INDIA

NATIONAL RESIDUE CONTROL PLAN

FOR

AQUACULTURE PRODUCTS

YEAR 2023

Export Inspection Council
(Ministry of Commerce & Industry, Govt. of India)
2nd Floor, B- Plate, Block-1, Commercial Complex,
East Kidwai Nagar, New Delhi -110023.
Phone: +91-11-20815386/87/88,
E-mail: eic@eicindia.gov.in

NATIONAL RESIDUE CONTROL PLAN OF INDIA FOR AQUACULTURE PRODUCTS – 2023

NATIONAL RESIDUE CONTROL PLAN (NRCP) OF INDIA FOR AQUACULTURE PRODUCTS – 2023

1.	**Introduction**
	The major concern all over the world for food and feed products of animal origin including aquaculture products is the presence of residues of veterinary medicinal products, feed additives and environmental contaminants. Specifications for a residue control programs are determined by the importance of the various health risks that could be incurred by consumers of products derived from animal food products. The Govt. of India is committed to ensure safe seafood for both domestic and overseas market. Keeping the above in view, the National Residue Control Plan (NRCP) of India for Aquaculture products has been formulated for monitoring the presence of residues of Veterinary Medicinal Products (VMPs) including antibacterial and other veterinary/aquaculture medicinal substances like anthelmintics, growth promoters, substances like dyes, other unauthorized substances and environmental contaminants such as Plant Protectants & Biocides, Organochlorine compounds including Pesticides, PCBs, Dioxins and Furans and Dioxin like PCBs and Chemical Elements (heavy metals) etc.
2.	**Objectives of NRCP**
	➢ To establish a system for monitoring the residues of Aquaculture drugs/VMPs and Environmental contaminants etc. in shrimp, scampi, fresh water fish, hatchery seed and feed samples drawn from aquaculture farms, feed mills and hatcheries. ➢ To establish a system of corrective action in the event of detection of residues/contaminants higher than the prescribed limits. ➢ To ensure that the aquaculture products exported from India meet the prescribed regulatory requirements of the importing countries / European Union (EU)/ Great Britain (GB).
3.	**Scope of NRCP**
	All aquaculture farms, feed-mills and hatcheries linked to and/or intended for export oriented production of aquaculture products and the testing and certifying laboratories are covered under the NRCP, in order to ensure an overall monitoring of the aquaculture products at different stages of production to guarantee safe products from farm to table.
4.	**Implementation of NRCP**
	By exercising the powers under the Export (Quality Control & Inspection) Act, 1963, Ministry of Commerce and Industry (Govt. of India), amending the Notification S.O. 730(E) dated 21.08.1995, vide notification No. S.O. 1034(E) dated 09.09.2003, designated the Marine Products Export Development Authority (MPEDA) to carry out the residue monitoring on behalf of Export Inspection Council (EIC), the Competent Authority.
5.	**Aquaculture in India**
	India is one of the largest suppliers of shrimp to the world and ranks 2nd highest in aquaculture production in the global scenario. The pollution free waters along the 8118 km long Indian coastline, 1.24 million hectares of brackish water area and 5.4 million hectares of fresh water area contribute to the aquaculture (Handbook on Fisheries Statistics, 2020, Ministry of Fisheries,

Animal Husbandry & Dairying, Govt. of India).

In India, the aquaculture constitutes mainly freshwater and brackish water culture and is practiced in the 9 maritime states of India. Andhra Pradesh is the leading state of aquaculture which produces about77.55% of the total cultured crustaceans(*Litopenaeus vannamei, Penaeus monodon* and *Macrobrachium rosenbergii*) in India. Species-wise aquaculture production through inland and brackish water culture is given in Table-1below.

Presently, *L. vannamei* and *P.monodon* are the main species cultured in brackish water. This forms the bulk of shrimp exports to EU/GB and other countries.

5.1 Brackish water / Fresh water Shrimp/Prawn culture

Table – 1

Name of species	Production (M/T)
Shrimp *(L. vannamei, P. monodon & P. indicus)*	10,17,012
Scampi (*Macrobrachium rosenbergii*)	21,317
Total	**10, 38, 329**

Source: MPEDA, 2021 -22

5.2 Details of State-wise production of brackish water shrimp & freshwater prawn (Scampi) during 2021-22:

Among the maritime states, most of the aquaculture activities are concentrated in Andhra Pradesh. The other leading states in aquaculture production are West Bengal, Gujarat, Tamil Nadu and Odisha (MPEDA, 2021-22). The aquaculture production of crustaceans (shrimp & scampi) in the country is given in Table-2 below.

Table – 2

State	*L. vannamei& P. monodon*	*% (production)*	*M. rosenbergii (Scampi)*	*% (production)*	*TOTAL Production (MT)*
	Production(MT)		*Production(MT)*		
Andhra Pradesh	7,88,707.60	77.55	13,398.5	62.85	8,02,106.10
Gujarat and Daman & Diu	60,159	5.92	1,420	6.66	61,579
Karnataka & Goa	2,089	0.21	0	0.00	2,089
Kerala	1,820.20	0.18	0	0.00	1,820.20
Maharashtra	4,776.50	0.47	2,415.28	11.33	7,191.78
Odisha	50,661	4.98	976	4.58	51,637
Tamil Nadu	39,203.70	3.85	70	0.33	39,273.70
West Bengal	69,595	6.84	3,037	14.25	72,632
Total	**10,17,012**		**21,317**		**10,38,329**

5.3 Details of State-wise production of freshwater fish during 2021-22:

Among the maritime states, most of the aquaculture activities are concentrated in Andhra Pradesh. The other leading states in aquaculture production are Tamil Nadu, West Bengal, and Maharashtra (MPEDA, 2021-22). The aquaculture production of Fishes (Seabass, Tilapia, Pangasius) in the country is given below:

State	Fishes (Seabass, Tilapia, Pangasius) *Production(MT)*	*% (production)*
Andhra Pradesh	2,06,371.52	93.86
Gujarat and Daman & Diu	664.00	0.30
Karnataka & Goa	3.00	0.00
Kerala	470.79	0.21
Maharashtra	6,630.28	3.02
Odisha	271.00	0.12
Tamil Nadu	3,895.50	1.77
West Bengal	1,556.00	0.71
Total	**2,19,862.00**	

5.4 Enrollment of Aquaculture Farms by MPEDA:

In order to identify the aquaculture farms producing material for export intended production, the aqua farms producing shrimp, are enrolled by MPEDA. The details of aqua farms were collected through special campaigns conducted in the farming clusters by representatives of MPEDA. The information collected is digitized into several attributes of aqua farms database. Each farm enrolled is physically verified to obtain the Geo-spatial information through capturing co-ordinates of the aqua farm with the help of GPS instrument and the centroid of the farm is created by its latitude and longitude. Other required details/information on the farms is also collected by the representative of MPEDA. Each farm enrolled is recognized by a unique identification number of 8 characters.

5.5 Aquaculture Farms, Feed-mills & Hatcheries

The number of aquaculture farms, hatcheries enrolled with MPEDA and the functional feed-mills manufacturing aqua feeds are as shown in Table-3 below.

Table: 3

Number of Aquaculture Farms, Feed-mills & Hatcheries enrolled/registered under MPEDA

Region/State	*Farms*	*Feed-mills (functional)*	*Shrimp Hatcheries (functional)*
Andhra Pradesh	50,440	23	187
Chattisgarh	-	1	-
Gujarat	1,283	2	4
Karnataka & Goa	562	-	-
Kerala	2,478	-	12
Maharashtra	427	-	-
Odisha	8,059	1	4
Tamil Nadu	2,663	4	52
West Bengal	12,781	4	1
Total	**78,697**	**35**	**260**

5.6	**Export of Aquaculture Products (Shrimp and Fish) by EU/GB approved export establishments:**
	During the year 2021-22, a total quantity of 7,28,123MT of aquaculture shrimp/products and 3,890MT of fresh water fish/products exported by EU/GB approved establishments to EU/GB and non-EU countries.
6.0	**National Residue Monitoring in India**
	There are 705 land based processing establishments in India. Of which, 428 and 447 establishments have been approved for processing of fish and fishery products to EU and GB respectively. In addition, 69 and 71 independent cold storages are also approved for storage of fish and fishery products for export to EU and GB respectively. Compliance with the Hazard Analysis and Critical Control Point (HACCP) system has been made mandatory for all seafood processing units in India. The residue control plan for aquaculture animal is implemented since 1998 in India, presently complying with Regulation (EU) 2017/625 of the European Parliament and of the Council of 15 March 2017 and Regulation (EU) 2022/1644 of 7 July 2022 to ensure the safety of aquaculture products exported to member states of the European Union/GB. National Residue Control Plan (NRCP) is prepared on a risk basis, the criteria for selecting specific combinations of substance groups is based on Annex II to Commission Delegated Regulation (EU) 2022/1644 for both group A and group B. The criteria considered for contaminants are based on Annex I to Commission Delegate Regulation (EU) 2022/931, and for pesticides, the criteria considered are outlined in Article 1 of Commission Implementing Regulation (EU) 2021/1355. Substances like Chloramphenicol, Nitrofurans and it's metabolites, Nitroimidazoles, Stilbenes, Steroids, Tetracyclines, Sulphonamides, Quinolones/Fluroquinolones, Anthelmintics, Organo-chlorine Pesticides, PCBs, Dioxins, Heavy Metals, Dyes, etc. are monitored under NRCP.
7.0	**Organizations associated with the implementation of NRCP:**
	The Export Inspection Council (EIC) set up under Section 3 of the Export (Quality Control and Inspection) Act 1963, is the Competent Authority (CA) for inspection and quality control of fish and fishery products meant for exports.
7.1	**Registering authorities for aquaculture farms:** As per provision made in notification no. S.O. 497(E) dated 10.3.2011, the Competent Authority has recognized CAA, MPEDA & State Fisheries Authorities for registering the aquaculture farms.
7.2	**The Marine Products Export Development Authority (MPEDA),** a statutory body under Ministry of Commerce & Industry (Govt. of India) was constituted by the Marine Products Export Development Authority Act No 13 / 1972, to promote the production and export of marine products. Following are the major functions of MPEDA: 1. Registration of exporters, processing establishments, storage premises & fishing vessels.

	2. Quality up-gradation and modernization of marine products industry. 3. Development of infrastructure facilities. 4. Implementation of residue monitoring/control programmes such as NRCP (as per EC Regulation 2017/625 & 2022/1644), Monitoring of Pesticide Residue at National Level (MPRNL) etc. 5. Enrolment of farms, hatcheries & feed-mills intended for export linked production in order to ensure the code of practices for producing quality aquaculture products, hatchery seeds & aqua feed. 6. Promotion of export of marine products from the country to different international markets. 7. Guidance to farmers to adopt good management practices for sustainable aquaculture.
7.3	**NRCP laboratories**
	The MPEDA has set up a network of 5 (five) Quality Control Laboratories at Kochi, Bhimavaram, Nellore, Bhubaneswar & Porbandar, are involved in implementation of the National Residue Control Plan for aquaculture products, as per EU Regulation 2017/625 and its subsequent amendments. In addition to above, Export Inspection Agency-Chennai laboratory shall be utilized for testing the parameters like dioxin and furans.
7.3.1	**MPEDA Quality Control Laboratory, Kochi (Cochin)**
	MPEDA House – 5th Floor, Panampilly Avenue, Cochin – 682 036, Kerala, India. Tel.91-484- 2321811 / 2311033. Fax.91-484-2313361, E-mail:lab.koc@mpeda.gov.in
7.3.2	**MPEDA Quality Control Laboratory, Bhimavaram**
	27/1/6 - Pattabhi Plaza, 2nd floor, Juvalpalem Road, Bhimavaram-534 202, West Godavari Dist. Andhra Pradesh, Tel: 91-8816-226410 / 227076. E-mail: lab.bhi@mpeda.gov.in
7.3.3	**MPEDA Quality Control Laboratory, Nellore**
	D.No.26-1766/A-1, Srinagar colony, Mini Bypass Road, Nellore- 524 003, Andhra Pradesh. Tel: 91-861- 2319144 / 2319344 E-mail: lab.nel@mpeda.gov.in
7.3.4	**MPEDA Quality Control Laboratory, Bhubaneswar**
	2nd Floor, Raptani Bhavan, Near ID Market, IRC Village, Nayapalli, Bhubaneswar-751 015, Odisha Tel: 91-674-2362365, E-mail: lab.bhu@mpeda.gov.in
7.3.5	**MPEDA Quality Control Laboratory, Porbandar**
	2nd Floor, SHANTI Complex, 3, Wadi Plot, Opp: TACON Complex, Porbandar- 360575, Gujarat, Tel: +91 286 2210074, E-mail: lab.por@mpeda.gov.in

7.3.6	**Export Inspection Agency-Chennai laboratory**
	Export Inspection Agency-Chennai , 6th Floor CMDA Tower II, No: 1, Gandhi Irwin Road, Egmore, Chennai - 600 008, Tel: +91-44 - 2855 2841 / 42 Fax: + 91-44 - 2855 2840 E-mail: eia-chennailab@eicindia.gov.in
8.0	**Level of competence of the MPEDA Laboratories and EIA-Chennai Laboratory involved in residue monitoring:**
	The MPEDA QC Laboratories and EIA-Chennai Laboratory are equipped with high precision sophisticated equipments like Liquid Chromatography Tandem Mass Spectrometer (LC-MS/MS), Inductively Coupled Plasma - Mass Spectrometer (ICP-MS), Atomic Absorption Spectrometer (AAS), High Performance Liquid Chromatograph (HPLC) with PDA, FLD detectors, Gas Chromatograph (GC-ECD), Gas Chromatograph - Mass Spectrometer (GC-MS/MS), Automatic ELISA Analyser etc. and all necessary supporting equipment/instruments. The EIA-Chennai Laboratory is also equipped with the GC-HRMS.
8.1	**Accreditation / approvals of Laboratories:**
	MPEDA QC Laboratories & EIA Chennai Laboratory are accredited by accreditation body of India which is member of International Laboratory Accreditation Co-operation (ILAC), as per the ISO/IEC 17025:2017 Standard. The scope of accreditation covers testing of fish and fishery products for chemical residues. The Laboratories are also approved by the Export Inspection Council for testing of fish and fishery products intended for export.
8.2	**Proficiency Test & Inter-laboratory comparisons:**
	MPEDA QC Laboratories & EIA Chennai Laboratory participate regularly in Proficiency Testing programmes organized by international PT providers like FAPAS (CSL), LGC Promochem, UK, Test Veritas, EIA Laboratories and other PT providers in India for compliance to ISO 17043 to prove the competency in testing of various parameters under the scope of accreditation. The Laboratories have successfully participated in the PT programmes for analysis of Chloramphenicol, Nitrofuran metabolites, Tetracyclines, Quinolones, Sulphonamides, Beta-lactams, Chemical Elements, Organochlorine Pesticides, Dioxin like PCBs, PCBs, Anthelmentics and Dyes etc. and also regularly organize as well as participate in Inter-laboratory Testing/Comparison programmes.
9.0	**Personnel responsible for collection of samples:**
	The MPEDA has a number of field offices (Regional/Sub-regional Divisions) located in different maritime states of India where the aquaculture is carried out. The Residue Monitoring Officers of MPEDA field offices (who are designated for sample collection and other field/follow up activities related to NRCP) at different regions visit the farms, hatcheries and feed mills and collect the targeted samples as per the monthly target/schedule assigned to different regions/states and forward the same to the laboratories of MPEDA at Cochin, Nellore, Bhimavaram, Bhubaneswar and Porbandar. The sampling official, records the nature, source, the date and place of sampling and other relevant information.

Trainings/work-shops are conducted for the Residue Monitoring Officers every year to evaluate the implementation of NRCP with regard to sampling procedure and strategies, collection of samples & follow-up samples, follow-up action, etc.

10.0 Sampling Strategy:

(As per Annex-I of EU Commission Regulation 2022/1646 – for Group A, Group B, Pesticides and other Contaminants)

(i) **Shrimps** (*Litopenaeus vannamei, Penaeus monodon & P. indicus*), **Scampi** (*Macrobrachium rosenbergii*) and **Fin-fishes:** one sample per 300 tons of annual production of aquaculture for the first 60,000 tons of production and then one additional sample for each additional 2,000 tons (for Group A&B substances)

(ii) For the group Pesticides and Contaminants: Followed risk based sampling i.e. one sample per 2,000 tons of production.

(iii) **Feed samples**: One sample per two registered feed-mill (50%).

(iv) **Hatchery sample** (Shrimp seed): At least one sample from each hatchery under operation.

10.1 Number of Aquaculture Samples to be collected and analyzed under NRCP 2023 :

Table – 4

Type of sample	*No. of registered / Enrolled Farms*	*Aqua-culture Production (M/T) (2021-22)*	*No. of samples to be analysed*	*Criteria for sampling*
1. Crustaceans *(i) L. vannamei* *(ii) P. monodon* *(iii) P. indicus* *&* *(iv) M. rosenbergii*	**78,697** --	**10,38,329**	2424	1 sample per 300 tons of annual production of aquaculture for the first 60,000 tons of production and then 1 additional sample for each additional 2,000 tons (Group A&B) Followed risk based sampling for contaminants. (1 sample per 2,000 tons of production.
2. Freshwater Fin-fishes *(i) P. pangasius* *(ii) O. niloticus* *(iii) L. calcarifer*		**2,19,862**	836	
		Total samples	**3260**	

10.2 NRCP 2023 Breakup of aquaculture samples for analysis of various group of substances:

Table – 5

Type of Sample	*Number of samples to be tested*	*Break up of samples to be tested*					
		Group A substances	*Group B substances*	*Organo chlorinated Pesticides*	*PCBs*	*Heavy Metals*	*Total*
1. Crustaceans (i)Shrimp	2354	664	674	509	166	341	2354
(ii) Scampi	70	27	17	12	5	9	70
2. Fin-fishes	836	280	280	110	83	83	836
Total	**3260**	**971**	**971**	**631**	**254**	**433**	**3260**

10.3 NRCP 2023 - Break up of samples for analysis of Group A substances

Table – 6

Type of Sample	*A1c Steroids*	*A2a Chloram phenicol*	*A2b Nitrofurans*	*A2c Nitro imidazoles*	*A2d other A2 substances*	*A3a Dyes*	*A3b Plant Protection products & biocides*	*A3c unathorised antimicrobials*	*No. of samples for Group A Substances*
Aquaculture Crustaceans	--	250	250	51	35	35	35	35	**691**
Aquaculture Fin-fishes	15	80	80	25	15	25	15	25	**280**
Total	**15**	**330**	**330**	**76**	**50**	**60**	**50**	**60**	**971**

10.4 NRCP 2023 - Break up of samples for Analysis of Group B substances, Contaminants and Pesticides:

Table – 7

Type of Sample	*Group B substances*		*Pesticides*	*Contaminants*		*Total*
	B1a Anti microbials	*B1b Anthelmintics*	*Organo chlorinated compounds*	*PCBs*	*Heavy Metals (As, Pb, Hg & Cd*	
Aquaculture Crustaceans	500	191	521	171	350	1733
Aquaculture Fin-fishes	200	80	110	83	83	556
Total	**700**	**271**	**631**	**254**	**433**	**2289**

10.5 NRCP 2023 – Number of Feed Samples to be monitored: Hatchery and Feed Samples:

Table – 8

Sl no.	*Item*	*Parameter*	*No. of Hatcheries / Feed-mills in operation*	*No. of samples to be analysed*	*Criteria for sampling*
1	Feed	NF + CAP	35	18	Samples from 50% of registered feed mills
2	Hatchery Seed	NF + CAP	260	260	Samples from 100% of operational Hatcheries

10.6 Total number of Samples proposed under NRCP 2023:

Table – 9

Sl no.	*Item / species*	*No. of Samples to be tested by MPEDA Labs*
1	Crustaceans	2354
	(i)Shrimp (*L. vannamei / P. monodon/ P indicus*)	
	(ii) Scampi (*M. rosenbergii*)	70
2	Fresh water Fin-fishes *(i) P. pangasius* *(ii) O. niloticus* *(iii) L. calcarifer*	836
	Sub Total	**3260**
3	Hatchery seed	260
4	Feed	18
	Sub Total	**278**
GRAND TOTAL		**3538**

11.0 Collection and transportation of samples

500gms of samples (whole prawns/fish) shall be taken from farms for analysis. In case of samples from hatchery, 20 to 25 gm of juveniles (excluding water) are collected from the larval and post-larval rearing tanks in polythene bags, officially sealed using tamper proof seal and transported in thermocol box packed with dried/ wet ice. In case of feed, 500 gms of feed samples are taken in polythene bags from farms and feed mills.

Shrimp/fish samples collected in polythene bags and covered in aluminum foil, affixed with code numbers, to maintain sample integrity and traceability. The container / packing must be officially sealed with tamper proof seal and packed in thermocol boxes are dispatched along with the sampling report, with sufficient dry ice in the case of long duration transport and with wet ice in the case of short distance transport.

	The samples are forwarded to the concerned laboratories within 3 days of its collection so as to reach MPEDA Laboratories within 30 hours (transit time) of its dispatch. Instructions issued to the field offices of MPEDA on sample collection, packing & transportation and follow-up action to be taken on residue positive samples. ***(Annexure-5)***
12.0	**Handling of sample in the Laboratory**
	Immediately on receipt, the samples are decoded and stored in deep freezer at −18°C (±2°C). The samples are then homogenized and divided into two equal portions and stored in deep freezer. One portion is used for the analysis, while the remaining portion is retained in the deep freezer. The samples are analyzed by the respective laboratories at the earliest not more than 15 days from the receipt of the samples. If the initial test shows positive, the remaining sample will be tested for confirmation of the results. The samples are disposed only on completion of 90 days after analysis. The test reports are received by the Field Offices & EIAs electronically (online).
13.0	**Alert information, communication of results & measures taken in the event of infringement:**
	a) In the case of positive test results (non-compliant samples), the alert information along with test results is transmitted to the concerned field offices of MPEDA, EIA and Coastal Aquaculture Authority (CAA)*. b) On receipt of such information EIA, MPEDA and CAA* shall undertake the joint inspection of the facility to trace the origin / source of contamination. c) The EIA, MPEDA and CAA officials collect follow up samples from the same premises for the further analysis at MPEDA laboratory. A joint inspection report shall be prepared & be available at EIA, MPEDA and CAA*. d) If the sample is found positive, on repeated analysis the results shall be communicated by MPEDA to EIAs/CAA* and the defaulting facility will be issued show cause notice by EIAs/CAA*. e) Based on the reply received from the facility, the EIA shall take the action as deemed fit. In case of hatcheries falling under jurisdiction of CAA*, shall take actions as deemed fit as per the provisions of the CAA Act. f) A monthly summary of the samples drawn, tested and results (including positive and negative), shall be communicated to the Competent Authority by MPEDA. g) EIAs shall send the monthly report of action taken on non-compliance results to EIC. CAA* shall inform the outcome of the investigation to the EIA and MPEDA. h) The farms reported with non-compliant results are subjected to more stringent checks for a period of at least twelve months by EIAs. i) A Committee headed by the In-charge of the EIA reviews regularly the non-compliant (residue positive) cases for appropriate follow-up guidelines and actions. *In case of positive test results (non-compliant samples) from the hatcheries falling under the jurisdiction of CAA.

14.0 ***List of substances/residues and their RPA /MMPR/MRL/ML:***

14.1 **Group A Substances**

Substance group	***Substances***	***Substance monitored***	***RPA /MMPR***
A1c	Steroids	Progesterone	No limits established**
		MedroxyProgestrone (acetate)	***MMPR***- 1 µg/kg
		17-β Oestradiol	***MMPR***- 1 µg/kg
		17-alpha-methyl Testosterone	***MMPR***- 1 µg/kg
A2a	Chloramphenicol	Chloramphenicol	RPA: 0.15 µg/kg
A2b	Nitrofurans	Nitrofuran Metabolites (AOZ, AMOZ, SEM, AHD & DNSH)	RPA: 0.5 µg/kg (each metabolite)
		Nitrofurans (parent compounds, in case of feed samples)	No limits established**
A2c	Nitroimidazoles	Nitroimidazoles (Metronidazole, Dimetridazole&Ronidazole , Ipronidazole and their hydroxyl compounds)	MMPR- 1.0 µg/kg (each compound)
A2d	other A2 substance	Dapsone	***MMPR*** - 1 µg/kg
A3a	Dyes	Malachite Green and Leucomalachite Green	RPA: 0.5 µg/Kg (sum)
		Crystal Violet and Leucocrystal Violet	MMPR – 0.5 µg/Kg
A3b	Protection products & biocides	2,5-dichlorobenzoic acid methyl ester (sum of 2,5-dichlorobenzoic acid and its ester)	MRL-10 µg/kg* as per EU Regulation 396/2005
A3c	Other unathuorised antimicrobials	Norfloxacin	No limits established**
		Nalidixic acid	No limits established**
		Cefalexin	No limits established**
		Cefapirin	No limits established**

** Limit of analytical determination*

*** Working Limit (ALARA) is determined by each Lab*

Group B substances/residues:

B1a	**Antimicrobials**		**MRL**
	1. Quinolones/ Fluoro-quinolones	Oxolinic acid	100 µg/kg
		Difloxacin	300 µg/kg
		Sarafloxacin	30 µg/kg
		Enrofloxacin (sum of Enrofloxacin& Ciprofloxacin)	100 µg/kg
		Danofloxacin	100 µg/kg
		Flumequine - Fin-fish	600 µg/kg
		Flumequine - Other species	200 µg/kg
	2. Tetracyclines	Tetracycline & its 4-epimer	100 µg/kg
		Oxytetracyline& its 4-epimer	100 µg/kg
		Chlortetracycline & its 4-epimer	100 µg/kg
		Doxycycline	100 µg/kg
	3. Sulfonamides	Sulfadiazine, Sulfamethoxazole, Sulfamethoxypyridine, Sulfamethizole, Sulfamethazine, Sulfamerazine, Sulfapyridine, Sulfadimethoxine, Sulfachloropyradizine, Sulfathiazole, Sulfadoxine	100 µg/kg (MRL - sum of all Sulfonamides)
	4. Macrolides	Erythromycin A	200 µg/kg
		Tilmicosin	50 µg/kg
		Tylosin	100 µg/kg
		Spiramycin	No MRL (Reporting > LOQ)
	5. Beta Lactams	Lincomycin	100 µg/kg
		Ampicillin	50 µg/kg
		Benzyl Penicillin	50 µg/kg
		Dicloxacillin	300 µg/kg
		Oxacillin	300 µg/kg
		Cloxacilin	300 µg/kg
		Amoxicillin	50 µg/kg
	6. Polypeptides	Colistin A & B	150 µg/kg
	7. Diaminopyramidines	Trimethoprim	50 µg/kg
	8. Aminoglycosides	Neomycin B	500 µg/kg
		Spectinomycin	300 µg/kg
B1b	Anthelmintics	Emamectin	100 µg/kg
		Ivermectin	No limits established**

Pesticides:

Pesticides	**Organochlorine compounds**	**Substances monitored**	**MRL**
		α BHC	Default MRL of 0.01 mg/kg for each compound (as per EU Regulation 396/2005)
		β BHC	
		γ BHC	
		Aldrin	
		2,4 DDT	
		4,4 DDT	
		2,4 DDE	
		4,4 DDE	
		2,4 DDD	
		4,4 DDD	
		Heptachlor	
		Heptachlor Epoxide	
		Dieldrin	
		Endrin	
		HCB	
		Cis-Chlordane	
		Trans-Chlordane	
		Oxy-Chlordane	

** Working Limit (ALARA) is determined by each Lab

Contaminants:

Contaminants	**Substances monitored**		**ML**
Halogenated persistent organic pollutants	PCBs	PCBs (PCB 28, PCB 52, PCB 101, PCB 138, PCB 153, PCB 180)	0.075 mg/kg (sum of PCBs)
	Dioxins/Furans and dioxin like PCBs	Dioxins / Furans (17 compounds) & dioxin like PCBs (12 compounds)	Sum of all Dioxins (WHO-PCDD/F-TEQ) 3.5pg/g and Sum of all Dioxins & dioxin like PCBs (WHO-PCDD/F-TEQ) 6.5 pg/g
Metals	Chemical Elements	Mercury	0.5 mg/kg
		Cadmium (Crustaceans) -do- (Fish muscle)	0.5 mg/kg 0.05 mg/kg
		Arsenic (Fish muscle)	No ML*
		Lead (Crustaceans) -do- (Fish muscle)	0.5 mg/kg 0.3 mg/kg

** LOD & LOQ is determined as working limit by individual laboratory*

15.0 DETAILS OF ANALYTICAL METHODS

Unless otherwise mentioned elsewhere the methods described in the Manual/Journal of Association of Official Analytical Chemists and methodology followed in the EU Community Referral Laboratories (CRLs) are followed using the equipment mentioned against the substances as given below.

15.1 Group-A Substances:

Group as per Directive	Residue	Technique	Equipment
A1c (Steroids)	Progesterone Medroxy Progestrone (acetate) 17-β Oestradiol 17-alpha-methyl Testosterone	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
A2a Prohibited substances listed in Table 2 of the Annex to Regulation (EU) No 37/2010 -Chloramphenicol	Chloramphenicol	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
A2b Prohibited substances listed in Table 2 of the Annex to Regulation (EU) No 37/2010 - Nitrofurans	Nitrofuran Metabolites (AOZ, AMOZ, SEM, AHD & DNSH) Nitrofurans (parent compounds, in case of feed samples)	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
A2c Prohibited substances listed in Table 2 of the Annex to Regulation (EU) No 37/2010-itroimidazoles	Nitroimidazoles (Metronidazole, Dimetridazole & Ronidazole , Ipronidazole and their hydroxyl compounds)	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
A2d Pharmacologically active substances, not listed in Table 1 of the Annex to Regulation (EU) No 37/2010 - other A2 substance	Dapsone	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
A3a Dyes	Malachite Green and Leucomalachite Green Crystal Violet and Leucocrystal Violet	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
A3b Protection products & biocides	2,5-dichlorobenzoic acid methyl ester (sum of 2,5-dichlorobenzoic acid and its ester)	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
A3c Other un-authorized antimicrobials	Norfloxacin Nalidixic acid	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS

15.2 Group B Substances, Pesticides & Metals

Group as per Directive	*Residue*	*Technique*	*Equipment*
B1a Antimicrobials 1. Quinolones/ Fluoro-quinolone	Oxolinic acid Difloxacin Sarafloxacin Enrofloxacin (sum of Enrofloxacin & Ciprofloxacin) Danofloxacin Flumequine	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
2. Tetracyclines	Tetracycline & its 4-epimer Oxytetracyline & its 4-epimer Chlortetracycline & its 4-epimer	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
3.Sulfonamides	Sulfadiazine, Sulfamethoxazole, Sulfamethoxypyridine, Sulfamethizole, Sulfamethazine, Sulfamerazine, Sulfapyridine, Sulfadimethoxine Sulfachloropyradizine, Sulfathiazole, Sulfadoxine	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
4. Macrolides	Erythromycin A Tilmicosin Tylosin	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
5. Beta Lactams	Lincomycin Ampicillin Benzyl Penicillin Dicloxacillin Oxacillin Cloxacilin Amoxicillin	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
6. Polypeptides	Colistin A & B	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
7.Diaminopyramidines	Trimethoprim	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
8. Aminoglycosides	Neomycin-B, Spectinomycin	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS
B1b Anthelmintics	Emamectin Ivermectin	Liquid Chromatography Tandem Mass Spectrometry	LC-MSMS

	Pesticides Organochlorine compounds	α BHC, β BHC, γ BHC, Aldrin, 2,4 DDT, 4,4 DDT, 2,4 DDE, 4,4 DDE, 2,4 DDD, 4,4 DDD, Heptachlor, Heptachlor Epoxide Dieldrin, Endrin, HCB, Cis-Chlordane, Trans-Chlordane, Oxy-Chlordane	Gas Chromatography Tandem Mass Spectrometry	GC MSMS
	Contaminants Halogenated persistent organic pollutants PCBs	PCBs (PCB-28, PCB-52, PCB-101, PCB-138, PCB-153, PCB-180)	Gas Chromatography Tandem Mass Spectrometry	GC – HRMS /GC-MSMS
		Dioxins / Furans (17 compounds) & dioxin like PCBs (12 compounds)	Gas Chromatography Tandem Mass Spectrometry	GC – HRMS /GC-MSMS
	Heavy Metals: Chemical Elements	Mercury Cadmium Lead Arsenic	Inductively Coupled Plasma-Mass Spectrometry	ICP MS

16.0 Non-compliant (residue positive) samples of NRCP 2022 :

16.1 Shrimp, Scampi & Fin-fishes:

Under NRCP 2022, against the target/plan of 8551 samples (shrimp, scampi and fin-fishes), a total of 9151 samples were analyzed.

The number of non-compliant (residue positive) samples detected were 05 under Group-A6 due to residues of CAP, NF (AOZ) (shrimp: 05 + scampi: 0 + fin-fish: 0)

16.2 Feed & Hatchery Samples:

In case of hatchery seed and feed samples, against the target/plan of 18 feed and 260 hatchery samples, 19 feed and 306 hatchery samples were analysed. The number of non-compliant samples were, feed: nil and hatchery: 34 (Gr. A6 (CAP/NF (AOZ)).

Details of the non- compliant samples are given at Annexure- 4A, 4B & 4C

निर्यात निरीक्षण परिषद EXPORT INSPECTION COUNCIL GOVT. OF INDIA भारत सरकार

Dr. M. Balaji
Joint Secretary, Department of Commerce &
Director (Insp. & Quality Control)
Export Inspection Council
18 April 2023

Annex-1

Note	INSTRUCTIONS
1	For each commodity for which the country is already listed in Annex -I to Regulation (EU) 2021/405, or for which residue plan approval and listing is sought, the competent authority is requested to fill in four templates for Group A substances, Group B substances, pesticides and contaminants. There are 60 (numbered) templates in this Excel file and these are listed for ease of reference in tab b. of this file along with a hyperlink which will take you straight to the template in question. Numerical data should only be included for those commodities currently being exported to the European Union (EU) or which the third country intends to export to the EU. Numerical data (i.e. production figures - for automatic calculation of sample numbers - see note 2 below - and planned sample numbers for each substance group) should be entered in those cells shaded light yellow.
2	The tables are set up to calculate the required sample numbers for Group A and Group B on the basis of the sampling frequencies laid down in Annex I to Commission Implementing Regulation (EU) 2022/1646 (and included in this Excel file in tab d.). For contaminants the basis for sample number calculation is Annex I to Regulation (EU) 2022/932. For pesticides, no minimum frequency of sampling is laid down in EU legislation (Regulation (EU) 2021/1355). Data in cells shaded light blue are automatically calculated when the production data cell (Cell C7) is completed (Cell B7 for contaminants). The total minimum number of samples is displayed in cell C9 shaded blue (cell B9 for contaminants).
3	It is important that for those countries where animals and products from any farm are eligible to be exported to the EU, the proportion of animals sampled should be taken relative to the annual national production figures. In this case the annual national production data should be entered in cell C7 (or cell B7 for contaminants). For those countries where only a defined population of animals are eligible for export to the EU, and where there is a system in place guaranteeing that only those animals from those farms are eligible for export (i.e. a split or segregated system), the proportion of animals sampled is relative to that defined (sub)population. In this case the production data entered in cell C7 (or B7 for contaminants) is either the total number of animals slaughtered or the total throughput in tonnes of the EU-approved establishments (listed in the Commission's TRACES-NT database, regardless of the actual export volumes to the EU.
4	Pharmacologically active substances are divided into two main substance groups - Group A and Group B - and are listed in Annex I to Commission Delegated Regulation (EU) 2022/1644 (and included in tab c. of this Excel file for ease of reference). The substance sub-groups within Group A which must be included in the risk based plan for each commodity are laid down in Annex II to Commission Delegated Regulation (EU) 2022/1644 (and included in tab e. of this Excel file for ease of reference). For Group B, it is left to the discretion of the competent authority to decide which of the sub-groups listed in Annex I to Regulation (EU) 2022/1644 are included in the plan on the basis of their risk-assessment. The criteria for substance selection are described in Point A of Annex II to Regulation (EU) 2022/1644 for Group A and Point B of Annex II B to said Regulation for Group B.

	For pesticides and contaminants the selection of analytes to be tested for should be on the basis of risk. The list of tested pesticides should be representative of the pesticides used in the third country. Particular attention should be paid to those pesticides which are authorised in the third country but which are not authorised in the EU. For contaminants, the combination of contaminant groups per commodity are specified in Annex I to Regulation (EU) 2022/931. The selection of contaminants should take into account the risks from animal feed and the environment, as well those contaminants for which maximum limits have been set in the EU for edible products of animal origin.
5	Matrices are typically edible tissues and materials (e.g. muscle, liver, kidney, fat, milk, honey, eggs) for substances for which an EU Maximum Residue Limit (MRL) has been established (Group B substances). This is also the case for testing for pesticides and contaminants for which EU Maximum Residue Levels (MRLs) and Maximum Levels (MLs) have been established, respectively. For substances which do not have MRLs (e.g. banned Group A substances) non-edible materials are preferable for testing (e.g. urine, blood, bile, faeces, hair) because testing these matrices maximizes the chances of detecting the abuse or misuse of the substances concerned. Methods: for screening and confirmatory methods, please indicate whether they are validated (i.e. demonstrated to be fit for the intended purpose) and enter the analytical principle of method (Examples include ELISA, TLC, plate test [microbial growth inhibition test] for screening and HPLC-UV, HPLC-FL, HPLC-DAD, HPLC-DAD, GC-MS, GC-MS/MS, LC-MS, LC-MS/MS for confirmation, AAS and ICP-MS for metals, GC-MS for pesticides etc).
6	Typically the limit of detection (LoD) of a screening test should be set at 50% of the MRL, if one is established. The LoD of the confirmatory test should always be lower than the MRL. If the confirmatory method LoD exceeds the MRL, the method is not fit for purpose. The level of action is usually the MRL (if there is an MRL) or, for a banned substance, any detectable concentration of the substance at which regulatory and enforcement action would be taken by the competent authority. The European Union Reference Laboratories have established non-binding Minimum Method Performance Requirements (MMPRs) for the detection of banned substances and third countries should strive to meet these. The latest document on MMPRs is available at: https://sitesv2.anses.fr/en/minisite/eurl-fougeres/mmpr-%E2%80%93-eurl-guidance-eurl-guidance-minimum-method-performance-requirements
7	To expedite the assessment of the plans for Group B substances, pesticides and contaminants, competent authorities should list both their national MRL/ML for each analyte (if established) and the corresponding EU MRL/ML (if established). [This is not required for the Group A plan since there are no EU MRLs in place for those substances as they are banned from use in food-producing animals; any confirmed concentration is deemed to be non-compliant]. - For pharmacologically active substances (veterinary medicines), MRLs are laid down in Table 2 of the Annex to Regulation (EU) No 37/2010. - For coccidiostat residues in non-target species due to carry over in feed, Regulation (EC) No 124/2009 lists the applicable MRLs.

	- EU MRLs for pesticides are laid down in Regulation (EC) No 396/2005. - EU MLs for contaminants are laid down in Regulation (EC) No 1881/2006. In cases where the national MRL/ML is much greater than the EU MRL/ML, the competent authority should inform those food business operators who are eligible to export food to the EU about those differences and advise them that any detection of a residue above the EU MRL/ML at the EU border would result in rejection of the consignment. If testing carried out under the residue control plan identifies cases where an EU MRL/ML is exceeded (but the result complies with a national MRL/ML), the competent authority should inform the operator. It is the responsibility of the operator to take the necessary steps to ensure that the non-EU compliant consignment does not enter the EU food chain.
8	Detailed guidance on residue controls can be found on the website of the European Commission at the following hyperlink: **https://food.ec.europa.eu/system/files/2023-02/cs_vet-med-residues_animal-imports-non-eu_brochure_en_3.pdf**

Annexure 1A- Substance groups A & B

		See Annex I to Regulation (EU) 2022/1644
Group A		**Prohibited or unauthorised pharmacologically active substances in food-producing animals**
1		**Substances with hormonal and thyrostatic action and beta agonists the use of which is prohibited under Council Directive 96/22/EC:**
	(a)	Stilbenes;
	(b)	Antithyroid agents;
	(c)	Steroids;
	(d)	Resorcylic acid lactones, including zeranol;
	(e)	Beta-agonists.
2		**Prohibited substances listed in Table 2 of the Annex to Regulation (EU) No 37/2010;**
	(a)	Chloramphenicol;
	(b)	Nitrofurans;
	(c)	Dimetridazole, metronidazole, ronidazole and other nitro-imidazoles;
	(d)	Other substances.
3		**Pharmacologically active substances, not listed in Table 1 of the Annex to Regulation (EU) No 37/2010 or substances not authorised for use in feed for food-producing animals in the Union according to Regulation (EU) No 1831/2003 of the European Parliament and of the Council:**
	(a)	Dyes;

		See Annex I to Regulation (EU) 2022/1644
Group B		**Pharmacologically active substances authorised for use in food-producing animals**
1		**Pharmacologically active substances listed in Table 1 of the Annex to Regulation (EU) No 37/2010:**
	(a)	Antimicrobial substances;
	(b)	Insecticides, fungicides, anthelmintics and other antiparasitic agents;
	(c)	Sedatives;
	(d)	Non-steroidal anti-inflammatory drugs (NSAIDs), corticosteroids and glucocorticoids;
	(e)	Other pharmacologically active substances.
2		**Coccidiostats and histomonostats authorised according to Union legislation, for which maximum levels and maximum residue limits are set under Union legislation**

(b)	Plant protection products as defined in Regulation (EU) No 1107/2009 of the European Parliament and of the Council and biocides as defined in Regulation (EU) No 528/2012 of the European Parliament and of the Council which may be used in animal husbandry of food-producing animals;				
(c)	Antimicrobial substances;				
(d)	Coccidiostats, histomonostats and other antiparasitic agents;				
(e)	Protein and peptide hormones;				
(f)	Anti-inflammatory substances, sedatives and any other pharmacologically active substances;				
(g)	Antiviral substances.				

Annexure 1 B- Group A substances to be tested

	Commodity Group									
Group A Substances (see tab c. in this Excel sheet)	**Bovine, ovine and caprine**	**Porcine**	**Equine**	**Poultry**	**Aquaculture (finfish, crustaceans and other aquaculture products)**	**Raw bovine, ovine and caprine milk**	**Hen eggs and other eggs**	**Rabbits and farmed game**	**Honey**	**Casings**
A(1)(a)	X	X						X		
A(1)(b)	X	X	X							
A(1)(c)	X	X	X		X (2)					
A(1)(d)	X	X								
A(1)(e)	X	X	X	X						
A(2)	X	X	X	X	X	X	X	X	X	X
A(3)(a)					X					
A(3)(b)	X	X	X	X	X	X	X	X	X	
A(3)(c)	X	X	X	X	X	X	X	X	X	
A(3)(d)	X	X		X			X	X		
A(3)(e)										
A(3)(f)	X	X	X	X	X	X	X	X	X	
A(3)(g)										

Annexure 1C- Aquaculture finfish (Group A)

Regulatory programme for the control of veterinary drug residues in food - Group A samples

RETURN TO TEMPLATE LIST

Check table

Sum of all samples	280
Planned number	280
Minimum no reqd	280

The total number of samples taken should at least be equal to the minimum number of samples for Group A in total (in Cell C9)

Country	INDIA	DATE	
Year of plan implementation	2023	**19-01-23**	
Animal species or product	**FINFISH**		
National PRODUCTION DATA in TONNES (referring to the previous year)	**219864**		
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)	**219864**		
Number of samples	As per Annex I to Reg (EU) 2022/1646	As per Codex Alimentarius (CAC/GL 71-2009)	OTHER
Calculated minimum no of samples for Group A (based on cell C7)	**280**		
Planned number of samples	**280**		

If there is a split or segregated system in place for exports to the EU (i.e. this is only possible from a number of establishments, the total annual production of only those establishments may be entered in cell C7 (regardless of the proportion of that production which was exported to the EU). **If there is no split system**, and farmed FINFISH from ALL FARMS are eligible for export to the EU, **national production data must be entered in cell C7.**

Groups of substances to be controlled		NUMBER OF SAMPLES MIN	NUMBER OF SAMPLES PLAN	COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	Validated (Y/N)	CONFIRMATORY METHOD	Validated (Y/N)	SCREEN.METH. DETECTION LIMIT [µg/Kg]	CONFIR.METH. DETECTION LIMIT [µg/Kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/Kg]	LABORATORY NAME
A1c	Steroids with androgenic, estrogenic or progestagenic activity	**14**	**15**	Progestrone									
				Medroxy- progesterone (acetate)									
				17ß-estradiol									
				17-alpha-methyl Testostrone									

A2a	Chloramphenicol	14	**80**	Chloramphenicol										
A2b	Nitrofurans	14	**80**	AOZ										
				AMOZ										
				AHD										
				SEM										
				DNSH										
A2c	Nitroimidazoles	14	**25**	Metanidazole										
				Metanidazole-OH										
				Ipronidazole										
				Ipronidazole-OH										
				Dimetronidazole										
				Ronidazole										
				HMMNI										
A2d	Other A2 substances	14	**15**	Dapsone										
A3a	Dyes	14	**25**	Malachite Green										
				Leuco Malachite Green										
				Crystal Violet										
				Leuco Crystal Violet										
A3b	Plant protection products and biocides	14	**15**	2,5-dichlorobenzoic acid methyl ester										
A3c	Unauthorised antimicrobials	14	**25**	Norfloxacin										
				Nalidixic acid										

A3f	Unauthorised anti-inflammatories, sedatives, and other pharmacologically active substances												

The minimum number of samples to be checked each year for all group A residues and substances must be at least equal 1 sample per 300 tonnes for the first 60,000 tonnes of annual production of aquaculture finfish and 1 sample per additional 2000 tonnes.

- Sampling should be performed at any relevant stage in the life cycle of the animals.
- Each sub-group in Group A (with the exception of A3(f)) must be checked each year using a **minimum of 5% of the total number of samples** to be collected for Group A. The competent authority should attribute the remaining samples to each sub-group according to risk, ensuring that the total sample number of all A sub-groups meets or exceeds the minimum required.
- When substances from Group A and Group B are analysed in one sample from a single group of animals, this sample can be taken into account towards the minimum sampling frequency for both groups (Group A and Group B) provided that it can be documented, and that the risk criteria for Group A and Group B are the same.

In the event that the minimum number of samples would, on the basis of production volumes, result in **less than five samples per year**, sampling may be carried out once per two years.

If within a two years period, production corresponding to a **minimum of one sample is not reached**, a minimum of one sample once per two years shall be analysed provided that there is production for the species or product in question.

The **'unauthorised' substance groups** specified above refer to substances unauthorized in the EU for use in food-producing animals.

Annexure 1D-Aquaculture finfish (Group B)

Regulatory programme for the control of veterinary drug residues in food - Group B samples

						The total number of samples taken should at least be equal to the minimum number of samples for Group B in total (in Cell C9)		Sum of all samples	280	RETURN TO TEMPLATE LIST				
Country	INDIA	DATE						Planned number	280					
Year of plan implementation	2023	**19-01-23**						Minimum no reqd	280					
Animal species or product	**FINFISH**													
National PRODUCTION DATA in TONNES (referring to the previous year)	**219864**													
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)	**219864**	←	If a split system is in place for exports to the EU (i.e. this is only possible from a number of establishments, the total annual production of only those establishments may be entered in cell C7 (regardless of the proportion of that production which was exported to the EU). If there is no split system, and farmed FINFISH from ALL FARMS are eligible for export to the EU, **national production data must be entered in cell C7.**											
Basis for number of samples	As per Annex I to Reg (EU) 2022/1646	As per Codex Alimentarius (CAC/GL 71-2009)	Other											
Calculated minimum number of samples for Group B (based on cell C7)	**280**													
Planned number of samples	**280**													
Groups of substances to be controlled	Planned number of SAMPLES	COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	Validated (Y/N)	CONFIRMATORY METHOD	Validated (Y/N)	SCREEN.METH. DETECTION LIMIT [µg/kg]	CONFIR. METH. DETECTION LIMIT [µg/kg]	National MRL (if applicable) [µg/kg]	EU MRL (if applicable) [µg/kg]	LEVEL OF ACTION (i.e. concentration above which a	LABORATORY NAME	

													result is deemed non-compliant) [µg/kg]	
B1a	Antimicrobials	**200**	**Tetracyclines with its 4-epimers**											
			Oxytetracyclines with its 4-epimers											
			Chlortetracyclines with its 4-epimers											
			Doxycycline											
			Oxolinic acid											
			Flumequine											
			Sarafloxacin											
			Enrofloxacin											
			Ciprofloxacin											
			Difloxacin											
			Danofloxacin											
			Sulphadiazine											
			Sulphapyridine											
			Sulphamethazine											
			Sulphamerazine											
			Sulphathiazole											
			Sulphamethoxizole											
			Sulphachloropyridazine											
			Sulphadoxine											
			Sulphadimethoxine											
			Sulphamethoxypyridazine											
			Sulphamethizole											
			Erythromycin A											
			Colistin											
			Cloxacillin											
			Dicloxacillin											
			Oxacillin											
			Trimethroprime											
			Ampicillin											
			Amoxicillin											
			Tylosin A											
			Lincomycin											

			Neomycin B											
			Spectinomycin											
			Tilmicosin											
			Benzylpenicillin											
B1b	Insecticides, fungicides, anthelmintics and other antiparasitic agents	**80**	**Emamectin**											
			Ivermectin											
B1c	Sedatives													
B1d	NSAIDs, corticosteroids and glucocorticoids													
B1e	Other pharmacologically active substances													
B2	Authorised coccidiostats and histomonostats													

The minimum number of samples to be checked each year for all kinds of residues and substances must at least equal 1 sample per 300 tonnes for the first 60,000 tonnes of annual production of aquaculture finfish and 1 sample per additional 2000 tonnes. This applies equally to Group A and B.

- Samples should be taken at the point of harvest.
- Within the aquaculture group, samples shall be taken from the fresh and seawater aquaculture species, taking into account their relative production volume.
- The competent authority should attribute the samples to each sub-group according to risk, ensuring that the total sample number for all B sub-groups meets or exceeds the minimum required.
- When substances from Group A and Group B are analysed in one sample from a single group of animals, this sample can be taken into account towards the minimum sampling frequency for both groups (Group A and Group B) provided that it can be documented, and that the risk criteria for Group A and Group B are the same.

In the event that the minimum number of samples would, on the basis of the production volumes, result in **less than five samples per year**, sampling may be carried out once per two years.

If within a two year period, production corresponding to a minimum of one sample is not reached, a minimum of one sample once per two years shall be analysed provided that there is production for the species or product in question.

Annexure 1E- Aquaculture finfish (Pesticides)

Risk-based regulatory programme for the control of pesticides in food											RETURN TO TEMPLATE LIST		
Country	INDIA	DATE											
Year of plan implementation	2023	**19-01-23**											
Animal species or product	Finfish												
Planned no of samples *(no minimum set)*	110												
Groups of pesticides to be controlled	Planned number of SAMPLES	COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	Validated (Y/N)	CONFIRMATORY METHOD	Validated (Y/N)	SCREEN.METH. DETECTION LIMIT [µg/kg]	CONFIR. METH. DETECTION LIMIT [µg/kg]	National MRL (if applicable) [µg/kg]	EU MRL (if applicable) [µg/kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/kg]	LABORATORY NAME
Organochlorinated compounds	110	Alpha BHC											
		Beta BHC											
		Gamma BHC											
		HCB											
		Heptachlor											
		Heptachlor epoxide											
		Aldrin											
		cis-chlordane											
		trans-chlordane											
		oxy Chlordane											
		Dieldrin											
		Endrin											
		2,4' DDT											
		4,4'DDT											
		2,4'DDE											
		4,4'DDE											
		2,4'DDD											

		4,4'DDD												
Organophosphate compounds														
Carbamates														
Pyrethroids														
Others														

Annexure 1F- Aquaculture finfish (Contaminants)

Risk-based regulatory programme for the control of contaminants in food					
			Check table		**RETURN TO TEMPLATE LIST**
Country	INDIA	DATE	The total number of samples taken should *at least* be equal to the minimum number of samples for contaminants in total (in Cell B9)	Sum of all samples	166
Year of plan implementation	2023	**19-01-23**		Planned number	166
Animal species or product	Finfish			Minimum no reqd	166
National PRODUCTION DATA in TONNES (referring to the previous year)	219864				
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)	219864	If there is a split or segregated system in place for exports to the EU (i.e. this is only possible from a restricted number of establishments, the total annual production of only those establishments may be entered in cell B7 regardless of the proportion of that production which was exported to the EU). If there is no split system, and aquaculture finfish and finfish products from ALL FARMS are eligible for export to the EU, then national production data must be entered in cell B7.			
Basis for number of samples	As per Annex I to Reg (EU) 2022/932	Other			
Calculated minimum number of samples (based on cell B7)	166				
Planned number of samples	166				

Groups of contaminants to be controlled(cf. Annex I to Regulation (EU) 2022/931)	Planned number of SAMPLES	COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	Validated (Y/N)	CONFIRMATORY METHOD	Validated (Y/N)	SCREEN.METH. DETECTION LIMIT [µg/kg]	CONFIR.METH. DETECTION LIMIT [µg/kg]	National MRL (if applicable) [µg/kg]	EU MRL (if applicable) [µg/kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/kg]	LABORATORY NAME
Halogenated persistent organic pollutants	83	PCB-28											
		PCB-52											

		PCB-101											
		PCB-138											
		PCB-153											
		PCB-180											
		17 PCDD/Fs											CSI R-NIIST, Trivandrum
		12 DL-PCBs											CSI R-NIIST, Trivandrum
Metals	83	Cadmium											
		Mercury											
		Lead											
		Arsenic											
Others													

The minimum number of samples of unprocessed aquaculture fishery products (excluding crustaceans) to be checked each year for contaminants is 1 sample per 700 tonnes of annual production of aquaculture for the first 60,000 tonnes of production and then 1 sample for each additional 2000 tonnes (cf Annex I to Regulation (EU) 2022/932). **Unprocessed muscle** should be sampled. Third countries should decide on a risk basis what substances they test for in each substance group and should be in a position to justify their decisions to include and exclude substances, the range of substances included in each substance group and the number of samples tested. **There is no minimum number of samples required for any substance group.**

Annexure 1G- Aquaculture crustaceans (Group A)

Regulatory programme for the control of veterinary drug residues in food - Group A samples											Check table	RETURN TO TEMPLATE LIST
Country		INDIA	DATE				The total number of samples taken should at least be equal to the minimum number of samples for Group A in total (in Cell C9)				Sum of all samples	691
Year of plan implementation		2023	**19-01-23**								Planned number	691
Animal species or product		**Crustaceans**									Minimum no reqd	691
National PRODUCTION DATA in TONNES (referring to the previous year)		**1041273**										
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)		**1041273**	←	**If there is a split or segregated system** in place for exports to the EU (i.e. this is only possible from a number of establishments, the total annual production of only those establishments may be entered in **cell C7** (regardless of the proportion of that production which was exported to the EU). **If there is no split system**, and farmed crustaceans from ALL FARMS are eligible for export to the EU, **national production data must be entered in cell C7.**							
Basis for number of samples		As per Annex I to Reg (EU) 2022/1646	As per Codex Alimentarius (CAC/GL 71-2009)	OTHER								
Calculated minimum no of samples for Group A (based on cell C7)		**691**										
Planned number of samples		**691**										
Groups of substances to be controlled		NUMBER OF SAMPLES MIN	NUMBER OF SAMPLES PLAN	COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	CONFIRMATORY METHOD	SCREEN.METH. DETECTION LIMIT [µg/Kg]	CONFIR.METH. DETECTION LIMIT [µg/Kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/Kg]	LABORATORY NAME	
A2a	Chloramphenicol	35	**250**	Chloramphenicol								
A2b	Nitrofurans	35	**250**	AOZ								
				AMOZ								
				AHD								
				SEM								
				DNSH								
A2c	Nitroimidazoles	35	**51**	Metanidazole								
				Metanidazole-OH								

				Ipronidazole							
				Ipronidazole-OH							
				Dimetronidazole							
				Ronidazole							
				HMMNI							
A2d	Other A2 substances	35	**35**	Dapsone							
A3a	Dyes	35	**35**	Malachite Green							
				Leuco Malachite Green							
				Crystal Violet							
				Leuco Crystal Violet							
A3b	Plant protection products and biocides	35	**35**	2,5-dichlorobenzoic acid methyl ester							
A3c	Unauthorised antimicrobials	35	**35**	Norfloxacin							
				Nalidixic acid							
A3f	Unauthorised anti-										

	inflammatories, sedatives, and other pharmacologically active substances										

The minimum number of samples to be checked each year for all group A residues and substances must at least equal 1 sample per 300 tonnes for the first 60,000 tonnes of annual production of aquaculture crustaceans and 1 sample per additional 2000 tonnes.

• Sampling should be performed at any relevant stage in the life cycle of the animals.
• **Each sub-group** in Group A (with the exception of A3(f)) must be checked each year using a **minimum of 5 % of the total number of samples** to be collected for Group A. The competent authority should attribute the remaining samples to each sub-group according to risk, ensuring that the total sample number for all A sub-groups meets or exceeds the minimum required.
• When substances from Group A and Group B are analysed in one sample from a single group of animals, this sample can be taken into account towards the minimum sampling frequency **for both groups** (Group A and Group B) provided that it can be documented, and that the risk criteria for Group A and Group B are the same.
In the event that the minimum number of samples would, on the basis of the production volumes, result in **less than five samples per year**, sampling may be carried out once per two years.
If within a two year period, production corresponding to a **minimum of one sample is not reached**, a minimum of one sample once per two years shall be analysed provided that there is production for the species or product in question.
The 'unauthorised' substance groups specified above refer to substances unauthorised in the EU for use in food-producing animals.

Annexure 1H- Aquaculture crustaceans (Group B)

Regulatory programme for the control of veterinary drug residues in food - Group B samples													
											RETURN TO TEMPLATE LIST		
Country	INDIA	DATE						The total number of samples taken should at least be equal to the minimum number of samples for Group B in total (in Cell C9)		Sum of all samples	691	
Year of plan implementation	2023	**19-01-23**								Planned number	691	
Animal species or product	**Crustaceans**									Minimum no reqd	691	
National PRODUCTION DATA in TONNES (referring to the previous year)	**1041273**											
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)	**1041273**	←	**If there is a split or segregated system** in place for exports to the EU (i.e. this is only possible from a number of establishments, the total annual production of only those establishments may be entered in cell C7 (regardless of the proportion of that production which was exported to the EU). **If there is no split system**, and farmed crustaceans from ALL FARMS are eligible for export to the EU, **national production data must be entered in cell C7.**										
Basis for number of samples	As per Annex I to Reg (EU) 2022/1646	As per Codex Alimentarius (CAC/GL 71-2009)	Other										
Calculated minimum number of samples for Group B (based on cell C7)	**691**												
Planned number of samples	**691**												
Groups of substances to be controlled	Planned number of SAMPLES	COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	Validated (Y/N)	CONFIRMATORY METHOD	Validated (Y/N)	SCREEN. METH. DETECTION LIMIT [µg/kg]	CONFIR. METH. DETECTION LIMIT [µg/kg]	National MRL (if applicable) [µg/kg]	EU MRL (if applicable) [µg/kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/kg]	
B1a Antimicrobials	**500**	**Tetracyclines with its 4-epimers**											
		Oxytetracyclines with its 4-epimers											
		Chlortetracyclines with its 4-epimers											

			Doxycycline												
			Oxolinic acid												
			Flumequine												
			Sarafloxacin												
			Enrofloxacin												
			Ciprofloxacin												
			Difloxacin												
			Danofloxacin												
			Sulphadiazine												
			Sulphapyridine												
			Sulphamethazine												
			Sulphamerazine												
			Sulphathiazole												
			Sulphamethoxizole												
			Sulphachloropyridazine												
			Sulphadoxine												
			Sulphadimethoxine												
			Sulphamethoxypyridazine												
			Sulphamethizole												
			Erythromycin A												
			Collstin												
			Cloxacillin												
			Dicloxacillin												
			Oxacillin												
			Trimethroprime												
			Ampicillin												
			Amoxicillin												
			Tylosin A												
			Lincomycin												
			Neomycin B												
			Spectinomycin												
			Tilmicosin												
			Benzylpenicillin												
B1b	Insecticides, fungicides,	191	Emamectin												
			Ivermectin												

	anthelmintics and other antiparasitic agents													
B1c	Sedatives													
B1d	NSAIDs, corticosteroids and glucocorticoids													
B1e	Other pharmacologically active substances													
B2	Authorised coccidiostats and histomonostats													

The minimum number of samples to be checked each year for all kinds of residues and substances must at least equal 1 sample per 300 tonnes for the first 60,000 tonnes of annual production of aquaculture crustaceans and 1 sample per additional 2000 tonnes. This applies equally to Group A and B.

- Samples should be taken at the point of harvest.
- Within the aquaculture group, samples shall be taken from fresh and seawater aquaculture species, taking into account their relative production volume.
- The competent authority should attribute the samples to each sub-group according to risk, ensuring that the total sample number for all B sub-groups meets or exceeds the minimum required.
- When substances from Group A and Group B are analysed in one sample from a single group of animals, this sample can be taken into account towards the minimum sampling frequency for both groups (Group A and Group B) provided that it can be documented, and that the risk criteria for Group A and Group B are the same.

In the event that the minimum number of samples would, on the basis of the production volumes, result in **less than five samples per year**, sampling may be carried out once per two years.

If within a two year period, production corresponding to a **minimum of one sample is not reached**, a minimum of one sample once per two years shall be analysed provided that there is production for the species or product in question.

Annexure 1I- Aquaculture crustaceans (Pesticides)

Risk-based regulatory programme for the control of pesticides in food											RETURN TO TEMPLATE LIST		
Country	india	DATE											
Year of plan implementation	2023	**19-01-23**											
Animal species or product	Crustaceans												
Planned no of samples *(no minimum set)*	521												
Groups of pesticides to be controlled	Planned number of SAMPLES	COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	Validated (Y/N)	CONFIRMATORY METHOD	Validated (Y/N)	SCREEN.METH. DETECTION LIMIT [µg/kg]	CONFIR.METH. DETECTION LIMIT [µg/kg]	National MRL (if applicable) [µg/kg]	EU MRL (if applicable) [µg/kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/kg]	LABORATORY NAME
Organochlorinated compounds	521	Alpha BHC											
		Beta BHC											
		Gamma BHC											
		HCB											
		Heptachlor											
		Heptachlor epoxide											
		Aldrin											
		cis-chlordane											
		trans-chlordane											
		oxy Chlordane											
		Dieldrin											
		Endrin											
		2,4' DDT											
		4,4'DDT											
		2,4'DDE											

		4,4'DDE											
		2,4'DDD											
		4,4'DDD											
Organophosphate compounds													
Carbamates													
Pyrethroids													
Others													

Annexure 1J- Aquaculture crustaceans (Contaminants)

Risk-based regulatory programme for the control of contaminants in food											RETURN TO TEMPLATE LIST		
Country	INDIA	DATE											
Year of plan implementation	2023	**19-01-23**											
Animal species or product	Crustaceans												
Planned no of samples *(no minimum set)*	521												
Groups of contaminants to be controlled(cf. Annex I to Regulation (EU) 2022/931)	Planned number of SAMPLES	COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	Validated (Y/N)	CONFIRMATORY METHOD	Validated (Y/N)	SCREEN. METH. DETECTION LIMIT [µg/kg]	CONFIR. METH. DETECTION LIMIT [µg/kg]	National MRL (if applicable) [µg/kg]	EU MRL (if applicable) [µg/kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/kg]	LABORATORY NAME
Halogenated persistent organic pollutants	171	PCB-28											
		PCB-52											
		PCB-101											
		PCB-138											
		PCB-153											
		PCB-180											
		17 PCDD/Fs											CSIR-NIIST, Trivandrum
		12 DL-PCBs											CSIR-NIIST, Trivandrum
Metals	350	Cadmium											
		Mercury											
		Lead											
		Arsenic											

Others													

No **minimum number of samples of unprocessed aquaculture crustaceans** to be checked each year for contaminants has been set in EU law.
Unprocessed muscle should be sampled. Third countries should decide on a risk basis what substances they test for in each substance group and should be in a position to justify their decisions to include and exclude substances, the range of substances included in each substance group and the number of samples tested. **There is no minimum number of samples required for any substance group**.

Annexure 2A

The Marine Products Export Development Authority
NRCP 2023 - Allocation of Samples from Field Offices to MPEDA Lab Kochi

Type / Species	Parameter	Samples from FARMS											
		SRD Valsad	RD Panvel	RD Mangaluru	RD Kochi	SRD Nagapatnam	RD Vijayawada	SRD Bhimavaram	SRD Vizag	SRD Hydera bad	RD Bhubaneswar	RD Kolkata	Total
CULTURED SHRIMP	Chloramphenicol (A2a)	0	0	1	1	10	20	0	0	0	0	0	**32**
	NF Metabolites (A2b)	0	0	1	1	10	18	0	0	0	0	0	**30**
	Nitroimidazoles (A2c)	3	1	0	0	2	21	0	0	0	0	0	**27**
	Other Substances (A2d)	2	0	0	0	2	0	0	0	0	0	0	**4**
	Dyes (A3a)	0	0	0	0	0	0	0	0	0	0	0	**0**
	Plant protection products and Biocides (A3b)	2	0	0	0	2	0	0	0	0	2	2	**8**
	Un-authorised Subatances (A3c)	2	0	0	0	2	0	0	0	0	0	0	**4**
	Sub Total	***9***	***1***	***2***	***2***	***28***	***59***	***0***	***0***	***0***	***2***	***2***	***105***
	Antibiotics (B1a)	0	0	1	1	19	0	0	0	0	0	0	**21**
	Anthelmintics ((B1b)	11	2	0	0	8	0	0	0	0	0	0	**21**
	Sub Total	***11***	***2***	***1***	***1***	***27***	***0***	***0***	***0***	***0***	***0***	***0***	***42***

	Organo Chlorine Pesticides	***30***	***2***	***2***	***1***	***20***	***200***	***0***	***0***	***0***	***26***	***36***	**317**
	PCBs	10	1	1	1	6	40	0	0	0	8	12	**79**
	Heavy Metals	0	0	1	1	13	153	104	5	0	18	24	**319**
	Sub Total	***10***	***1***	***2***	***2***	***19***	***193***	***104***	***5***		***26***	***36***	***398***
	SHRIMP Total	***60***	***6***	***7***	***6***	***94***	***452***	***104***	***5***	***0***	***54***	***74***	***862***
SCAMPI	**Chloramphenicol (A2a)**	0	0	0	0	0	0	0	0	0	0	0	**0**
	NF Metabolites (A2b)	0	0	0	0	0	0	0	0	0	0	0	**0**
	Nitroimidazoles (A2c)	0	1	0	0	0	0	0	0	0	0	0	**1**
	Other Substances (A2d)	0	0	0	0	0	0	0	0	0	0	0	**0**
	Dyes (A3a)	0	0	0	0	0	0	0	0	0	0	0	**0**
	Plant protection products and Biocides (A3b)	0	1	0	0	0	0	0	0	1	0	1	**3**
	Un-authorised Subatances (A3c)	0	0	0	0	0	0	0	0	0	0	0	**0**
	Sub Total	***0***	***2***	***0***	***0***	***0***	***0***	***0***	***0***	***1***	***0***	***1***	***4***
	Antibiotics (B1a)	0	0	0	0	0	0	0	0	0	0	0	**0**
	Anthelmintics ((B1b)	0	0	0	0	0	0	0	0	0	0	0	**0**
	Sub Total	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
	Organo Chlorine Pesticides	***1***	***1***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	**2**
	PCBs	***0***	***1***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	**1**
	Heavy Metals	0	0	***0***	***0***	***0***	***0***	***0***	***0***	6		1	**7**

	Sub Total	***0***	***1***	***0***	***0***	***0***	***0***	***0***	***0***	***6***	***0***	***1***	***8***
	SCAMPI Total	***1***	***4***	***0***	***0***	***0***	***0***	***0***	***0***	***7***	***0***	***2***	***14***
FISH	**Steroids (A1c)**	0	1	0	0	1	11	1	0	1	0	0	15
	Chloramphenicol (A2a)	0	0	0	0	1	0	0	0	0	0	0	1
	NF Metabolites (A2b)	0	0	0	0	1	0	0	0	0	0	0	1
	Nitroimidazoles (A2c)	0	1	0	0	0	0	0	0	0	0	0	1
	Other Substances (A2d)	0	1	0	0	1	0	0	0	0	0	0	2
	Dyes (A3a)	0	0	0	0	0	0	0	0	0	0	0	0
	Plant protection products and Biocides (A3b)	0	1	0	0	0	0	0	0	0	0	0	1
	Un-authorised Subatances (A3c)	0	0	0	0	0	0	0	0	0	0	0	0
	Sub Total	***0***	***4***	***0***	***0***	***4***	***11***	***1***	***0***	***1***	***0***	***0***	***21***
	Antibiotics (B1a)	***0***	***0***	***0***	***1***	***4***	***0***	***0***	***0***	***0***	***0***	***0***	***5***
	Anthelmintics ((B1b)	***0***	***2***	***0***	***0***	***1***	***0***	***0***	***0***	***0***	***0***	***0***	***3***
	Sub Total	***0***	***2***	***0***	***1***	***5***	***0***	***0***	***0***	***0***	***0***	***0***	***8***
	Organo Chlorine Pesticides	***0***	***3***	***0***	***0***	***2***	***0***	***0***	***0***	***0***	***0***	***1***	***6***
	PCBs	***0***	***2***	***0***	***0***	***1***	***0***	***0***	***0***	***0***	***0***	***1***	***4***
	Heavy Metals	***0***	***0***	***0***	***0***	***1***	***66***	***4***		***9***		***1***	***81***
	Sub Total	***0***	***2***	***0***	***0***	***2***	***66***	***4***	***0***	***9***	***0***	***2***	***85***
	FISH TOTAL	***0***	***11***	***0***	***1***	***13***	***77***	***5***	***0***	***10***	***0***	***3***	***120***
	GRAND TOTAL	**61**	**21**	**7**	**7**	**107**	**529**	**109**	**5**	**17**	**54**	**79**	**996**

Annexure 2B

The Marine Products Export Development Authority

NRCP 2023 - Allocation of Samples from Field Offices to MPEDA Labs at Bhimavaram & Nellore

QC Lab, Bhimavaram

Item / Species	Parameter	Number of Samples				
		SRD Vijayawada	SRD Bhimavaram	SRD Vizag	SRD Hyderabad	TOTAL (parametrwise)
CULTURED SHRIMP	Chloramphenicol (A2a)	0	50	3	0	**53**
	NF Metabolites (A2b)	0	50	3	0	**53**
	Nitroimidazoles (A2c)	0	14	1	0	**15**
	Other Substances (A2d)	0	11	0	0	**11**
	Dyes (A3a)	0	9	0	0	9
	Plant protection products and Biocides (A3b)	14	11	0	0	**25**
	Un-authorised Subatances (A3c)	0	-	0	0	**0**
	Sub Total	*14*	*145*	*7*	*0*	*166*
	Antibiotics (B1a)	32	149	6	0	*187*
	Anthelmintics ((B1b)	0	0	0	0	*0*
	Sub Total	*32*	*149*	*6*	*0*	*187*

QC Lab, Nellore

Item / Species	*Parameter*	Number of Samples					
		SRD Vijayawada	SRD Bhimavaram	SRD Vizag	SRD Hyderabad	SRD Nagapatnam	TOTAL (parametrwise)
CULTURED SHRIMP	Chloramphenicol (A2a)	90	25	0	0	0	**115**
	NF Metabolites (A2b)	90	25	0	0	0	**115**
	Nitroimidazoles (A2c)	0	0	0	0	0	**0**
	Other Substances (A2d)	14	0	0	0	0	**14**
	Dyes (A3a)	13	0	1	0	2	16
	Plant protection products and Biocides (A3b)	0	0	0	0	0	**0**
	Un-authorised Subatances (A3c)	13	10	1	0	0	**24**
	Sub Total	*220*	*60*	*2*	*0*	*2*	*284*
	Antibiotics (B1a)	*190*	*0*	*0*	*0*	*0*	*190*
	Anthelmintics ((B1b)	*85*	*56*	*2*	*0*	*0*	*143*
	Sub Total	*275*	*56*	*2*	*0*		*333*

	Organo Chlorine Pesticides	***31***	***155***	***6***		***192***			**Organo Chlorine Pesticides**	***0***	***0***	***0***	***0***	***0***	***0***	
	PCBs	34	51	2	0	***87***			**PCBs**	0	0	0	0	0	***0***	
	Heavy Metals	0	0	0	0	***0***			**Heavy Metals**	0	0	0	0	0	***0***	
	Sub Total	34	51	2	0	87			**Sub Total**						***0***	
	SHRIMP Total	***111***	***500***	***21***	***0***	***632***			**SHRIMP Total**	***495***	***116***	***4***	***0***	***2***	***617***	
SCAMPI	**Chloramphenicol (A2a)**	0	0	0	0	**0**		SCAMPI	**Chloramphenicol (A2a)**	0	0	0	3	0	**3**	
	NF Metabolites (A2b)	0	0	0		**0**			**NF Metabolites (A2b)**	0	0	0	4	0	**4**	
	Nitroimidazoles (A2c)	0	0	0	1	**1**			**Nitroimidazoles (A2c)**	0	0	0		0	**0**	
	Other Substances (A2d)	0	0	0	0	**0**			**Other Substances (A2d)**	0	0	0	1	0	**1**	
	Dyes (A3a)	0	0	0	0	0			**Dyes (A3a)**	0	0	0	1	0	**1**	
	Plant protection products and Biocides (A3b)	0	0	0	0	**0**			**Plant protection products and Biocides (A3b)**	0	0	0	0	0	**0**	
	Un-authorised Subatances (A3c)	0	0	0	1	**1**			**Un-authorised Subatances (A3c)**	0	0	0	0	0	**0**	
	Sub Total	***0***	***0***	***0***	***2***	***2***			**Sub Total**	***0***	***0***	***0***	***9***	***0***	***9***	
	Antibiotics (B1a)	***0***	***0***	***0***	***9***	***9***			**Antibiotics (B1a)**	***0***	***0***	***0***	***0***	***0***	***0***	
	Anthelmintics ((B1b)	***0***	***0***	***0***	***0***	***0***			**Anthelmintics ((B1b)**	***0***	***0***	***0***	***4***	***0***	***4***	
	Sub Total	***0***	***0***	***0***	***9***	***9***			**Sub Total**	***0***	***0***	***0***	***4***	***0***	***4***	
	Organo Chlorine Pesticides	***0***	***0***	***0***	***9***	***9***			**Organo Chlorine Pesticides**	***0***	***0***	***0***	***0***	***0***	***0***	

	PCBs	0	0	0	4	***4***	
	Heavy Metals	0	0	0	0	***0***	
	Sub Total	0	0	0	4	4	
	SCAMPI Total	***0***	***0***	***0***	***24***	***24***	
FISH	**Chloramphenicol (A2a)**	10	3	0	9	**22**	
FISH	**NF Metabolites (A2b)**	10	3	0	9	**22**	
FISH	**Nitroimidazoles (A2c)**	0	0	0	0	**0**	
FISH	**Other Substances (A2d)**	11	1	0	1	**13**	
FISH	**Dyes (A3a)**	20	1	0	3	24	
FISH	**Plant protection products and Biocides (A3b)**	12	1	0	1	**14**	
FISH	**Un-authorised Subatances (A3c)**	0	0	0	0	**0**	
FISH	***Sub Total***	***63***	***9***	***0***	***23***	***95***	
FISH	**Antibiotics (B1a)**	55	8	0	0	***63***	
FISH	**Anthelmintics ((B1b)**	0	0	0	0	***0***	
FISH	**Sub Total**	***55***	***8***	***0***	***0***	***63***	
FISH	**Organo Chlorine Pesticides**	***86***	***5***	***0***	***13***	***104***	
FISH	**PCBs**	66	4	0	9	***79***	
FISH	**Heavy Metals**	0	0	0	0	***0***	
FISH	**Sub Total**	66	4	0	9	79	
FISH	***FISH Total***	***270***	***26***	***0***	***45***	***341***	
				TOTAL SAMPLE		**997**	

	PCBs	0	0	0	0	0	***0***
	Heavy Metals	0	0	0	0	0	***0***
	Sub Total	0	0	0	0	0	***0***
	SCAMPI Total	***0***	***0***	***0***	***13***	***0***	***13***
FISH	**Chloramphenicol (A2a)**	53			-		**53**
FISH	**NF Metabolites (A2b)**	53			-		**53**
FISH	**Nitroimidazoles (A2c)**	20	1	-	3		**24**
FISH	**Other Substances (A2d)**	-	-	-	-		**0**
FISH	**Dyes (A3a)**	-	-	-	-		0
FISH	**Plant protection products and Biocides (A3b)**	-	-	-	-		**0**
FISH	**Un-authorised Subatances (A3c)**	20	1	-	3		**24**
FISH	***Sub Total***	***146***	***2***	***0***	***6***		***154***
FISH	**Antibiotics (B1a)**	***100***	***0***	***0***	***22***	***0***	***122***
FISH	**Anthelmintics ((B1b)**	***64***	***3***	***0***	***9***	***0***	***76***
FISH	**Sub Total**	***164***	***3***	***0***	***31***	***0***	***198***
FISH	**Organo Chlorine Pesticides**	***0***	***0***	***0***	***0***	***0***	***0***
FISH	**PCBs**	0	0	0	0	0	***0***
FISH	**Heavy Metals**	0	0	0	0	0	***0***
FISH	**Sub Total**	0	0	0	0		0
FISH	***FISH Total***	***310***	***5***	***0***	***37***	***0***	***352***
				TOTAL SAMPLE			**982**

Annexure 2C

NRCP 2023 - Allocation of Samples from Field Offices to MPEDA Labs at Bhubaneswar & Porbandar

QC Lab, Bhubaneswar						QC Lab, Porbandar					
Item / Species	Parameter	Number of Samples				Item / Species	Parameter	Number of Samples			
		RD Bhubaneswar	RD Kolkata	TOTAL (parametrwise)				SRD Valsad	RD Panvel	TOTAL (parametrwise)	
CULTURED SHRIMP	Chloramphenicol (A2a)	12	16	28		CULTURED SHRIMP	Chloramphenicol (A2a)	14	1	15	
	NF Metabolites (A2b)	12	17	29			NF Metabolites (A2b)	14	1	15	
	Nitroimidazoles (A2c)	3	3	6			Nitroimidazoles (A2c)	0	0	0	
	Other Substances (A2d)	2	2	4			Other Substances (A2d)	0	0	0	
	Dyes (A3a)	2	3	5			Dyes (A3a)	2	0	2	
	Plant protection products and Biocides (A3b)	0	0	0			Plant protection products and Biocides (A3b)	0	0	0	
	Un-authorised Subatances (A3c)	2	3	5			Un-authorised Subatances (A3c)	0	0	0	
	Sub Total	33	44	77			Sub Total	30	2	32	
	Antibiotics (B1a)	25	34	59			Antibiotics (B1a)	29	2	31	
	Anthelmintics ((B1b)	9	13	22			Anthelmintics ((B1b)	0	0	0	
	Sub Total	34	47	81			Sub Total	29	2	31	
	Organo Chlorine Pesticides	0	0	0	0		Organo Chlorine Pesticides	0	0	-	
	PCBs	0	0	0			PCBs	0	0	0	
	Heavy Metals	0	0	0			Heavy Metals	20	2	22	

	Sub Total	*0*	*0*	*0*			Sub Total	*20*	*2*	*22*
	SHRIMP Total	*67*	*91*	*158*			SHRIMP Total	*79*	*6*	*85*
SCAMPI	Chloramphenicol (A2a)	1	1	2		SCAMPI	Chloramphenicol (A2a)	1	1	2
	NF Metabolites (A2b)	1	1	2			NF Metabolites (A2b)	1	1	2
	Nitroimidazoles (A2c)	0	1	1			Nitroimidazoles (A2c)	0	0	0
	Other Substances (A2d)	0	1	1			Other Substances (A2d)	0	0	0
	Dyes (A3a)	0	1	1			Dyes (A3a)	0	1	1
	Plant protection products and Biocides (A3b)	0	0	0			Plant protection products and Biocides (A3b)	0	0	0
	Un-authorised Subatances (A3c)	0	1	1			Un-authorised Subatances (A3c)	0	0	0
	Sub Total	*2*	*6*	*8*			Sub Total	*2*	*3*	*5*
	Antibiotics (B1a)	1	0	1			Antibiotics (B1a)	1	1	2
	Anthelmintics ((B1b)	0	1	1			Anthelmintics ((B1b)	0	0	0
	Sub Total	*1*	*1*	*2*			Sub Total	*1*	*1*	*2*
	Organo Chlorine Pesticides	0	0	0			Organo Chlorine Pesticides	0	0	0
	PCBs	0	0	0			PCBs	0	0	0
	Heavy Metals	0	0	0			Heavy Metals	1	1	2
	Sub Total	*0*	*0*	*0*			Sub Total	*1*	*1*	*2*
	SCAMPI Total	3	7	10			SCAMPI Total	4	5	9
FISH	Chloramphenicol (A2a)	0	1	1		FISH	Chloramphenicol (A2a)	1	2	3
	NF Metabolites (A2b)	0	1	1			NF Metabolites (A2b)	1	2	3
	Nitroimidazoles (A2c)	0	0	0			Nitroimidazoles (A2c)	0	0	0
	Other Substances (A2d)	0	0	0			Other Substances (A2d)	0	0	0
	Dyes (A3a)	0	0	0			Dyes (A3a)	0	1	1

	Plant protection products and Biocides (A3b)	0	0	0		**Plant protection products and Biocides (A3b)**	0	0	**0**
	Un-authorised Subatances (A3c)	0	0	0		**Un-authorised Subatances (A3c)**	0	1	**1**
	Sub Total	0	2	2		**Sub Total**	2	6	8
	Antibiotics (B1a)	1	2	3		**Antibiotics (B1a)**	1	6	7
	Anthelmintics ((B1b)	0	1	1		**Anthelmintics ((B1b)**			
	Sub Total	1	3	4		**Sub Total**	1	6	7
	Organo Chlorine Pesticides	0	0	0		**Organo Chlorine Pesticides**	0	0	0
	PCBs	0	0	0		**PCBs**	0	0	0
	Heavy Metals	**0**	**0**	**0**		**Heavy Metals**	***0***	**2**	**2**
	Sub Total	0	0	0		**Sub Total**	0	2	2
	FISH Total	1	5	6		**FISH Total**	3	14	17
	Total SAMPLES	**71**	**103**	**174**		**Total SAMPLES**	**86**	**25**	**111**

Annexure 3

The Marine Products Export Development Authority - NRCP 2023

Allocation of Feed and Hatchery Samples

A. Sample Allocation from Field Offices to MPEDA Lab Kochi, Bhimavaram & Bhubaneswar

Lab, Kochi						Lab, Bhubaneswar						Lab, Bhimavaram					
Item / species	**Parameter**	**RD Kochi**	**SRD Nagapattinam**	**Total**		**Item / species**	**Parameter**	**RD Bhubaneswar**	**RD Kolkata**	**Total**		**Item / species**	**Parameter**	**RD Vijyawada**	**SRD Bhimavaram**	**SRD Vizag**	**Total**
Hatchery sample	**CAP + NF**	12	52	**64**		Hatchery sample	**CAP + NF**	4	1	**5**		Hatchery sample	**CAP + NF**	54	37	26	**117**

B. Sample Allocation from Field Offices to MPEDA Lab Nellore & Porbandar

Lab, Nellore											Lab, Porbandar			
Item / Species	**Parameter**	**RD Vijaya-wada**	**SRD Bhimavaram**	**SRD Vizag**	**RD Bhubaneswar**	**SRD Nagapattinam**	**SRD Valsad**	**RD Kolkta**	**Total**		**Item / species**	**Parameter**	**SRD Valsad**
Feed	**CAP + NF**	6	5	1	1	2	1	2	**18**		Hatchery sample	**CAP + NF**	4
Hatchery sample	**CAP + NF**	40	30	0	0	0	0	0	**70**				

Annexure 4A

MPEDA - NRCP for Aquaculture Products - 2023					
THE MARINE PRODUCTS EXPORT DEVELOPMENT AUTHORITY, KOCHI - 36					
NRCP - 2022- Summary of Results- All LABS					
Item/Species	***Substance***	***No. of Samples***			***Residue substance (s)***
		Received	***Analysed***	***Non-compliant***	
Shrimp	Group A6	2839	2839	5	CAP, NF(AOZ)
	Group B1	2843	2843	0	
	Group B1 (additional parameters)	451	451	0	
	Group B2a Anth	1153	1153	0	
	Group B3a OCPs & PCBs	570	570	0	
	DL PCBs	4	4	0	
	Group B3c CE	567	567	0	
	Group B3d Myco	289	289	0	
	Group B3e Dyes	286	286	0	
Scampi	Group A6	32	32	0	
	Group B1	32	32	0	
	Group B1 (additional parameters)	5	5	0	
	Group B2a Anth	15	15	0	
	Group B3a OCPs & PCBs	6	6	0	

	DL PCBs	2	2	0	
	Group B3c CE	9	9	0	
	Group B3d Myco	2	2	0	
	Group B3e Dyes	5	5	0	
Fish	Group A1	4	4	0	
	Group A3	4	4	0	
	Group A6	4	4	0	
	Group B1	11	11	0	
	Group B1 (additional parameters)	3	3	0	
	Group B2a Anth	4	4	0	
	Group B3a OCPs & PCBs	2	2	0	
	DL PCBs	4	4	0	
	Group B3c CE	2	2	0	
	Group B3d Myco	1	1	0	
	Group B3e Dyes	2	2	0	
	Sub Total	**9151**	**9151**	**5**	
Feed	Group A6	19	19	0	
Hatchery Seed	Group A6	306	306	34	CAP, NF(AOZ)
	TOTAL	**9476**	**9476**	**39**	

Annexure 4B

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	**INDIA**				**DATE**	18.03.2023
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	**2022**					
ANIMAL SPECIES/ PRODUCT	**AQUACULTURE - CRUSTACEANS & FINFISH**					
GROUP OF SUBSTANCES TO BE MONITORED	**COMPOUND or MARKER RESIDUE**	**MATRIX ANALYSED**	**NUMBER OF SAMPLES**		**LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/kg]**	**NUMBER OF NON COMPLIANT RESULTS (ABOVE LEVEL OF ACTION)**
			PLANNED	**TESTED**		
A1. STILBENES	Diethyl Stilbestrol	Shrimp	0	0	CCα: 0.19 (Kochi)	NIL
		Scampi	0	0		NIL
		Fish	4	4		NIL
	Dienestrol	Shrimp	0	0	CCα: 0.24(Kochi)	NIL
		Scampi	0	0		NIL
		Fish	4	4		NIL
	Hexestrol	Shrimp	0	0	CCα: 0.20(Kochi)	NIL
		Scampi	0	0		NIL

		Fish	4	4		NIL
A3. STEROIDS	17-Beta Estradiol	Shrimp	0	0	CCα: 0.20(Kochi)	NIL
		Scampi	0	0		NIL
		Fish	4	4		NIL
	Progesterone	Shrimp	0	0	CCα: 0.20(Kochi)	NIL
		Scampi	0	0		NIL
		Fish	4	4		NIL
	Medroxy Progesterone acetate	Shrimp	0	0	CCα: 0.11(Kochi)	NIL
		Scampi	0	0		NIL
		Fish	4	4		NIL
A6. CHLORAMPHENICOL	Chloramphenicol	Shrimp	2839	2839	CCα: 0.06(Kochi) 0.13 (Nellore) 0.07(Bhimavaram) 0.1(Bhubaneswar)	1
		Scampi	32	32		NIL
		Fish	4	4		NIL
A6 Nitrofurn Metabolites	AHD	Shrimp	2839	2839	CCα: 0.240 (Kochi) 0.506 (Nellore) 0.37(Bhimavaram) 0.408 (Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	4	4		NIL
	AMOZ	Shrimp	2839	2839	CCα: 0.186 (Kochi) 0.507 (Nellore) 0.36(Bhimavaram)	NIL
		Scampi	32	32		NIL

		Fish	4	4	0.405(Bhubaneswar)	NIL
	AOZ	Shrimp	2839	2839	CCα: 0.333 (Kochi) 0.512 (Nellore) 0.36(Bhimavaram) 0.401 (Bhubaneswar)	4
		Scampi	32	32		NIL
		Fish	4	4		NIL
	SEM	Shrimp	2839	2839	CCα: 0.443 (Kochi) 0.513 (Nellore) 0.38(Bhimavaram) 0.401(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	4	4		NIL
	DNSH	Shrimp	213	213	CCα: 0.26(Kochi) 0.27 (Nellore) 0.17(Bhimavaram) 0.249(Bhubaneswar)	NIL
		Scampi	17	17		NIL
		Fish	2	2		NIL
A6 NITROIMIDAZOLES	Ronidazole	Shrimp	2839	2839	CCα: 0.39(Kochi) 1.26 (Nellore) 0.32(Bhimavaram) 0.96(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	4	4		NIL
	Metronidazole	Shrimp	2839	2839	CCα : 0.63(Kochi) 1.23 (Nellore) 0.32(Bhimavaram) 0.96(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	4	4		NIL

	Dimetronidazole	Shrimp	2839	2839	CCα: 0.34(Kochi) 1.27 (Nellore) 0.31(Bhimavaram) 0.96(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	4	4		NIL
	Ipronidazole-OH	Shrimp	2467	2509	CCα: 0.27(Kochi) 1.25 (Nellore) 0.32(Bhimavaram) 0.95(Bhubaneswar)	NIL
		Scampi	32	34		NIL
		Fish	2	2		NIL
	Ipronidazole	Shrimp	2839	2839	CCα : 0.17(Kochi) 1.23 (Nellore) 0.6(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	4	4		NIL
	Metronidazole-OH	Shrimp	2839	2839	CCα : 0.39(Kochi) 1.48 (Nellore) 0.33(Bhimavaram) 0.96(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	4	4		NIL
	HMMNI	Shrimp	2839	2839	CCα : 0.53(Kochi) 1.25 (Nellore) 0.32(Bhimavaram) 0.96(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	4	4		NIL
B1. ANTIBACTERIAL SUBSTANCES						
Tetracyclines with 4-epimers	Tetracycline	Shrimp	2843	2843	CCα:	NIL

		Scampi	32	32	104.1 (Kochi) 109.80 (Nellore) 105.94(Bhimavaram) 111.1(Bhubaneswar)	NIL
		Fish	11	11		NIL
	4-Epi Tetracycline	Shrimp	2843	2843	CCα: 103.6 (Kochi) 115.0 (Nellore) 107.96(Bhimavaram) 111.0 (Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Oxytetracycline	Shrimp	2843	2843	CCα: 102.8 (Kochi) 111.5 (Nellore) 107.29(Bhimavaram) 110.9(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	4-Epi Oxytetracycline	Shrimp	2843	2843	CCα: 103.2 (Kochi) 111.3 (Nellore) 110.62(Bhimavaram) 110.9(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Chlortetracycline	Shrimp	2843	2843	CCα: 102.6 (Kochi) 107.2 (Nellore) 106.47(Bhimavaram) 110.8 (Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	4-Epi Chlortetracycline	Shrimp	2843	2843	CCα: 103.1 (Kochi) 107.2 (Nellore)	NIL
		Scampi	32	32		NIL

		Fish	11	11	106.54(Bhimavaram) 110.9(Bhubaneswar)	NIL
Sulfanoamides	Sulphadiazine	Shrimp	2843	2843	CCα: 109.59 (Kochi) 108.70 (Nellore) 106.44(Bhimavaram) 110.8(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Sulfapyridine (SPD)	Shrimp	2843	2843	CCα: 113.05(Kochi) 106.69(Bhimavaram) 111.0(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Sulfamethoxizole(SMTX)	Shrimp	2843	2843	CCα: 110.99 (Kochi) 107.02(Bhimavaram) 110.7(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Sulfathiazole(STZ)	Shrimp	2843	2843	CCα: 109.15 (Kochi) 104.60(Bhimavaram) 110.8(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Sulfamerazine(SMR)	Shrimp	2843	2843	CCα: 109.14 (Kochi) 103.37(Bhimavaram) 111.2(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Sulfamethizole(SMTZ)	Shrimp	2843	2843	CCα: 111.52 (Kochi) 108.68(Bhimavaram) 110.8 (Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL

	Sulfamethazine(SMT)	Shrimp	2843	2843	CCα: 106.60 (Kochi) 105.72(Bhimavaram) 110.8(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Sulfamethoxypyridazine(SMP)	Shrimp	2843	2843	CCα: 111.40 (Kochi) 106.06(Bhimavaram) 110.9(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Sulfadimethoxine(SDM)	Shrimp	2843	2843	CCα: 115.72 (Kochi) 106.78(Bhimavaram) 110.8(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Sulfadoxine(SD)	Shrimp	2843	2843	CCα: 116.21(Kochi) 105.23(Bhimavaram) 111.0 (Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Sulfachloropyridazine(SCP	Shrimp	2843	2843	CCα: 111.25(Kochi) 109.21(Bhimavaram) 111.2 (Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
Quinolones /Fluroquinolones	Oxolinic Acid	Shrimp	2843	2843	CCα: 106.27 (Kochi) 106.50 (Nellore) 106.00(Bhimavaram) 111.0(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
	Nalidixic Acid	Shrimp	2843	2843	LOQ:5 (Kochi) CCα: 105.18 (Nellore)	NIL
		Scampi	32	32		NIL

	Fish	11	11	16.89(Bhimavaram) LOQ:8(Bhubaneswar)	NIL
Flumequine (FLU)	Shrimp	2843	2843	CCα: 215.48 (Kochi) 216.50(Bhimavaram) 224.7(Bhubaneswar)	NIL
	Scampi	32	32		NIL
	Fish	11	11		NIL
Norfloxacin (NOR)	Shrimp	2843	2843	LOQ:5 (Kochi) CCα: 18.54(Bhimavaram) LOQ:8(Bhubaneswar)	NIL
	Scampi	32	32		NIL
	Fish	11	11		NIL
Ciprofloxacin (CIP)	Shrimp	2843	2843	CCα: 106.27 (Kochi) 105.88(Bhimavaram) 110.7(Bhubaneswar)	NIL
	Scampi	32	32		NIL
	Fish	11	11		NIL
Enrofloxacin (ENR)	Shrimp	2843	2843	CCα: 106.14 (Kochi) 106.72(Bhimavaram) 110.7 (Bhubaneswar)	NIL
	Scampi	32	32		NIL
	Fish	11	11		NIL
Sarafloxacin (SAR)	Shrimp	2843	2843	CCα: 31.91(Kochi) 32.19(Bhimavaram) 33.09(Bhubaneswar)	NIL
	Scampi	32	32		NIL
	Fish	11	11		NIL
Difloxacin (DIF)	Shrimp	2843	2843	CCα: 331.79 (Kochi) 313.31(Bhimavaram)	NIL
	Scampi	32	32		NIL

		Fish	11	11	336.4(Bhubaneswar)	NIL
	Danofloxacin (DAN)	Shrimp	2843	2843	CCα: 109.29 (Kochi) 106.27(Bhimavaram) 110.8(Bhubaneswar)	NIL
		Scampi	32	32		NIL
		Fish	11	11		NIL
Macrolides	Erythromycin A	Shrimp	451	451	CCα : 223 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
	Tilmicosin	Shrimp	451	451	CCα : 55.6 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
	Tylosin	Shrimp	451	451	CCα : 117.7 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
	Spiramycin	Shrimp	451	451	CCα : 225 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
Beta Lactams	Ampicillin	Shrimp	451	451	CCα : 53.8 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
	Benzyl Penicillin	Shrimp	451	451	CCα : 56.5 (Kochi)	NIL

		Scampi	5	5		NIL
		Fish	3	3		NIL
	Dicloxacillin	Shrimp	451	451	CCα : 338 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
	Oxacillin	Shrimp	451	451	CCα : 327.4 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
	Cloxacilin	Shrimp	451	451	CCα : 327.6 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
	Colistin A &B	Shrimp	451	451	CCα:168(CollistinA) CCα:164(Collistin B) (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
	Amoxicillin	Shrimp	451	451	CCα : 54.00 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
Lincosamides	Lincomycin	Shrimp	451	451	CCα : 112.9 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
Diaminopyramidines	Trimethoprim	Shrimp	451	451	CCα : 53.7 (Kochi)	NIL

		Scampi	5	5		NIL
		Fish	3	3		NIL
Doxycycline	Doxycycline	Shrimp	451	451	CCα : 109.1 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
Cephalosporins	Cefalexin	Shrimp	451	451	CCα : 228 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
	Cefapirin	Shrimp	451	451	CCα : 54.4 (Kochi)	NIL
		Scampi	5	5		NIL
		Fish	3	3		NIL
B2a ANTHELMINTICS	Ivermectin	Shrimp	1153	1153	LOQ 3.00 (Kochi) 3 (Nellore) 5 (Bhimavaram) CCα: 112(Bhubaneswar)	NIL
		Scampi	15	15		NIL
		Fish	4	4		NIL
	Emmmectin	Shrimp	1153	1153	CCα : 111.00 (Kochi) 104.20 (Nellore) 114.20(Bhimavaram) 112(Bhubaneswar)	NIL
		Scampi	15	15		NIL
		Fish	4	4		NIL
B3a ORGANOCHLORINE COMPOUNDS INCLUDING PCBS	Aldrin	Shrimp	570	570	> LOQ -10ppb	NIL
		Scampi	6	6		NIL

		Fish	2	2		NIL
	Dieldrin	Shrimp	570	570		NIL
		Scampi	6	6		NIL
		Fish	2	2		NIL
	Chloradane	Shrimp	570	570		NIL
		Scampi	6	6		NIL
		Fish	2	2		NIL
	DDT	Shrimp	570	570		NIL
		Scampi	6	6		NIL
		Fish	2	2		NIL
	Endrin	Shrimp	570	570		NIL
		Scampi	6	6		NIL
		Fish	2	2		NIL
	Heptachlor	Shrimp	570	570		NIL
		Scampi	6	6		NIL
		Fish	2	2		NIL
	Hexachloro Benzene	Shrimp	570	570		NIL
		Scampi	6	6		NIL
		Fish	2	2		NIL
	Alpha HCH	Shrimp	570	570		NIL
		Scampi	6	6		NIL

		Fish	2	2		NIL
	Beta HCH	Shrimp	570	570		NIL
		Scampi	6	6		NIL
		Fish	2	2		NIL
	Gamma HCH	Shrimp	570	570		NIL
		Scampi	6	6		NIL
		Fish	2	2		NIL
	PCBs	Shrimp	570	570		NIL
		Scampi	6	6	ML: 75 Sum of 6 NDL- PCBs	NIL
		Fish	2	2		NIL
B3c CHEMICAL ELEMENTS	Mercury	Shrimp	567	567		NIL
		Scampi	9	9	ML:500	NIL
		Fish	2	2		NIL
	Cadmium	Shrimp	567	567		NIL
		Scampi	9	9	ML:500	NIL
		Fish	2	2		NIL
	Arsenic	Shrimp	567	567		NIL
		Scampi	9	9	> LOQ- 40ppb	NIL
		Fish	2	2		NIL
	Lead	Shrimp	567	567		NIL
		Scampi	9	9	ML:500	NIL

		Fish	2	2		NIL
B3d MYCOTOXINS	Aflatoxin B1	Shrimp	289	289	LOQ: 0.5 (Kochi) LOQ: 0.5(Nellore) LOQ:0.5 (Bhimavaram) LOQ:0.5(Bhubaneswar)	NIL
		Scampi	2	2		NIL
		Fish	1	1		NIL
	Aflatoxin B2	Shrimp	289	289	LOQ: 0.5 (Kochi) LOQ: 0.5(Nellore) LOQ:0.5 (Bhimavaram) LOQ:0.5(Bhubaneswar)	NIL
		Scampi	2	2		NIL
		Fish	1	1		NIL
B3e DYES	Malachite green	Shrimp	286	286	CCα: 0.33 (Kochi) 0.17(Nellore) 0.37 (Bhimavaram) 0.24(Bhubaneswar)	NIL
		Scampi	5	5		NIL
		Fish	2	2		NIL
	Leucomalachite green	Shrimp	286	286	CCα: 0.22(Kochi) 0.16(Nellore) 0.24 (Bhimavaram) 0.39(Bhubaneswar)	NIL
		Scampi	5	5		NIL
		Fish	2	2		NIL
	Crystal Violet	Shrimp	286	286	CCα: 0.41 (Bhimavaram) 0.23(Bhubaneswar)	NIL
		Scampi	5	5		NIL
		Fish	2	2		NIL
	Leucocrystal Violet	Shrimp	286	286	CCα: 0.49 (Bhimavaram) 0.35(Bhubaneswar)	NIL
		Scampi	5	5		NIL
		Fish	2	2		NIL

Annexure 4C

The Marine Products Export Development Authority
NRCP 2022 – List of Non-Compliant (Residue Positive) samples

SNo.	Sample ID	Type & Species	Test	Parameter	Value (µg/kg)
FARM SAMPLES - SHRIMP					
1	11/S1/Q1/0134/2022	Shrimp L.vannamei	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	11.84
2	11/S1/Q1/0135/2022	Shrimp L.vannamei	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	10.41
3	11/S1/Q1/0136/2022	Shrimp L.vannamei	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	1.63
4	33/S1/Q1/1655/2022	Shrimp L.vannamei	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	0.83
5	33/S1/Q1/2044/2022	Shrimp L.vannamei	Antibacterial-Gr.A	Chloramphenicol	0.12
HATCHERY SAMPLES _ SHRIMP SEED					
6	11/S4/01/0044/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	3.09
7	11/S4/01/0115/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	2.95
8	11/S4/01/0125/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.18
9	11/S4/01/0138/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.46
10	23/S4/01/0195/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	165.65
11	23/S4/01/0199/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.23
12	23/S4/01/0217/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	8.59
13	23/S4/01/0223/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	1.67
14	33/S4/01/0106/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	628.99
15	33/S4/01/0107/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	61.84

16	33/S4/01/0659/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	43.12
17	33/S4/01/0660/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	0.53
18	33/S4/01/0866/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.96
19	33/S4/01/0867/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.35
20	33/S4/01/0876/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.06
21	33/S4/01/1479/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.68
22	33/S4/01/1480/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.40
23	33/S4/01/1495/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol Nitrofuran Metabolite - AOZ	1.79 75.75
24	33/S4/01/1497/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	1.83
25	33/S4/01/1498/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol Nitrofuran Metabolite - AOZ	0.16 16.54
26	33/S4/01/1500/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	20.03
27	33/S4/01/1501/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.20
28	33/S4/01/1677/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	245.04
29	33/S4/01/1680/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	193.84
30	33/S4/01/1681/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.30
31	33/S4/01/1682/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol Nitrofuran Metabolite - AOZ	2.80 247.74
32	33/S4/01/1683/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	0.24

33	33/S4/01/1881/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	330.58
34	33/S4/01/2080/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	0.58
35	33/S4/01/2081/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	217.60
36	33/S4/01/2082/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	1.87
37	33/S4/01/2083/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol Nitrofuran Metabolite - AOZ	12.71 4.09
38	33/S4/01/2084/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Nitrofuran Metabolite - AOZ	904.46
39	33/S4/01/2209/2022	Hatchery Sample Shrimp seed	Antibacterial-Gr.A	Chloramphenicol	9.42

Annexure 5

The Marine Products Export Development Authority
(Ministry of Commerce & Industry, Govt. Of India)
Kochi – 682 036

No. LAB-KOC/NRCP(NRCP)/1/2023

Dated: 01 January 2023

NRCP – Instructions – effective from January 2023.

1. The sampling procedure/strategy shall be as per the instruction contained in Annex-I of EU Commission Regulation 2022/1646 – for Group A&B and Commission Regulation 2022/932 for Pesticides and other Contaminants. The sampling level for RDs/SRDs is being communicated to you separately.

2. The target given to each field office of MPEDA is in consideration production of shrimp/scampi/fish from their jurisdiction. The sample target for field office is fixed on the basis of district-wise production of farms and the month-wise targets for the field offices are also based on the various stages of production.

3. The collection of sample shall be unforeseen, unexpected and effected at no fixed time and on no particular day of the week and the sample collection must be done as per the guidelines on sample acceptance criteria.

4. The shrimp/scampi/fish samples under NRCP shall be collected by the designated residue monitoring officers (RMOs) only from farms that are enrolled by the Marine Products Export Development Authority (MPEDA), which may include farms approved by the Coastal Aquaculture Authority (CAA) and State fisheries Departments.

5. Samples must be collected in Polythene bags and properly labeled to maintain the sample integrity and traceability by using tamper proof seal. The container/packing must prevent the substitution, cross contamination and degradation of sample. The container/packing must be officially sealed. The designated officers for sample collection have to be provided with official seals by the concerned field offices.
6. The follow-up samples being collected from farms shall be considered as only additional samples over and above the samples allocated under NRCP to each region/state.
7. Sampling at farm level shall be in such a way that it covers major areas under aquaculture. In other words, there shall not be excess drawl of samples from one farm and similarly no farm will be left uncovered.

8. The farms reported with residue positive cases and processing plants reported with rejections/quality complaints have to be closely monitored and subjected to stringent and frequent sampling.

9. In case of farms situated in areas reported/suspected with presence/use of unknown chemicals/substances or indications of fraudulent activities, disease out breaks etc, more samples may be drawn.

10. Sampling levels:
    - Shrimp (black tiger) farms : 60 - 90 days & 15 days prior to harvest.
    - Scampi farms : 60-90 days, 90-120 days & 15 days prior to harvest.

- Fish farms : at any stage of production & 15 days prior to harvest.

11. In respect of farms, while the netting may be done by the employees of the farm, the supervision of the netting and actual selection of the samples shall be done by the MPEDA officer himself and not by the farm representative. When sample is drawn from the aquaculture farm, netting should be done at least in 4 to 5 positions of the pond. Sample netting may be done in each pond at equidistant places on four sides and the centre.
12. While collecting the hatchery samples (seed), a minimum of 20 - 25 gm (excluding water) shall be drawn. The supervision of seed sample collection shall be done by the MPEDA officer and not by the hatchery representative. The seed sample should be collected in polythene bags, sealed and transported in thermocol box packed with dry/wet ice.
13. In case of any farmer/hatchery operator want to retain a portion the collected sample as reference sample. The sample shall be divided equally from the drawn sample packed in polythene pouches and properly labeled, signed (by MPEDA & CAA officials wherever applicable) and sealed by using tamper proof seal. This sample shall be under custody of field office without losing the sample integrity.
14. All field offices are advised to draw samples from saltwater aquaculture (cage culture) also, as per availability in their region, for analysis of different substance groups.
15. RDs and SRDs are directed to use the GPS device while collecting samples from farms.
16. In the case of on-farm sampling, the farmer or his representative has to sign the original sampling report. The original sampling report has to be kept with the field office to guarantee that unauthorized persons cannot access the original report.
17. When collecting samples from the farm, the details of medication within the last 4 weeks before sampling shall be collected and indicated in the register as well as in the packing slip/sampling report that will accompany each sample.
18. As already in practice, the field offices shall maintain a register of samples collected and dispatched to the respective Laboratory.
19. The field offices shall verify periodically, the parameter-wise target/allocation assigned to each region/state, in order to ensure that all the districts in the region/state are covered for all the parameters in sample collection during the plan year.
20. The drawl of samples shall be done by the residue monitoring officer of MPEDA himself. This task should not be entrusted to any personnel of the farm/Hatchery/Feed mill.
21. The quantity (net weight) of sample drawn shall be 500 gm in case of farm / processing plant and 20 - 25 gm in case of hatchery seed.
22. The samples shall be forwarded to the respective MPEDA Laboratory with in 3 (three) days of its collection so as to reach the laboratory with in 30 (thirty) hours of dispatch.
23. All field offices shall ensure that the samples are collected and delivered to the QC Lab concerned before 20th of every month as per their monthly target/allocation.
24. The results of the tests communicated from the respective laboratory should be recorded in the specified columns in the registers maintained by the field offices.
25. Wherever non-compliant (residue positive) results are reported, the EIAs and MPEDA field offices concerned may take action as follows:
    i. On receipt of the alert information along with test results, the EIA, CAA & MPEDA shall undertake the joint inspection of the facility to trace the origin/source of contamination. A joint inspection report shall be prepared & be available at EIA, CAA & MPEDA.
    ii. The EIA, CAA & MPEDA officials collect follow up samples from the same premises for further analysis at MPEDA Laboratory. If the sample is found positive, on repeated

analysis the results shall be communicated by MPEDA to EIAs and the defaulting facility will be issued show cause notice by EIAs.

iii. Based on the reply received from the facility, the EIA shall take the action as deemed fit.

iv. A Committee headed by the In-charge of the EIA reviews regularly the non-compliant (residue positive) cases for appropriate follow-up guidelines and actions.

26. The farms reported with non-compliant results are subjected to more stringent checks for a period of at least twelve months by the EIAs.

Sd/-

(DR. M. KARTHIKEYAN)

DIRECTOR

Copy for information and necessary action, to:

1. All field offices of MPEDA
2. MPEDA QC Laboratories - Kochi, Nellore, Bhimavaram & Bhubaneswar
3. Director, EIC of India, New Delhi