INDIA

NATIONAL RESIDUE CONTROL PLAN

FOR

AQUACULTURE PRODUCTS

YEAR 2015

Export Inspection Council
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NATIONAL RESIDUE CONTROL PLAN OF INDIA FOR AQUACULTURE PRODUCTS – 2015

NATIONAL RESIDUE CONTROL PLAN (NRCP) OF INDIA FOR AQUACULTURE PRODUCTS – 2015

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 programme 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 domestic and overseas market. Keeping the above in view, the National Residue Control Plan (NRCP) has been formulated for monitoring the presence of residues of Veterinary Medicinal Products (VMPs) including Antibacterial substances, substances like dyes, aflatoxin and environmental contaminants like Pesticides, PCBs, Heavy Metals, etc. This will ensure an overall monitoring of the Aquaculture Products at different stages of production to guarantee safe products from farm to table.

2. Objectives of NRCP

- To establish a system for monitoring 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, hatcheries and processing establishments.
- 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/EU.

3. Scope of NRCP

All aquaculture farms, processing establishments, 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 21.8.1995, vide notification No S.O. 1034(E) dated 9th September 2003, designated the Marine Products Export Development Authority (MPEDA) to carry out the residue monitoring on behalf of Export Inspection Council of India, the Indian Competent Authority.

5. Aquaculture in India

India is the 3rd largest shrimp producer and ranks 2nd largest in aquaculture production in the global scenario. The pollution free waters along the 8129 km long Indian coastline, 1.2 million hectares of brackish water area and 5.4 million hectares of fresh water area contribute to the aquaculture.
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 almost 64% of the total cultured shrimp (*Penaeus monodon*, *Litopenaeus vannamei* and *Macrobrachium rosenbergi*) in India. Species-wise aquaculture production through inland and brackish water culture is given **Table-1** below.

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

5.1 Brackish water/ Fresh water Shrimp/ Prawn culture

Table - 1

Name of species	*Production (M/T)*
Litopenaeus vannamei	250,507
Penaeus monodon	76,798
Macrobrachium rosenbergii	3,546
Total	**330,851**

Source: MPEDA - Statistics of Marine Products 2013 -14

5.2 Details of State-wise production of brackish water shrimp & freshwater prawn (Scampi) during 2013-14

Among the maritime states, most of the aquaculture activities are concentrated in Andhra Pradesh. The other leading states in aquaculture production are West Bengal, Kerala, Orissa and Gujarat (MPEDA 2013-14).

Table - 2

State	Production (M/T)			
	P. monodon	*L. vannamei*	*M. rosenbergii (Scampi)*	*Total*
West Bengal	53049	479	2774	56302
Orissa	11075	2907	454	14436
Andhra Pradesh	2883	210639	21	213543
Tamil Nadu	916	26281	59	27256
Kerala	3360	0	151	3511
Karnataka	56	517	3	576
Goa	14	67	0	81
Maharashtra	1083	3291	84	4539
Gujarat	4362	6326	0	10688
Total	**76798**	**250507**	**3546**	**330851**

6.0 Export of fish & fishery products to EU

As like in previous years, India's export of fish and fishery products to EU during 2013-14 was also mainly consisted of crustaceans, cephalopods and marine fin-fishes. The share of EU in Indian export was 174686 M/T (17.76%) in terms of quantity and US$ 1013.28 Million (20.29%) in terms of value. During 2013-14 there was an increase of 10.31% in quantity and 30.34% value wise, over the corresponding previous year (2012-13).

6.1 Item-wise export of marine products to EU during 2013-14:

Table - 3

Itemwise export of Marine Products to EU during 2013-14		
Item Name	*Qty (M/T)*	*US $ (Mln)*
Frozen Shrimp	73487	660.60
Frozen Fish	6214	20.21
Frozen Cuttlefish	39457	151.66
Frozen Squid	37566	125.55
Dried Items	273	3.73
Live Items	4	0.16
Chilled Items	1396	9.14
Others	16288	42.24
Total	**174685**	**1013.29**

6.2 Export of aquaculture products to European Union

India's export of aquacultured items to EU in 2013-14, constituted mainly shrimp *Penaeus monodon & Litopenaeus vannamei* to the tune of 39420 M/T valued at US $ 420.68 Million. There was an increase of 31.48% by quantity and 45.67% in terms of value compared to year 2012 -13.

The quantity of Scampi (*Macrobrachium rosenbergii*) and of fresh water fin-fishes exported to EU during the year 2013- 14 were only 200 MT and 322 MT respectively.

Export of aquaculture products to European Union (2013- 14)

Table - 4

Species	Quantity (M/T)	Value (US $ million)
Cultured Shrimp (*P.monodon & L. vannamei*)	38718	416.58
Scampi (Fresh water Prawn) M. rosenbergii	200	2.65
Freshwater Fin-fishes	322	1.45
Total	**39240**	**420.68**

7.0 Residue monitoring in India

There are 467 land based processing establishments in India. Of which, 298 establishments (as on December 2014) have been approved for processing of fish and fishery products to EU. In addition, 44 independent cold storages are also approved for storage of fish and fishery products for export to EU.

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 aqua cultured animal is implemented since 1998 in India so as to comply with EU Directive 96/23/EC to ensure the safety of aquaculture products exported to member states of the European Union.

	Substances like Chloramphenicol, Nitrofurans, Nitroimidazoles, Stilbenes, Steroids, Tetracyclines, Sulphonamides, Quinolones/Fluroquinolones, Anthelmintics, Mycotoxins, Organo-chlorine Pesticides, PCBs, Heavy Metals, Dyes, etc. are tested under NRCP.
8.0	**Recommendations of FVO Audit Report DG (SANCO) 2014-7029:**
	As per the recommendations of the FVO Audit Report DG (SANCO) 2014-7029 visited India, in March 2014, the samples shall be collected from salt water fish culture (cage culture) as per availability. Further Dioxins & Furans have also been added to Group B3 (a), in addition to PCBs & dioxin like PCBs monitored in previous years.
9.0	**Organizations associated with the implementation of NRCP:**
	The Export Inspection Council of India (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.
9.1	**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.
9.2	**The Marine Products Export Development Authority (MPEDA),** constituted by the Marine Products Export Development Authority Act No 13 / 1972, is the statutory body under Ministry of Commerce & Industry to promote the production and export of marine products. The functions of MPEDA are: 1. Registration of exporters / processing plants establishments/ storage premises / fishing vessels. 2. Quality up-gradation and modernization of seafood marine products industry. 3. Development of infrastructure facilities. 4. Implementation of residue monitoring/control programmes such as NRCP (as per EU Directive 96/23/EC), Monitoring of Pesticide Residue at National Level (MPRNL), Monitoring of Cadmium content/residue in Cephalopods, etc. 5. Registration 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 and sustainable aquaculture.
9.3	**NRCP laboratories**
	The MPEDA has 3 (three) Quality Control Laboratories located at Kochi, Bhimavaram & Nellore for the implementation of residue control plan for residues in aquaculture products as per EU Directive 96/23/EC. In addition to above, Export Inspection Agency-Chennai laboratory shall be utilized for testing the parameters like dioxin & furans, which cannot be done by MPEDA NRCP quality control laboratories.
9.3.1	**MPEDA Quality Control Laboratory, Kochi**
	The Marine Products Export Development Authority (MPEDA), Ministry of Commerce and

	Industry, Government of India, MPEDA House, Panampilly Avenue, Cochin – 682 036, Karalla, India. (Tel.91-484-2311979, 2321811, 2311033 Fax.91-484-2313361, E-mail: asha@mpeda.gov.in; mohan@mpeda.gov.in; web-site: http://www.mpeda.com
9.3.2	**MPEDA Quality Control Laboratory, Bhimavaram**
	The Marine Products Export Development Authority, Pattabhi Plaza, 2nd floor, 27/1/6, Juvalpuram Road, Bhimavaram-534 202, West Godavari Dist. Andhra Pradesh, Tel: 91-08816-226410, 227076 E-mail: lab.bhi@mpeda.gov.in
9.3.3	**MPEDA Quality Control Laboratory, Nellore**
	The Marine Products Export Development Authority, D.No.26-1766/A-1, Srinagar colony, Mini Bypass Road, Nellore- 524 003, Andhra Pradesh. Tel: 91–08612319144, 2319344 E-mail: lab.nel@mpeda.gov.in
9.3.4	**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
10.0	**MPEDA ELISA Screening Laboratories.**
	Nineteen (19) ELISA Screening Laboratories have been set up in the maritime states of India for screening of aquaculture produce for banned antibiotics residues under the pre-harvest testing programme. Under this all aquaculture produce are tested prior to harvest. Exporters / processors have to purchase only pre harvest tested and certified material for EU export processing.
10.1	**Locations of the ELISA Screening Laboratories:**

Table – 5

State	*No. of Labs*	*Locations*
West Bengal	4	Contai, Haroa, Kharibari & Sonarpur
Orissa	3	Balasore, Dhamra & Bhubaneswar
Andhra Pradesh	7	Nellore, Ongole, Bapatla, Bhimavaram, Amalapuram, Kakinada & Machilipatnam.
Tamil Nadu	2	Nagapattinam & Pattukottai
Kerala	1	Payannur
Maharastra	1	Palghar
Gujarat	1	Valsad

11.0	**Level of competence of the MPEDA Laboratories and EIA-Chennai Laboratory involved in residue monitoring:**
	The MPEDA Q/C Laboratories and EIA-Chennai Laboratory are equipped with high precision sophisticated equipment like Liquid Chromatography Tandem Mass Spectrometer (HPLC-MSMS / UPLC-MSMS), Inductively Coupled Plasma - Optical Emission Spectroscope / Mass Spectrometer (ICP-OES / ICP-MS), Atomic Absorption Spectrometer (AAS), High Performance Liquid Chromatograph (HPLC), Gas Chromatograph(GC-ECD), Gas Chromatograph - Mass Spectrometer (GC-MS / GC-MSMS), Automated ELISA Reader, etc. and all necessary supporting

	equipment/instruments. The EIA-Chennai Laboratory is also equipped with the GC-HRMS.
11.1	**Accreditation / approvals:**
	The MPEDA QC Laboratories & EIA Chennai laboratory are accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL), member of International Laboratory Accreditation Co-operation (ILAC), as per the ISO/IEC 17025 Standard. The scope of accreditations covers testing of fish and fishery products for chemical residues. The Laboratories are also approved by the Export Inspection Council of India for testing of fish and fishery products intended for export.
11.2	**Proficiency Test & Inter-laboratory comparisons:**
	The MPEDA Laboratories (Kochi, Nellore & Bhimavaram) & EIA Chennai laboratory participate regularly in Proficiency Testing programmes conducted by international PT providers like FAPAS (CSL) and LGC Promochem, UK to prove the competency in testing of various parameters under the scope of accreditation. The Laboratories have successfully participated in several PT programmes for analysis of Nitrofuran metabolites, Chloramphenicol, Tetracyclines, Chemical Elements, Organochlorine pesticides, PCBs, Quinolones (Oxolinic Acid/Nalidixic Acid), Dyes (Malachite green and Leucomalachite green) and also regularly organize as well as participate in Inter-laboratory Testing/Comparison programmes.
12.0	**Personnel responsible for collection of samples**
	The MPEDA has sufficient number of field offices (Regional/Sub-regional Offices/Centres) located in each maritime state 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, processing plants, hatcheries and feed mixing plants 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 and Bhimavaram. The sampling official records the nature, source, the date and place of sampling and other relevant information. A signed copy of the sample format accompanies each sample to the designated laboratory. 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 investigation on non-compliant (residue positive) cases, etc.
13.0	**Sampling Strategy:**
	1. **Shrimps** (*P.monodon, P. indicus, L.vannamei*, etc): based on the quantity of production and the number of registered farms and samples from/covering at least 10% of the registered sites of production. 2. **Scampi** (*M. rosenbergii*): At least one sample per every 100 M/T of production. 3. **Fin-fishes:** based on throughput in the approved export establishments (approved for export to EU) - at least one sample per every 100 M/T of production. 4. **Feed** samples: four samples per feed-mill. 5. **Hatchery seed/water**: at least one sample from each registered hatchery.

13.1 Number of Aquaculture Samples to be analyzed under NRCP 2015 :

Table - 6

Type of sample	*No. of registered Farms*	*Aqua-culture Product-ion (M/T)*	*Total through-put of EU approved Processing plants (RM)*	*No. of samples to be analyzed*	*Criteria for sampling*
1. Crustaceans *(i) L. vannamei (ii) P. monodon & (iii) P. indicus & (iv) M. rosenbergii*	40177	327305	--	3984	on the basis of 10% of the registered sites of production
		3546	--	36	1 sample per every 100 M/T of production (1:100)
1. Freshwater Fin-fishes	--	--	4412	45	based on through-put in export approved (EU) establishments (1:100)
			TOTAL	**4065**	

13.2 Break up of Aquaculture samples for analysis of Group A & Group B Substances

Table - 7

Type of Sample	*Number of samples to be tested*	*Break up of samples to be tested*			
		Group A substances		*Group B substances*	
		Farms	*Processing Plants*	*Farms*	*Processing Plants*
1. Crustaceans (i) Shrimp	3984	1328	--	1328	1328
(ii) Scampi	36	14	--	14	8
2. Fin-fishes	45	15	--	19	11
Total	**4065**	**1357**	--	**1361**	**1347**

13.3 NRCP 2015 - Break up of samples for analysis of Group A substances

Table - 8

Samples for analysis of Group-A substances:				
Species	*No. of samples for Group A Substances*	*Stilbenes*	*Steroids*	*NF + CAP + Nitroimidazoles.*
Cultured Shrimp	1328	--	--	1328

Cultured fresh water Prawn (Scampi)	14	--	--	14
Cultured fresh water Fin-fishes	15	5	5	5
Total	**1357**	**5**	**5**	**1347**

13.4 NRCP 2015 - Break up of samples for Analysis of Group B substances.

Table - 9

Species / item	*No. of Samples*	*Samples taken from*	*No. of samples*					
			Antibi o-tics	*Anthel-mintics*	*Pestic-ides + PCBs*	*Chemic al Elemen ts*	*Myco-toxin*	*Dyes*
Cultured shrimp	2656	Farms (1329)	664	250	148	148	60	59
		Proc. Plants (1327)	664	260	150	150	50	53
Cultured fresh water prawn (scampi)	22	Farms (14)	7	3	1	1	1	1
		Proc. Plants (8)	4	1	1	1	0	1
Cultured fresh water fin-fishes	30	Farms (19)	9	4	2	2	1	1
		Proc. Plants (11)	6	2	1	1	0	1
Total	**2708**	--	**1354**	**520**	**303**	**303**	**112**	**116**

13.5 NRCP 2015 - Number of Feed Samples to be monitored:

Table - 10

Item/species	*No. of Feed-mills (operational)*	*No. of samples to be analyzed*	*Criteria for sampling*
Feed	11	**44**	4 samples per each Feed-mill.

Feed Samples to be tested for Group A substances:

Type of Sample	*Number of samples to be tested*	*No. of samples*	
		Group A substances (CAP + NF)	*Group B substances*
		Feed	*Feed*
Feed	**44**	44	nil

13.6 Number of Hatchery Samples to be monitored:

Table - 11

Item/species	*No. of Hatcheries in operation*	*No. of samples to be analyzed*	*Criteria for sampling*
Hatchery seed / water	197	**197**	1 sample per hatchery in operation.

Number of Hatchery Samples to be tested for Group A substances

Type of Sample	*Number of samples to be tested*	*No. of samples*	
		Group A substances (CAP + NF)	*Group B substances*
		Hatchery	*Hatchery*
Hatchery seed / water	**197**	197	nil

14.0 Additional 5 % joint sampling by EIA & MPEDA

As like in the previous year, **additional 5%** of the aquaculture samples under each category shall be drawn jointly by the EIC/EIA and MPEDA and these samples shall be analyzed separately by the EIA and MPEDA Laboratories. The test results of these samples (along with the sample covering note) shall be sent by MPEDA to respective EIAs for necessary comparison. If any deviation is observed by EIAs, then it shall be reported to EIC along with the suitable recommendations, for further necessary action. EIAs shall prepare the consolidated report as per the EIC performa and send to EIC on quarterly basis.

15.0 Collection and transportation of samples

Approximately 500 gms of samples (whole prawns / fish) are taken from farm / establishment so as to get 250 gms of meat for analysis in duplicate. Samples from hatchery, 25 to 30 gm of juveniles (excluding water) are collected from the larval and post-larval rearing tanks in polythene bags, sealed and transported in thermocole box packed with dried/ wet ice. In case of feed, 500 gms of feed samples are taken 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 and packed in thermocole 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.

Feed samples are taken in polythene bags. 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–V***)

16.0 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).

17.0 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 and EIA.
b) On receipt of such information EIA & MPEDA shall undertake the joint inspection of the facility to trace the origin / source of contamination.
c) The EIA & MPEDA 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.
d) 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.
e) Based on the reply received from the facility, the EIA shall take the action as deemed fit.
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.
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.

18.0 MRL/MRPL/MLs for Group A and Group B Substances of Veterinary Drugs and Environmental Contaminants

18.1 MRL/MRPL/MLs for Group A Substances

Substance group	*Substances*	*Substance monitored*	*MRL/MRPL/ML*
Group: A (1)	Stilbenes and its derivatives	Diethyl Stilbestrol	Nil MRPL: 1 µg/kg
A (3)	Steroids	Progesterone	Nil MRPL: 1 µg/kg
		17-β Estradiol	Nil MRPL: 1 µg/kg
A (6)	Compounds included in Council Regulation No.37/2010 & Commission Decision 2003/181.	(i) Chloramphenicol	Nil MRPL: 0.3 µg/kg
		(ii) Nitrofuran Metabolites (AOZ, AMOZ, SEM & AHD)	Nil MRPL: 1.0 µg/kg
		(iii) Nitrofurans (parent compounds, in case of feed samples)	Nil #
		(iv) Nitroimidazoles (Metronidazole, Dimetridazole, Ipronidazole & Ronidazole and their hydroxyl compounds)	Nil MRPL: 3.0 µg/kg

18.2 **MRL/MRPL/MLs for Group B substances of Veterinary Drugs and Environmental Contaminants.**

Substance group	*Substances*	*Substance monitored*	*MRL/MRPL/ ML*
Group: B	**Veterinary Drugs and Contaminants**		
B -1	**Antibacterial substances**		
	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
		Norfloxacin	working MRL *
		Nalidixic acid	working MRL *
	2. Tetracyclines	Tetracycline & its 4-epimer	100 µg/kg (sum of any or all parent drug(s) and its 4- epimer(s)
		Oxytetracyline & its 4-epimer	
		Chlortetracycline & its 4-epimer	
	3. Sulfonamides	Sulfadiazine, Sulfamethoxazole, Sulfamethoxypyridine, Sulfamethzole, Sulfamethazine, Sulfamerazine, Sulfapyridine, Sulfadimethxine, sulfachloropyradizine, Sulfathiazole-freeacid.	100 µg/kg (MRL - sum of all substances)
B-2(a)	Anthelmintics	Ivermectin / Emamectin	100 µg/kg
Environmental Contaminants			
B-3(a)	(i) Organochlorine compounds	α BHC	200 µg/kg
		β BHC	100 µg/kg
		γ BHC	200 µg/kg
		Aldrin	200 µg/kg
		DDT	1000 µg/kg
		Dieldrin	200 µg/kg
		Endrin	50 µg/kg
		Heptachlor	200 µg/kg
		HCB	200 µg/kg
		Chlordane	50 µg/kg

B-3(a)	(ii) Non- Dioxin like PCBs	Non- Dioxin like PCBs (6 compounds)	75 µg/kg (wet weight)
	(iii) Dioxins/Furans and dioxin like PCBs	Dioxins / Furans (17 compounds) & dioxin like PCBs (12 compounds)	3.5 pg/g wet weight (sum of all Dioxins/Furans) and 6.5 pg/g wet weight (sum of all Dioxins/Furans & dioxin like PCBs)
B-3(c)	Chemical Elements	Mercury	500 µg/kg
		Cadmium (in Crustaceans)	500 µg/kg
		Arsenic	1000 µg/kg
		Lead (in Crustaceans)	500 µg/kg

Other Substances

B-3(d)	Mycotoxins	Aflatoxin B1& B2	Nil **
B-3(e)	Dyes	Malachite green & Leuco-malachite green	Nil (MRPL: 2 µg/kg)
		Crystal Violet & Leuco-crystal Violet	Nil #

** LOD is determined as working MRL.*

*** Since there is no MRL (fixed by EU) for Mycotoxin in aquaculture products, 2 µg/kg (ppb) is considered as the working MRL for Aflatoxins B1 and B2 individually and as 4 ppb for B1 and B2 total.*

 # Working MRPL is determined by each Lab.

19.0 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.

19.1 Group A – substances having anabolic effect and unauthorized substances

Group as per Directive	*Residue*	*Technique*	*Equipment (Example)*
Group A.1	Stilbenes, Stilbene derivatives and their salts and esters	Liquid Chromatography-Tandem Mass Spectrometry	LC-MSMS
Group A.3	Steroids	Liquid Chromatography-Tandem Mass Spectrometry	LC-MSMS

	Group A.6	Chloramphenicol, Nitrofuran Metabolites and Nitroimidazoles	Liquid Chromatography-Tandem Mass Spectrometry	LC-MSMS

19.2 Group B -Antibacterial substances, Pesticides and Chemical elements.

Group as per Directive	*Residue*	*Technique*	*Equipment (Example)*
Group B.1	Tetracyclines, Quinolones and Sulphonamides	Liquid Chromatography / Liquid Chromatography-Tandem Mass Spectrometry	HPLC (with PDA/Fluro. Detector) / LC-MSMS
Group B.2(a)	Anthelmintics (Ivermectin / Emamectin)	Liquid Chromatography / Liquid Chromatography-Tandem Mass Spectrometry	HPLC / LC-MSMS
Group B.3(a)	i. Organo-chlorine Pesticides	Gas Chromatography	GC-ECD/ GC-MS / GC-MSMS
	ii. PCBs (non-dioxin like)	Gas Chromatography / Gas Chromatography-Mass Spectrometry / Tandem Mass Spectrometry	GC-ECD / GC-MS / GC-MSMS
	iii. Dioxins/Furans & dioxin like PCBs	Gas Chromatography-High Resolution Mass Spectrometry/ Gas Chromatography-Tandem Mass Spectrometry	GC-HRMS / GC-MSMS
Group B.3(c)	Chemical Elements	Atomic Absorption Spectrometry / Inductively coupled Plasma-Optical Emission Spectrometry/ Mass Spectrometry	AAS / ICP-OES / ICP-MS
Group B.3(d)	Mycotoxin / Aflatoxin	Liquid Chromatography	HPLC with Fluorescent Detector.
Group B.3(e)	Dyes	Liquid Chromatography-Tandem Mass Spectrometry	LC-MSMS

20.0 Non-compliant (residue positive) samples of NRCP 2014 :

20.1 Shrimp, Scampi & Fin-fishes:

Under NRCP 2014, against the target/plan of 3328 samples (shrimp, scampi and fin-fishes), a total of 3377 samples were analysed.

The number of non-compliant (residue positive) samples detected was 181 for different substances under group-A and group-B substances. Total number of non-compliant samples under Group-A6 was 176 due to residues of NF & CAP (shrimp: 174 + scampi: 1 + fin-fish: 1) and in case of Group B samples, 5 samples were non-compliant for Group B3c Chemical Elements (Arsenic).

20.2	**Feed & Hatchery Samples:**
	In case of hatchery seed and feed samples, against the target/plan of 24 feed and 188 hatchery samples, 23 feed and 134 hatchery samples were analysed. The number of non-compliant samples were, feed: nil and hatchery: 59 (Gr. A6 (CAP/NF).
	Details of the non- compliant samples are given at Annexure- 4A,4B & 4C
	Dr. S. K. Saxena Director, (Insp. & Quality Control) Export Inspection Council of India 12th March 2015

Note	INSTRUCTIONS	Annex-1
1	The competent authority is requested to fill in each sheet (for the relevant commodity). 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 should be entered in those cells shaded light yellow thus: →	
2	Basis of the calculation: The tables are set up to calculate the required sample numbers on the basis of Directive 96/23/EC and Commission Decision 97/747/EC. Data in cells shaded light blue are automatically calculated when the **production data cell (Cell C8)** is completed (**see note 4 below**). In the case of **milk, eggs, farmed game** and **wild game**, the minimum numbers of samples to be taken have already been entered in the blue cells and are independent of the production volumes.	
3	In order to ensure that all samples are tested and to facilitate the allocation of the balance of samples between groups (as is required for several commodities), explanations are given at the foot of each individual Excel worksheet.	
4	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 PRODUCTION DATA SHOULD BE ENTERED IN CELL C8]. 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 system**), it is permissible that the proportion of animals sampled is relative to that defined population. [IN THIS CASE THE EU EXPORT DATA ONLY SHOULD BE ENTERED IN CELL C8].	
5	With regard to the **selection of residues to be analysed**, guidance is given on this web page and is summarised in Table 2 below. The European Community considers that certain substances are 'essential' for monitoring. **These are indicated in the table as 'E' and must be monitored for.** Other substances are designated as 'highly desirable – HD' and the Community expects that these substances will be included in all residue monitoring plans of third countries. However, deviations concerning HD substances may be acceptable. In this case arguments based on an analysis of the risk of residues remaining in food are to be submitted by the third country. These arguments should demonstrate that, for example, because of the production conditions in that third country it is not necessary to test for the substance. When selecting individual substances in the HD groups, third countries should consider what veterinary medicines or feed additives are authorised and used legally in the country in each of the production sectors and what contamination might occur e.g. via feed and water or directly through the environment. Consideration should also be given to the possibility of illegal or unauthorised use.	
6	The reduced number of substances to be looked for in **live equidae exported for direct slaughter** to the EU presupposes that there is no slaughter of horses in that third country, hence the substances chosen may be looked for in body fluids (i.e blood and urine) which can be sampled from live horses. It is stressed that if there *is* slaughter of horses in the third country and only live horses are exported for direct slaughter, *sampling should be based on the slaughtered animals* and take account of the wider range of substances that can be checked.	

Table 2 Substances or Group of substances [1] to be monitored for in the relevant commodity. E = 'essential' HD = 'highly desirable'

Animal species or food covered by the plan →			bovine	ovine/ caprine	swine	Equine [2]		poultry	aquaculture		milk	eggs	rabbit	wild game	farmed game	honey
						slaughtered	live equidae for direct slaughter		finfish	crustaceans						
Substances / groups of substances to be monitored																
A1	Stilbenes (e.g. diethylstilbestrol, hexestrol, dienestrol)		E	E	E	E		E	E				E		E	
A2	Thyrostats (e.g. thiouracil, tapazol etc)		E	E	E	E										
A3	Steroids [androgens, estrogens and (pro)gestagens] [3]		E	E	E	E	E	E	E				E		E	
A4	Resorcylic acid lactones (e.g. zeranol)		E	E	E	E		E					E		E	
A5	Beta agonists (e.g. clenbuterol, ractopamine, zilpaterol, mabuterol etc)		E	E	E	E	E	E					E		E	
A6	Compounds included in Annex IV to Council Regulation (EEC) No 2377/90	Chloramphenicol	E	E	E	E	E	E	E	E	E	E	E		E	E
		Nitrofurans [4]			E			E	E	E		E	E		HD	E
		Nitroimidazoles [5]			E	E	E	E	HD	HD		HD	E		HD	
B1	Antibacterial substances [6]		E	E	E	E		E	E	E	E	E	E		E	E [8]
B2a	Anthelmintics		HD	HD	HD	HD		HD	HD	HD	HD		HD		HD	
B2b	Anticoccidials		HD	HD	HD	HD		E				HD	E		HD	
B2c	Carbamates and pyrethroids		HD	HD	HD	HD		HD					HD		HD	HD
B2d	Sedatives		HD	HD	HD	HD										
B2e	Non steroidal anti-inflammatory drugs (NSAIDs) (e.g. phenylbutazone)		HD	HD	HD	E	E	HD			HD		HD		HD	
B2f	Other pharmacologically active substances	Carbadox, olaquindox			E [9]											
B3a	Organochlorine compounds including PCBs		HD	HD	HD	HD		HD	HD	HD	HD	HD	HD		HD	HD
B3b	Organophosphorus compounds		HD	HD	HD	HD					HD					HD
B3c	Chemical elements		HD	HD	HD	HD		HD	HD	HD	HD		HD	E	HD	HD
B3d	Mycotoxins		HD	HD	HD	HD		HD	HD	HD	HD					
B3e	Dyes (in particular malachite green and its major metabolite leucomalachite green)								E	E						

(1) Groups defined in Annex I of Directive 96/23/EC. Monitoring of E (essential) substances or group of substances is mandatory. Monitoring of HD (highly desirable) groups is mandatory in the Member States. Ideally a third country should also monitor these groups however, if they are not monitored, evidence must be provided justifying this decision. A full list of substances is included on the DG SANCO third country residues web page.

(3) Typical steroids to be monitored for include testosterone, methyl testosterone, trenbolone, nortestosterone, boldenone, stanozolol, estradiol, ethinyl estradiol, progesterone, medroxyprogesterone acetate, megestrol acetate, flugestone etc

(4) The stable metabolites/marker residues of the four main nitrofuran drugs (furazolidone, furaltadone, nitrofurazone and nitrofurantoin) should be analysed. The metabolites are: Furazolidone: amino-oxazolidinone (AOZ); Furaltadone: 3-amino-5-morpholinomethyl-2-oxazolidinone (AMOZ); Nitrofurazone: semicarbazide (SEM) and nitrofurantoin: aminohydantoin (AHD).

(5) The nitroimidazoles include dimetridazole, ronidazole, metronidazole, ipronidazole etc

(6) Antibacterial substances should be chosen on the basis of what is authorised and used in the relevant livestock production sector. Examples include beta-lactams, tetracyclines, sulphonamides, fluoroquinolones, aminoglycosides, macrolides etc.

(7) The reduced number of substances to be looked for in live equidae exported for direct slaughter to the EU presupposes that there is no slaughter of horses in that third country, hence the substances chosen may be looked for in body fluids (i.e. blood and urine) which can be sampled from live horses. It is stressed that if there is slaughter of horses in the third country and only live horses are exported for direct slaughter, sampling should be based on the slaughtered animals and take account of the wider range of substances that can be checked.

(8) Honey should be tested for antibacterial substances including sulphonamides, tetracyclines, tylosin and streptomycin.

(9) If carbadox or olaquindox are authorised in swine production, residue testing of tissues and/or feedingstuffs should be carried out.

REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD *Anexure I A*

COUNTRY	India		DATE	2014 December 31
YEAR OF PLAN IMPLEMENTATION	2015			
ANIMAL SPECIES / PRODUCT	AQUACULTURE CRUSTACEANS			
National PRODUCTION DATA - in TONNES (referring to the previous year)	Table no.... In NRCP Doc.		EU EXPORT DATA in TONNES (referring to the previous year)	
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)	327305		See instruction sheet, note 4. If a split system is in place for exports to the EU, actual export data may be entered in this cell. If there is no split system, and FARMED SHRIMP from ALL FARMS are eligible for export to the EU, national production data must be entered in this cell. For a more detailed description of the options see hyperlink-->	Sampling levels and frequencies
NUMBER OF SAMPLES †	ACCORDING TO EU REQUIREMENTS	ACCORDING TO CODEX ALIMENTARIUS	OTHER	
MINIMUM	3273			
PLAN	4020			

GROUP OF SUBSTANCES TO BE MONITORED		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
A6	Chloramphenicol + Nitrofurans+ Nitroimidazoles	1080	1342								
	CHLORAMPHENICOL										
	NITROFURANS										
	Nitrofurantoin metabolite										
	Furaltadone metabolite										
	Furazolidone metabolite										
	Nitrofurazone metabolite										
	NITROIMIDAZOLES										

GROUP OF SUBSTANCES TO BE MONITORED		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
B1	ANTIBACTERIAL SUBSTANCES	1096	1339								
B2a	ANTHELMINTICS	439	514								
B2f	Other pharmacologically active subs										

GROUP OF SUBSTANCES TO BE MONITORED		NUMBER OF SAMPLES		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
		MIN	PLAN								
Sum of B3a + B3c + B3d + B3e		658	825								
B3a	ORGANOCHLORINE COMPOUNDS INCLUDING PCBS		300								
B3c	CHEMICAL ELEMENTS		300								
B3d	MYCOTOXINS		111								
B3e	DYES e.g. Malachite Green (+ leucomalachite green), crystal violet etc		114								

For official use
44.12

COUNTRY	India
YEAR OF PLAN IMPLEMENTATION	2015
ANIMAL SPECIES / PRODUCT	AQUACULTURE FIN FISH
National PRODUCTION DATA - in TONNES (referring to the previous year)	Annexe I (B)
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)	4412

DATE	31-Dec-14
EU EXPORT DATA in TONNES (referring to the previous year)	EU: 322 MT Total: 3302 MT

See instruction sheet, note 4. If a split system is in place for exports to the EU, actual export data may be entered in this cell. 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 this cell. For a more detailed description of the options see hyperlink ------>

Sampling levels and frequencies

NUMBER OF SAMPLES †	ACCORDING TO EU REQUIREMENTS	ACCORDING TO CODEX ALIMENTARIUS	OTHER
MINIMUM #	44		
PLAN	45		

	GROUP OF SUBSTANCES TO BE MONITORED	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
A1	STILBENES	5	5								
A3	STEROIDS (WITH ANDROGENIC, ESTROGENIC OR PROGESTAGENIC ACTIVITY)	5	5								
A6	Chloramphenicol + Nitrofurans+ Nitroimidazoles	5	5								
	CHLORAMPHENICOL										
	NITROFURANS										
	Nitrofurantoin metabolite										
	Furaltadone metabolite										
	Furazolidone metabolite										
	Nitrofurazone metabolite										
	NITROIMIDAZOLES										
B1	ANTIBACTERIAL SUBSTANCES	15	15								

B2a	ANTHELMINTICS	6	6								
B2f	Other pharmacologically active subs										
GROUP OF SUBSTANCES TO BE MONITORED		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
Sum of B3a + B3c + B3d + B3e		9	9								
B3a	ORGANOCHLORINE COMPOUNDS INCLUDING PCBS		3								
B3c	CHEMICAL ELEMENTS		3								
B3d	MYCOTOXINS		1								
B3e	DYES e.g. Malachite Green (+ leucomalachite green), crystal violet etc		2								

† A sample is one or more fish. The minimum number of samples to be collected each year must be at least 1 per 100 tonnes of annual production.
The following breakdown must be respected: ***Group A: one third of the total samples.***
All of these samples must be taken at farm level, on fish at all stages of farming , including fish which is ready to be placed on the market for consumption.
Group B: two thirds of the total samples.
This sampling should be carried out: (a) preferably at the farm, on fish ready to be placed on the market for consumption;
(b) either at the processing plant, or at wholesale level, on fresh fish, on condition that tracing-back to the farm of origin, in the event of positive results, can be done.
In order to facilitate this breakdown and ensure that the correct number of samples are tested, the spreadsheet has made the following calculations distributing samples between each of the (sub) groups in the following way:
- Of the samples to be tested for in Groups A1, A3 and A6, one third of the total Group A samples are allocated to each of the three subgroups.
- Of the samples to be tested for Group B, 50% of these have been allocated to Group B1, 20% to Group B2 and 30% to Group B3. It is essential that dyes are tested for.
 # For very small production volumes (e.g. < 500 tonnes) where the spreadsheet would calculate < 1 sample per substance group, a minimum of one sample per compound group has been assigned.

NRCP 2015 - Lab wise Allocation of Samples

Annex: 2A-1

1. QC Lab Bhimavaram

Item / species	Parameter	Number of Samples			
		SRC Bhimavaram to Lab Bhimava-ram	RC Vijayawada to Lab Bhimavaram	SRO Bhimavaram to Lab Bhimav-aram	Total (parametr wise)
CULTURED SHRIMP	CAP + NF + Nitro-Imidazoles	411	52	0	463
	Antibacterial B	209	24	216	449
	Anthelmintics	79	9	85	173
	Pesticides	45	6	50	101
	Chemical Elements	45	6	50	101
	Mycotoxins	18	2	18	38
	Dyes	19	2	18	39
	Sub Total	826	101	437	1364
SCAMPI	CAP + NF + Nittr-oimidazoles	0	0	0	0
	Antibacterial B	0	0	0	0
	Anthelmintics	0	0	0	0
	Pesticides	0	0	0	0
	Chemical Elements	0	0	0	0
	Mycotoxins	0	0	0	0
	Dyes	0	0	0	0
	Sub Total	0	0	0	0
FISH	CAP + NF + Nittr-oimidazoles	2	1	0	3
	Stilbens	1	1	0	2
	Steroids	1	1	0	2
	Antibacterial B	3	1	0	4
	Anthelmintics	2	0	0	2
	Pesticides	1	0	0	1
	Chemical Elements	0	0	0	0
	Mycotoxins	0	0	0	0
	Dyes	1	0	0	1
	Sub Total	11	4	0	15
	Total	837	105	437	1379
Shrimp Feed	Chloramhenicol + Nitrofurans	12	4	0	16
Hatchery sample	Chloramhenicol + Nitrofurans	73	8	0	81
				GRAND TOTAL	1476

926

2. QC Lab, Nellore

Item / species	Parameter	No. of Samples		
		RC Vijaya-wada to Lab Nellore	RO Vizag Lab to Nellore	Total (parametr wise)
CULTURED SHRIMP	CAP + NF + Nitro-imidazoles	475	0	475
	Antibacterial B	243	197	440
	Anthelmintics	92	80	172
	Pesticides	52	47	99
	Chemical Elements	53	47	100
	Mycotoxins	20	15	35
	Dyes	21	15	36
	Sub Total	956	401	1357
SCAMPI	CAP + NF + Nittr-oimidazoles	0	0	0
	Antibacterial B	0	0	0
	Anthelmintics	0	0	0
	Pesticides	0	0	0
	Chemical Elements	0	0	0
	Mycotoxins	0	0	0
	Dyes	0	0	0
	Sub Total	0	0	0
FISH	CAP + NF + Nittroimidazoles	2	0	2
	Stilbens	3	0	3
	Steroids	3	0	3
	Antibacterial B	3	1	4
	Anthelmintics	2	0	2
	Pesticides	1	0	1
	Chemical Elements	2	0	2
	Mycotoxins	1	0	1
	Dyes	0	0	0
	Sub Total	17	1	18
	Total	973	402	1375
Shrimp Feed	Chloramhenicol + Nitrofurans	12	0	12
Hatchery sample	Chloramhenicol + Nitrofurans	69	0	69
			GRAND TOTAL	1456

NRCP 2015 - Lab wise Allocation of Samples: 3. QC Lab Kochi

Item / species	Parameter	RO Veraval & SRO Porbandar	RC Valsad to Lab Kochi	RC Panvel	RO Mumbai	SRO Goa	SRC Karwar	SRO Mangalore	SRC Kannur	RC Kochi	RO Kochi	SRO Kollam	RC Nagapattinam	SRO Tuticorin	RO Chennai	RC Bhubaneswar & SRC Balasore	SRO Bhubaneswar	SRC Kolkata	RO Kolkata	Total (Parameter wise)
		Number of Samples																		
CULTURED SHRIMP	CAP + NF + Nitro-imidazoles	0	32	12	0	0	10	0	15	36	0	0	56	0	0	134	0	95	0	390
	Antibacterial B	24	16	6	60	1	5	1	6	19	38	5	28	21	10	68	61	48	22	439
	Anthelmintics	10	6	2	24	0	2	0	2	7	15	2	9	8	4	24	24	18	8	165
	Pesticides	6	3	1	13	1	1	0	2	4	9	1	6	5	2	15	14	10	5	98
	Chemical Elements	6	3	1	13	0	1	0	1	4	9	1	6	5	2	15	14	10	6	97
	Mycotoxins	2	1	1	5	0	1	0	1	1	3	1	2	2	1	6	4	4	2	37
	Dyes	2	1	1	5	1	0	0	0	1	3	0	2	2	1	6	5	5	2	37
	Sub Total	*50*	*62*	*24*	*120*	*3*	*20*	*1*	*27*	*72*	*77*	*10*	*109*	*43*	*20*	*268*	*122*	*190*	*45*	*1263*
SCAMPI	CAP + NF + Nitro-imidazoles	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	10		14
	Antibacterial B	0	0	1						1	1	0	0	0	0	1	1	4	2	11
	Anthelmintics	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		1	1	4
	Pesticides	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Chemical Elements	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Mycotoxins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		1
	Dyes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Sub Total	0	0	*1*	0	0	0	0	0	*2*	*1*	0	*1*	0	0	*5*	*1*	*19*	*6*	*36*
FISH	CAP + NF + Nitro-imidazoles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stilbens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Steroids	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Antibacterial B	0	1	0	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	7
	Anthelmintics	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
	Pesticides	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Chemical Elements	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Mycotoxins	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dyes	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Sub Total	*0*	*1*	*0*	*7*	0	0	0	0	1	*3*	0	0	0	0	0	0	0	0	*12*
	TOTAL	**50**	**63**	**25**	**127**	**3**	**20**	**1**	**27**	**75**	**81**	**10**	**110**	**43**	**20**	**273**	**123**	**209**	**51**	**1311**
Feed	CAP + NF	0	2	0	0	0	0	0	0	2	0	0	4	0	0	4	0	4	0	16
Hatchery sample	CAP + NF	0	3	0	0	0	3	0	2	14	0	0	20	0	0	5	0	0	0	47
																			GRAND TOTAL	1374

NRCP for Aquaculture Proucts-2015

NRCP 2015 - FIELD OFFICE WISE SAMPLE ALLOCATIONS

	Parameter	SRC Bhimavaram to Lab Bhimava-ram	RC Vijayawada to Lab Bhimavaram	SRO Bhimavaram to Lab Bhimav-aram	RC Vijaya-wada to Lab Nellore	RO Vizag Lab to Nellore	RO Veraval & SRO Porbandar	RC Valsad to Lab Kochi	RC Panvel	RO Mumbai	SRO Goa	SRC Karwar	SRO Mangalore	SRC Kannur	RC Kochi	RO Kochi	SRO Kollam	RC Nagapattinam	SRO Tuticorin	RO Chennai	RC Bhubaneswar & SRC Balasore	SRO Bhubaneswar	SRC Kolkata	RO Kolkata	Total	Grand Total
CULTURED SHRIMP	CAP + NF + Nitro	411	52	0	475	0	0	32	12	0	0	10	0	15	36	0	0	56	0	0	134	0	95	0	*1328*	*3984*
	Antibacterial	209	24	216	243	197	24	16	6	60	1	5	1	6	19	38	5	28	21	10	68	61	48	22	*1328*	
	Anthelmintic	79	9	85	92	80	10	6	2	24	0	2	0	2	7	15	2	9	8	4	24	24	18	8	*510*	
	Pesticides	45	6	50	52	47	6	3	1	13	1	1	0	2	4	9	1	6	5	2	15	14	10	5	*298*	
	Chemical Ele	45	6	50	53	47	6	3	1	13	0	1	0	1	4	9	1	6	5	2	15	14	10	6	*298*	
	Mycotoxins	18	2	18	20	15	2	1	1	5	0	1	0	1	1	3	1	2	2	1	6	4	4	2	*110*	
	Dyes	19	2	18	21	15	2	1	1	5	1	0	0	0	1	3	0	2	2	1	6	5	5	2	*112*	
	Sub Total	*826*	*101*	*437*	*956*	*401*	*50*	*62*	*24*	*120*	*3*	*20*	*1*	*27*	*72*	*77*	*10*	*109*	*43*	*20*	*268*	*122*	*190*	*45*	*3984*	
SCAMPI	CAP + NF + Nitro	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	10		*14*	*36*
	Anti B	0	0	0	0	0	0	0	1						1	1	0	0	0	0	1	1	4	2	*11*	
	Anthel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		1	1	*4*	
	Pestici	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	*2*	
	Ch. Elm.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	*2*	
	Mycoto	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		*1*	
	Dyes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	*2*	
	Sub Total	0	0	0	0	0	0	0	*1*	0	0	0	0	0	*2*	*1*	0	*1*	0	0	*5*	*1*	*19*	*6*	*36*	
FISH	CAP + NF + Nitro	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*5*	*45*
	Stilbens	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*5*	
	Steroids	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*5*	
	Antibacteri	3	1	0	3	1	0	1	0	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	*15*	
	Anthelmint	2	0	0	2	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	*6*	
	Pesticides	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*3*	
	Ch. Elem	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*3*	
	Mycoto	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*1*	
	Dyes	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*2*	
	Sub Total	*11*	*4*	*0*	*17*	*1*	*0*	*1*	*0*	*7*	0	0	0	0	1	*3*	0	0	0	0	0	0	0	0	*45*	
	TOTAL	837	105	437	973	402	50	63	25	127	3	20	1	27	75	81	10	110	43	20	273	123	209	51	4065	

NRCP for Aquaculture Proucts-2015

NRCP 2015 - FEED and HATCHERY SAMPLES - Allocation to Field Offices

Item	Parameter	SRC Bhimavaram to Lab Bhimava-ram	RC Vijayawada to Lab Bhimavaram	SRO Bhimavaram to Lab Bhimav-aram	RC Vijaya-wada to Lab Nellore	RO Vizag Lab to Nellore	RO Veraval & SRO Porbandar	RC Valsad to Lab Kochi	RC Panvel	RO Mumbai	SRO Goa	SRC Karwar	SRO Mangalore	SRC Kannur	RC Kochi	RO Kochi	SRO Kollam	RC Nagapattinam	SRO Tuticorin	RO Chennai	RC Bhubaneswar & SRC Balasore	SRO Bhubaneswar	SRC Kolkata	RO Kolkata	Total
Feed	CAP + NF	12	4	0	12	0	0	2	0	0	0	0	0	0	2	0	0	4	0	0	4	0	4	0	**44**
Hatchery samples	CAP + NF	73	8	0	69	0	0	3	0	0	0	3	0	2	14	0	0	20	0	0	5	0	0	0	**197**

NRCP for Aquaculture Proucts-2015

NRCP 2015 - 5% Samples for joint collection and analysis by MPEDA & EIC

	Parameter	SRC Bhimavaram to Lab Bhimava-ram	RC Vijayawada to Lab Bhimavaram	SRO Bhimavaram to Lab Bhimav-aram	RC Vijaya-wada to Lab Nellore	RO Vizag to Lab Nellore	RO Veraval & SRO Porbandar	RC Valsad to Lab Kochi	RC Panvel	RO Mumbai	SRO Goa	SRC Karwar	SRO Mangalore	SRC Kannur	RC Kochi	RO Kochi	SRO Kollam	RC Nagapattinam	SRO Tuticorin	RO Chennai	RC Bhubaneswar & SRC Balasore	SRO Bhubaneswar	SRC Kolkata	RO Kolkata	Sub Total	Total
CULTURED SHRIMP	CAP + NF + Nitro-imidazoles	20	2	0	24	0	0	1	1	0	0	1	0	1	1	0	0	2	0	0	7	0	5	0	*65*	200
	Antibacteri	10	1	9	11	9	1	1	0	2	1	0	0	0	1	2	0	2	1	1	3	3	2	1	*61*	
	Anthelmint	4	1	4	4	3	0	1	0	2	0	0	0	0	1	0	0	1	1	0	2	1	1	1	*27*	
	Pesticides	2	1	3	3	2	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	1	1	0	*17*	
	Chemical E	2	0	3	3	2	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	1	1	*17*	
	Mycotoxins	1	0	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*6*	
	Dyes	1	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*7*	
SCAMPI	CAP + NF + Nitr-oimidazol																									0
	Antibacterial B																									
	Antheimintics																									
	Pesticides																									
	Chemical Elements																									
	Mycotoxins																									
	Dyes																									
FISH	CAP + NF + Nitr-oimidazoles				1																				*1*	1
	Stilbens																									
	Steroids																									
	Antibacterial B																									
	Antheimintics																									
	Pesticides																									
	Chemical Elements																									
	Mycotoxins																									
	Dyes																									
	TOTAL	**40**	**5**	**23**	**49**	**20**	**2**	**3**	**1**	**6**	**1**	**1**	**0**	**1**	**4**	**4**	**0**	**5**	**2**	**1**	**14**	**6**	**10**	**3**	**201**	

FEED	NF+ CAP	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*		**2**

Hatchery	NF+ CAP	*4*	*1*	*0*	*3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*		***10***

NRCP for Aquaculture Products - 2015

NRCP - 2014 - Non-Compliant Samples - Summary

Item/ Species	Substance	No.of Samples			Residue substance (s)
		Target	Analysed	Non-compliant	
Shrimp	Group A6	1086	1109	174	CAP/NF
	Group B1	1086	1096	0	
	Group B2a Anth	433	431	0	
	Group B3a OCP & NDL-PCBs	229	237	0	
	Group B3c CE	224	231	5	Arsenic
	Group B3d Myco	79	85	0	
	Group B3e Dyes	119	126	0	
Scampi	Group A6	11	6	1	NF
	Group B1	11	9	0	
	Group B2a Anth	4	3	0	
	Group B3a OCP & NDL-PCBs	3	1	0	
	Group B3c CE	2	1	0	
	Group B3d Myco	1	0	0	
	Group B3e Dyes	1	1	0	
Fish	Group A6	6	6	1	CAP
	Group B1	17	17	0	
	Group B2a Anth	6	8	0	
	Group B3a OCP & NDL-PCBs	3	3	0	
	Group B3c CE	2	2	0	
	Group B3d Myco	2	2	0	
	Group B3e Dyes	3	3	0	
Sub Total		**3328**	**3377**	**181**	
Feed	Group A6	24	23	0	
Hatchery Seed	Group A6	188	134	59	CAP/NF
Total		**3540**	**3534**	**240**	

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2014
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS & FINFISH

DATE	12.01.2015

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	Diethylstilbesterol (screening test)	Shrimp	0	0	RL: 1.0	NA
		Scampi	0	0		NA
		Fish	6	6		NIL
A3. SYNTHETIC STEROIDS (WITH ANDROGENIC, GESTAGENIC OR ESTROGENIC ACTIVITY)	Progesterone (screening test)	Shrimp	0	0	RL: 1.0	NA
		Scampi	0	0		NA
		Fish	6	6		NIL
	Oestradiol (screening test)	Shrimp	0	0	RL: 1.0	NA
		Scampi	0	0		NA
		Fish	6	6		NIL
A6. CHLORAMPHENICOL	Chloramphenicol	Shrimp	1086	1109	CCα: 0.06(Kochi) 0.09 (Nellore) 0.051(Bhimavaram)	169
		Scampi	11	6		0
		Fish	6	6		1
A6. NITROFURANS						
Nitrofurantoin metabolite	AHD	Shrimp	1086	1109	CCα: 0.240 (Kochi) 0.64 (Nellore) 0.304(Bhimavaram)	0
		Scampi	11	6		0
		Fish	6	6		0
Furaltadone metabolite	AMOZ	Shrimp	1086	1109	CCα: 0.186 (Kochi) 0.60 (Nellore) 0.321(Bhimavaram)	0
		Scampi	11	6		0
		Fish	6	6		0
Furazolidone metabolite	AOZ	Shrimp	1086	1109	CCα: 0.333 (Kochi) 0.62 (Nellore) 0.311(Bhimavaram)	6
		Scampi	11	6		1
		Fish	6	6		0
Nitrofurazone metabolite	SEM	Shrimp	1086	1109	CCα: 0.443 (Kochi) 0.66 (Nellore) 0.337(Bhimavaram)	0
		Scampi	11	6		0
		Fish	6	6		0

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD Pages: 29 of 43

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2014
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS & FINFISH

DATE	12.01.2015

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		
A6. OTHERS						
NITROIMIDAZOLES	Ronidazole	Shrimp	1086	1106	CCα: 0.39(Kochi) 0.41(Nellore)	NIL
		Scampi	11	6		
		Fish	6	6		
	Metronidazole	Shrimp	1086	1106	CCα: 0.59(Kochi) 0.33(Nellore)	NIL
		Scampi	11	6		
		Fish	6	6		
	Dimetronidazole	Shrimp	1086	1106	CCα: 0.39(Kochi) 0.27(Nellore)	NIL
		Scampi	11	6		
		Fish	6	6		
	Ipronidazole-OH	Shrimp	1086	1106	CCα:0.56(Kochi) 0.24(Nellore)	NIL
		Scampi	11	6		
		Fish	6	6		
	HMMNI	Shrimp	1086	1106	CCα: 0.42(Kochi) 0.42(Nellore)	NIL
		Scampi	11	6		
		Fish	6	6		
B1. ANTIBACTERIAL SUBSTANCES						
Screening test	NIL	-	-	-	-	NA
Confirmatory test	Tetracycline	Shrimp	1086	1096	CCα: 104.1 (Kochi) 105.90 (Nellore) 110.45(Bhimavaram)	NIL
		Scampi	11	9		
		Fish	17	17		
	4-Epi Tetracycline	Shrimp	1086	1096	CCα: 103.6 (Kochi) 106.07 (Nellore) 110.48(Bhimavaram)	NIL
		Scampi	11	9		
		Fish	17	17		
	Oxytetracycline	Shrimp	1086	1096	CCα: 102.8 (Kochi) 105.74 (Nellore) 110.82(Bhimavaram)	NIL
		Scampi	11	9		
		Fish	17	17		
	4-Epi Oxytetracycline	Shrimp	1086	1096	CCα: 103.2 (Kochi) 106.89 (Nellore) 112.99(Bhimavaram)	NIL
		Scampi	11	9		
		Fish	17	17		

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2014
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS & FINFISH

DATE	12.01.2015

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		
Confirmatory test	Chlortetracycline	Shrimp	1086	1096	CCα: 102.6 (Kochi) 106.56 (Nellore) 108.23(Bhimavaram)	NIL
		Scampi	11	9		
		Fish	17	17		
	4-Epi Chlortetracycline	Shrimp	1086	1096	CCα: 103.1 (Kochi) 107.05 (Nellore) 112.15(Bhimavaram)	NIL
		Scampi	11	9		
		Fish	17	17		
	Sulphadiazine	Shrimp	1086	1096	CCα: 102.01 (Kochi) 103.65 (Nellore) 112.36(Bhimavaram)	NIL
		Scampi	11	9		
		Fish	17	17		
	Oxolinic Acid	Shrimp	1086	1096	CCα: 103.32 (Kochi) 104.205 (Nellore) 106.12(Bhimavaram)	NIL
		Scampi	11	9		
		Fish	17	17		
	Nalidixic Acid	Shrimp	1086	1096	CCα: 101.42 (Kochi) 105.18 (Nellore) 109.3(Bhimavaram)	NIL
		Scampi	11	9		
		Fish	17	17		
B2a. ANTHELMINTICS	Ivermectin	Shrimp	433	431	CCß: 80.0 (Kochi) 106.545 (Nellore) 57.02 (Bhimavaram)	NIL
		Scampi	4	3		
		Fish	6	8		

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2014
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS & FINFISH

DATE	12.01.2015

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		
B2f. OTHER PHARMACOLOGICALLY ACTIVE SUBSTANCES						
B3a. ORGANOCHLORINE COMPOUNDS INCLUDING PCBS	Aldrin	Shrimp	229	237	ML: 200	NIL
		Scampi	3	1		
		Fish	3	3		
	Dieldrin	Shrimp	229	237	ML: 200	NIL
		Scampi	3	1		
		Fish	3	3		
	Chloradane	Shrimp	229	237	ML: 50	NIL
		Scampi	3	1		
		Fish	3	3		
	DDT	Shrimp	229	237	ML: 1000	NIL
		Scampi	3	1		
		Fish	3	3		
	Endrin	Shrimp	229	237	ML: 50	NIL
		Scampi	3	1		
		Fish	3	3		
	Heptachlor	Shrimp	229	237	ML: 200	NIL
		Scampi	3	1		
		Fish	3	3		
	Hexachloro Benzene	Shrimp	229	237	ML: 200	NIL
		Scampi	3	1		
		Fish	3	3		
	Alpha HCH	Shrimp	229	237	ML: 200	NIL
		Scampi	3	1		
		Fish	3	3		
	Beta HCH	Shrimp	229	237	ML: 100	NIL
		Scampi	3	1		
		Fish	3	3		
	Gamma HCH	Shrimp	229	237	ML: 20	NIL
		Scampi	3	1		
		Fish	3	3		
	NDL-PCBs	Shrimp	229	237	ML: 75 Sum of 6 NDL-PCBs	NIL
		Scampi	3	1		
		Fish	3	3		

ANNEX - 4B

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2014
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS & FINFISH

DATE	12.01.2015

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		
B3c. CHEMICAL ELEMENTS	Mercury	Shrimp	224	231	ML:500	NIL
		Scampi	2	1		
		Fish	2	2		
	Cadmium	Shrimp	224	231	ML:500	NIL
		Scampi	2	1		
		Fish	2	2		
	Arsenic	Shrimp	224	231	ML:1000	5
		Scampi	2	1		NIL
		Fish	2	2		NIL
	Lead	Shrimp	224	231	ML:500	NIL
		Scampi	2	1		
		Fish	2	2		
B3d. MYCOTOXINS	Aflatoxin B1	Shrimp	79	85	LOQ: 0.5 (Kochi & Nellore) LOD:0.25 (Bhimavaram)	NIL
		Scampi	1	0		
		Fish	2	2		
	Aflatoxin B2	Shrimp	79	85	LOQ: 0.5 (Kochi & Nellore) LOD:0.25 (Bhimavaram)	NIL
		Scampi	1	0		
		Fish	2	2		
B3e. DYES	Malachite green	Shrimp	119	126	CCα: 0.33 (Kochi) 0.72 (Nellore) 0.5(Bhimavaram)	NIL
		Scampi	1	1		
		Fish	3	3		
	Leucomalachite green	Shrimp	119	126	CCα: 0.22(Kochi) 0.20 (Nellore) 0.42 (Bhimavaram)	NIL
		Scampi	1	1		
		Fish	3	3		

NRCP for Aquaculture Proucts-2015

NRCP 2014 - List of Non-Compliant (Residue Positive) Samples

I Quality Control Laboratory,KOCHI

	SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ State	Sample ID& Collection Date
			SHRIMP			
1	1	L.vannamei	Chloramphenicol	0.11	Maharashtra	14/S1/Q1/0015/2014
2	2	L.vannamei	Chloramphenicol	0.14	Maharashtra	14/S1/Q1/0041/2014
3	3	P.Monodoon	Nitrofuran Metabolite - AOZ	1.31	Kerala	15/S1/P1/0017/2014
4	4	L.vannamei	Nitrofuran Metabolite - AOZ	1.53	Tamilnadu	23/S1/Q1/0029/2014
5	5	P.Monodoon	Nitrofuran Metabolite - AOZ	9.26	West Bengal	26/S1/P1/0052/2014
6	6	P.Monodoon	Arsenic	1522.52	West Bengal	26/S1/P1/0097/2014
7	7	P.Monodoon	Arsenic	1643.14	West Bengal	26/S1/P1/0098/2014
8	8	P.Monodoon	Chloramphenicol	0.18	West Bengal	26/S1/P1/0114/2014
9	9	P.Monodoon	Arsenic	3690.55	West Bengal	09/S1/P1/0006/2014
10	10	P.Monodoon	Arsenic	8869.46	Chennai	12/S1/P1/0008/2014
11	11	L.vannamei	Arsenic	4565.77	Chennai	12/S1/Q1/0034/2014
			SCAMPI			
12	1	M rosenbergi	Nitrofuran Metabolite - AOZ	3.27	West Bengal	26/S2/P3/0042/2014

II Quality Control Laboratory, NELLORE

	SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ state	Sample ID& Collection Date
			SHRIMP			
13	1	L.Vannamei	Chloramphenicol	0.28	Andra Pradesh	16/S1/Q1/0019/2014
14	2	L.Vannamei	Chloramphenicol	0.27	Andra Pradesh	16/S1/Q1/0020/2014
15	3	L.Vannamei	Chloramphenicol	0.83	Andra Pradesh	16/S1/Q1/0149/2014
16	4	L.Vannamei	Chloramphenicol	1.68	Andra Pradesh	16/S1/Q1/0152/2014
17	5	L.Vannamei	Chloramphenicol	0.17	Andra Pradesh	16/S1/Q1/0221/2014
18	6	L.Vannamei	Chloramphenicol	1.17	Andra Pradesh	16/S1/Q1/0251/2014
19	7	L.Vannamei	Chloramphenicol	1.78	Andra Pradesh	16/S1/Q1/0252/2014
20	8	L.Vannamei	Chloramphenicol	0.62	Andra Pradesh	16/S1/Q1/0253/2014
21	9	L.Vannamei	Chloramphenicol	2.91	Andra Pradesh	16/S1/Q1/0254/2014
22	10	L.Vannamei	Chloramphenicol	1.49	Andra Pradesh	16/S1/Q1/0255/2014
23	11	L.Vannamei	Chloramphenicol	2.34	Andra Pradesh	16/S1/Q1/0256/2014
24	12	L.Vannamei	Chloramphenicol	1.31	Andra Pradesh	16/S1/Q1/0257/2014
25	13	L.Vannamei	Chloramphenicol	0.72	Andra Pradesh	16/S1/Q1/0258/2014
26	14	L.Vannamei	Chloramphenicol	1.14	Andra Pradesh	16/S1/Q1/0260/2014

III Quality Control Laboratory, BHIMAVARAM

	SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ State	Sample ID& Collection Date
	SHRIMP					
27	1	L.vannamei	Chloramphenicol	0.47	Andra Pradesh	16/S1/Q1/0240/2014
28	2	L.vannamei	Chloramphenicol	0.16	Andra Pradesh	16/S1/Q1/0243/2014
29	3	L.vannamei	Chloramphenicol	0.24	Andra Pradesh	16/S1/Q1/0331/2014
30	4	L.vannamei	Chloramphenicol	0.21	Andra Pradesh	16/S1/Q1/0334/2014
31	5	P.Monodoon	Chloramphenicol	3.17	Andra Pradesh	25/S1/P1/0238/2014
32	6	L.vannamei	Chloramphenicol	15.83	Andra Pradesh	25/S1/Q1/0001/2014
33	7	L.vannamei	Chloramphenicol	0.32	Andra Pradesh	25/S1/Q1/0015/2014
34	8	L.vannamei	Chloramphenicol	0.19	Andra Pradesh	25/S1/Q1/0022/2014
35	9	L.vannamei	Chloramphenicol	0.94	Andra Pradesh	25/S1/Q1/0026/2014
36	10	L.vannamei	Chloramphenicol	0.32	Andra Pradesh	25/S1/Q1/0037/2014
37	11	L.vannamei	Chloramphenicol	0.15	Andra Pradesh	25/S1/Q1/0047/2014
38	12	L.vannamei	Chloramphenicol	0.19	Andra Pradesh	25/S1/Q1/0048/2014
39	13	L.vannamei	Chloramphenicol	0.13	Andra Pradesh	25/S1/Q1/0053/2014
40	14	L.vannamei	Chloramphenicol	0.27	Andra Pradesh	25/S1/Q1/0062/2014
41	15	L.vannamei	Chloramphenicol	0.11	Andra Pradesh	25/S1/Q1/0065/2014
42	16	L.vannamei	Chloramphenicol	0.48	Andra Pradesh	25/S1/Q1/0068/2014
43	17	L.vannamei	Chloramphenicol	0.24	Andra Pradesh	25/S1/Q1/0071/2014
44	18	L.vannamei	Chloramphenicol	0.98	Andra Pradesh	25/S1/Q1/0073/2014
45	19	L.vannamei	Chloramphenicol	2.17	Andra Pradesh	25/S1/Q1/0076/2014
46	20	L.vannamei	Chloramphenicol	0.16	Andra Pradesh	25/S1/Q1/0078/2014
47	21	L.vannamei	Chloramphenicol	2.79	Andra Pradesh	25/S1/Q1/0079/2014
48	22	L.vannamei	Chloramphenicol	0.14	Andra Pradesh	25/S1/Q1/0088/2014
49	23	L.vannamei	Chloramphenicol	0.3	Andra Pradesh	25/S1/Q1/0092/2014
50	24	L.vannamei	Chloramphenicol	0.13	Andra Pradesh	25/S1/Q1/0095/2014
51	25	L.vannamei	Chloramphenicol	1.98	Andra Pradesh	25/S1/Q1/0096/2014
52	26	L.vannamei	Chloramphenicol	0.11	Andra Pradesh	25/S1/Q1/0097/2014
53	27	L.vannamei	Chloramphenicol	0.67	Andra Pradesh	25/S1/Q1/0099/2014
54	28	L.vannamei	Chloramphenicol	0.27	Andra Pradesh	25/S1/Q1/0101/2014
55	29	L.vannamei	Chloramphenicol	0.15	Andra Pradesh	25/S1/Q1/0105/2014
56	30	L.vannamei	Chloramphenicol	0.2	Andra Pradesh	25/S1/Q1/0106/2014

	SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ State	Sample ID& Collection Date
57	31	L.vannamei	Chloramphenicol	0.18	Andra Pradesh	25/S1/Q1/0110/2014
58	32	L.vannamei	Chloramphenicol	0.13	Andra Pradesh	25/S1/Q1/0114/2014
59	33	L.vannamei	Chloramphenicol	0.3	Andra Pradesh	25/S1/Q1/0115/2014
60	34	L.vannamei	Chloramphenicol	0.31	Andra Pradesh	25/S1/Q1/0118/2014
61	35	L.vannamei	Chloramphenicol	1.26	Andra Pradesh	25/S1/Q1/0121/2014
62	36	L.vannamei	Chloramphenicol	3.94	Andra Pradesh	25/S1/Q1/0123/2014
63	37	L.vannamei	Chloramphenicol	0.93	Andra Pradesh	25/S1/Q1/0125/2014
64	38	L.vannamei	Chloramphenicol	1.04	Andra Pradesh	25/S1/Q1/0127/2014
65	39	L.vannamei	Chloramphenicol	0.9	Andra Pradesh	25/S1/Q1/0129/2014
66	40	L.vannamei	Chloramphenicol	0.36	Andra Pradesh	25/S1/Q1/0131/2014
67	41	L.vannamei	Chloramphenicol	1.19	Andra Pradesh	25/S1/Q1/0134/2014
68	42	L.vannamei	Chloramphenicol	0.61	Andra Pradesh	25/S1/Q1/0135/2014
69	43	L.vannamei	Chloramphenicol	0.55	Andra Pradesh	25/S1/Q1/0141/2014
			Nitrofuran Metabolite - AOZ	2.73	Andra Pradesh	
70	44	L.vannamei	Chloramphenicol	0.62	Andra Pradesh	25/S1/Q1/0146/2014
71	45	L.vannamei	Chloramphenicol	0.69	Andra Pradesh	25/S1/Q1/0147/2014
72	46	L.vannamei	Chloramphenicol	3.1	Andra Pradesh	25/S1/Q1/0149/2014
73	47	L.vannamei	Chloramphenicol	0.42	Andra Pradesh	25/S1/Q1/0150/2014
74	48	L.vannamei	Chloramphenicol	15.7	Andra Pradesh	25/S1/Q1/0151/2014
75	49	L.vannamei	Chloramphenicol	37.1	Andra Pradesh	25/S1/Q1/0152/2014
76	50	L.vannamei	Chloramphenicol	0.66	Andra Pradesh	25/S1/Q1/0156/2014
77	51	L.vannamei	Chloramphenicol	0.22	Andra Pradesh	25/S1/Q1/0157/2014
78	52	L.vannamei	Chloramphenicol	0.2	Andra Pradesh	25/S1/Q1/0160/2014
79	53	L.vannamei	Chloramphenicol	0.23	Andra Pradesh	25/S1/Q1/0161/2014
80	54	L.vannamei	Chloramphenicol	0.81	Andra Pradesh	25/S1/Q1/0166/2014
81	55	L.vannamei	Chloramphenicol	0.55	Andra Pradesh	25/S1/Q1/0169/2014
82	56	L.vannamei	Chloramphenicol	0.23	Andra Pradesh	25/S1/Q1/0171/2014
83	57	L.vannamei	Chloramphenicol	0.32	Andra Pradesh	25/S1/Q1/0172/2014
84	58	L.vannamei	Chloramphenicol	0.38	Andra Pradesh	25/S1/Q1/0173/2014
85	59	L.vannamei	Chloramphenicol	0.59	Andra Pradesh	25/S1/Q1/0175/2014
86	60	L.vannamei	Chloramphenicol	0.72	Andra Pradesh	25/S1/Q1/0176/2014
87	61	L.vannamei	Chloramphenicol	0.31	Andra Pradesh	25/S1/Q1/0178/2014
88	62	L.vannamei	Chloramphenicol	0.53	Andra Pradesh	25/S1/Q1/0183/2014
89	63	L.vannamei	Chloramphenicol	0.41	Andra Pradesh	25/S1/Q1/0186/2014

	SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ State	Sample ID& Collection Date
90	64	L.vannamei	Chloramphenicol	0.63	Andra Pradesh	25/S1/Q1/0187/2014
91	65	L.vannamei	Chloramphenicol	0.32	Andra Pradesh	25/S1/Q1/0195/2014
92	66	L.vannamei	Chloramphenicol	0.12	Andra Pradesh	25/S1/Q1/0196/2014
93	67	L.vannamei	Chloramphenicol	1.04	Andra Pradesh	25/S1/Q1/0199/2014
94	68	L.vannamei	Chloramphenicol	1.81	Andra Pradesh	25/S1/Q1/0200/2014
95	69	L.vannamei	Chloramphenicol	0.22	Andra Pradesh	25/S1/Q1/0201/2014
96	70	L.vannamei	Chloramphenicol	0.11	Andra Pradesh	25/S1/Q1/0202/2014
97	71	L.vannamei	Chloramphenicol	0.42	Andra Pradesh	25/S1/Q1/0203/2014
98	72	L.vannamei	Chloramphenicol	0.54	Andra Pradesh	25/S1/Q1/0204/2014
99	73	L.vannamei	Chloramphenicol	0.16	Andra Pradesh	25/S1/Q1/0206/2014
100	74	L.vannamei	Chloramphenicol	0.16	Andra Pradesh	25/S1/Q1/0210/2014
101	75	L.vannamei	Chloramphenicol	0.22	Andra Pradesh	25/S1/Q1/0212/2014
102	76	L.vannamei	Chloramphenicol	0.13	Andra Pradesh	25/S1/Q1/0213/2014
103	77	L.vannamei	Chloramphenicol	0.14	Andra Pradesh	25/S1/Q1/0215/2014
104	78	L.vannamei	Chloramphenicol	16.9	Andra Pradesh	25/S1/Q1/0225/2014
105	79	L.vannamei	Chloramphenicol	1.53	Andra Pradesh	25/S1/Q1/0227/2014
106	80	L.vannamei	Chloramphenicol	2.23	Andra Pradesh	25/S1/Q1/0229/2014
107	81	L.vannamei	Chloramphenicol	0.83	Andra Pradesh	25/S1/Q1/0235/2014
108	82	L.vannamei	Chloramphenicol	0.92	Andra Pradesh	25/S1/Q1/0236/2014
109	83	L.vannamei	Chloramphenicol	1.1	Andra Pradesh	25/S1/Q1/0239/2014
110	84	L.vannamei	Chloramphenicol	1.21	Andra Pradesh	25/S1/Q1/0243/2014
111	85	L.vannamei	Chloramphenicol	1.78	Andra Pradesh	25/S1/Q1/0245/2014
112	86	L.vannamei	Chloramphenicol	0.62	Andra Pradesh	25/S1/Q1/0247/2014
113	87	L.vannamei	Chloramphenicol	0.15	Andra Pradesh	25/S1/Q1/0249/2014
114	88	L.vannamei	Chloramphenicol	0.62	Andra Pradesh	25/S1/Q1/0251/2014
115	89	L.vannamei	Chloramphenicol	1.1	Andra Pradesh	25/S1/Q1/0252/2014
116	90	L.vannamei	Chloramphenicol	0.66	Andra Pradesh	25/S1/Q1/0256/2014
117	91	L.vannamei	Chloramphenicol	0.09	Andra Pradesh	25/S1/Q1/0257/2014
118	92	L.vannamei	Chloramphenicol	0.19	Andra Pradesh	25/S1/Q1/0259/2014
119	93	L.vannamei	Chloramphenicol	0.22	Andra Pradesh	25/S1/Q1/0261/2014
120	94	L.vannamei	Chloramphenicol	0.24	Andra Pradesh	25/S1/Q1/0265/2014
121	95	L.vannamei	Chloramphenicol	0.17	Andra Pradesh	25/S1/Q1/0266/2014
122	96	L.vannamei	Chloramphenicol	0.28	Andra Pradesh	25/S1/Q1/0267/2014
123	97	L.vannamei	Chloramphenicol	0.39	Andra Pradesh	25/S1/Q1/0276/2014

	SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ State	Sample ID& Collection Date
124	98	L.vannamei	Chloramphenicol	1.83	Andra Pradesh	25/S1/Q1/0277/2014
125	99	L.vannamei	Chloramphenicol	0.31	Andra Pradesh	25/S1/Q1/0278/2014
126	100	L.vannamei	Chloramphenicol	0.57	Andra Pradesh	25/S1/Q1/0279/2014
127	101	L.vannamei	Chloramphenicol	0.34	Andra Pradesh	25/S1/Q1/0280/2014
128	102	L.vannamei	Chloramphenicol	0.38	Andra Pradesh	25/S1/Q1/0284/2014
129	103	L.vannamei	Chloramphenicol	0.46	Andra Pradesh	25/S1/Q1/0287/2014
130	104	L.vannamei	Chloramphenicol	1.46	Andra Pradesh	25/S1/Q1/0292/2014
131	105	L.vannamei	Chloramphenicol	0.55	Andra Pradesh	25/S1/Q1/0295/2014
132	106	L.vannamei	Chloramphenicol	1.16	Andra Pradesh	25/S1/Q1/0296/2014
133	107	L.vannamei	Chloramphenicol	1.05	Andra Pradesh	25/S1/Q1/0298/2014
134	108	L.vannamei	Chloramphenicol	0.2	Andra Pradesh	25/S1/Q1/0300/2014
135	109	L.vannamei	Chloramphenicol	0.25	Andra Pradesh	25/S1/Q1/0301/2014
136	110	L.vannamei	Chloramphenicol	0.3	Andra Pradesh	25/S1/Q1/0303/2014
137	111	L.vannamei	Chloramphenicol	0.22	Andra Pradesh	25/S1/Q1/0304/2014
138	112	L.vannamei	Chloramphenicol	0.28	Andra Pradesh	25/S1/Q1/0306/2014
139	113	L.vannamei	Chloramphenicol	0.13	Andra Pradesh	25/S1/Q1/0307/2014
140	114	L.vannamei	Chloramphenicol	0.12	Andra Pradesh	25/S1/Q1/0310/2014
141	115	L.vannamei	Chloramphenicol	0.14	Andra Pradesh	25/S1/Q1/0311/2014
142	116	L.vannamei	Chloramphenicol	0.26	Andra Pradesh	25/S1/Q1/0312/2014
143	117	L.vannamei	Chloramphenicol	0.17	Andra Pradesh	25/S1/Q1/0313/2014
144	118	L.vannamei	Chloramphenicol	0.14	Andra Pradesh	25/S1/Q1/0315/2014
145	119	L.vannamei	Chloramphenicol	0.18	Andra Pradesh	25/S1/Q1/0316/2014
146	120	L.vannamei	Chloramphenicol	0.5	Andra Pradesh	25/S1/Q1/0317/2014
147	121	L.vannamei	Chloramphenicol	0.12	Andra Pradesh	25/S1/Q1/0318/2014
148	122	L.vannamei	Chloramphenicol	0.36	Andra Pradesh	25/S1/Q1/0319/2014
149	123	L.vannamei	Chloramphenicol	0.14	Andra Pradesh	25/S1/Q1/0320/2014
150	124	L.vannamei	Chloramphenicol	0.14	Andra Pradesh	25/S1/Q1/0329/2014
151	125	L.vannamei	Chloramphenicol	0.12	Andra Pradesh	25/S1/Q1/0330/2014
152	126	L.vannamei	Chloramphenicol	0.1	Andra Pradesh	25/S1/Q1/0332/2014
153	127	L.vannamei	Chloramphenicol	0.09	Andra Pradesh	25/S1/Q1/0334/2014
154	128	L.vannamei	Chloramphenicol	0.25	Andra Pradesh	25/S1/Q1/0335/2014
155	129	L.vannamei	Chloramphenicol	0.17	Andra Pradesh	25/S1/Q1/0339/2014
156	130	L.vannamei	Chloramphenicol	0.31	Andra Pradesh	25/S1/Q1/0340/2014
157	131	L.vannamei	Chloramphenicol	0.12	Andra Pradesh	25/S1/Q1/0343/2014

	SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ State	Sample ID& Collection Date
158	132	L.vannamei	Chloramphenicol	0.13	Andra Pradesh	25/S1/Q1/0348/2014
159	133	L.vannamei	Chloramphenicol	0.47	Andra Pradesh	25/S1/Q1/0349/2014
160	134	L.vannamei	Chloramphenicol	0.1	Andra Pradesh	25/S1/Q1/0351/2014
161	135	L.vannamei	Chloramphenicol	0.19	Andra Pradesh	25/S1/Q1/0373/2014
162	136	L.vannamei	Chloramphenicol	0.73	Andra Pradesh	25/S1/Q1/0374/2014
163	137	L.vannamei	Chloramphenicol	0.14	Andra Pradesh	25/S1/Q1/0375/2014
164	138	L.vannamei	Chloramphenicol	0.4	Andra Pradesh	25/S1/Q1/0380/2014
165	139	L.vannamei	Chloramphenicol	1.77	Andra Pradesh	25/S1/Q1/0381/2014
166	140	L.vannamei	Chloramphenicol	3.05	Andra Pradesh	25/S1/Q1/0382/2014
167	141	L.vannamei	Chloramphenicol	3.07	Andra Pradesh	25/S1/Q1/0384/2014
168	142	L.vannamei	Chloramphenicol	0.27	Andra Pradesh	25/S1/Q1/0385/2014
169	143	L.vannamei	Chloramphenicol	0.36	Andra Pradesh	25/S1/Q1/0435/2014
170	144	L.vannamei	Chloramphenicol	0.45	Andra Pradesh	25/S1/Q1/0436/2014
171	145	L.vannamei	Chloramphenicol	0.38	Andra Pradesh	25/S1/Q1/0438/2014
172	146	L.vannamei	Chloramphenicol	0.21	Andra Pradesh	25/S1/Q1/0440/2014
173	147	L.vannamei	Chloramphenicol	0.15	Andra Pradesh	25/S1/Q1/0441/2014
174	148	L.vannamei	Chloramphenicol	0.31	Andra Pradesh	25/S1/Q1/0450/2014
175	149	L.vannamei	Chloramphenicol	0.23	Andra Pradesh	25/S1/Q1/0490/2014
176	150	L.vannamei	Chloramphenicol	0.22	Andra Pradesh	25/S1/Q1/0504/2014
177	151	L.vannamei	Nitrofuran Metabolite - AOZ	1.45	Andra Pradesh	25/S1/Q1/0519/2014
178	152	L.vannamei	Nitrofuran Metabolite - AOZ	1.03	Andra Pradesh	25/S1/Q1/0586/2014
179	153	L.vannamei	Chloramphenicol	0.32	Andra Pradesh	25/S1/Q1/0615/2014
180	154	L.vannamei	Chloramphenicol	2.18	Andra Pradesh	25/S1/Q1/0626/2014
			FISH			
181	1	Fish	Chloramphenicol	0.53	Andra Pradesh	25/S3/P6/0231/2014

SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ State	Sample ID& Collection Date

NRCP for Aquaculture Proucts-2015

NRCP 2014 - Non-Compliant (Residue Positive) Hathery Samples

I Quality Control Laboratory,KOCHI

HATCHERY SAMPLES

1	1	Shrimp seed	Chloramphenicol	1.47	Gujarath	14/S4/01/0024/2014
2	2	Shrimp seed	Chloramphenicol	0.13	Kerala	15/S4/01/0001/2014
			Nitrofuran Metabolite - AOZ	0.95		
3	3	Shrimp seed	Chloramphenicol	0.16	Kerala	15/S4/01/0044/2014
			Nitrofuran Metabolite - AOZ	1.44		
4	4	Shrimp seed	Chloramphenicol	5.99	Kerala	15/S4/01/0048/2014
			Nitrofuran Metabolite - AOZ	341.82		
5	5	Shrimp seed	Chloramphenicol	0.34	Kerala	15/S4/01/0055/2014
			Nitrofuran Metabolite - AOZ	1.19		
6	6	Shrimp seed	Nitrofuran Metabolite - AOZ	0.47	Kerala	15/S4/01/0060/2014
7	7	Shrimp seed	Chloramphenicol	0.98	Kerala	15/S4/01/0066/2014
			Nitrofuran Metabolite - AOZ	0.92		
8	8	Shrimp seed	Chloramphenicol	0.37	Kerala	15/S4/01/0074/2014
			Nitrofuran Metabolite - AOZ	2.66		
9	9	Shrimp seed	Chloramphenicol	0.24	Tamilnadu	23/S4/01/0010/2014
			Nitrofuran Metabolite - AOZ	2.32		
10	10	Shrimp seed	Nitrofuran Metabolite - AOZ	0.85	Tamilnadu	23/S4/01/0039/2014
11	11	Shrimp seed	Chloramphenicol	0.8	Tamilnadu	23/S4/01/0042/2014
			Nitrofuran Metabolite - AOZ	16.77		
12	12	Shrimp seed	Nitrofuran Metabolite - AOZ	8.79	Tamilnadu	23/S4/01/0109/2014
13	13	Shrimp seed	Nitrofuran Metabolite - AOZ	2.36	Tamilnadu	23/S4/01/0144/2014
14	14	Shrimp seed	Chloramphenicol	0.11	Tamilnadu	23/S4/01/0145/2014
15	15	Shrimp seed	Nitrofuran Metabolite - AOZ	114.45	Tamilnadu	23/S4/01/0146/2014
16	16	Shrimp seed	Nitrofuran Metabolite - AOZ	0.49	Tamilnadu	23/S4/01/0167/2014
17	17	Shrimp seed	Nitrofuran Metabolite - AOZ	55.06	Tamilnadu	23/S4/01/0218/2014
18	18	Shrimp seed	Chloramphenicol	0.99	Orissa	24/S4/01/0114/2014
			Nitrofuran Metabolite - AOZ	50		
19	19	Shrimp seed	Chloramphenicol	26.33	Orissa	24/S4/01/0115/2014
			Nitrofuran Metabolite - AOZ	316.2		
20	20	Shrimp seed	Chloramphenicol	204.84	Orissa	24/S4/01/0116/2014
			Nitrofuran Metabolite - AOZ	3.4		
21	21	Shrimp seed	Chloramphenicol	807.16	Orissa	24/S4/01/0118/2014
22	22	Shrimp seed	Chloramphenicol	1357.6	Orissa	24/S4/01/0119/2014
			Nitrofuran Metabolite - AOZ	0.66		

	SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ State	Sample ID& Collection Date
II	**Quality Control Laboratory,NELLORE**					
23	1	Shrimp seed	Nitrofuran Metabolite - AOZ	6.95	Andra Pradesh	16/S4/01/0005/2014
24	2	Shrimp seed	Nitrofuran Metabolite - AOZ	1.87	Andra Pradesh	16/S4/01/0018/2014
25	3	Shrimp seed	Chloramphenicol	4.75	Andra Pradesh	16/S4/01/0384/2014
III	**Quality Control Laboratory,BHIMAVARAM**					
26	1	Shrimp seed	Nitrofuran Metabolite - AOZ	5.97	Andra Pradesh	25/S4/01/0003/2014
27	2	Shrimp seed	Chloramphenicol	0.27	Andra Pradesh	25/S4/01/0004/2014
28	3	Shrimp seed	Chloramphenicol	0.24	Andra Pradesh	25/S4/01/0005/2014
			Nitrofuran Metabolite - AOZ	653.71	Andra Pradesh	
29	4	Shrimp seed	Chloramphenicol	1.14	Andra Pradesh	25/S4/01/0006/2014
30	5	Shrimp seed	Chloramphenicol	0.44	Andra Pradesh	25/S4/01/0007/2014
			Nitrofuran Metabolite - AOZ	1.59	Andra Pradesh	
31	6	Shrimp seed	Chloramphenicol	0.21	Andra Pradesh	25/S4/01/0008/2014
32	7		Chloramphenicol	1.55	Andra Pradesh	25/S4/01/0009/2014
			Nitrofuran Metabolite - AOZ	661	Andra Pradesh	
33	8	Shrimp seed	Chloramphenicol	0.7	Andra Pradesh	25/S4/01/0010/2014
34	9	Shrimp seed	Chloramphenicol	0.36	Andra Pradesh	25/S4/01/0011/2014
35	10	Shrimp seed	Chloramphenicol	0.64	Andra Pradesh	25/S4/01/0012/2014
36	11	Shrimp seed	Chloramphenicol	0.69	Andra Pradesh	25/S4/01/0013/2014
37	12	Shrimp seed	Chloramphenicol	0.15	Andra Pradesh	25/S4/01/0014/2014
			Nitrofuran Metabolite - AOZ	52	Andra Pradesh	
38	13	Shrimp seed	Chloramphenicol	1.11	Andra Pradesh	25/S4/01/0136/2014
			Nitrofuran Metabolite - AOZ	10.5	Andra Pradesh	
39	14	Shrimp seed	Chloramphenicol	1.26	Andra Pradesh	25/S4/01/0137/2014
			Nitrofuran Metabolite - AOZ	1.37	Andra Pradesh	
40	15	Shrimp seed	Chloramphenicol	0.78	Andra Pradesh	25/S4/01/0139/2014
41	16	Shrimp seed	Chloramphenicol	3.08	Andra Pradesh	25/S4/01/0140/2014
42	17	Shrimp seed	Chloramphenicol	3.92	Andra Pradesh	25/S4/01/0217/2014

	SNo.	Type & Species	Parameter	Value (µg/kg)	Region/ State	Sample ID& Collection Date
43	18	Shrimp seed	Chloramphenicol	1.29	Andra Pradesh	25/S4/01/0218/2014
44	19	Shrimp seed	Chloramphenicol	3	Andra Pradesh	25/S4/01/0219/2014
45	20	Shrimp seed	Chloramphenicol	1.28	Andra Pradesh	25/S4/01/0220/2014
46	21	Shrimp seed	Chloramphenicol	1.58	Andra Pradesh	25/S4/01/0221/2014
47	22	Shrimp seed	Chloramphenicol	1.26	Andra Pradesh	25/S4/01/0269/2014
			Nitrofuran Metabolite - AOZ	11.2	Andra Pradesh	
48	23	Shrimp seed	Chloramphenicol	0.16	Andra Pradesh	25/S4/01/0273/2014
			Nitrofuran Metabolite - AOZ	8.47	Andra Pradesh	
49	24	Shrimp seed	Chloramphenicol	3.11	Andra Pradesh	25/S4/01/0274/2014
50	25	Shrimp seed	Chloramphenicol	47	Andra Pradesh	25/S4/01/0275/2014
51	26	Shrimp seed	Chloramphenicol	2.84	Andra Pradesh	25/S4/01/0377/2014
			Nitrofuran Metabolite - AOZ	10	Andra Pradesh	
52	27	Shrimp seed	Chloramphenicol	3.79	Andra Pradesh	25/S4/01/0420/2014
53	28	Shrimp seed	Chloramphenicol	0.86	Andra Pradesh	25/S4/01/0579/2014
54	29	Shrimp seed	Chloramphenicol	1.56	Andra Pradesh	25/S4/01/0582/2014
			Nitrofuran Metabolite - AOZ	7.89	Andra Pradesh	
55	30	Shrimp seed	Nitrofuran Metabolite - AOZ	380.19	Andra Pradesh	25/S4/01/0598/2014
56	31	Shrimp seed	Chloramphenicol	1.72	Andra Pradesh	25/S4/01/0622/2014
57	32	Shrimp seed	Chloramphenicol	1.17	Andra Pradesh	25/S4/01/0623/2014
58	33	Shrimp seed	Chloramphenicol	10.55	Andra Pradesh	25/S4/01/0624/2014
59	34	Shrimp seed	Chloramphenicol	1.09	Andra Pradesh	25/S4/01/0625/2014

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

No. Lab/HO/2/2014 **Dated: 08 January, 2015**

NRCP – Instructions (Revised) – effective from January 2015.

1. The sampling procedure/strategy shall be as per the instruction contained in Annex III to the EU Directive 96/23/EC. The sampling level for RO/SRO/RC/SRC is being communicated to you separately. However, if further clarity is required please see annex IV to the EU Directive 96/23/EC for the sampling level and frequency.
2. The target given to each RC/SRC/RO/SRO is in consideration of registered site/export from their jurisdiction. The sample target for RC/SRC is fixed on the basis of district-wise registration of farms and according to the aquaculture production and the month-wise targets for the RCs/ SRCs are also based on the various stages of production. Similarly, the month-wise targets for sampling from processing plants will be in such a way that the total number of samples will tally with the target fixed for the RO/SRO.
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 registered by the registering authorities (CAA / State Authority / MPEDA).
5. Samples must be collected in Polythene bags and properly labelled to maintain the sample integrity and traceability. 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/processing plants 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 a minimum 10% of registered sites of production is covered in the yearly Plan, as all the registered farms in a State need to be covered over a period of time. In other words, there shall not be excess drawl of samples from one unit or farm and similarly no unit or farm will be left uncovered.
8. 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.
9. 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.

10. 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.

11. While collecting the hatchery samples (seed), a minimum of 20 - 25 gm (excluding water) shall be drawn. The seed sample should be collected in polythene bags, sealed and transported in thermo-cole box packed with dry/wet ice.
12. All RCs and SRCs are advised to draw samples from saltwater aquaculture (cage culture) also, as per availability in their region, for analysis of different substance groups.
13. RCs and SRCs are directed to use the GPS device while collecting samples from farms.
14. 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.
15. 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.
16. As already in practice, the RO/SRO and RC/SRC shall maintain a register of samples collected and dispatched to the respective Laboratory. Needless to mention, in respect of RC/SRC, the column relating to "Name of Processing Plant" will be left blank. RO/SRO will note the name of the farm in respect of each sample drawn from a processing plant. This should be obtained from the records of the processing plant. The RO/SRO has also to note the name of the farm as well as the registration number issued by the registering authority.
17. The number of samples to be collected from the processing plants under the RO/SRO will be based on the production capacity and/or actual production/through-put of each processing plant.
18. In respect of processing plants, in normal case, the number of samples to be drawn has to be taken as one sample from one farm and the samples at the rate of two per plant per day. Drawing multi number of samples from processing plant shall be allowed only with prior permission from HO, provided the number of plants processing aquaculture products in a region is less than the number of samples to be drawn for the month from the region.
19. ROs and SROs shall ensure that all samples are collected only from the raw material receiving section of the processing establishments approved for export to EU.
20. The ROs/SROs shall verify periodically, the parameter-wise target/allocation assigned to each region/state, in order to ensure that all the processing plants in the region/state are covered for all the parameters in sample collection during the plan year.
21. The drawl of samples from processing plant shall be done by the residue monitoring officer of MPEDA himself. This task should not be entrusted to any personnel of the Processing Plant.
22. 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.
23. 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.
24. All RCs/SRCs/ROs/SROs 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.
25. The results of the tests communicated from the respective laboratory should be recorded in the specified columns in the registers maintained by the RC/SRC/RO/SRO.
26. Wherever non-compliant (residue positive) results are reported, the EIAs and MPEDA RC/SRC/RO/SRO concerned may take action as per Clause 17 of NRCP 2015.