective measures and other action plans

 e) actual production volume/ quantity distributed to farms; f) water quality monitoring and disease history of the hatchery and nursery

facility; g) preventive measures against and control of disease outbreak:

 h) inventory of inputs including veterinary drugs, probiotics, hazardous substances and other chemicals;

Other necessary information and relevant data shall be recorded and kept for further inspection, such as laboratory results, record of problems, causes

i) employment and wage payment;

i) mortalities and other problems; and k) area of distribution.

12.2

PNS/BAFS 281:202X

Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices

Working Draft As of April 25, 2025

Annex A (Normative)

List of banned antimicrobials in food-producing animals

Regulations		
BFAR Administrative Circular No. 256, series of 2015	Declaring malachite green and gentian violet as health hazards and prohibiting their use in food fish production and trade	
DA Administrative Order (AO) No. 14, series of 2003	Ban on the use in food animals of beta-agonist drugs used in humans as bronchodilator and tocolytic agents	
Department of Health (DOH) and DA Joint AO No. 2, series of 2000	Declaring ban/phase out of the use of nitrofurans in food-producing animals	
DOH AO No. 4-A and DA AO No. 1, series of 2000	Banning and withdrawal of olaquindox and carbadox from the market	
DOH AO No. 91 and DA AO No. 60, series of 2000	Declaring ban on the use of chloramphenicol in food-producing animals	

PHILIPPINE NATIONAL STANDARD Ginat Freshwater Prawn Hatchery and Nursery

PNS/BAFS 281:202X

— Code of Practice — Good Aquaculture Practices

Working Draft As of April 25, 2025

679 Annex B 680 (Informative)

Optimum water quality requirement for the hatchery of freshwater prawn (Tayame, 2021)

Parameters	Optimum Level	
Salinity	12 ppt	
Temperature	28–31 °C	
Dissolved Oxygen	4–7ppm	
pH	7.0–8.5	
Ammonia (NH ₃)	0.1–0.2 ppm	
Alkalinity	25–100 ppm	
Transparency	30-40 cm	

PNS/BAFS 281:202X

Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices

Working Draft As of April 25, 2025

718	Bibliography
719	
720	
721	Bureau of Agriculture and Fisheries Standards (BAFS)-Department of Agriculture
722	(DA). (2015). Animal feed ingredients (PNS/BAFS 163:2015)
723	
724	Bureau of Agriculture and Fisheries Standards (BAFS)-Department of
725	Agriculture (DA). (2022). Veterinary Drug Residues in Food — Maximum
726	Residue Limits (PNS/BAFS 48:2022).
727	
728	Bureau of Agriculture and Fisheries Standards (BAFS)-Department of Agriculture
729	(DA). (2024). Live and raw bivalve molluscs – Code of Practice (PNS/BAFS
730	236:2024)
731	
732	Bureau of Fisheries and Aquatic Resources National Freshwater Fisheries
733	Technology Center. N.D. Grow-out Farming of Organic Giant Freshwater
734	Prawn in Pond.
735	
736	Bureau of Fisheries and Aquatic Resources (BFAR)-Department of Agriculture (DA).
737	(2009). Allowing the importation and culture of the broodstock and post-larvae
738	of Specific Pathogen Free I Specific Pathogen Resistant (SPF/SPR) Black
739	Tiger Shrimp, Penaeus monodon and the culture of the offspring thereof
740	(Fisheries Administrative Order [FAO] No. 230, series of 2009).
741	https://www.bfar.da.gov.ph/wp-content/uploads/2021/04/FAO-No230-s
742	<u>2009.pdf</u>
743	0 41 4 0 1 40000 5 1 4 4 1 4 4 1 4 4 1 4 4
744	Codex Alimentarius Commission. (2006). Principles for traceability/product tracing as
745	a tool within a food inspection and certification system (CXG 60-2006).
746	https://www.fao.org/fao-who-codexalimentarius/sh-
747	proxy/tr/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites
748	%252Fcodex%252FStandards%252FCXG%2B60-2006%252FCXG_060e.pdf
749	Codex Alimentarius Commission (CAC). (2020). Code of Practice (COP) for fish and
750	fishery products (CXC 52-2003, rev. 2020). https://www.fao.org/fao-who-
751	codexalimentarius/sh-
752	proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites
753	%252Fcodex%252FStandards%252FCXC%2B52-2003%252FCXC_052e.pdf
755	7020E1 GGGGX76E0E1 GtG11GG1GG76E0E1 GXG76E0E1 GXG_GGEGE1 GXG_GGEGE1
754	Food and Agriculture Organization of the United Nations. (n.d.). Fishery
755	management. ASFA: Thesaurus of aquatic sciences and fisheries
756	terminology.
757	https://agrovoc.fao.org/skosmosAsfa/asfa/en/page/c_cbafa2e3?clang=vi
758	
759	World Organization for Animal Health. (2018). Biosecurity.
760	
761	Tayame, M.M. (2001). NFFTC Aqua-Leaftet No. 2001-10 Biology and Hatchery
762	Management of the Giant Freshwater Prawn.
763	

PHILIPPINE NATIONAL STANDARD	PNS/BAFS 281:202X
Ginat Freshwater Prawn Hatchery and Nursery — Code of Practice — Good Aquaculture Practices	
	Working Draft
	As of April 25, 2025
World Organization for Animal Health. (2018). Biosecu	rity.
https://www.woah.org/fileadmin/Home/eng/Healt	
ossaire.htm#:~:text=biosecurity,and%20within%	20an%20animal%20populatio
<u>n</u> .	