

**NATIONAL RESIDUE
CONTROL PLAN OF
INDIA FOR
AQUACULTURE
PRODUCTS -2013**

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NATIONAL RESIDUE CONTROL PLAN (NRCP) OF INDIA
FOR AQUACULTURE PRODUCTS – 2013

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. Govt. of India is committed to ensure safe seafood for domestic and overseas market. Keeping the above in view, the National Residue Monitoring 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, hatcheries, feed-mills, and processing establishments linked to and/or intended for export oriented production of aquaculture products and the testing and certifying laboratories are covered under the NRCP.

4. Implementation of NRCP

Ministry of Commerce and Industry (Govt. of India) vide Notification S.O. 730 (E) dated 21st August 1995; Export Inspection Council of India, the Competent Authority has taken the assistance of Marine Products Export Development Authority (MPEDA) to carry out the residue monitoring.

5. Aquaculture in India

India is the 6th largest shrimp producer and ranks 2nd largest in aquaculture production in global scenario, as per FAO 2010 report. 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.

India's growing environmental consciousness has been an increased awareness in practice of aquaculture. In India aquaculture constitute freshwater and brackish water aquaculture. Aquaculture is practiced in the 9 maritime states of India. Species-wise aquaculture production through inland (FAO - 2010) and brackish water (MPEDA Statistics 2011 - 12) aquaculture is given below.

P.monodon, *P.indicus* and *L. vannamei* are the three species cultured in brackish water. This forms the bulk of export to EU and other countries.

MPEDA- NRCP-2013 for Aquaculture Products

It may be seen from the data that Indian major carps namely catla, rohu, and mrigal are the main species which contribute major share of aquaculture production in the country, and the main crustacean species cultured in freshwater is *Macrobrachium rosenbergii* (fresh water prawn).

5.1 Freshwater aquaculture

Item / species	Production (M/T)
Fishes	
<i>Catla catla</i> *	35,98,348
<i>Labeo rohita</i> *	3,13,086
<i>Cirrhinus mrigala</i> *	1,64,283
Other fishes*	4,11,814
Total	44,87,531
Crustaceans	
<i>Macrobrachium rosenbergii</i> **	7,990

* As per FAO Fish Stat for 2010

** As per MPEDA figures for 2011-12 (including reservoir production)

5.2 Brackish water Shrimp culture (MPEDA, 2011-12)

Name of species	Production (M/T)
<i>Penaeus monodon</i>	1,35,466
<i>Penaeus indicus</i>	NIL
<i>Litopenaeus vannamei</i>	80,717
Total	2,16,183

5.3 Details of State-wise production of brackish water shrimp & freshwater prawn (Scampi) during 2011-12

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.

State	Production (M/T)				
	<i>P. monodon</i>	<i>P. indicus</i>	<i>L. vannamei</i>	<i>Scampi</i>	Total (M/T)

MPEDA- NRCP-2013 for Aquaculture Products

Andhra Pradesh	51,081	-	75,385	475	1,26,941
West Bengal	45,999	-	-	2,906	48,905
Kerala	8,138	-	-	52	8,190
Tamil Nadu	12,097	-	2,863	285	15,245
Orissa	10,901	-	100	513	11,514
Gujarat	4,869	-	1,195	-	6,064
Karnataka	609	-	232	-	841
Maharashtra	1,721	-	941	38	2,662
Goa	51	-	-	-	51
Total	1,35,466	-	80,716	4,269	2,20,413

5.4. Details of Aquaculture Farms registered as on 27/01/2011

SI No	Name of State	Number of Registered aquaculture farms	State Government Agencies
1	West Bengal	1582	Data not available
2	Orissa	4651	Data not available
3	Andhra Pradesh	15670	1041
4	Tamil Nadu	1616	Data not available
5	Kerala	612	Data not available
6	Karnataka	290	Data not available
7	Goa	33	Data not available
8	Maharashtra	239	Data not available
9	Gujarat	716	Data not available
	Total	25,409	Data not available

5.5. Details of Hatcheries registered as on 30.11.2012

Sl. No	Name of State	Number of Registered aquaculture farms
1	West Bengal	-
2	Orissa	10
3	Andhra Pradesh	105
4	Tamil Nadu & Pondicherry	35
5	Kerala	17
6	Karnataka	3
7	Goa	0
8	Maharastra	0
9	Gujarat	3
10	A & N	2
Total		175

6. Export of fish and fishery products to EU

India's export to EU during 2010-11 is mainly consisted of crustaceans, cephalopods and marine fin-fishes. The share of EU in Indian export is 17.89 % by volume and 22.96 % in terms of value in US Dollar.

During the year (2011-12), export to EU countries has decreased by 9.79% in quantity compared to 2010-11.

6.1 Item-wise export of marine products to EU during 2011-12

Item wise export of Marine Products to EU during 2010-11		
Item Name	Qty (M/T)	US \$ (Mln)
Frozen Shrimp	55845	415.47
Frozen Fish	8613	25.13
Fr Cuttle Fish	32506	186.16
Fr Squid	36359	119.91
Dried Item	314	1.71
Live Items	8	0.21
Chilled Items	1027	6.57
Others	19549	50.22
Total	154221	805.38

6.2 Export of aquaculture products to European Union

Our export of cultured shrimp, *Penaeus monodon*, *Penaeus indicus*, *Litopenaeus vannamei* etc to EU in 2011-12 was to the tune of 25059 M/T valued at US \$ 230.3 Million. There was an increase of 5.92 % by quantity and 17.33 % in terms of value compared to year 2010-11.

The quantity of Scampi (*Macrobrachium rosenbergii*) and of fresh water fin fishes exported to EU during the year 2011-12 were only 889 MT and 816 M/T respectively.

6.3 Export of aquaculture products to European Union (2011-12)

Species	Quantity (M/T)	Value (US \$ million)
Cultured Shrimp (which includes P.monodon, P.indicus & L. vannamei)	24170	217.88
Scampi (Fresh water Prawn) M. rosenbergii	889	12.41
Freshwater fishes	820	2.99
Total	25880	233.29

MPEDA- NRCP-2013 for Aquaculture Products

7. Residue monitoring in India.

There are 447 (as on 08/03/2013) land based seafood-processing establishments in India. Of which, 265 establishments have been approved for processing of fish and fishery products to EU. In addition, 39 independent cold storages (as on February 2013) are also approved for storage of fish and fishery products for export to EU.

Implementation of 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 the fishery products exported to member states of European Union:

As of now, substances like Chloramphenicol, Nitrofurans, Nitroimidazoles, Stilbenes, Steroids, Tetracyclines, Sulphonamides, oxolinic Acid, Flumequin, Anthelmintics, Mycotoxins, Organo-chlorine Pesticides, PCBs, Heavy Metals and Dyes are tested under the NRCP.

- ♦ The FVO missions visited India periodically and assessed the effectiveness of implementation of residue control measures. Following are the prominent EU-FVO missions visited India for assessment of the control of residues and contaminants in live animals and animal products, including controls on Veterinary medicinal products:

- ♦ FVO mission 14 - 22 October 2003.
- ♦ FVO mission 13 - 22 September 2006.
- ♦ FVO mission 14 - 25 September 2009
- ♦ FVO mission 12 - 20 May 2011.

Based on the findings and recommendations made by the FVO missions, follow up actions have been taken as follows :

- ♦ All the relevant substance groups listed in annex II of Council Directive 96/23/EC applicable to aquaculture products (crustaceans and fresh water fishes) are monitored under NRCP plan.
- ♦ The sampling strategy for aquacultured crustaceans and fin-fishes to be analyzed are prepared on the basis of production / number of registered farms / total through put in export approved establishments, as applicable.
- ♦ The test methodologies were validated/re-validated as per EU requirements vide references 2002/657/EC for antibiotics. DG SANCO10684/2009 for pesticides, EC 333/2007 for Chemical Elements(Heavy Metals). EURACHEM/CITAC for Aflatoxin.

8. Organizations associated with the implementation of NRCP:

8.1.The Export Inspection Council of India (EIC), the Competent Authority (CA) for export of fish and fishery products, set up under Section 3 of the Export (Quality Control and Inspection) Act 1963, in order to ensure development of export trade of India through Quality Control and Inspection and for matters concerned.

8.2 Registering authorities for aquaculture farms:

MPEDA- NRCP-2013 for Aquaculture Products

As per provision made in Govt. of India Notification no. S.O. 730 (E) dated 21st August 1995, the competent authority has recognized the Coastal Aquaculture Authority, MPEDA and the State Fisheries Departments for registration aquaculture farms for export intended production.

8.3 Marine Products Export Development Authority (MPEDA)

A statutory body under the Ministry of Commerce & Industry constituted to promote production and export of marine products.

The functions are:

- ♦ Registration of exporters / processing plants / storage premises / fishing vessels.
- ♦ Quality up-gradation and modernization of seafood industry.
- ♦ Development of infrastructure facilities.
- ♦ Implementation of NRCP as per EU Directive 96/23/EC.
- ♦ Promotion of export of marine products from the country to different international markets.
- ♦ Guidance to farmers to adopt good management practices and sustainable aquaculture.

8.3.1 MPEDA LABORATORIES

The MPEDA has 4 (four) Quality Control Laboratories at Kochi, Bhimavaram, Nellore & Bhubaneswar. The QC Labs Kochi, Bhimavaram & Nellore are involved in implementation of residue control plan for residues in aquaculture products as per EU Directive 96/23/EC.

8.3.2 MPEDA Quality Control Laboratory, Kochi (Cochin)

The Marine Products Export Development Authority Quality Control Laboratory, (Ministry of Commerce and Industry, Government of India), MPEDA House, Panampilly Avenue, Cochin – 682 036, Karalla, India. (Tel.91-484-2311979, 2311033, 2311854 Fax.91-484-2313361, E-mail: labkochi@mpeda.nic.in / mpeda@mpeda.nic.in web-site: <http://www.mpeda.com>

8.3.3 MPEDA Quality Control Laboratory, Bhimavaram

The Marine Products Export Development Authority Quality Control Laboratory, Pattabhi Plaza, 2nd floor, 27/1/6, Juval Palam Road, Bhimavaram-534 202, West Godavari Dist. Andhra Pradesh, Tel: 91-08816-227076/ 226410 E-mail: mpedalab@dataone.in

8.3.4 MPEDA Quality Control Laboratory, Nellore

The Marine Products Export Development Authority Quality Control Laboratory, D.No.26-1766/A-1, Srinagar colony, Mini Bypass Road, Nellore- 524 003, Andhra Pradesh. Tel: 91-08612319144, 2319344 E-mail: gclab_nlr@dataone.in

8.3.5. MPEDA Quality Control Laboratory, Bhubaneswar

The MPEDA Quality Control Laboratory (4th one) at Bhubaneswar, operated on management contract basis by an NABL accredited and EIC approved private laboratory. The Laboratory is engaged in analysis of commercial samples from aqua farms and seafood processing establishments for banned substances like Nitrofurans and Chloramphenicol.

8.4 .MPEDA ELISA Screening Laboratories,

MPEDA- NRCP-2013 for Aquaculture Products

20 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 cultured produce only after pre harvest test and certified negative for presence of CAP & NF metabolites for export processing.

Locations of the ELISA Screening Laboratories:

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

8.5 Level of competence of the MPEDA Laboratories involved in residue monitoring.

The MPEDA Quality Control Laboratory at Kochi was established in 1976 with the objective to ensure that the products exported from India meet the international standards. At its inception, apart from testing for microbiological parameters such as TPC, Coliform, Staphylococcus aureus, Salmonella, Vibrio cholerae etc. in seafoods, the laboratory was monitoring heavy metals like mercury, cadmium and pesticide residues in shrimp, water, etc.

The MPEDA QC Laboratories at Bhimavaram and Nellore in Andhra Pradesh were established in 2004. All these Laboratories are accredited as per ISO/IEC 17025: 2005 standards by the National Accreditation Board for Testing and Calibration Laboratories (NABL), member of International Laboratory Accreditation Co-operation(ILAC). The scope of accreditation covers testing of fish and fishery products for chemical residues. These Laboratories are ISO 9001:2008 certified also

All the MPEDA Laboratories are approved by the EIC for testing of fish and fishery products.

The laboratories are equipped with high precision sophisticated equipments like Ultra Performance Liquid Chromatography Tandem Mass Spectrometer (UPLC MS MS), High performance Liquid Chromatography Tandem Mass Spectrometer (LC MS MS), Inductively Coupled Plasma – Optical Emission Spectroscopy (ICP-OES), High Performance Liquid Chromatograph(HPLC), Gas Chromatograph(GC), Gas Chromatograph-Mass

MPEDA- NRCP-2013 for Aquaculture Products

Spectrometer(GC-MS), Atomic Absorption Spectrophotometer(AAS), Microwave Digester and ELISA Reader.

At present all the laboratories carry out analysis for: (1) Anti microbial/bacterial substances like Tetracycline/Oxy-tetracycline/Chlortetracycline, Sulphadiazine, Sulphonamides & Oxolinic, Nalidixic acid. (2) Organo-chlorine pesticides such as BHCs(α , β & γ), Aldrin, DDTs, Dieldrin, Endrin, Heptachlor, Chlordane, HCB, PCBs etc and (3) Heavy metals such as Mercury, Cadmium, Arsenic, Copper, Lead, and (4) Steroids (Progesterone, Oestradiol, (5) Stilbenes(Diethyl Stilbestrol), (6) Anthelmintics (Ivermectin) and (7) Dyes (Malachite Green & Leuco Malachite Green) and banned antibiotics like Nitrofurans ,Chloramphenicol and Nitroimidazol.

Testing of samples for DL PCBs are done through sub-contracting arrangement with other accredited/approved laboratories.

8.5.1 Participation in PT programmes:

The MPEDA Laboratories (Kochi, Nellore & Bhimavaram) participate regularly in Proficiency Testing programmes conducted by international PT providers like FAPAS, LGC Promochem, etc to prove the competency in testing of various parameters under the scope of accreditation. During the years 2009 to 2012, the laboratories have participated in Proficiency Testing Programmes in Nitrofurans metabolites, Chloramphenicol, Tetracyclines, Chemical Elements, Organochlorine pesticides, Quinolones (Oxolinic Acid/Nalidixic Acid), Dyes(Malachite green and Leucomalachite green), etc organized by Food Analysis Performance Assessment Scheme (FAPAS) and LGC Promochem, UK.

Apart from NRCP, following are some of the other residue monitoring programmes undertaken by MPEDA Laboratories:

8.5.2 Monitoring of Pesticide Residues at National level (MPRNL):

The Lab at Cochin is a participating laboratory in the Central Sector Scheme "Monitoring of Pesticides Residues at National level (MPRNL) sponsored by the Department of Agriculture and Co-operation (DAC), Ministry of Agriculture, Government of India. During the year 2011-12, 480 samples of inland crustaceans & fishes and marine crustaceans collected from all the maritime states of India are analysed by MPEDA QC Lab Kochi.

8.5.3 Monitoring of Cadmium in Cephalopods:

The cephalopods (cuttlefish/squid/octopus) caught along the West & East coasts are monitored/analysed for the Cadmium content. During the year 2011-12, 100 samples of different species are allocated for collection from different states/regions for analysis by MPEDA QC Lab, Kochi.

9. Group of substances/residues covered under NRCP 2013:

The National Residue Control Plan - 2013 will cover the following: (ref: Annexure I and II of Council Directive 96/23/EC).

Group A – Substances having anabolic effect and unauthorized substances.

MPEDA- NRCP-2013 for Aquaculture Products

- Stilbenes, Stilbene derivatives and their salts and esters – Diethyl stilbesterol
- Steroids – Estradiol.
- Compounds included in Annex IV to Council Regulation (EEC) No.2377/90 – Chloramphenicol, Nitrofurans and Nitroimidazoles.

Group B - Veterinary drugs and Environmental contaminants.

- Antibacterial substances, including Quinolones – Tetracyclines, Oxolinic acid, Nalidixic acid, etc.
- Sulphadaizine, Sulphonamides,
- Other Veterinary drugs: Anthelmintics (Ivermectin)
- Environmental contaminants:
 - Organo-chlorine compounds including DDT, BHC Isomers, Aldrin, Dieldrin, Heptachlor, Chlordane, Endrine, HCB and PCBs.DL PCBs
 - Chemical Elements –Hg, Cd, As, Pb
- Mycotoxins – Aflatoxin B1 & B2
- Dyes –Malachite green & Leuco-malachite green

10. Sampling Procedure and Strategies

10.1 Sampling procedure

Samples are taken in accordance with Council Directive 96/23/EC chapter 3 (1) of annexure IV. Accordingly, Shrimp samples are collected by the designated Residue Monitoring Officers of MPEDA from the farms registered and approved by the designated authority.

Sampling at farm level are in such a way that at least 10% of registered sites of production is covered in the yearly plan / one sample per 100 MT production.. There shall not be excess drawing of samples from one unit or farm in order to ensure that maximum number of farms is covered.

Samples are collected at variable intervals spread over the whole year depending on the culture period / harvest season / availability from farms, fish processing plants and hatcheries, which varies from region to region in India.

Definite sampling strategy, target/schedule and no. of samples under different substance groups have been assigned to all the regional centers/offices of MPEDA.

The collections of sample are unforeseen, unexpected and effected at no fixed time and on no particular day of the week and the sample collection is done as per the guidelines on sample acceptance criteria.

The number of samples to be collected from the processing plants is based on the production capacity and/or actual production. Multiple samples are collected from plants on the same day, provided the farms from where the processing plant has purchased the raw material are different, not exceeding two in a day.

The farms reported with residue positive cases and processing plants reported with rejections are subjected to frequent sampling for a period of at least one year.

In the case of farm samples, the farmer or his representative sign the original sampling report which is kept in the field offices with proper care that unauthorized persons cannot access the original report.

10.2 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.

Similarly, they visit the processing plants without prior intimation and draw samples. 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.

The Residue Monitoring Officers are well apprised of the process of sampling / collection etc every year by conducting Work Shops prior to commencement of the NRCP every year.

10.3 No. of samples for NRCP 2013

1. Shrimps (*Penaeus monodon*, *Penaeus indicus*, *Litopenaeus vannamei*, etc)

The annual production of the Shrimp/L.vannamei during the 2012 was 275088 M/T. As per the sampling ratio of 1:100, the total number of the samples to be analyzed works out to only **2751**.

2. Scampi (*M. rosenbergii*)

The scampi samples to be taken based on the production figure of 4269 MT works out to only 43. Accordingly, the number of Scampi samples for NRCP 2013 is fixed as **43**.

3. Fresh water Fishes

Based on the total throughput in the export approved establishments (RM) was 1095 tons. However, considering the previous year production, the number of samples has been retained as **45** for 2013.

4. Feed:

In India there are 12 feed mills under operation. It is proposed to monitor all of the registered feed-mills and the number of samples to be analysed has been decided as 12 (One samples from each feed mill).

5. Hatchery Samples:

Since there are 175 nos of Hatcheries registered with MPEDA, the number of samples to be analysed under NRCP 2013 has been fixed as **175**.

10.4. Number of Samples to be analysed under NRCP 2013 :

MPEDA- NRCP-2013 for Aquaculture Products

Type of sample	No. of farms registered	Aqua-culture Product-ion (M/T)	Total through-put of EU approved processing plants (RM)	No. of hatcheries in operation & feed mills	No. of samples to be analysed	Criteria for sampling/sample no.
<i>P. monodon</i> , <i>P. indicus</i> & <i>L. vannamei</i>	25,285	275088 M/T -	-	-	2751	One sample per 100 MT
<i>M. rosenbergii</i>	-	4269 MT	-	-	43	1 sample per every 100 mt of production
Freshwater fishes	-	-	1095	-	45	based on the previous year production/ export
TOTAL					2524	
Hatchery & Feed Samples						
Hatchery Seed	-	-	-	175	175	1 sample per hatchery.
Feed from feed-mills	-	-	-	12	12	1 sample from each feed-mill.
GRAND TOTAL					3026	

Altogether 3026 samples covering shrimp, scampi, freshwater fish, feed and hatchery are proposed to be collected and analyzed during the NRCP 2013.

10.4.1. Sampling Strategy:

- for Shrimps (*P.monodon*, *P. indicus*, *L.vannamei*, etc) : based on the quantity of production in registered farms and samples from/covering at least 9.19 % of the registered sites of production and
- for Scampi (*M. rosenbergii*) – At least one sample per every 104.76 M/T of production.
- for fin-fishes: based on throughput in the approved export establishments for the previous year (approved for export to EU) - at least one sample per every 25 M/T of production.
- In case of feed and hatchery samples: sample is collected on the basis of at least one sample from all the registered hatcheries & feed-mill.
- Additional 5% of the samples under NRCP 2013 for aquaculture products shall be drawn jointly by EIA and MPEDA and tested at two labs (EIA and MPEDA laboratories).

10.4.2 The objective of the monitoring is to:

- Detect all illegal treatment (reference Directive 96/23/EC) of Veterinary drugs listed in Annex I and III of Council Regulation and maximum levels of pesticides in Annex II of Council Directive 86/363/EEC or National regulations on environmental contaminants.
- Ensure compliance with the MRL for residues (Council Regulation 37/2010).
- Surveying and tracing out the reasons for residues in animal food.
- To achieve these objectives, sampling will be carried out randomly spread over the whole year from hatcheries, aquaculture farms and processing plants.

10.5 Type of samples to be collected and break up of samples for Group A & B Substances

MPEDA- NRCP-2013 for Aquaculture Products

Type of Sample	Number of samples to be tested	Break up of samples proposed to be tested				
		Group A substances			Group B substances	
		Farms	Hatchery	Factories/ Feed mills	Farms	Factories
Shrimp	2751	921	-	-	933	897
Scampi	43	15	-	-	15	13
Fish	45	15	-	-	15	15
Sub Total	2839	951	--	--	963	925
Feed	12	-	-	12	-	-
Samples from Hatchery	175	-	175	-	-	-
TOTAL	3026	951	175	12	963	925

10.5. Break up of samples for analysis of Group A substances

The samples are collected from the hatcheries, farms and feed mills. From hatcheries it is proposed to collect juveniles up to PL 20 (post larva 20 days growth) from rearing tanks and brood stock tanks. The number of samples at different levels will be as follows:

Samples for analysis of Group-A substances:				
Species	No. of samples for Group A Substances	Stilbenes	Steroids	NF & CAP
Cultured shrimp	881	-	-	881
Scampi	15	-	-	15
Fish	15	1	1	13
Sub total	911	1	1	909
Hatchery sample	175	-	-	175
Feed	12	-	-	12
Grand Total	1098	1	1	1096

10.7 Break up of samples for Analysis of Group B substances.

Species /item	No. of samples	No. of samples						
		Samples taken from	Anthel-mintics	Antibio-tics	Pesti-cides	Chemical elements	Myco-toxin	Dyes
Cultured shrimp	1870	From farms	193	487	100	94	36	60
		From Proc. plants	180	450	88	92	31	59
Cultured fresh water prawn (scampi)	28	From farms	4	6	2	2	1	0
		From Proc. plants	3	5	2	2	0	1
Cultured fresh water fish	30	From farms	4	10	1	0	0	0
		From Proc. plants	4	10	1	0	0	0
Total	1928	--	388	968	194	190	68	120

10.8. e-NRCP

The complete NRCP programme is computerized and all documentation activities like sample collection, identification and dispatch, sample acceptance by lab, sample decoding, sample allocation and job order, test results and test reports, alert notice on non-compliant samples, reporting of follow-up investigation, follow-up samples and their test results/reports, etc are done online.

All test reports/results are generated on-line (automatic transmission) on posting of the analytical results by each MPEDA Laboratory. Separate alert notice/information on non-compliant samples/results are generated immediately on posting of the test results and transmitted automatically to the concerned field centers/offices of MPEDA and EIAs.

10.9. Collection and transportation of samples

Approximately 500gms of samples (whole prawns / fish) are taken from aquaculture farms and processing plants so as to get 250 gms of meat for analysis in duplicate. Samples from hatchery, 20 to 30 gms 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 thermocol boxes / containers are dispatched along with the sampling report, with sufficient gel ice/ dry ice in the case of long duration transport and with wet ice in the case of short distance transport.

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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*)

10.10 Handling of sample in the Laboratory

Immediately on receipt, the sample is decoded 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 electronically (online).

11. Alert information & communication of results

(i) In the case of residue positive test results(non-compliant samples), the alert information is transmitted to the concerned field offices of MPEDA and EIA. The field offices communicate the results to the concerned farmer and conduct an immediate inspection of the farm / hatchery / processing plant to trace the origin/source of contamination. The results are also communicated to the field officers of the EIA of concerned region. The field offices during inspection collect follow up samples from the same premises for the further analysis. If the sample is found positive on repeated analysis proper action will be initiated against the defaulting unit.

(ii) The results of non-compliant samples are sent on-line to the competent authority also for follow up actions.

(iii) In the case of residue violations by the approved processing plants, the competent authority takes action as deemed fit.

(iv) A monthly summary of the samples drawn, tested and results (including positive and negative) are communicated to the Competent Authority every month.

11.1 Spot checks for unauthorized substances

MPEDA collect samples from hatcheries, shrimp/scampi/fish farms, processing plants and feed mills for testing of residues.

11.2. Measures taken in the event of infringement:

Actions/follow-up actions taken by MPEDA on non-compliant test results under NRCP:

(i) Separate alert notice/information on non-compliant samples/results are also generated on-line and received by the concerned field centers/offices of MPEDA, EIA and EIC (Competent Authority) immediately on posting of the test results.

(ii) The alert notice/information on non-compliant samples/results shall be transmitted on-line to the EIAs and EIC also.

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(iii). Hard copies of the Test Reports are raised and forwarded to the customer offices in the case of Positive results.

(iv) Repeat/follow-up samples are drawn from farms/hatcheries and other establishments from where residue violations are reported. As per standing instructions, MPEDA field offices investigate/enquire about the cause/source of contamination and draw follow-up samples (where available) for further analysis.

(v) the farms reported with non-compliant results are subjected to more stringent checks for a period of at least twelve months.

(vi). A Committee headed by the Director will evaluate the positive cases regularly at frequent intervals for appropriate follow up guidelines / actions.

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12. MRLs for Group A and Group B substances covering veterinary drugs and contaminants.

Group of substances	Substance group	Actual substance	MRL
Group A (1)	Stilbenes and its derivatives	Diethyl Stilbestrol	Nil
A (3)	Steroids	Progesteron / Estradiol	Nil
A (6) (Compounds included in EC Regulation No.37/2010.)	Chloramphenicol	Chloramphenicol	Nil (MRPL-0.3 ppb)
	Nitrofurantol Metabolites:	Metabolite of Furazolidone - AOZ (amino-oxazolidinone)	Nil (MRPL-1.0 ppb)
		Metabolite of Furaladone - AMOZ (3-amino-5- morpholinomethyl-2-oxazolidinone)	Nil (MRPL-1.0 ppb)
		Metabolite of Nitrofurantoin - AHD (aminohydantoin)	Nil (MRPL-1.0 ppb)
		Metabolite of Nitrofurazone - SEM (Semicarbazide)	Nil (MRPL-1.0 ppb)
	Nitrofurantol parent compounds tested in case of feed samples.	Nitrofurantoin	Nil (MRPL-1.0 ppb)
		Furaladone	Nil (MRPL-1.0 ppb)
		Furazolidone	Nil (MRPL-1.0 ppb)
		Nitrofurazone	Nil (MRPL-1.0 ppb)
	Nitroimidazole	Ronidazole	Nil (MRPL-3.0 ppb)
		Metronidazole	
		Dimetridazole	
		HMMNI	
		Ipronidazole-OH	
		Metronidazole-OH	
Group: B (1)	Veterinary drugs and contaminants <u>Antibacterial substances</u> Quinolones	Oxolinic acid	100 ppb
		Nalidixic acid	100 ppb
	Tetracycline	Sum of tetracycline & 4-epi-etracycline	100 ppb
	Oxytetracycline	Sum of Oxytetracycline & 4- epi oxy tetracycline	100 ppb
	Chlortetracycline	Sum of Chlortetracycline & epi chlortetracycline	100 ppb
	Sulfonamides	Sulfadiazine, Sulfamethoxazole, Sulfamethoxypyridine, Sulfamethazole, Sulfamethazine, Sulfamerazine, Sulfapyridine, Sulfadimethine, sulfachloropyradizine, Sulfathiazole-free acid.	100 ppb
Group B-2(a)	Anthelmintics	Ivermectin	Nil
Group B-3(a)	Other substances & environmental contaminants (i) Organochlorine compounds	α BHC	0.20 ppm
		β BHC	0.10 ppm
		γ BHC	0.02 ppm
		Aldrin	0.20 ppm
		DDT	1.00 ppm
		Dieldrin	0.20 ppm
		Endrin	0.05 ppm
		Heptachlor	0.20 ppm
		HCB	0.20 ppm
		Chlordane	0.05 ppm
	(ii) PCBs & DL PCBs	PCBs: 6 compounds and DL PCBs: 12 compounds.	75 .00 ppb & 6.5 ppt
Group B-3(c)	Chemical Elements	Mercury	0.50 ppm (Maximum levels)
		Cadmium	0.50 ppm (Maximum levels)
		Arsenic	1.0 ppm
		Lead	0.50 ppm (Maximum levels)
Group B-3(d)	Mycotoxins *	Aflatoxin B1& B2	Nil *
Group B-3(e)	Dyes	Malachite green Leuco-malachite green	Nil (MRPL 2.0 ppb)

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

13. 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 Lab (CRLS) are followed using the equipments mentioned against the substances as given below.

13.1 Group A – substances having anabolic effect and unauthorized substances

Group as per Directive	Residue	Method	Equipment
Group A.1	Stilbenes, Stilbene derivatives and their salts and esters	Immuno Assay	ELISA Reader with test kits
Group A.3	Steroids	Immuno Assay	ELISA reader with Test Kits
Group A.6	Chloramphenicol, Nitrofurans Metabolites and Nitroimidazoles	Liquid Chromatography Mass Spectrometry	LC MS MS / UPLC MS MS

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

Group as per Directive	Residue	Method	Equipment
Group B.1	Tetracyclines, Quinolones and Sulphonamides	Liquid Chromatography	High Performance Liquid Chromatograph with PDA /Fluorescence detector
Group B.2(a)	Anthelmintics-Ivermectin	Immuno Assay/ Liquid Chromatography	ELISA reader with Test Kits/ High performance Liquid Chromatography
P Group B.3(a)	Organochlorine compounds	Gas Chromatography	Gas Chromatograph with ECD
	PCBs & DL PCBs	Gas Chromatography/ Mass Spectrometry	GC ECD/ GC-MS/GC-MSMS / GC-HRMS
Group B.3(c)	Chemical elements	Atomic Absorption/Emission Spectrophotometry	AAS/ ICP -OES
Group B.3(d)	Mycotoxin - Aflatoxin	Liquid Chromatography	High Performance Liquid Chromatograph with Fluorescence Detector.
Group B.3(e)	Dyes	Liquid Chromatography Mass Spectrometry	LC-MS MS

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14. Information on Legislation

(i) Vide Order S.O.792(E) dtd.17/08/2001 and S.O. 722(E) dated 10/07/2002, the Ministry of Commerce and Industry (MoC& I), Govt. of India, has issued two notifications (1) Fixing residual limits of antibiotics, pesticides and heavy metals relating to fresh, frozen and processed fish and fishery products and (2) Prohibiting the use of antibiotic residues like nitrofurans, chloramphenicol, and pharmacologically active substances. The above two notifications specify the limit for various antibiotics, pesticides and heavy metal residues in seafood products.

(ii) Further, vide Govt of India Order S.O. 1227(E) dated 23rd October 2003, MoC&I issued a notification prohibiting the use of unauthorized substances in the culture of, or in any hatchery for producing the juveniles or larvae or nauplii or any unit of manufacturing feed or in any unit processing shrimp, scampi or any variety of fish. MoCI Notification SO 464(E) dated 24.4.2003 regarding MRL for Dioxins in fish and fishery products.

(iii) Min. of Health & Family Welfare (Dept. of Health) notification GSR 771(E) dt.29th September 2003 has amended the prevention of food adulteration rules (PFA Act.) and prohibited the use of the substances to ensure that the prohibited drugs are not sold by Drug Stores to manufacturers of aquaculture field or to seafood processing unit or to Aquaculture farmers or to shrimp hatchery owners.

(iv) Vide circular No. F 15-33/2003 – DC dated. 13th Jan 04, the Drug controller of India has advised all the State Drug controllers to keep a strict check against the sale of antibiotics and pharmacologically active substances that are banned for use in seafood industry at hatchery, farm, processing plants, etc.

(v) Govt of India - Ministry of Health and Family Welfare, vide notification no. G.S.R 28 (E) dated 17-01-2012 has specified the withdrawal period for veterinary medicines in fish meat as 500 degree days as default period.

(vi) Government of India - Ministry of Commerce and Industry, notification no. S.O. 497(E) dated 10.3.2011 empowers CA for registration/approval and functioning of the aquaculture farms, processing plants, hatcheries, feed mills etc intended for export linked productions.

15. Non-compliant Results (cases) of NRCP 2012 :

15.1 Group A Substances:

Under NRCP 2012, against the target/plan for 2702 samples, a total of 2772 samples were analysed for different substances under group-A and group-B, The total non-compliant cases were found as 178 (However, the number of non-compliant cases in Shrimp/Scampi/Fish category was only 95, out of the 1812 (906x2) samples analysed for NF and CAP) .

The number of non-compliant cases in hatchery samples was 83 (46.62%) out of 178 samples analysed for NF & CAP. Few of the hatchery samples (repeat) were found positive in reanalysis also. Warning/show cause letters issued to the respective hatcheries.

15.3. Steps taken by MPEDA to control residues in Aquaculture products :

(i) All test reports/results are generated on-line (automatic transmission) on entering the analytical results by the concerned MPEDA Laboratory. Separate alert notice/ information on non-compliant samples/results are also generated on-line and received by the concerned field centers/offices immediately on posting of the test results. On receiving the alert information on non-

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compliant samples, the field offices conduct the investigation/inspection and also collect follow-up samples, where ever available.

(ii) Apart from this, the monthly reports of NRCP-2012 were sent to Export Inspection Council of India. Monthly summary of all test results including non-compliant cases, are informed to the EIC(Competent Authority) and the Directorate General Health Service (Ministry of Health & Family Welfare, Govt. of India).

(iii) The results of the non-compliant samples are informed to the regional offices of Export Inspection Agency (EIA) / EIC (Competent Authority). In turn CA has initiated the actions as per Ex. Inst. In force.

(iv) As was done in previous years, during the year 2012 also, the field centers of MPEDA conducted a series of awareness campaigns in the aqua farming areas of the maritime states of the country against the misuse/abuse of unauthorized drugs and chemicals. A committee constituted at Head Quarters reviewed the positive cases and follow up actions taken.

Details of antibiotic campaign / farmers meet / seminars conducted by Regional and sub-regional centres of MPEDA during 2012 by the field centers:

Centers and (Region/state)	Antibiotic awareness Campaigns (nos.)	No. of participants
RC Valsad (Gujarat)	19	468
RC Panvel (Maharashtra)	23	523
RC Kochi (Kerala)	20	451
RC Thanjavur (Tamil Nadu)	45	1118
RC Vijayawada & SRC Bhimavaram (Andhra Pradesh)	182	3254
RC Bhubaneswar (Orissa)	45	1948
SRC Karwar (Karnataka)	11	182
SRC Kolkata (West Bengal)	30	1194
TOTAL	375	9138

Pamphlets (in vernacular languages) were distributed to the participants. Several meetings were held with hatchery operators also at different areas. A total of 375 awareness campaigns were conducted against the use of Antibiotics in Shrimp / Scampi /L/ vannamei farms which were attended by the aqua farmers in the coastal districts of the maritime states.

The extension arms of MPEDA viz; NaCSA and NETFISH working at the level of primary producers like farmers / fishermen also carried out intensive programmes aiming at complete stoppage of use of antibiotics in respective areas.


(Dr. S.K.Saxena)
Director (Insp. & Q/C)

REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

Anexure I A

COUNTRY	India
YEAR OF PLAN IMPLEMENTATION	
ANIMAL SPECIES / PRODUCT	AQUACULTURE CRUSTACEANS
National PRODUCTION DATA - in TONNES (referring to the previous year)	279592
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)	280000
NUMBER OF SAMPLES †	ACCORDING TO EU REQUIREMENTS
MINIMUM	2800
PLAN	2981

EU EXPORT DATA in TONNES (referring to the previous year)

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

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]	CONFIRM.METH. DETECTION LIMIT [µg/Kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [µg/Kg]	LABORATORY
	MIN	PLAN								
Chloramphenicol + Nitrofurans + Nitroimidazoles	924	1083								
CHLORAMPHENICOL										
NITROFURANS										
Nitrofurantoin metabolite										
Furaltidone metabolite										
Furazolidone metabolite										
Nitrofurazone metabolite										
NITROIMIDAZOLES										

GROUP OF SUBSTANCES TO BE MONITORED	NUMBER OF SAMPLES		COMPOUND or MARKER RESIDUE	MATRIX ANALYSED	SCREENING METHOD	CONFIRMATORY METHOD	SCREEN.METH. DETECTION LIMIT $\mu\text{g/Kg}$	CONFIRM.METH. DETECTION LIMIT $\mu\text{g/Kg}$	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) $\mu\text{g/Kg}$	LABORATORY
	MIN	PLAN								
B1 ANTIBACTERIAL SUBSTANCES	938	948								
B2a ANTHELMINTICS	375	380								
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 [$\mu\text{g}/\text{kg}$]	CONFIR. METH. DETECTION LIMIT [$\mu\text{g}/\text{kg}$]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non-compliant) [$\mu\text{g}/\text{kg}$]	LABORATORY
	MIN	PLAN								
Sum of B3a + B3c + B3d + B3e	563	570								
B3a ORGANOCHLORINE COMPOUNDS INCLUDING PCBS		192								
B3c CHEMICAL ELEMENTS		190								
B3d MYCOTOXINS		68								
B3e DYES e.g. Malachite Green (+ leucomalachite green), crystal violet etc		120								

REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

Annexure 1B

COUNTRY		India		DATE		11-Feb-13	
YEAR OF PLAN IMPLEMENTATION							
ANIMAL SPECIES / PRODUCT		AQUACULTURE FIN FISH					
National PRODUCTION DATA - In TONNES (referring to the previous year)		1094					
PRODUCTION DATA in TONNES for calculation of SAMPLE NUMBERS. (referring to previous year's production)		1100					
NUMBER OF SAMPLES †		ACCORDING TO EU REQUIREMENTS		ACCORDING TO CODEX ALIMENTARIUS		OTHER	
MINIMUM #		6					
PLAN		45					

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)	CONFIRM. METH. DETECTION LIMIT (µg/kg)	LEVEL OF ACTION (i.e. concentration above which a result is deemed non- compliant) (µg/kg)	LABORATORY
	LAB	PLAN								
A1 STILBENES	1	1								
A3 STEROIDS (WITH ANDROGENIC, ESTROGENIC OR PROGESTAGENIC ACTIVITY)	1	1								
A6	1	13								
Chloramphenicol + Nitrofurans*										
Nitroimidazoles										
CHLORAMPHENICOL										
NITROFURANS										
Nitrofurantoin metabolite										
Furaladone metabolite										
Furazolidone metabolite										
Nitrofurazone metabolite										
NITROIMIDAZOLES										

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 →

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]	CONFIRM-METH. DETECTION LIMIT [µg/kg]	LEVEL OF ACTION (i.e. concentration above which a result is deemed non- compliant) [µg/kg]	LABORATORY
	(iii)	P _{L-02}								
B1 ANTIBACTERIAL SUBSTANCES	1	20								
B2a ANTHELMINTICS	1	8								
B2f Other pharmacologically active subs										

NAME OF SUBSTANCE TO BE MONITORED	NUMBER OF SAMPLES		SUBGROUP OF MARKET RESIDUE	DATA ANALYSIS	STRUCTURAL METHOD	COMPARISON METHOD	SERIES OF 10 DIFFERENT FISH (each)	COLLECTED FOR DIFFERENT FISH (pages)	LEVEL OF ACTION IN case of a positive result (pages)	LABORATORY
	1	2								
Sum of B2a + B2c + B2d + B2e		2								
B3a ORGANOCHLORINE COMPOUNDS INCLUDING PCBs		2								
B3c CHEMICAL ELEMENTS		0								
B3d MYCOTOXINS		0								
B3e DYES e.g. Brilliant Green (+ fluorescein, crystal violet etc)		0								

† 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 in 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.

† The minimum production volumes of 10, 500 tonnes) when the spreadsheet would indicate that only 1 sample per sub-group is required, a minimum of one sample per sub-group has to be collected.

Note	INSTRUCTIONS
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 609/23/EC and Commission Decision 91/474/EEC. Data in cells shaded light blue are automatically calculated when the production data cell (Cell C6) is completed (see note 4 below). In the case of milk, eggs, farmed game and wild game, the maximum 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 C6]. 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 C6].
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 precludes those 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 achieved.

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 commodity (e.g. milk)	Bovine	Swine	Poultry	Equidae	Aquaculture	Honey	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathers	Eggs	Milk	Meat	Fat	Bones	Hides	Wool	Feathe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Note	INSTRUCTIONS
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.

MARINE PRODUCTS EXPORT DEVELOPMENT AUTHORITY, KOCHI - 36
NRCP - 2013 - FIELD OFFICE WISE SAMPLE ALLOCATION

Type	Parameter	SRC Bhimavaram to Bhimavaram	RO Visag to Bhimavaram	RC Vijayawada to Nellore	RC Vijayawada to Bhimavaram	RC Visad	RO Veraval	RC Panvel	RO Mumbai	SRC Karwar	SRO Mangalore	RC Kochi	SRC Kannur	RO Kochi	SRO Kollam	RC Thanjavur	RO Chennai	SRO Tudcorin	RC Bhubaneswar	SRO Bhubaneswar	SPC Kolkata	RO Kolkata	Total	Grand Total
CULTURED SHRIMP	CAP, NF & Nitro	241	0	292	39	21	0	9	0	10	0	10	8	0	0	55	0	0	140	0	56	0	881	2751
	ANTB	127	142	151	18	12	9	7	9	9	4	8	7	2	2	34	6	23	84	79	28	28	937	
	ANTH	50	56	57	8	4	4	7	4	4	3	3	1	1	1	15	3	9	34	31	10	8	373	
	PEST	25	28	27	3	3	3	3	3	1	1	1	1	0	0	12	3	3	17	14	8	5	188	
	CE	24	29	30	3	2	2	2	2	2	0	1	0	1	1	9	0	6	17	14	5	5	186	
	MYCO	10	9	7	11	1	1	1	2	1	1	1	1	0	0	3	0	2	5	8	3	0	67	
	DYES	17	20	16	19	0	4	2	1	0	3	1	0	1	0	4	1	4	10	10	3	3	119	
SCAMPI	CAP, NF & Nitro	4	0	4	0	0	0	1	0	0	0	1	0	0	0	1	0	0	2	0	2	0	15	43
	ANTB	2	2	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0	1	11	
	ANTH	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	7	
	PEST	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	
	CE	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	4	
	MYCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
	DYES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
FISH	CAP, NF & Nitro	1	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	45
	STR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	13	
	STL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
	ANTB	1	0	8	1	7	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
	ANTH	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	20	
	PEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
	CE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	
FEED HATCHERY TOTAL	MYCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
	DYES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CAP & NF	4	0	4	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	12	
	CAP & NF	71	0	0	0	4	0	0	0	0	0	20	0	0	0	23	0	0	12	0	0	0	175	
		583	292	295	78	53	25	32	20	30	12	47	18	5	4	159	13	48	326	159	119	54	3026	
																							3026	
																							3026	

MARINE PRODUCTS EXPORT DEVELOPMENT AUTHORITY, KOCHI - 36

PARAMETERWISE TARGET FOR QC LAB KOCHI - NRCP - 2013

Sl No.	Parameter	Field Office																	Total	
		RC Valiad	RO Varaval	RC Panvel	RO Mumbai	SRC Kanwar	SRO Mangalore	RC Kochi	SRC Kannur	RO Kochi	SRO Kollam	RC Thanjavur	RO Chennai	SRO Tuticorin	RC Bhuvanesar	SRO Bhuvanesar	SRC Kollata	RO Kollata		
1	CAP, NF & Nitro	27	0	10	0	13	0	31	8	0	0	81	0	0	154	0	59	0	383	
2	STR	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
3	STL	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
4	ANTB	12	10	8	9	9	4	9	7	2	2	35	6	24	84	80	28	30	359	
5	ANTH	4	7	7	4	4	3	3	1	1	1	15	3	9	35	31	11	9	148	
6	PEST	3	3	3	3	1	1	1	1	0	0	12	3	3	18	16	9	5	82	
7	CE	2	2	2	2	2	0	1	0	1	1	9	0	6	18	14	5	6	71	
8	MYCO	1	1	1	2	1	1	1	1	0	0	3	0	2	5	8	4	0	31	
9	DYES	4	2	1	0	0	3	1	0	1	0	4	1	4	10	10	3	4	48	
	TOTAL	53	25	32	20	30	12	47	18	5	4	159	13	48	326	159	119	54	1124	
	Grand total (HO+BHM+NLR)																			1096
																				1
																				1
																				968
																				388
																				194
																				190
																				68
																				120
																				3026

PARAMETERWISE TARGET FOR QC LAB BHIMAVARAM - NRCP - 2013

Sl No.	Parameter	Field Office			Total
		SRC Bhimavaram	RC Vilyawada	RO Vizag	
1	CAP, NF & Nitro	321	39	0	360
2	STR	0	0	0	0
3	STL	0	0	0	0
4	ANTB	130	25	144	299
5	ANTH	55	8	61	124
6	PEST	26	3	29	58
7	CE	24	3	29	56
8	MYCO	10	0	9	19
9	DYES	17	0	20	37
	TOTAL	583	78	292	953

ho	1124
bym	953
nlr	949
total	3026

PARAMETERWISE TARGET FOR QC LAB NELLORE - NRCP - 2013

Sl No.	Parameter	Field Office			Total
		RC Vijayawada	RO Vizag		
1	CAP, NF & Nitro	353	0		353
2	STR	0	0		0
3	STL	0	0		0
4	ANTB	154	156		310
5	ANTH	58	58		116
6	PEST	27	27		54
7	CE	32	31		63
8	MYCO	11	7		18
9	DYES	19	16		35
	TOTAL	654	295		949

MARINE PRODUCTS EXPORT DEVELOPMENT AUTHORITY, KOCHI - 36
NRCP - 2013 - ALLOCATION OF 5% SAMPLES TO EIC

Type	Parameter	SRC Bhimavaram to Bhimavaram	RO Visag to Bhimavaram	RO Visag to Nellore	RC Vijayawada to Nellore	RC Vijayawada	RO Veraval	RC Panvel	RO Mumbai	SRC Kunwar	SRC Mangalore	RC Kochi	SRC Kollam	RC Thanjavar	RO Chennai	SRO Tullurath	SRC Kolkata	RO Kolkata	RC Bhubaneswar	SRO Bhubaneswar	Total	Grand Total
CULTURED SHRIMP	NF, CAP & Nitroimidazoles	13			13	1		1		1		1		4			4		9		47	138
	Anti. Bact. B	7	7	7	7	1				1		1		1	1	1	1	1	5	5	47	
	Anthelmintics	3	3	2	2	1			1					1		1	1	1	1	1	18	
	Pesticides	3	1	1	1									1			1				10	
	CE	1	1	1	1					1				1				1	1	1	8	
	Mycotoxins				1						1			1				1			3	
	Dyes	1	1	1	1									1							5	
	NF, CAP & Nitroimidazoles			1												1					1	
	Anti. Bact. B	1																			1	
	Anthelmintics																				0	
SCAMPI	Pesticides																				0	2
	CE																				0	
	Mycotoxins																				0	
	Dyes																				0	
	NF, CAP & Nitroimidazoles						1														0	
	Steroids																			1	1	
	Stilbenes																				0	
	Anti. Bact. B																				0	
	Anthelmintic				1																1	
	Pesticides																				0	
FISH	CE																				0	2
	Mycotoxins																				0	
	Dyes																				0	
	NF & CAP	1																			0	
	NF & CAP	4			2									1					1		1	
																					0	
																					0	
																					0	
																					0	
																					0	
FEED	NF & CAP	1																			0	
HATCHERY SAMPLES	NF & CAP	4			2									1					1		9	1
TOTAL		34	13	13	29	3	1	2	1	3	1	3	0	0	10	1	3	7	2	18	8	152

STATE WISE DETAILS OF SAMPLES TO BE COLLECTED UNDER NRCP-2013 BY FIELD OFFICES FOR GROUP 'A' SUBSTANCES**AQUACULTURE CRUSTACEANS**

Region	Shrimp	Scampi	Feed	Hatchery Sample	TOTAL
GUJARAT					
RC(Aq) Valsad	19	-	2	5	26
RO Veraval	-	-	-	-	-
MAHARASHTRA					
RC(Aq) Panvel	8	1	-	-	9
RO Mumbai	-	-	-	-	-
GOA					
KARNATAKA					
SRC(Aq) Karwar	9	-	-	4	13
SRO Mangalore	-	-	-	-	-
KERALA					
RC(Aq) Kochi	11	2	-	18	31
SRC(Aq) Kannur	8	-	-	-	8
RO Kochi	-	-	-	-	-
SRO Kollam	-	-	-	-	-
TAMIL NADU					
RC(Aq) Thanjavur	55	1	2	23	81
RO Chennai	-	-	-	-	-
SRO Tuticorin	-	-	-	-	-
ANDHRA PRADESH					
RC(Aq) Vijayawada	330	4	4	42	380
RO Vizag	-	-	-	-	-
SRC Bhimavaram	241	2	4	73	320
ORISSA					
RC(Aq) Bhubaneswar	141	2	-	10	153
SRO Bhubaneswar	-	-	-	-	-
WEST BENGAL					
SRC(Aq) Kolkata	54	3	-	-	57
RO Kolkata	-	-	-	-	-
TOTAL	876	15	12	175	1078

STATE WISE DETAILS OF SAMPLES TO BE COLLECTED UNDER NRCP-2013 BY FIELD OFFICES FOR GROUP 'B' SUBSTANCES

AQUACULTURE CRUSTACEANS

Region	Antibiotics		Anthelmintics		Pesticides		Chemical Elements		Mycotoxins		Dyes		Total
	Shrimp	Scampi	Shrimp	Scampi	Shrimp	Scampi	Shrimp	Scampi	Shrimp	Scampi	Shrimp	Scampi	
GUJARAT													
RC(Aq) Valsad	11	-	4	-	3	-	2	-	1	-	3	-	24
RO Veraval	10	-	5	-	3	-	2	-	1	-	2	-	23
MAHARASHTRA													
RC(Aq) Panvel	7	-	6	-	3	-	1	-	1	-	1	-	19
RO Mumbai	9	-	3	-	3	-	2	-	1	-	-	-	18
GOA													
KARNATAKA													
SRC(Aq) Karwar	9	-	4	-	1	-	2	-	1	-	-	-	17
SRO Mangalore	4	-	3	-	1	-	-	-	1	-	3	-	12
KERALA													
RC(Aq) Kochi	8	1	3	-	1	-	-	-	-	-	1	-	14
SRC(Aq) Kannur	7	-	1	-	1	-	-	-	1	-	-	-	10
RO Kochi	2	-	1	-	-	-	1	-	-	-	1	-	5
SRO Kollam	2	-	1	-	-	-	1	-	-	-	-	-	4
TAMIL NADU													
RC(Aq)Thanjavur	34	1	15	-	12	-	9	-	3	-	4	-	78
RO Chennai	6	-	3	-	3	-	-	-	-	-	1	-	13
SRO Tuticorin	23	1	9	-	3	-	6	-	2	-	4	-	48
ANDHRA PRADESH													
RC(Aq) Vijayawada	169	2	65	1	30	-	33	1	11	-	19	-	331
RO Vizag	290	2	113	2	55	1	59	1	16	-	35	-	574
SRC Bhimavaram	126	2	50	1	24	2	24	-	10	-	17	-	256
ORISSA													
RC(Aq) Bhubaneswar	84	-	34	1	17	-	17	1	5	-	10	-	169
SRO Bhubaneswar	78	2	31	-	15	1	13	1	8	-	10	-	159
WEST BENGAL													
SRC(Aq) Kolkata	28	-	10	1	8	-	5	-	3	1	3	-	59
RO Kolkata	30	-	9	-	5	-	5	1	-	-	3	1	54
TOTAL	937	11	370	6	188	4	182	5	65	1	117	1	1887

STATE WISE DETAILS OF SAMPLES TO BE COLLECTED UNDER NRCP-2013 BY FIELD OFFICES FOR GROUP 'A' SUBSTANCES**FISH**

REGION	STEROIDS	STILBENES	NITROFURANS, CHLORAMPHENICOL & NITROIMIDAZOLE	TOTAL
GUJARAT				
RC(Aq) Valsad	-	-	1	1
RO Veraval	-	-	-	0
MAHARASHTRA				
RC(Aq) Panvel	-	-	1	1
RO Mumbai	-	-	-	0
GOA				
KARNATAKA				
SRC(Aq) Karwar	-	-	-	0
SRO Mangalore	-	-	-	0
KERALA				
RC(Aq) Kochi	-	-	-	0
SRC(Aq) Kannur	-	-	-	0
RO Kochi	-	-	-	0
SRO Kollam	-	-	-	0
TAMIL NADU				
RC(Aq) Thanjavur	-	-	-	0
RO Chennai	-	-	-	0
SRO Tuticorin	-	-	-	0
ANDHRA PRADESH				
RC(Aq) Vijayawada	-	-	12	12
RO Vizag	-	-	-	0
SRC Bhimavaram	-	-	1	1
ORISSA				
RC(Aq) Bhubaneswar	1	1	1	3
SRO Bhubaneswar	-	-	-	0
WEST BENGAL				
SRC(Aq) Kolkata	-	-	2	2
RO Kolkata	-	-	-	0
TOTAL	1	1	18	20

STATE WISE DETAILS OF SAMPLES TO BE COLLECTED UNDER NRCP-2013 BY FIELD OFFICES FOR GROUP 'B' SUBSTANCES
FISH

REGION	Antibiotics	Anthelmintics	Pesticides	Chemical Elements	Mycotoxins	Dyes	Total
GUJARAT							
RC(Aq) Valsad	1	-	-	-	-	1	2
RO Veraval	-	2	-	-	-	-	2
MAHARASHTRA							
RC(Aq) Panvel	1	1	-	1	-	-	3
RO Mumbai	-	1	-	-	1	-	2
GOA							
KARNATAKA							
SRC(Aq) Karwar	-	-	-	-	-	-	0
SRO Mangalore	-	-	-	-	-	-	0
KERALA							
RC(Aq) Kochi	-	-	-	1	1	-	2
SRC(Aq) Kannur	-	-	-	-	-	-	0
RO Kochi	-	-	-	-	-	-	0
SRO Kollam	-	-	-	-	-	-	0
TAMIL NADU							
RC(Aq) Thanjavur	-	-	-	-	-	-	0
RO Chennai	-	-	-	-	-	-	0
SRO Tuticorin	-	-	-	-	-	-	0
ANDHRA PRADESH							
RC(Aq) Vijayawada	8	-	-	1	-	-	9
RO Vizag	8	4	-	-	-	1	13
SRC Bhimavaram	2	4	-	-	-	-	6
ORISSA							
RC(Aq) Bhubaneswar	-	-	1	-	-	-	1
SRO Bhubaneswar	-	-	-	-	-	-	0
WEST BENGAL							
SRC(Aq) Kolkata	-	-	1	-	-	-	1
RO Kolkata	-	-	-	-	-	-	0
TOTAL	20	12	2	3	2	2	41

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS/FINFISH/HATCHERY SEED/FEED

DATE	11.02.2013
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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	Shrimp	0	0		NA
		Scampi	0	0		NA
		Fish Meat	5	5		All Compliant
		Hatchery seed	0	0		NA
		Feed	0	0		NA
A3. SYNTHETIC STEROIDS (WITH ANDROGENIC, GESTAGENIC OR ESTROGENIC ACTIVITY)	Progesterone	Shrimp	0	0		NA
		Scampi	0	0		NA
		Fish Meat	5	5		All Compliant
		Hatchery seed	0	0		NA
		Feed	0	0		NA
	Oestradiol	Shrimp	0	0		NA
		Scampi	0	0		NA
		Fish Meat	5	5		All Compliant
		Hatchery seed	0	0		NA
		Feed	0	0		NA
A6. CHLORAMPHENICOL	Chloramphenicol	Shrimp	812	833		61 Non Compliant
		Scampi	17	15		4 Non Compliant
		Fish meat	7	8		1 Non Compliant
		Hatchery Seed	154	186		64 Non Compliant
		FEED	24	24		All Compliant

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012
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DATE	11.02.2013
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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. NITROFURANS						
Nitrofurantoin metabolite	AHD	Shrimp	812	833		All Compliant
		Scampi	17	15		All Compliant
		Fish meat	7	8		All Compliant
		Hatchery Seed	154	186		3 Non Compliant
		FEED	24	24		All Compliant
Furaltadone metabolite	AMAZ	Shrimp	812	833		All Compliant
		Scampi	17	15		All Compliant
		Fish meat	7	8		All Compliant
		Hatchery Seed	154	186		All Compliant
		FEED	24	24		All Compliant
Furazolidone metabolite	AOZ	Shrimp	812	833		8 Non Compliant
		Scampi	17	15		All Compliant
		Fish meat	7	8		All Compliant
		Hatchery Seed	154	186		51 Non Compliant
		FEED	24	24		All Compliant
Nitrofurazone metabolite	SEM	Shrimp	812	833		3 Non Compliant
		Scampi	17	15		2 Non Compliant
		Fish meat	7	8		All Compliant
		Hatchery Seed	154	186		2 Non Compliant
		FEED	24	24		All Compliant

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
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DATE	11.02.2013
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			PLANNED	TESTED		
A6. OTHERS						
NITROIMIDAZOLES	Ranidazole	Shrimp	812	793		All Compliant
		Scampi	17	15		All Compliant
		Fish meat	7	5		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Metronidazole	Shrimp	812	793		All Compliant
		Scampi	17	15		All Compliant
		Fish meat	7	5		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Dimetronidazole	Shrimp	812	793		All Compliant
		Scampi	17	15		All Compliant
		Fish meat	7	5		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Iprnidazole/OH	Shrimp	812	793		All Compliant
		Scampi	17	15		All Compliant
		Fish meat	7	5		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS/FINFISH/HATCHERY SEED/FEED

DATE	11.02.2013
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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		
B1. ANTIBACTERIAL SUBSTANCES						
Screening test	NIL	-	-	-	-	NA
Confirmatory test	Tetracyclines	Shrimp	806	816		4 Non Compliant
		Scampi	17	8		All Compliant
		Fish meat	17	17		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Oxytetracycline	Shrimp	806	816		All Compliant
		Scampi	17	8		All Compliant
		Fish meat	17	17		2 Non Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Sulphadiazine	Shrimp	806	816		All Compliant
		Scampi	17	8		All Compliant
		Fish meat	17	17		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Oxolinic Acid	Shrimp	806	816		All Compliant
		Scampi	17	8		All Compliant
		Fish meat	17	17		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
B2a. ANTHELMINTICS	ivermectin	Shrimp	323	329		All Compliant
		Scampi	6	5		All Compliant
		Fish meat	6	5		All Compliant
		Hatchery	0	0		NA
		FEED	0	0		NA

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
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ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS/FINFISH/HATCHERY SEED/FEED

DATE	11.02.2013
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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	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Dieldrin	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Chloradane	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	DDT	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Endrin	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Heptachlor	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS/FINFISH/HATCHERY SEED/FEED

DATE	11.02.2013
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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		
B3a. ORGANOCHLORINE COMPOUNDS INCLUDING PCBS	Hexachloro Benzene	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	HCH	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Alpha Isomer	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Beta Isomer	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Gamma Isomer	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	PCBs	Shrimp	160	163		All Compliant
		Scampi	4	2		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS/FINFISH/HATCHERY SEED/FEED

DATE	11.02.2013
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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	159	170		All Compliant
		Scampi	4	3		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Cadmium	Shrimp	159	170		All Compliant
		Scampi	4	3		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Arsenic	Shrimp	159	170		11 Non Compliant
		Scampi	4	3		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Lead	Shrimp	159	170		All Compliant
		Scampi	4	3		All Compliant
		Fish meat	3	3		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
B3d. MYCOTOXINS	Aflatoxin B1	Shrimp	59	61		All Compliant
		Scampi	1	1		All Compliant
		Fish meat	2	2		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Aflatoxin B2	Shrimp	59	61		All Compliant
		Scampi	1	1		All Compliant
		Fish meat	2	2		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS/FINFISH/HATCHERY SEED/FEED

DATE	11.02.2013
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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		
B3e. DYES	Malachite green	Shrimp	105	105		All Compliant
		Scampi	1	1		All Compliant
		Fish meat	2	2		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA
	Leucomalachite green	Shrimp	105	105		All Compliant
		Scampi	1	1		All Compliant
		Fish meat	2	2		All Compliant
		Hatchery Seed	0	0		NA
		FEED	0	0		NA

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA	DATE	
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012		
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS		

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	NIL					
A3. SYNTHETIC STEROIDS (WITH ANDROGENIC, GESTAGENIC OR ESTROGENIC ACTIVITY)	NIL					
A6. CHLORAMPHENICOL	Chloramphenicol	Shrimp	812	833		61 Non Compliant
		Scampi	17	15		4 Non Compliant
A6. NITROFURANS						
Nitrofurantoin metabolite	AHD	Shrimp	812	833		All Compliant
		Scampi	17	15		All Compliant
Furaltadone metabolite	AMAZ	Shrimp	812	833		All Compliant
		Scampi	17	15		All Compliant
Furazolidone metabolite	AOZ	Shrimp	812	833		8 Non Compliant
		Scampi	17	15		All Compliant
Nitrofurazone metabolite	SEM	Shrimp	812	833		3 Non Compliant
		Scampi	17	15		2 Non Compliant
A6. OTHERS (NITROIMIDAZOLES)	Ranidazole	Shrimp				All Compliant
		Scampi				All Compliant
	Metronidazole	Shrimp				All Compliant
		Scampi				All Compliant
	Dimetronidazole	Shrimp				All Compliant
		Scampi				All Compliant
	Ipronidazole	Shrimp				All Compliant
		Scampi				All Compliant
B1. ANTIBACTERIAL SUBSTANCES						
Screening test						
Confirmatory test	Tetracyclines	Shrimp	806	816		4 Non Compliant
		Scampi	17	8		All Compliant
	Oxytetracycline	Shrimp	806	816		All Compliant
		Scampi	17	8		All Compliant
	Sulphadiazine	Shrimp	806	816		All Compliant
		Scampi	17	8		All Compliant
	Oxolinic Acid	Shrimp	806	816		All Compliant
		Scampi	17	8		All Compliant

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012
ANIMAL SPECIES/PRODUCT	AQUACULTURE - CRUSTACEANS

DATE	
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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) [$\mu\text{g/Kg}$]	NUMBER OF NON COMPLIANT RESULTS (ABOVE LEVEL OF ACTION)
			PLANNED	TESTED		
B3d. MYCOTOXINS	Aflatoxin B1	Shrimp	59	61		All Compliant
		Scampi	1	1		All Compliant
	Aflatoxin B2	Shrimp	59	61		All Compliant
		Scampi	1	1		All Compliant
B3e. DYES	Malachite green	Shrimp	105	105		All Compliant
		Scampi	1	1		All Compliant
	Leukomalachite green	Shrimp	105	105		All Compliant
		Scampi	1	1		All Compliant

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA	DATE	
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012		
ANIMAL SPECIES/PRODUCT	AQUACULTURE - FIN FISHES		

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	Fish meat	5	5		All Compliant
A3. SYNTHETIC STEROIDS (WITH ANDROGENIC, GESTAGENIC OR ESTROGENIC ACTIVITY)	Progesterone	Fish meat	5	5		All Compliant
	Oestradiol	Fish meat	5	5		All Compliant
A6. CHLORAMPHENICOL	Chloramphenicol	Fish meat	7	8		1 Non Compliant
A6. NITROFURANS						
Nitrofurantoin metabolite	AHD	Fish meat	7	8		All Compliant
Furaltadone metabolite	AMAZ	Fish meat	7	8		All Compliant
Furazolidone metabolite	AOZ	Fish meat	7	8		All Compliant
Nitrofurazone metabolite	SEM	Fish meat	7	8		All Compliant
A6. OTHERS (NITROIMIDAZOLES)	Ranidazole	Fish meat				All Compliant
	Metronidazole	Fish meat				All Compliant
	Dimetronidazole	Fish meat				All Compliant
	Ipronidazole	Fish meat				All Compliant
B1. ANTIBACTERIAL SUBSTANCES						
Screening test						
Confirmatory test	Tetracyclines	Fish meat	17	17		All Compliant
	Oxytetracycline	Fish meat	17	17		2 Non Compliant
	Sulphadiazine	Fish meat	17	17		All Compliant
	Oxolinic Acid	Fish meat	17	17		All Compliant

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA	DATE	
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012		
ANIMAL SPECIES/PRODUCT	AQUACULTURE - FIN FISHES		

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		
B2a. ANTHELMINTICS	Ivermectin	Fish meat	6	5		All Compliant
B2f. OTHER PHARMACOLOGICALLY ACTIVE SUBSTANCES						
B3a. ORGANOCHLORINE COMPOUNDS INCLUDING PCBs	Aldrin	Fish meat	3	3		All Compliant
	Dieldrin	Fish meat	3	3		All Compliant
	Chloradane	Fish meat	3	3		All Compliant
	DDT	Fish meat	3	3		All Compliant
	Endrin	Fish meat	3	3		All Compliant
	Heptachlor	Fish meat	3	3		All Compliant
	Hexachloro Benzene	Fish meat	3	3		All Compliant
	HCH	Fish meat	3	3		All Compliant
	Alpha Isomer	Fish meat	3	3		All Compliant
	Beta Isomer	Fish meat	3	3		All Compliant
	Gamma Isomer	Fish meat	3	3		All Compliant
	PCBs	Fish meat	3	3		All Compliant
B3c. CHEMICAL ELEMENTS	Mercury	Fish meat	3	3		All Compliant
	Cadmium	Fish meat	3	3		All Compliant
	Arsenic	Fish meat	3	3		All Compliant
	Lead	Fish meat	3	3		All Compliant
B3d. MYCOTOXINS	Aflatoxin B1	Shrimp	2	2		All Compliant
	Aflatoxin B2	Shrimp	2	2		All Compliant
B3e. DYES	Malachite green	Shrimp	2	2		All Compliant
	Leukomalachite green	Shrimp	2	2		All Compliant

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA	DATE	
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012		
ANIMAL SPECIES/PRODUCT	AQUACULTURE - HATCHERY SEED		

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					
A3. SYNTHETIC STEROIDS (WITH ANDROGENIC, GESTAGENIC OR ESTROGENIC ACTIVITY)	Progesterone					
	Oestradiol					
A6. CHLORAMPHENICOL	Chloramphenicol	Hatchery Seed	154	186		64 Non Compliant
A6. NITROFURANS						
Nitrofurantoin metabolite	AHD	Hatchery Seed	154	186		3 Non Compliant
Furaltadone metabolite	AMOZ	Hatchery Seed	154	186		All Compliant
Furazolidone metabolite	AOZ	Hatchery Seed	154	186		51 Non Compliant
Nitrofurazone metabolite	SEM	Hatchery Seed	154	186		2 Non Compliant
A6. OTHERS (NITROIMIDAZOLES)	Ranidazole					
	Metronidazole					
	Dimetronidazole					
	Ipronidazole					
B1. ANTIBACTERIAL SUBSTANCES						
Screening test						
Confirmatory test	Tetracyclines					
	Oxytetracycline					
	Sulphadiazine					
	Oxolinic Acid					

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA	DATE	
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012		
ANIMAL SPECIES/PRODUCT	AQUACULTURE - HATCHERY SEED		

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		
B2a. ANTHELMINTICS	Ivermectin					
B2f. OTHER PHARMACOLOGICALLY ACTIVE SUBSTANCES						
B3a. ORGANOCHLORINE COMPOUNDS INCLUDING PCBs	Aldrin					
	Dieldrin					
	Chloradane					
	DDT					
	Endrin					
	Heptachlor					
	Hexachloro Benzene					
	HCH					
	Alpha Isomer					
	Beta Isomer					
	Gamma Isomer					
	PCBs					
B3c. CHEMICAL ELEMENTS	Mercury					
	Cadmium					
	Arsenic					
	Lead					
B3d. MYCOTOXINS	Aflatoxin B1					
	Aflatoxin B2					
B3e. DYES	Malachite green					
	Leukomalachite green					

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA	DATE	
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012		
ANIMAL SPECIES/PRODUCT	AQUACULTURE - FEED		

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					
A3. SYNTHETIC STEROIDS (WITH ANDROGENIC, GESTAGENIC OR ESTROGENIC ACTIVITY)	Progesterone					
	Oestradiol					
A6. CHLORAMPHENICOL	Chloramphenicol	FEED	24	24		All Compliant
A6. NITROFURANS						
Nitrofurantoin metabolite	AHD	FEED	24	24		All Compliant
Furaltadone metabolite	AMOZ	FEED	24	24		All Compliant
Furazolidone metabolite	AOZ	FEED	24	24		All Compliant
Nitrofurazone metabolite	SEM	FEED	24	24		All Compliant
A6. OTHERS (NITROIMIDAZOLES)	Ranidazole					
	Metronidazole					
	Dimetronidazole					
	Ipronidazole					
B1. ANTIBACTERIAL SUBSTANCES						
Screening test						
Confirmatory test	Tetracyclines					
	Oxytetracycline					
	Sulphadiazine					
	Oxolinic Acid					

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA		DATE		
YEAR OF IMPLEMENTATION OF THE RESIDUE PLAN	2012				
ANIMAL SPECIES/PRODUCT	AQUACULTURE - FEED				

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		
B2a. ANTHELMINTICS	Ivermectin					
B2f. OTHER PHARMACOLOGICALLY ACTIVE SUBSTANCES						
B3a. ORGANOCHLORINE COMPOUNDS INCLUDING PCBs	Aldrin					
	Dieldrin					
	Chloradane					
	DDT					
	Endrin					
	Heptachlor					
	Hexachloro Benzene					
	HCH					
	Alpha Isomer					
	Beta Isomer					
	Gamma Isomer					
	PCBs					
B3c. CHEMICAL ELEMENTS	Mercury					
	Cadmium					
	Arsenic					
	Lead					
B3d. MYCOTOXINS	Aflatoxin B1					
	Aflatoxin B2					
B3e. DYES	Malachite green					
	Leukomalachite green					

ANNEXURE III (A)

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION	2011
ANIMAL SPECIES/PRODUCT	AQUACULTURE - crustaceans

DATE	15/02/2012
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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						
A3. SYNTHETIC STEROIDS (WITH ANDROGENIC, GESTAGENIC OR ESTROGENIC ACTIVITY)						
A6. CHLORAMPHENICOL	Chloramphenicol	Shrimp/Scampi/Feed/Hatchery sample	981	988		33 Non-Compliant
A6. NITROFURANS						
Nitrofurantoin metabolite	AHD	Shrimp/Scampi/Feed/Hatchery sample	981	988		2 Non-Compliant
Furaladone metabolite	AWOZ	Shrimp/Scampi/Feed/Hatchery sample	981	988		All Compliant
Furazolidone metabolite	AOZ	Shrimp/Scampi/Feed/Hatchery sample	981	988		53 Non-Compliant
Nitrofurazone metabolite	SEM	Shrimp/Scampi/Feed/Hatchery sample	981	988		4 Non-Compliant
A6. OTHERS						
NITROIMIDAZOLES	Ranidazole	Shrimp & Scampi	792	792		All Compliant
	Metronidazole	Shrimp & Scampi	792	792		All Compliant
	Dimetronidazole	Shrimp & Scampi	792	792		All Compliant
	Ipronidazole	Shrimp & Scampi	792	792		All Compliant
B1. ANTIBACTERIAL SUBSTANCES			784	809		
Screening test	Tetracyclines/Sulphadiazine, etc	shrimp/scampi		431		All Compliant
Confirmatory test	Tetracyclines	shrimp/scampi		505		All Compliant
	Oxytetracyclines	shrimp/scampi		505		All Compliant
	Sulphadiazine	shrimp/scampi		378		All Compliant
	Oxolinic Acid	shrimp/scampi	784	809		All Compliant
B2a. ANTHELMINTICS	Ivermectin	shrimp/scampi	321	330		All Compliant
B2f. OTHER PHARMACOLOGICALLY ACTIVE SUBSTANCES						

RESULTS OF REGULATORY PROGRAMME FOR CONTROL OF RESIDUES IN FOOD

COUNTRY	INDIA
YEAR OF IMPLEMENTATION	2011
ANIMAL SPECIES/PRODUCT	AQUACULTURE - crustaceans

DATE	15/02/2012
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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		
B3a. ORGANOCHLORINE COMPOUNDS INCLUDING PCBS	Aldrin	shrimp/scampi	153	156		All Compliant
	Dieldrin	shrimp/scampi	153	156		All Compliant
	Chlordane	shrimp/scampi	153	156		All Compliant
	DDT	shrimp/scampi	153	156		All Compliant
	Endrine	shrimp/scampi	153	156		All Compliant
	Heptachlor	shrimp/scampi	153	156		All Compliant
	Hexachlorobenzene	shrimp/scampi	153	156		All Compliant
	HCH	shrimp/scampi	153	156		All Compliant
	Alpha isomer	shrimp/scampi	153	156		All Compliant
	Beta isomer	shrimp/scampi	153	156		All Compliant
	Gamma isomer	shrimp/scampi	153	156		All Compliant
	PCBs	shrimp/scampi				
B3c. CHEMICAL ELEMENTS	Cadmium	shrimp/scampi	155	156		All Compliant
	Lead	shrimp/scampi	155	156		3 Non-Compliant
	Mercury	shrimp/scampi	155	156		All Compliant
	Arsenic	shrimp/scampi	155	156		All Compliant
B3d. MYCOTOXINS	Aflatoxin B1	shrimp/scampi	52	53		All Compliant
	Aflatoxin B2	shrimp/scampi	52	53		All Compliant
B3e. DYES	Malachite green	shrimp/scampi	101	104		All Compliant
	Leukomalachite green	shrimp/scampi	101	104		All Compliant

Target Achievement Field Office Wise

Field Office	CAP/NF	Gr B	CE	Pest	AH	ST	STL	NI	Grand Total	Under Achievement
REGIONAL CENTRE VALSAD	25		12	2	2	4	1	1	20	47
										3

Target-Ordinary Recived and Tested									
	Shrimp	Scampi	Total Crustaceans	Hatchery	Fish	Feed	Grand Total		
Ordinary	821	14	835	139	8	24	1006	375	
Follow up	12	1	13	47	0	0	60	334	
Gr A (CAP & NF)	833	15	848	186	8	24	<u>1066</u>	305	
								1014	

	Test / Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
RC Valsao	Shrimp					3	3	3	4					
	Fish						1							19
	Feed					2								1
	Hatchery					2			1					2
	Shrimp		2	1	1	2								3
RC Kochi	Fish									2	2			
	Feed													10
	Hatchery	3	3		3									
	Scampi											2		17
	Shrimp													
RC Vijayawada	Shrimp				36	36	36	40	36	36	36	1	1	2
	Fish				5	5	5	5	5	5	5			291
	Feed				1									1
	Hatchery				2		2		2					6
	Scampi				8	8	8	8	6					38
RC Panvel	Shrimp				1			1	1	1				4
	Fish		2	2	2				2	1				9
	Scampi													1
	Shrimp				1									1
	Scampi													1
SRC Kannur	Shrimp						4		3					7
	Shrimp			2	2	2	2	4						12
	Hatchery						3							3
	Shrimp			3	7	7	8	7	7	7	7			53
	Feed			2		2								6
RC Thanjavur	Hatchery		5	5			5	5						20
	Scampi							1						1
	Shrimp				12	20	20	25	25	20	20			142
	Fish			1										1
	Hatchery			4	3	3								10
RC BBSR	Scampi				1	1								2
	Shrimp		22	22	22	22	23	22	22	22	22	22		221
	Fish													
	Feed	2	2	2			2	2						10
	Hatchery													
SRC BHM	Scampi			2		2								4

Details of Positive Results of NRCP 2012 at Lab Kochi

SI NO	Species	Parameter	Test Result (ppb)	Region
I Shrimp				
1	<i>P monodon</i>	CE- Arsenic	1931	Karnataka (Karwar)
2	<i>P monodon</i>	Nitrofurantol Metabolite - AOZ	0.38	Kolkata
3	<i>P monodon</i>	Nitrofurantol Metabolite - SEM	0.59	Kolkata
4	<i>P monodon</i>	Chloramphenicol	0.22	Kerala (Kochi)
5	<i>P monodon</i>	Chloramphenicol	0.24	Kolkata
6	<i>P monodon</i>	CE- Arsenic	1255.37	Orissa (Bhubaneswar)
7	<i>P monodon</i>	Chloramphenicol	1.08	Kolkata
8	<i>P monodon</i>	Chloramphenicol	0.27	Kolkata
9	<i>P monodon</i>	Chloramphenicol	0.3	Kerala (Kochi)
10	<i>P monodon</i>	Chloramphenicol	0.31	Tamil Nadu (Thanjavur)
11	<i>P monodon</i>	Chloramphenicol	0.11	Karnataka (Karwar)
12	<i>P monodon</i>	Chloramphenicol	0.19	Maharashtra (Panvel)
13	<i>P monodon</i>	CE- Arsenic	1749.25	Kolkata
14	<i>P monodon</i>	Chloramphenicol	0.22	Tamil Nadu (Thanjavur)
15	<i>P monodon</i>	Chloramphenicol	0.18	Kerala (Kochi)
16	<i>P monodon</i>	Chloramphenicol	0.25	Orissa (Bhubaneswar)
17	<i>P monodon</i>	CE- Arsenic	1088.31	Orissa (Bhubaneswar)
18	<i>P monodon</i>	Nitrofurantol Metabolite - SEM	0.74	Orissa (Bhubaneswar)
19	<i>P monodon</i>	Nitrofurantol Metabolite - SEM	0.83	Orissa (Bhubaneswar)
20	<i>P monodon</i>	CE- Arsenic	2476.19	Kolkata
21	<i>P monodon</i>	CE- Arsenic	2580.69	Orissa (Bhubaneswar)
22	<i>P monodon</i>	CE- Arsenic	2463.3	Kolkata
23	<i>P monodon</i>	CE- Arsenic	4072.22	Orissa (Bhubaneswar)
24	<i>P monodon</i>	CE- Arsenic	3941.46	Orissa (Bhubaneswar)
25	<i>P monodon</i>	CE- Arsenic	1440.81	Orissa (Bhubaneswar)
26	<i>P monodon</i>	CE- Arsenic	5946.52	Orissa (Bhubaneswar)
II Scampi				
1	<i>M rosenbergi</i>	Nitrofurantol Metabolite - SEM	0.86	Kolkata
2	<i>M rosenbergi</i>	Nitrofurantol Metabolite - SEM	1.33	Kolkata
3	<i>M rosenbergi</i>	Chloramphenicol	0.19	Kolkata
4	<i>M rosenbergi</i>	Chloramphenicol	0.26	Maharashtra (Panvel)
III Hatchery Samples				
1	Shrimp seed	Chloramphenicol	0.15	Kerala (Kochi)
		Nitrofurantol Metabolite - AOZ	884.77	
2	Shrimp seed	Chloramphenicol	4.74	Kerala (Kochi)
		Nitrofurantol Metabolite - AOZ	0.96	
3	Shrimp seed	Chloramphenicol	1.51	Tamil Nadu (Thanjavur)
4	Shrimp seed	Chloramphenicol	1.21	Tamil Nadu (Thanjavur)
		Nitrofurantol Metabolite - AOZ	0.74	
5	Shrimp seed	Nitrofurantol Metabolite - AOZ	25.15	Tamil Nadu (Thanjavur)
		Nitrofurantol Metabolite - SEM	0.46	
6	Shrimp seed	Chloramphenicol	0.17	Tamil Nadu (Thanjavur)
		Nitrofurantol Metabolite - AOZ	1110	
7	Shrimp seed	Chloramphenicol	3.02	Tamil Nadu (Thanjavur)
8	Shrimp seed	Nitrofurantol Metabolite - AOZ	4.15	Tamil Nadu (Thanjavur)
9	Shrimp seed	Nitrofurantol Metabolite - AOZ	270.13	Kerala (Kochi)

10	Shrimp seed	Nitrofurantoin Metabolite - AOZ	240.84	Orissa (Bhubaneswar)
11	Shrimp seed	Chloramphenicol	15.2	Orissa (Bhubaneswar)
12	Shrimp seed	Chloramphenicol	14.18	Orissa (Bhubaneswar)
13	Shrimp seed	Chloramphenicol	96.54	Orissa (Bhubaneswar)
14	Shrimp seed	Chloramphenicol	0.31	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	2.82	
15	Shrimp seed	Chloramphenicol	1.69	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	1.52	
16	Shrimp seed	Chloramphenicol	2.59	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	2.07	
17	Shrimp seed	Chloramphenicol	0.79	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	2.36	
18	Shrimp seed	Chloramphenicol	0.2	Orissa (Bhubaneswar)
19	Shrimp seed	Chloramphenicol	3.02	Tamil Nadu (Thanjavur)
20	Shrimp seed	Chloramphenicol	2.85	Orissa (Bhubaneswar)
21	Shrimp seed	Chloramphenicol	9.3	Karnataka (Karwar)
22	Shrimp seed	Chloramphenicol	1.01	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	0.51	
23	Shrimp seed	Chloramphenicol	14.05	Karnataka (Karwar)
		Nitrofurantoin Metabolite - SEM	1.59	
24	Shrimp seed	Chloramphenicol	0.66	Orissa (Bhubaneswar)
25	Shrimp seed	Chloramphenicol	107.2	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	43.18	
26	Shrimp seed	Chloramphenicol	14.48	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	85.3	
27	Shrimp seed	Nitrofurantoin Metabolite - AOZ	1312.9	Tamil Nadu (Thanjavur)
28	Shrimp seed	Chloramphenicol	0.28	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	0.75	
29	Shrimp seed	Chloramphenicol	304.12	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	1.53	
30	Shrimp seed	Nitrofurantoin Metabolite - AOZ	1.36	Tamil Nadu (Thanjavur)
31	Shrimp seed	Chloramphenicol	0.3	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	11.6	
32	Shrimp seed	Chloramphenicol	2.71	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	709.41	
33	Shrimp seed	Chloramphenicol	0.24	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	126.86	
34	Shrimp seed	Chloramphenicol	21.37	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	298.99	
35	Shrimp seed	Chloramphenicol	0.52	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	1549.37	
36	Shrimp seed	Nitrofurantoin Metabolite - AOZ	534.82	Orissa (Bhubaneswar)
37	Shrimp seed	Nitrofurantoin Metabolite - AOZ	607.66	Orissa (Bhubaneswar)
38	Shrimp seed	Chloramphenicol	2.9	Tamil Nadu (Thanjavur)
39	Shrimp seed	Nitrofurantoin Metabolite - AOZ	12.19	Kerala (Kochi)
40	Shrimp seed	Nitrofurantoin Metabolite - AOZ	3.06	Tamil Nadu (Thanjavur)
41	Shrimp seed	Chloramphenicol	0.16	Tamil Nadu (Thanjavur)
42	Shrimp seed	Chloramphenicol	2.88	Kerala (Kochi)
43	Shrimp seed	Chloramphenicol	1.2	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	7.89	
44	Shrimp seed	Chloramphenicol	4.2	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	1.22	

Details of Positive Results of NRCP 2012 at Lab Bhimavaram				
SI NO	Species	Parameter	Result Result (ppb)	Region
I	Shrimp			
1	<i>P monodon</i>	Chloramphenicol	0.75	Andra Pradesh (Bhimavaram)
2	<i>P monodon</i>	Chloramphenicol	2.08	Andra Pradesh (Bhimavaram)
3	<i>P monodon</i>	Chloramphenicol	2.10	Andra Pradesh (Bhimavaram)
4	<i>P monodon</i>	Chloramphenicol	2.42	Andra Pradesh (Bhimavaram)
5	<i>P monodon</i>	Chloramphenicol	0.75	Andra Pradesh (Bhimavaram)
6	<i>P monodon</i>	Chloramphenicol	1.48	Andra Pradesh (Bhimavaram)
7	<i>P monodon</i>	Chloramphenicol	0.70	Andra Pradesh (Bhimavaram)
8	<i>P monodon</i>	Chloramphenicol	0.81	Andra Pradesh (Bhimavaram)
9	<i>P monodon</i>	Chloramphenicol	0.84	Andra Pradesh (Bhimavaram)
10	<i>P monodon</i>	Chloramphenicol	0.75	Andra Pradesh (Bhimavaram)
11	<i>P monodon</i>	Chloramphenicol	0.65	Andra Pradesh (Bhimavaram)
12	<i>P monodon</i>	Chloramphenicol	1.35	Andra Pradesh (Bhimavaram)
13	<i>P monodon</i>	Chloramphenicol	3.20	Andra Pradesh (Bhimavaram)
14	<i>P monodon</i>	Chloramphenicol	0.97	Andra Pradesh (Bhimavaram)
15	<i>P monodon</i>	Chloramphenicol	0.83	Andra Pradesh (Bhimavaram)
16	<i>P monodon</i>	Chloramphenicol	2.50	Andra Pradesh (Bhimavaram)
17	<i>P monodon</i>	Nitrofurantol Metabolite - AOZ	3.21	Andra Pradesh (Bhimavaram)
18	<i>P monodon</i>	Chloramphenicol	3.60	Andra Pradesh (Bhimavaram)
19	<i>P monodon</i>	Chloramphenicol	0.95	Andra Pradesh (Bhimavaram)
20	<i>P monodon</i>	Chloramphenicol	0.66	Andra Pradesh (Vijayawada)
21	<i>P monodon</i>	Chloramphenicol	0.78	Andra Pradesh (Vijayawada)
22	<i>P monodon</i>	Chloramphenicol	1.03	Andra Pradesh (Bhimavaram)
23	<i>L.vannamei</i>	Chloramphenicol	20.02	Andra Pradesh (Bhimavaram)
24	<i>P monodon</i>	Chloramphenicol	4.99	Andra Pradesh (Bhimavaram)
25	<i>P monodon</i>	Chloramphenicol	2.75	Andra Pradesh (Bhimavaram)
26	<i>P monodon</i>	Chloramphenicol	1.34	Andra Pradesh (Bhimavaram)
27	<i>P monodon</i>	Chloramphenicol	32.29	Andra Pradesh (Bhimavaram)
		Nitrofurantol Metabolite - AOZ	4.07	
28	<i>L.vannamei</i>	Chloramphenicol	1.02	Andra Pradesh (Bhimavaram)
29	<i>P monodon</i>	Chloramphenicol	0.92	Andra Pradesh (Bhimavaram)
30	<i>P monodon</i>	Chloramphenicol	3.52	Andra Pradesh (Bhimavaram)
31	<i>P monodon</i>	Chloramphenicol	1.35	Andra Pradesh (Bhimavaram)
32	<i>P monodon</i>	Chloramphenicol	1.97	Andra Pradesh (Bhimavaram)
33	<i>P monodon</i>	Chloramphenicol	1.43	Andra Pradesh (Bhimavaram)
34	<i>L.vannamei</i>	Chloramphenicol	0.72	Andra Pradesh (Bhimavaram)
35	<i>P monodon</i>	Chloramphenicol	6.76	Andra Pradesh (Bhimavaram)
36	<i>P monodon</i>	Chloramphenicol	1.16	Andra Pradesh (Bhimavaram)
37	<i>L.vannamei</i>	Chloramphenicol	3.03	Andra Pradesh (Bhimavaram)
38	<i>P monodon</i>	Chloramphenicol	2.40	Andra Pradesh (Bhimavaram)
39	<i>P monodon</i>	Chloramphenicol	1.48	Andra Pradesh (Bhimavaram)
40	<i>L.vannamei</i>	Chloramphenicol	1.65	Andra Pradesh (Bhimavaram)
41	<i>L.vannamei</i>	Chloramphenicol	6.82	Andra Pradesh (Vijayawada)

43	<i>P. monodon</i>	Chloramphenicol	1.73	Andra Pradesh (Bhimavaram)
44	<i>L. vannamei</i>	Chloramphenicol	1.69	Andra Pradesh (Bhimavaram)
45	<i>L. vannamei</i>	Chloramphenicol	0.81	Andra Pradesh (Bhimavaram)
46	<i>L. vannamei</i>	Chloramphenicol	1.01	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	22.23	
47	<i>L. vannamei</i>	Nitrofurantoin Metabolite - AOZ	3.00	Andra Pradesh (Bhimavaram)
48	<i>L. vannamei</i>	Chloramphenicol	1.35	Andra Pradesh (Bhimavaram)
49	<i>L. vannamei</i>	Chloramphenicol	0.86	Andra Pradesh (Bhimavaram)
50	<i>L. vannamei</i>	Chloramphenicol	0.75	Andra Pradesh (Bhimavaram)
II	Scampi			
1	<i>M. rosenbergi</i>	Chloramphenicol	1.81	Andra Pradesh (Bhimavaram)
III	Hatchery Samples			
1	Shrimp seed	Chloramphenicol	0.73	Andra Pradesh (Bhimavaram)
2	Shrimp seed	Chloramphenicol	1.47	Andra Pradesh (Bhimavaram)
3	Shrimp seed	Chloramphenicol	1.05	Andra Pradesh (Bhimavaram)
4	Shrimp seed	Chloramphenicol	195.9	Andra Pradesh (Bhimavaram)
5	Shrimp seed	Chloramphenicol	0.91	Andra Pradesh (Bhimavaram)
6	Shrimp seed	Chloramphenicol	33.54	Andra Pradesh (Bhimavaram)
7	Shrimp seed	Chloramphenicol	0.51	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	16.19	
8	Shrimp seed	Chloramphenicol	27.8	Andra Pradesh (Bhimavaram)
9	Shrimp seed	Chloramphenicol	0.84	Andra Pradesh (Bhimavaram)
10	Shrimp seed	Chloramphenicol	3.36	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	5.73	
11	Shrimp seed	Chloramphenicol	6.44	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	20.11	
12	Shrimp seed	Chloramphenicol	0.96	Andra Pradesh (Bhimavaram)
13	Shrimp seed	Chloramphenicol	12.73	Andra Pradesh (Bhimavaram)
14	Shrimp seed	Chloramphenicol	1.05	Andra Pradesh (Bhimavaram)
15	Shrimp seed	Nitrofurantoin Metabolite - AOZ	2.21	Andra Pradesh (Bhimavaram)
16	Shrimp seed	Chloramphenicol	20.79	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	1.99	
17	Shrimp seed	Nitrofurantoin Metabolite - AOZ	392.19	Andra Pradesh (Bhimavaram)
18	Shrimp seed	Chloramphenicol	0.63	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	52.94	
19	Shrimp seed	Chloramphenicol	0.61	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	42.43	
20	Shrimp seed	Chloramphenicol	0.47	Andra Pradesh (Bhimavaram)
21	Shrimp seed	Chloramphenicol	1.35	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	67.55	Andra Pradesh (Bhimavaram)

22	Shrimp seed	Chloramphenicol	3.05	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	60.79	
23	Shrimp seed	Nitrofurantoin Metabolite - AOZ	81.89	Andra Pradesh (Bhimavaram)
24	Shrimp seed	Chloramphenicol	4.41	Andra Pradesh (Bhimavaram)
25	Shrimp seed	Chloramphenicol	30.73	Andra Pradesh (Bhimavaram)
26	Shrimp seed	Chloramphenicol	2.82	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	251.58	
27	Shrimp seed	Chloramphenicol	10.3	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	72.95	
28	Shrimp seed	Chloramphenicol	5.09	Andra Pradesh (Bhimavaram)
29	Shrimp seed	Chloramphenicol	0.33	Andra Pradesh (Bhimavaram)
30	Shrimp seed	Chloramphenicol	0.41	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	0.94	
31	Shrimp seed	Chloramphenicol	0.18	Andra Pradesh (Bhimavaram)
32	Shrimp seed	Chloramphenicol	3.15	Andra Pradesh (Bhimavaram)
33	Shrimp seed	Chloramphenicol	0.43	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	3.52	
		Nitrofurantoin Metabolite - AHD	1.13	
34	Shrimp seed	Nitrofurantoin Metabolite - AOZ	183.19	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AHD	3.21	
35	Shrimp seed	Nitrofurantoin Metabolite - AOZ	183.19	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AHD	3.21	
36	Shrimp seed	Nitrofurantoin Metabolite - AOZ	1.16	Andra Pradesh (Bhimavaram)
37	Shrimp seed	Nitrofurantoin Metabolite - AOZ	8.97	Andra Pradesh (Bhimavaram)
IV	Fish			
1	Fish / Rohu	Oxytetracycline	521.98	Andra Pradesh (Bhimavaram)
2	Fish / others	Chloramphenicol	2.44	Andra Pradesh (Bhimavaram)

Details of Positive Results of NRCP 2012 at Lab Nellore				
SI NO	Species	Parameter	Result Result (ppb)	Region
I	Shrimp			
1	<i>P.monodon</i>	Chloramphenicol	0.09	Andra Pradesh (Vijayawada)
2	<i>L.vannamei</i>	Nitrofurantol Metabolite - AOZ	81.9	Andra Pradesh (Vijayawada)
3	<i>L.vannamei</i>	Tetracycline	219.21	Andra Pradesh (Vizag)
4	<i>L.vannamei</i>	Tetracycline	127.58	Andra Pradesh (Vizag)
5	<i>L.vannamei</i>	Tetracycline	220.71	Andra Pradesh (Vizag)
6	<i>L.vannamei</i>	Tetracycline	140.67	Andra Pradesh (Vizag)
7	<i>L.vannamei</i>	Nitrofurantol Metabolite - AOZ	2.8	Andra Pradesh (Vijayawada)
8	<i>L.vannamei</i>	Nitrofurantol Metabolite - AOZ	4.85	Andra Pradesh (Vijayawada)
9	<i>L.vannamei</i>	Chloramphenicol	0.12	Andra Pradesh (Vijayawada)
10	<i>P.monodon</i>	Chloramphenicol	0.1	Andra Pradesh (Vijayawada)
II	Scampi			
1	<i>M. rosenbergi</i>	Chloramphenicol	0.12	Andra Pradesh (Vijayawada)
III	Hatchery Samples			
1	Shrimp seed	Nitrofurantol Metabolite - AOZ	28.83	Andra Pradesh (Vijayawada)
2	Shrimp seed	Nitrofurantol Metabolite - AOZ	2.49	Andra Pradesh (Vijayawada)
IV	Fish			
1	Fish / Rohu	Oxytetracycline	456.93	Andra Pradesh (Vijayawada)

III	Hatchery Samples			
1	Shrimp seed	Chloramphenicol	0.15	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	884.77	
2	Shrimp seed	Chloramphenicol	4.74	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	0.96	
3	Shrimp seed	Chloramphenicol	1.51	Tamil Nadu (Thanjavur)
4	Shrimp seed	Chloramphenicol	1.21	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	0.74	
5	Shrimp seed	Nitrofurantoin Metabolite - AOZ	25.15	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - SEM	0.46	
6	Shrimp seed	Chloramphenicol	0.17	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	1110	
7	Shrimp seed	Chloramphenicol	3.02	Tamil Nadu (Thanjavur)
8	Shrimp seed	Nitrofurantoin Metabolite - AOZ	4.15	Tamil Nadu (Thanjavur)
9	Shrimp seed	Nitrofurantoin Metabolite - AOZ	270.13	Kerala (Kochi)
10	Shrimp seed	Nitrofurantoin Metabolite - AOZ	240.84	Orissa (Bhubaneswar)
11	Shrimp seed	Chloramphenicol	15.2	Orissa (Bhubaneswar)
12	Shrimp seed	Chloramphenicol	14.18	Orissa (Bhubaneswar)
13	Shrimp seed	Chloramphenicol	96.54	Orissa (Bhubaneswar)
14	Shrimp seed	Chloramphenicol	0.31	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	2.82	
15	Shrimp seed	Chloramphenicol	1.69	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	1.52	
16	Shrimp seed	Chloramphenicol	2.59	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	2.07	
17	Shrimp seed	Chloramphenicol	0.79	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	2.36	
18	Shrimp seed	Chloramphenicol	0.2	Orissa (Bhubaneswar)
19	Shrimp seed	Chloramphenicol	3.02	Tamil Nadu (Thanjavur)
20	Shrimp seed	Chloramphenicol	2.85	Orissa (Bhubaneswar)
21	Shrimp seed	Chloramphenicol	9.3	Karnataka (Karwar)
22	Shrimp seed	Chloramphenicol	1.01	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	0.51	
23	Shrimp seed	Chloramphenicol	14.05	Karnataka (Karwar)
		Nitrofurantoin Metabolite - SEM	1.59	
24	Shrimp seed	Chloramphenicol	0.66	Orissa (Bhubaneswar)
25	Shrimp seed	Chloramphenicol	107.2	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	43.18	

26	Shrimp seed	Chloramphenicol	14.48	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	85.3	
27	Shrimp seed	Nitrofurantoin Metabolite - AOZ	1312.9	Tamil Nadu (Thanjavur)
28	Shrimp seed	Chloramphenicol	0.28	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	0.75	
29	Shrimp seed	Chloramphenicol	304.12	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	1.53	
30	Shrimp seed	Nitrofurantoin Metabolite - AOZ	1.36	Tamil Nadu (Thanjavur)
31	Shrimp seed	Chloramphenicol	0.3	Tamil Nadu (Thanjavur)
		Nitrofurantoin Metabolite - AOZ	11.6	
32	Shrimp seed	Chloramphenicol	2.71	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	709.41	
33	Shrimp seed	Chloramphenicol	0.24	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	126.86	
34	Shrimp seed	Chloramphenicol	21.37	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	298.99	
35	Shrimp seed	Chloramphenicol	0.52	Orissa (Bhubaneswar)
		Nitrofurantoin Metabolite - AOZ	1549.37	
36	Shrimp seed	Nitrofurantoin Metabolite - AOZ	534.82	Orissa (Bhubaneswar)
37	Shrimp seed	Nitrofurantoin Metabolite - AOZ	607.66	Orissa (Bhubaneswar)
38	Shrimp seed	Chloramphenicol	2.9	Tamil Nadu (Thanjavur)
39	Shrimp seed	Nitrofurantoin Metabolite - AOZ	12.19	Kerala (Kochi)
40	Shrimp seed	Nitrofurantoin Metabolite - AOZ	3.06	Tamil Nadu (Thanjavur)
41	Shrimp seed	Chloramphenicol	0.16	Tamil Nadu (Thanjavur)
42	Shrimp seed	Chloramphenicol	2.88	Kerala (Kochi)
43	Shrimp seed	Chloramphenicol	1.2	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	7.89	
44	Shrimp seed	Chloramphenicol	4.2	Kerala (Kochi)
		Nitrofurantoin Metabolite - AOZ	1.22	
III	Hatchery Samples			
1	Shrimp seed	Chloramphenicol	0.73	Andhra Pradesh (Bhimavaram)
2	Shrimp seed	Chloramphenicol	1.47	Andhra Pradesh (Bhimavaram)
3	Shrimp seed	Chloramphenicol	1.05	Andhra Pradesh (Bhimavaram)
4	Shrimp seed	Chloramphenicol	195.9	Andhra Pradesh (Bhimavaram)
5	Shrimp seed	Chloramphenicol	0.91	Andhra Pradesh (Bhimavaram)
6	Shrimp seed	Chloramphenicol	33.54	Andhra Pradesh (Bhimavaram)
7	Shrimp seed	Chloramphenicol	0.51	Andhra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	16.19	
8	Shrimp seed	Chloramphenicol	27.8	Andhra Pradesh (Bhimavaram)

9	Shrimp seed	Chloramphenicol	0.84	Andra Pradesh (Bhimavaram)
10	Shrimp seed	Chloramphenicol	3.36	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	5.73	
11	Shrimp seed	Chloramphenicol	6.44	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	20.11	
12	Shrimp seed	Chloramphenicol	0.96	Andra Pradesh (Bhimavaram)
13	Shrimp seed	Chloramphenicol	12.73	Andra Pradesh (Bhimavaram)
14	Shrimp seed	Chloramphenicol	1.05	Andra Pradesh (Bhimavaram)
15	Shrimp seed	Nitrofurantoin Metabolite - AOZ	2.21	Andra Pradesh (Bhimavaram)
16	Shrimp seed	Chloramphenicol	20.79	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	1.99	
17	Shrimp seed	Nitrofurantoin Metabolite - AOZ	392.19	Andra Pradesh (Bhimavaram)
18	Shrimp seed	Chloramphenicol	0.63	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	52.94	
19	Shrimp seed	Chloramphenicol	0.61	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	42.43	
20	Shrimp seed	Chloramphenicol	0.47	Andra Pradesh (Bhimavaram)
21	Shrimp seed	Chloramphenicol	1.35	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	67.55	Andra Pradesh (Bhimavaram)
22	Shrimp seed	Chloramphenicol	3.05	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	60.79	
23	Shrimp seed	Nitrofurantoin Metabolite - AOZ	81.89	Andra Pradesh (Bhimavaram)
24	Shrimp seed	Chloramphenicol	4.41	Andra Pradesh (Bhimavaram)
25	Shrimp seed	Chloramphenicol	30.73	Andra Pradesh (Bhimavaram)
26	Shrimp seed	Chloramphenicol	2.82	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	251.58	
27	Shrimp seed	Chloramphenicol	10.3	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	72.95	
28	Shrimp seed	Chloramphenicol	5.09	Andra Pradesh (Bhimavaram)
29	Shrimp seed	Chloramphenicol	0.33	Andra Pradesh (Bhimavaram)
30	Shrimp seed	Chloramphenicol	0.41	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	0.94	
31	Shrimp seed	Chloramphenicol	0.18	Andra Pradesh (Bhimavaram)
32	Shrimp seed	Chloramphenicol	3.15	Andra Pradesh (Bhimavaram)
		Chloramphenicol	0.43	
33	Shrimp seed	Nitrofurantoin Metabolite - AOZ	3.52	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AHD	1.13	
		Nitrofurantoin Metabolite - AOZ	183.19	

34	Shrimp seed	Nitrofurantoin Metabolite - AHD	3.21	Andhra Pradesh (Bhimavaram)
35	Shrimp seed	Nitrofurantoin Metabolite - AOZ	183.19	Andhra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AHD	3.21	
36	Shrimp seed	Nitrofurantoin Metabolite - AOZ	1.16	Andhra Pradesh (Bhimavaram)
37	Shrimp seed	Nitrofurantoin Metabolite - AOZ	8.97	Andhra Pradesh (Bhimavaram)

1	Shrimp seed	Nitrofurantoin Metabolite - AOZ	28.83	Andhra Pradesh (Vijayawada)
2	Shrimp seed	Nitrofurantoin Metabolite - AOZ	2.49	Andhra Pradesh (Vijayawada)

I	Shrimp			
1	<i>P monodon</i>	CE- Arsenic	1931	Karnataka (Karwar)
2	<i>P monodon</i>	Nitrofurantol Metabolite - AOZ	0.38	Kolkata
3	<i>P monodon</i>	Nitrofurantol Metabolite - SEM	0.59	Kolkata
4	<i>P monodon</i>	Chloramphenicol	0.22	Kerala (Kochi)
5	<i>P monodon</i>	Chloramphenicol	0.24	Kolkata
6	<i>P monodon</i>	CE- Arsenic	1255.37	Orissa (Bhubaneswar)
7	<i>P monodon</i>	Chloramphenicol	1.08	Kolkata
8	<i>P monodon</i>	Chloramphenicol	0.27	Kolkata
9	<i>P monodon</i>	Chloramphenicol	0.3	Kerala (Kochi)
10	<i>P monodon</i>	Chloramphenicol	0.31	Tamil Nadu (Thanjavur)
11	<i>P monodon</i>	Chloramphenicol	0.11	Karnataka (Karwar)
12	<i>P monodon</i>	Chloramphenicol	0.19	Maharashtra (Panvel)
13	<i>P monodon</i>	CE- Arsenic	1749.25	Kolkata
14	<i>P monodon</i>	Chloramphenicol	0.22	Tamil Nadu (Thanjavur)
15	<i>P monodon</i>	Chloramphenicol	0.18	Kerala (Kochi)
16	<i>P monodon</i>	Chloramphenicol	0.25	Orissa (Bhubaneswar)
17	<i>P monodon</i>	CE- Arsenic	1088.31	Orissa (Bhubaneswar)
18	<i>P monodon</i>	Nitrofurantol Metabolite - SEM	0.74	Orissa (Bhubaneswar)
19	<i>P monodon</i>	Nitrofurantol Metabolite - SEM	0.83	Orissa (Bhubaneswar)
20	<i>P monodon</i>	CE- Arsenic	2476.19	Kolkata
21	<i>P monodon</i>	CE- Arsenic	2580.69	Orissa (Bhubaneswar)
22	<i>P monodon</i>	CE- Arsenic	2463.3	Kolkata
23	<i>P monodon</i>	CE- Arsenic	4072.22	Orissa (Bhubaneswar)
24	<i>P monodon</i>	CE- Arsenic	3941.46	Orissa (Bhubaneswar)
25	<i>P monodon</i>	CE- Arsenic	1440.81	Orissa (Bhubaneswar)
26	<i>P monodon</i>	CE- Arsenic	5946.52	Orissa (Bhubaneswar)
1	<i>P monodon</i>	Chloramphenicol	0.75	Andra Pradesh (Bhimavaram)
2	<i>P monodon</i>	Chloramphenicol	2.08	Andra Pradesh (Bhimavaram)
3	<i>P monodon</i>	Chloramphenicol	2.10	Andra Pradesh (Bhimavaram)
4	<i>P monodon</i>	Chloramphenicol	2.42	Andra Pradesh (Bhimavaram)
5	<i>P monodon</i>	Chloramphenicol	0.75	Andra Pradesh (Bhimavaram)
6	<i>P monodon</i>	Chloramphenicol	1.48	Andra Pradesh (Bhimavaram)
7	<i>P monodon</i>	Chloramphenicol	0.70	Andra Pradesh (Bhimavaram)
8	<i>P monodon</i>	Chloramphenicol	0.81	Andra Pradesh (Bhimavaram)
9	<i>P monodon</i>	Chloramphenicol	0.84	Andra Pradesh (Bhimavaram)
10	<i>P monodon</i>	Chloramphenicol	0.75	Andra Pradesh (Bhimavaram)
11	<i>P monodon</i>	Chloramphenicol	0.65	Andra Pradesh (Bhimavaram)
12	<i>P monodon</i>	Chloramphenicol	1.35	Andra Pradesh (Bhimavaram)
13	<i>P monodon</i>	Chloramphenicol	3.20	Andra Pradesh (Bhimavaram)
14	<i>P monodon</i>	Chloramphenicol	0.97	Andra Pradesh (Bhimavaram)
15	<i>P monodon</i>	Chloramphenicol	0.83	Andra Pradesh (Bhimavaram)
16	<i>P monodon</i>	Chloramphenicol	2.50	Andra Pradesh (Bhimavaram)
17	<i>P monodon</i>	Nitrofurantol Metabolite - AOZ	3.21	Andra Pradesh (Bhimavaram)
18	<i>P monodon</i>	Chloramphenicol	3.60	Andra Pradesh (Bhimavaram)
19	<i>P monodon</i>	Chloramphenicol	0.95	Andra Pradesh (Bhimavaram)

20	<i>P. monodon</i>	Chloramphenicol	0.66	Andra Pradesh (Vijayawada)
21	<i>P. monodon</i>	Chloramphenicol	0.78	Andra Pradesh (Vijayawada)
22	<i>P. monodon</i>	Chloramphenicol	1.03	Andra Pradesh (Bhimavaram)
23	<i>L. vannamei</i>	Chloramphenicol	20.02	Andra Pradesh (Bhimavaram)
24	<i>P. monodon</i>	Chloramphenicol	4.99	Andra Pradesh (Bhimavaram)
25	<i>P. monodon</i>	Chloramphenicol	2.75	Andra Pradesh (Bhimavaram)
26	<i>P. monodon</i>	Chloramphenicol	1.34	Andra Pradesh (Bhimavaram)
27	<i>P. monodon</i>	Chloramphenicol	32.29	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	4.07	
28	<i>L. vannamei</i>	Chloramphenicol	1.02	Andra Pradesh (Bhimavaram)
29	<i>P. monodon</i>	Chloramphenicol	0.92	Andra Pradesh (Bhimavaram)
30	<i>P. monodon</i>	Chloramphenicol	3.52	Andra Pradesh (Bhimavaram)
31	<i>P. monodon</i>	Chloramphenicol	1.35	Andra Pradesh (Bhimavaram)
32	<i>P. monodon</i>	Chloramphenicol	1.97	Andra Pradesh (Bhimavaram)
33	<i>P. monodon</i>	Chloramphenicol	1.43	Andra Pradesh (Bhimavaram)
34	<i>L. vannamei</i>	Chloramphenicol	0.72	Andra Pradesh (Bhimavaram)
35	<i>P. monodon</i>	Chloramphenicol	6.76	Andra Pradesh (Bhimavaram)
36	<i>P. monodon</i>	Chloramphenicol	1.16	Andra Pradesh (Bhimavaram)
37	<i>L. vannamei</i>	Chloramphenicol	3.03	Andra Pradesh (Bhimavaram)
38	<i>P. monodon</i>	Chloramphenicol	2.40	Andra Pradesh (Bhimavaram)
39	<i>P. monodon</i>	Chloramphenicol	1.48	Andra Pradesh (Bhimavaram)
40	<i>L. vannamei</i>	Chloramphenicol	1.65	Andra Pradesh (Bhimavaram)
41	<i>L. vannamei</i>	Chloramphenicol	6.82	Andra Pradesh (Vijayawada)
43	<i>P. monodon</i>	Chloramphenicol	1.73	Andra Pradesh (Bhimavaram)
44	<i>L. vannamei</i>	Chloramphenicol	1.69	Andra Pradesh (Bhimavaram)
45	<i>L. vannamei</i>	Chloramphenicol	0.81	Andra Pradesh (Bhimavaram)
46	<i>L. vannamei</i>	Chloramphenicol	1.01	Andra Pradesh (Bhimavaram)
		Nitrofurantoin Metabolite - AOZ	22.23	
47	<i>L. vannamei</i>	Nitrofurantoin Metabolite - AOZ	3.00	Andra Pradesh (Bhimavaram)
48	<i>L. vannamei</i>	Chloramphenicol	1.35	Andra Pradesh (Bhimavaram)
49	<i>L. vannamei</i>	Chloramphenicol	0.86	Andra Pradesh (Bhimavaram)
50	<i>L. vannamei</i>	Chloramphenicol	0.75	Andra Pradesh (Bhimavaram)
1	<i>P. monodon</i>	Chloramphenicol	0.09	Andra Pradesh (Vijayawada)
2	<i>L. vannamei</i>	Nitrofurantoin Metabolite - AOZ	81.9	Andra Pradesh (Vijayawada)
3	<i>L. vannamei</i>	Tetracycline	219.21	Andra Pradesh (Vizag)
4	<i>L. vannamei</i>	Tetracycline	127.58	Andra Pradesh (Vizag)
5	<i>L. vannamei</i>	Tetracycline	220.71	Andra Pradesh (Vizag)
6	<i>L. vannamei</i>	Tetracycline	140.67	Andra Pradesh (Vizag)
7	<i>L. vannamei</i>	Nitrofurantoin Metabolite - AOZ	2.8	Andra Pradesh (Vijayawada)
8	<i>L. vannamei</i>	Nitrofurantoin Metabolite - AOZ	4.85	Andra Pradesh (Vijayawada)
9	<i>L. vannamei</i>	Chloramphenicol	0.12	Andra Pradesh (Vijayawada)
10	<i>P. monodon</i>	Chloramphenicol	0.1	Andra Pradesh (Vijayawada)

II				
Scampi				
1	<i>M. rosenbergi</i>	Nitrofurantoin Metabolite - SEM	0.86	Kolkata
2	<i>M. rosenbergi</i>	Nitrofurantoin Metabolite - SEM	1.33	Kolkata
3	<i>M. rosenbergi</i>	Chloramphenicol	0.19	Kolkata
4	<i>M. rosenbergi</i>	Chloramphenicol	0.26	Maharashtra (Panvel)
1	<i>M. rosenbergi</i>	Chloramphenicol	1.81	Andra Pradesh (Bhimavaram)

1	<i>M rosenbergi</i>	Chloramphenicol	0.12	Andra Pradesh (Vijayawada)
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LAB : NELLORE

TYPE : SHRIMP

<u>Sl.No.</u>	<u>Sample ID</u>	<u>Sample Lab- Code</u>	<u>Report Sl.No.</u>	<u>Result</u>	<u>Despatched By</u>	<u>Date of Result</u>
1	16/S1/P1/0443/2012	N/0575/12	0578/12	Positive	Regional Centre Vijayawada	12-09-2012
2	16/S1/Q1/0524/2012	N/0671/12	0719/12	Positive	Regional Centre Vijayawada	25-10-2012
3	11/S1/Q1/0495/2012	N/0805/12	0781/12	Positive	Regional Office Vizag	28-11-2012
4	11/S1/Q1/0498/2012	N/0808/12	0782/12	Positive	Regional Office Vizag	28-11-2012
5	11/S1/Q1/0500/2012	N/0810/12	0783/12	Positive	Regional Office Vizag	28-11-2012
6	11/S1/Q1/0503/2012	N/0813/12	0784/12	Positive	Regional Office Vizag	28-11-2012
7	16/S1/Q1/0570/2012	N/0743/12	0805/12	Positive	Regional Centre Vijayawada	05-12-2012
8	16/S1/Q1/0568/2012	N/0741/12	0806/12	Positive	Regional Centre Vijayawada	05-12-2012
9	16/S1/Q1/0646/2012	N/0828/12	0829/12	Positive	Regional Centre Vijayawada	12-12-2012
10	16/S1/P1/0647/2012	N/0829/12	0830/12	Positive	Regional Centre Vijayawada	18-12-2012

TYPE : SCAMPI

<u>Sl.No.</u>	<u>Sample ID</u>	<u>Sample Lab- Code</u>	<u>Report Sl.No.</u>	<u>Result</u>	<u>Despatched By</u>	<u>Date of Result</u>
1	16/S2/P3/0644/2012	N/0826/12	0828/12	Positive	Regional Centre Vijayawada	12-12-2012

TYPE : HATCHERY SAMPLE

<u>Sl.No.</u>	<u>Sample ID</u>	<u>Sample Lab- Code</u>	<u>Report Sl.No.</u>	<u>Result</u>	<u>Despatched By</u>	<u>Date of Result</u>
1	16/S4/01/0304/2012	N/0407/12	0409/12	Positive	Regional Centre Vijayawada	25-07-2012
2	16/S4/01/0546/2012	N/0687/12	0720/12	Positive	Regional Centre Vijayawada	25-10-2012

TYPE : FISH

<u>Sl.No.</u>	<u>Sample ID</u>	<u>Sample Lab- Code</u>	<u>Report Sl.No.</u>	<u>Result</u>	<u>Despatched By</u>	<u>Date of Result</u>
1	16/S3/P6/0386/2012	N/0526/12	0545/12	Positive	Regional Centre Vijayawada	10-09-2012

LAB : BHIMAVARAM

TYPE : SHRIMP

Sl.No.	Sample ID	Sample Lab-Code	Report Sl.No.	Result	Despatched By	Date of Result
1	<u>25/S1/P1/0043/2012</u>	B/0067/12	0068/12	Positive	Sub Regional Centre Bhimavaram	20-04-2012
2	<u>25/S1/P1/0044/2012</u>	B/0068/12	0069/12	Positive	Sub Regional Centre Bhimavaram	20-04-2012
3	<u>25/S1/P1/0045/2012</u>	B/0069/12	0070/12	Positive	Sub Regional Centre Bhimavaram	20-04-2012
4	<u>25/S1/P1/0046/2012</u>	B/0070/12	0071/12	Positive	Sub Regional Centre Bhimavaram	20-04-2012
5	<u>25/S1/P1/0067/2012</u>	B/0126/12	0128/12	Positive	Sub Regional Centre Bhimavaram	14-05-2012
6	<u>25/S1/P1/0083/2012</u>	B/0185/12	0184/12	Positive	Sub Regional Centre Bhimavaram	25-05-2012
7	<u>25/S1/P1/0084/2012</u>	B/0186/12	0185/12	Positive	Sub Regional Centre Bhimavaram	25-05-2012
8	<u>25/S1/P1/0086/2012</u>	B/0188/12	0186/12	Positive	Sub Regional Centre Bhimavaram	25-05-2012
9	<u>25/S1/P1/0090/2012</u>	B/0193/12	0198/12	Positive	Sub Regional Centre Bhimavaram	30-05-2012
10	<u>25/S1/P1/0098/2012</u>	B/0201/12	0209/12	Positive	Sub Regional Centre Bhimavaram	12-06-2012
11	<u>25/S1/P1/0100/2012</u>	B/0203/12	0210/12	Positive	Sub Regional Centre Bhimavaram	12-06-2012
12	<u>25/S1/P1/0103/2012</u>	B/0206/12	0211/12	Positive	Sub Regional Centre Bhimavaram	12-06-2012
13	<u>25/S1/P1/0108/2012</u>	B/0211/12	0213/12	Positive	Sub Regional Centre Bhimavaram	12-06-2012
14	<u>25/S1/P1/0116/2012</u>	B/0219/12	0218/12	Positive	Sub Regional Centre Bhimavaram	21-06-2012
15	<u>25/S1/P1/0117/2012</u>	B/0220/12	0219/12	Positive	Sub Regional Centre Bhimavaram	21-06-2012
16	<u>25/S1/P1/0112/2012</u>	B/0215/12	0220/12	Positive	Sub Regional Centre Bhimavaram	21-06-2012
17	<u>25/S1/P1/0115/2012</u>	B/0218/12	0229/12	Positive	Sub Regional Centre Bhimavaram	26-06-2012
18	<u>25/S1/P1/0127/2012</u>	B/0230/12	0230/12	Positive	Sub Regional Centre Bhimavaram	26-06-2012
19	<u>25/S1/P1/0118/2012</u>	B/0221/12	0231/12	Positive	Sub Regional Centre Bhimavaram	26-06-2012
20	<u>16/S1/P1/0250/2012</u>	B/0272/12	0297/12	Positive	Regional Centre Vijayawada	18-07-2012
21	<u>16/S1/P1/0252/2012</u>	B/0274/12	0298/12	Positive	Regional Centre Vijayawada	18-07-2012
22	<u>25/S1/P1/0141/2012</u>	B/0276/12	0299/12	Positive	Sub Regional Centre Bhimavaram	18-07-2012
23	<u>25/S1/Q1/0145/2012</u>	B/0279/12	0300/12	Positive	Sub Regional Centre Bhimavaram	18-07-2012
24	<u>25/S1/P1/0146/2012</u>	B/0280/12	0301/12	Positive	Sub Regional Centre Bhimavaram	18-07-2012
25	<u>25/S1/P1/0147/2012</u>	B/0281/12	0302/12	Positive	Sub Regional Centre Bhimavaram	18-07-2012
26	<u>25/S1/P1/0153/2012</u>	B/0295/12	0303/12	Positive	Sub Regional Centre Bhimavaram	18-07-2012
27	<u>25/S1/P1/0159/2012</u>	B/0301/12	0304/12	Positive	Sub Regional Centre Bhimavaram	18-07-2012

28	<u>25/S1/Q1/0187/2012</u>	B/0325/12	0337/12	Positive	Sub Regional Centre Bhimavaram	23-07-2012
29	<u>25/S1/P1/0189/2012</u>	B/0327/12	0338/12	Positive	Sub Regional Centre Bhimavaram	23-07-2012
30	<u>25/S1/P1/0190/2012</u>	B/0328/12	0339/12	Positive	Sub Regional Centre Bhimavaram	23-07-2012
31	<u>25/S1/P1/0191/2012</u>	B/0329/12	0340/12	Positive	Sub Regional Centre Bhimavaram	23-07-2012
32	<u>25/S1/P1/0200/2012</u>	B/0337/12	0341/12	Positive	Sub Regional Centre Bhimavaram	23-07-2012
33	<u>25/S1/P1/0230/2012</u>	B/0407/12	0423/12	Positive	Sub Regional Centre Bhimavaram	07-08-2012
34	<u>25/S1/Q1/0232/2012</u>	B/0409/12	0424/12	Positive	Sub Regional Centre Bhimavaram	07-08-2012
35	<u>25/S1/P1/0234/2012</u>	B/0411/12	0425/12	Positive	Sub Regional Centre Bhimavaram	07-08-2012
36	<u>25/S1/P1/0235/2012</u>	B/0412/12	0426/12	Positive	Sub Regional Centre Bhimavaram	07-08-2012
37	<u>25/S1/Q1/0256/2012</u>	B/0468/12	0476/12	Positive	Sub Regional Centre Bhimavaram	30-08-2012
38	<u>25/S1/P1/0261/2012</u>	B/0473/12	0477/12	Positive	Sub Regional Centre Bhimavaram	30-08-2012
39	<u>25/S1/P1/0265/2012</u>	B/0477/12	0478/12	Positive	Sub Regional Centre Bhimavaram	30-08-2012
40	<u>25/S1/Q1/0338/2012</u>	B/0630/12	0647/12	Positive	Sub Regional Centre Bhimavaram	09-11-2012
41	<u>16/S1/Q1/0637/2012</u>	B/0647/12	0648/12	Positive	Regional Centre Vijayawada	09-11-2012
42	<u>25/S1/P1/0358/2012</u>	B/0659/12	0672/12	Positive	Sub Regional Centre Bhimavaram	16-11-2012
43	<u>25/S1/Q1/0369/2012</u>	B/0693/12	0704/12	Positive	Sub Regional Centre Bhimavaram	20-11-2012
44	<u>25/S1/Q1/0373/2012</u>	B/0697/12	0705/12	Positive	Sub Regional Centre Bhimavaram	20-11-2012
45	<u>25/S1/Q1/0446/2012</u>	B/0770/12	0784/12	Positive	Sub Regional Centre Bhimavaram	05-12-2012
46	<u>25/S1/Q1/0445/2012</u>	B/0769/12	0797/12	Positive	Sub Regional Centre Bhimavaram	07-12-2012
47	<u>25/S1/Q1/0448/2012</u>	B/0772/12	0801/12	Positive	Sub Regional Centre Bhimavaram	07-12-2012
48	<u>25/S1/Q1/0514/2012</u>	B/0834/12	0848/12	Positive	Sub Regional Centre Bhimavaram	12-12-2012
49	<u>25/S1/Q1/0521/2012</u>	B/0845/12	0849/12	Positive	Sub Regional Centre Bhimavaram	12-12-2012
50	<u>25/S1/Q1/0526/2012</u>	B/0850/12	0850/12	Positive	Sub Regional Centre Bhimavaram	12-12-2012

TYPE : SCAMPI

Sl.No.	Sample ID	Sample Lab- Code	Report Sl.No.	Result	Despatched By	Date of Result
1	<u>25/S2/P3/0331/2012</u>	B/0619/12	0621/12	Positive	Sub Regional Centre Bhimavaram	01-11-2012

TYPE : HATCHERY SAMPLE

Sl.No.	Sample ID	Sample Lab- Code	Report Sl.No.	Result	Despatched By	Date of Result
1	<u>25/S4/01/0001/2012</u>	B/0001/12	0008/12	Positive	Sub Regional Centre Bhimavaram	22-02-2012
2	<u>25/S4/01/0003/2012</u>	B/0003/12	0009/12	Positive	Sub Regional Centre Bhimavaram	22-02-2012

3	<u>25/S4/01/0006/2012</u>	B/0008/12	0010/12	Positive	Sub Regional Centre Bhimavaram	28-02-2012
4	<u>25/S4/01/0007/2012</u>	B/0009/12	0011/12	Positive	Sub Regional Centre Bhimavaram	28-02-2012
5	<u>25/S4/01/0010/2012</u>	B/0012/12	0012/12	Positive	Sub Regional Centre Bhimavaram	28-02-2012
6	<u>25/S4/01/0011/2012</u>	B/0013/12	0013/12	Positive	Sub Regional Centre Bhimavaram	28-02-2012
7	<u>25/S4/01/0015/2012</u>	B/0016/12	0018/12	Positive	Sub Regional Centre Bhimavaram	05-03-2012
8	<u>25/S4/01/0016/2012</u>	B/0017/12	0019/12	Positive	Sub Regional Centre Bhimavaram	05-03-2012
9	<u>25/S4/01/0017/2012</u>	B/0018/12	0020/12	Positive	Sub Regional Centre Bhimavaram	05-03-2012
10	<u>25/S4/01/0018/2012</u>	B/0019/12	0021/12	Positive	Sub Regional Centre Bhimavaram	05-03-2012
11	<u>25/S4/01/0019/2012</u>	B/0020/12	0022/12	Positive	Sub Regional Centre Bhimavaram	05-03-2012
12	<u>25/S4/01/0021/2012</u>	B/0022/12	0023/12	Positive	Sub Regional Centre Bhimavaram	05-03-2012
13	<u>25/S4/01/0022/2012</u>	B/0023/12	0024/12	Positive	Sub Regional Centre Bhimavaram	05-03-2012
14	<u>25/S4/01/0023/2012</u>	B/0024/12	0025/12	Positive	Sub Regional Centre Bhimavaram	05-03-2012
15	<u>25/S4/01/0025/2012</u>	B/0027/12	0027/12	Positive	Sub Regional Centre Bhimavaram	15-03-2012
16	<u>25/S4/01/0026/2012</u>	B/0028/12	0029/12	Positive	Sub Regional Centre Bhimavaram	27-03-2012
17	<u>25/S4/01/0029/2012</u>	B/0031/12	0037/12	Positive	Sub Regional Centre Bhimavaram	04-04-2012
18	<u>25/S4/01/0030/2012</u>	B/0038/12	0062/12	Positive	Sub Regional Centre Bhimavaram	17-04-2012
19	<u>25/S4/01/0032/2012</u>	B/0040/12	0063/12	Positive	Sub Regional Centre Bhimavaram	17-04-2012
20	<u>25/S4/01/0066/2012</u>	B/0125/12	0127/12	Positive	Sub Regional Centre Bhimavaram	14-05-2012
21	<u>25/S4/01/0097/2012</u>	B/0200/12	0204/12	Positive	Sub Regional Centre Bhimavaram	07-06-2012
22	<u>25/S4/01/0106/2012</u>	B/0209/12	0212/12	Positive	Sub Regional Centre Bhimavaram	12-06-2012
23	<u>25/S4/01/0135/2012</u>	B/0239/12	0247/12	Positive	Sub Regional Centre Bhimavaram	05-07-2012
24	<u>25/S4/01/0136/2012</u>	B/0240/12	0273/12	Positive	Sub Regional Centre Bhimavaram	06-07-2012
25	<u>25/S4/01/0137/2012</u>	B/0241/12	0274/12	Positive	Sub Regional Centre Bhimavaram	06-07-2012
26	<u>25/S4/01/0140/2012</u>	B/0244/12	0275/12	Positive	Sub Regional Centre Bhimavaram	06-07-2012
27	<u>25/S4/01/0226/2012</u>	B/0368/12	0388/12	Positive	Sub Regional Centre Bhimavaram	03-08-2012
28	<u>25/S4/01/0227/2012</u>	B/0369/12	0389/12	Positive	Sub Regional Centre Bhimavaram	03-08-2012
29	<u>25/S4/01/0254/2012</u>	B/0437/12	0433/12	Positive	Sub Regional Centre Bhimavaram	08-08-2012
30	<u>25/S4/01/0253/2012</u>	B/0436/12	0439/12	Positive	Sub Regional Centre Bhimavaram	09-08-2012
31	<u>25/S4/01/0287/2012</u>	B/0541/12	0544/12	Positive	Sub Regional Centre Bhimavaram	01-10-2012
32	<u>25/S4/01/0288/2012</u>	B/0542/12	0545/12	Positive	Sub Regional Centre Bhimavaram	01-10-2012
33	<u>25/S4/01/0527/2012</u>	B/0851/12	0851/12	Positive	Sub Regional Centre Bhimavaram	21-12-2012
34	<u>25/S4/01/0528/2012</u>	B/0852/12	0852/12	Positive	Sub Regional Centre Bhimavaram	21-12-2012
35	<u>25/S4/01/0529/2012</u>	B/0853/12	0853/12	Positive	Sub Regional Centre Bhimavaram	21-12-2012
36	<u>25/S4/01/0536/2012</u>	B/0860/12	0862/12	Positive	Sub Regional Centre Bhimavaram	10-01-2013
37	<u>25/S4/01/0539/2012</u>	B/0863/12	0863/12	Positive	Sub Regional Centre Bhimavaram	10-01-2013

TYPE : FISH

<u>Sl.No.</u>	<u>Sample ID</u>	<u>Sample Lab- Code</u>	<u>Report Sl.No.</u>	<u>Result</u>	<u>Despatched By</u>	<u>Date of Result</u>
1	25/S3/P6/0289/2012	B/0545/12	0552/12	Positive	Sub Regional Centre Bhimavaram	06-10-2012
2	25/S3/P0/0367/2012	B/0668/12	0694/12	Positive	Sub Regional Centre Bhimavaram	15-11-2012

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

NRCP – Instructions to Field Offices:

In order to streamline the procedure for sample collection and residue monitoring under NRCP, the following instructions are issued in super session of earlier instructions in this regard.

1. 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.
2. The shrimp samples under NRCP should be collected by the designated residue monitoring officers(RMOs) of MPEDA only from farms registered with the Costal Aquaculture authority of India(CAA) or with the State Govt., where ever applicable.
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 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 of each processing plant.
5. The farms reported with residue positive(+ve) cases and processing plants reported with rejections/quality complaints have to be closely monitored and subjected to stringent and frequent sampling.
6. 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.

7. Sampling at farm level shall be in such a way that a minimum 10% of registered site 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 drawal 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. When collecting samples from the farm, the details of medication within the last 4 weeks before sampling should be collected and indicated in the register as well as the packing slip that will accompany each sample.
11. In respect of processing plants, multiple samples can be collected on the same day provided the farms from which the Processing Plant has purchased the raw material are different. Nevertheless, the number of samples collected from a Processing Plant on any day shall not exceed two.
12. Samples must be collected in Polythene bags and properly labeled 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.
13. 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.
14. 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 collected 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 obtained from the CAA or State Govt. Agency.

15. The actual drawl of samples from the processing plant should be done by the residue monitoring officer of MPEDA himself. This task should not be entrusted to any personnel of the Processing Plant. .
16. 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 a minimum of 4 different locations in the pond.
17. While collecting the hatchery samples (seed), a minimum of 20 - 25 gm (excluding water) should be drawn. The seed sample should be collected in polythene bags, sealed and transported in thermo-cole box packed with dry/wet ice.
18. 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.
19. The results of the tests communicated from the respective laboratory should be recorded in the specified columns in the register.
20. Wherever positive results are reported, the RC/SRC/RO/SRO concerned has to:
 - i. Conduct a complete enquiry to find out the cause/reason for presence of residues, source of contamination and report to the concerned laboratory with copies to Jt Director(QC) and Jt Director(Aqua) at HO.
 - ii. Collect follow-up sample(s) for analysis.
 - iii. Alert processors not to procure the raw material from the farm reported with non-compliant result.
21. Repeat samples are to be drawn from farms / processing plants from where residue violations are reported and such farms are to be subjected to more stringent checks at least for a period of twelve months.

These instructions will come into force with immediate effect.

(P Mohanasundaram)
DIRECTOR

Copy to:

1. Director, EIC, New Delhi.
2. All ROs and SROs of MPEDA – for information.
3. ALL RCs and SRCs of MPEDA-- for information and to circulate to concerned Farmers' Associations in their region.
4. All MPEDA QC Laboratories.