

# MPEDA

*Newsletter*

SEPTEMBER

2011



**THE MARINE PRODUCTS EXPORT DEVELOPMENT AUTHORITY**

(Ministry of Commerce & Industry, Government of India)

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# MPEDA NEWSLETTER

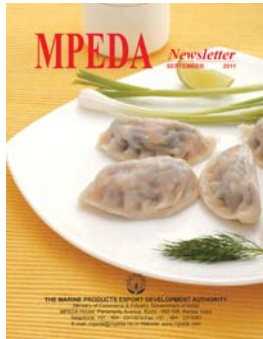


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# MARKETING NEWS

## MPEDA's Participation in Asian Seafood Exposition-2011, Hong Kong

The second edition of the Asian Seafood Exposition was held from 6-8 September 2011, at Hong Kong Exhibition & Convention Centre, Wanchai, Hong Kong. The event was co-located with an exhibition of Bar & Restaurant that put global seafood products and suppliers face-to-face with top high volume catering, restaurants, supermarkets, importers, exporters, distributors and wholesalers from the Asia Pacific region and Hong Kong.

Over 150 companies, from twenty five countries, displayed variety of seafood items and seafood buyers from 40 countries visited the show, reflecting the importance of the overall seafood business in the Hong Kong and Asia Pacific region. Indian Marine products were displayed at MPEDA stall No:5-942 which included a variety of value added products including ready-to-eat products. Shri Sanoj Kumar Jha, Director, MOCI, Mr. Vijaykumar



(L-R) Shri S.S. Shaji, Asst. Director, Shri Vijayakumar C. Yaragal, Dy. Director, MPEDA, Mr. Sanoj Kumar Jha, Director (MOC&I), and Mr. Chander Bhan, Counsel, Embassy of India, Hongkong at MPEDA Stall

Yaragal, Deputy Director, and Shri S. S. Shaji, Asst Director, MPEDA, represented India in the Asian Seafood Exposition-2011.

Apart from MPEDA, there were two more exhibitors from India; M/s. Nilkamal Limited, manufacturers of moulded plastic material handling



Visitors in MPEDA Stall

## MARKETING NEWS

crates / tubs etc. and M/s. West Coast Frozen Foods, Surat. M/s. West Coast had exhibited all varieties of Black Tiger and Vannamei shrimp products under the brand name 'Cambay India'. A new product show case was arranged in a separate area earmarked for the same. Around ten Indian visitors representing exporters and buyers paid visits to MPEDA stall during the show. Shri. Chander Bhan, Consul, Embassy of India, Hong Kong visited MPEDA pavilion on 7<sup>th</sup> Sept 2011.

MPEDA Pavilion was among the top 15 stalls categorised by the organisers as important stalls and was advertised accordingly. Trade enquiries received during the exhibition were published in the August 2011 issue of the Newsletter.



View of MPEDA stall



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# Shrimp Production and Trade - August 2011

As of mid-June, the seasonal harvest throughout Asia remains below that of last year. In Thailand, the leading supplier to the international market, the seasonal peak of the harvest is only expected in July. It has been delayed by two months because of the floods that washed away 50 000 - 60 000 tonnes of farmed shrimp. This year, the shrimp harvest is predicted to decline by 10-15% in Thailand, resulting in price increases of up to 40%. With this changed scenario, farmers have moved away from contract farming preferring spot prices and cash payments, while packers only receive orders for a maximum three months delivery to reduce risk. The supply situation started to improve from mid-June.

Compared with the past two years, this year's supply outlook has improved in Indonesia.

In Viet Nam shrimp farms were affected by what was said to be the 'worst outbreak of disease', encompassing an area of 53,000 hectares in seven provinces of the Mekong Delta. Mass premature death of 20-30 days old shrimp wiped out nearly 98% of crops, including almost 20, 000 ha in Soc Trang, 8,600 ha in Bac Lieu and 6,600 ha in Tra Vinh. As a result of the raw material shortage, processing plants in the region are only operating at 50-60% capacity. This has pushed up farm gate prices to highs of VND 210,000-240,000/kg. This situation may continue for the next two months.

The situation in southern India is the reverse, where bumper crops for vannamei shrimp were harvested in June and July. To accommodate this large supply processing plants are

running at 150-200% capacity using two shifts. Demand for Indian shrimp has been strong from the US market without much deviation in price. Indian farmers also produce large vannamei, not easily available from other sources. On the contrary, as vannamei farming increases, supplies of black tiger shrimp are falling in India. The Kolkata region remains the main area for black tiger farming while the southern aquaculture region is shifting more and more to vannamei.

## Raw material shortage has kept prices firm in the international market

Traditionally shrimp prices start to ease in international markets when supplies of farmed shrimp improve from May/June each year. However, this trend is absent this year. The offer prices by packers increased further for black tiger and vannamei shrimp in June and July when the supply situation remained difficult in the producing countries. The news of serious crop failure in Viet Nam is putting further pressure on the market. Offer prices for headless black tiger shrimp from Indonesia reached USD 15.30-15.70/kg for 16/20 shell-on counts for the Japanese market, and the trend is also similar for high quality Indian products. There is no ruling price at the moment for shell-on products from Viet Nam because of the raw material shortage in the Mekong Delta. This area supplies substantial quantities of nobashi shrimp to Japan. The situation may mean that more raw material will be imported by Viet Nam for processing for export. Vannamei prices from Thailand have eased recently along with improved supplies.



## Japanese shrimp market remained steady but with lower imports this year

Household consumption of shrimp during the first quarter of 2011 was nearly 11% lower, compared with 2010. This was mainly as a result of the Tohoku earthquake and tsunami in March. This consumption pattern continued into the second quarter as consumers continue to be affected by the aftermath of the tsunami, the nuclear radiation scare and power rationing nationwide.

Consumer demand improved, although temporarily, in late June when the mid-year bonuses were available. Inventories throughout the distribution chain are low for all types of shrimp, which have kept market prices steady during the first half of the year.

Cumulative shrimp imports for January-March were 6.4% higher than last year's, which is reflection of the

strong market prior to the disaster. The market continues to focus on value-added imports, which make up 66% of the 60,840 tons that were imported during January- March 2011. Raw shrimp imports posted a mere 2.87% rise compared with the 6.40% increase in the value-added varieties. Thailand was the major source of supply of processed shrimp; imports of shrimp sushi (with rice) doubled during this period, mostly from China.

Sellers are skeptical about a real change for the rest of the year; however, moderate imports have taken place since May to replenish stocks for summer sales in July and August.

Japanese Customs cleared 20,214 tons of frozen shrimp valued US \$ 223.33 Million during August 2011. There is slight decrease in volume by 1% compared to the volume handled during August 2010. The delay in harvesting in producing countries coupled with strengthening of Yen helped overseas prices to remain steady. India became the leading shrimp supplier during the month ahead of Thailand, Vietnam and Indonesia. Country-wise-details are as follows:

increased buying interest among importers in August. M/s. Aeon (Jusco) Supermarkets are proposing for Indian Vannamei promotion in tray packs for year-end and New Year sales. Another major supermarket M/s. Ito Yokado began sales of Indian Vannamei in tray packs. M/s. Daiei, a medium size supermarket, has also commenced test sales of Indian Vannamei.

### East Asian domestic and regional markets absorb more supplies

The non-Japanese markets in East Asia remained strong for fresh and frozen shrimp during the first quarter of 2011. The Lunar New Year celebration in February was one of the reasons for higher shrimp consumption in the Republic of Korea, China, Hong Kong SAR and Singapore markets. Consumption was also high in the producing countries of Malaysia, Viet Nam and Thailand during the Chinese New Year when the shrimp price increased by 15-20% for fresh products in the retail trade. This strong price trend is continuing along with lower supplies in the producing countries.

China's fresh and frozen shrimp exports, during the first quarter of 2011 posted a 25% rise compared with the same period last year.

### Overall direction of the US market seems more positive than last year

The continuing high prices of shrimp are an indication of this positive trend. The summer holiday season is expected to generate improved demand in the market including in the restaurant and catering trade. This is offset by major Asian suppliers announcing lower harvests than expected, and Latin-American producers are not able to compensate for that loss in supply. However, the weakening US dollar and short supplies in Asian producing countries put importers in a difficult position as they are less competitive compared with the strong bargaining power of buyers from Europe and Asia.

In the first quarter of this year, US shrimp imports reached 115,200 tons, an increase of 3.9% compared with the same period of 2010. Imports grew significantly in value reaching USD 1,009.4 million, an increase of 31.3%. The impressive increase in value is explained mainly by the record high prices. Interestingly, despite the skyrocketing prices, imports did not fall; on the contrary they rose slightly. This is a sign of the better health of the US economy and of consumers' confidence. The average price per tonne for the first quarter of 2010 was USD 6,932.4 and for this year it was USD 8,762.2, an increase of 26.4%. This is explained by the shift of imports from smaller counts to medium counts, which are more expensive, and by the increase in imports of value-added shrimp (mainly peeled frozen). The value of peeled frozen shrimp imports was more than USD 100 million higher than in the

Country	Qty in tons	Value in (1000) Yen	Rate Yen/Kg
India	4,589.32	3,726,826	812
Thailand	3,876.79	2,913,833	752
Vietnam	3,513.97	3,255,891	927
Indonesia	2,717.23	2,674,481	984

The shrimp market report estimates that India's supply of 4589 tons comprised 2198 tons shell-on and 2391 tons peeled meat. The breakup of shell on is BT: 1209 tons, White: 211 tons, Vannamei: 492 tons and others: 286 tons. The large size of Indian Vannamei coupled with Yen appreciation has contributed to

While overall shrimp consumption in China is possibly the highest in the region, imports into the Republic of Korea superseded those of China by nearly 14,000 tons during January-March 2011, almost 17% more than the same period last year; China and Viet Nam were the main suppliers.

same period of 2010 and the import value of headless shell-on frozen was also higher.

Thailand remained the major shrimp exporter to the US with 39,100 tons, but its market share fell from 35.3% to 33.9% as their exports remained constant while others grew. In the first quarter of 2010 second place Ecuador exported 14,800 tons, a market share of 13.3%, but in 2011 Thailand was followed by Indonesia with exports of 16,700 tons, increasing its market share from 13.2% to 14.5%. Ecuador increased its exports by approximately 400 tons, but market share fell to 13.2%. Imports from Viet Nam, Malaysia, Bangladesh and Peru increased by 23.8%, 22.9%, 58.3% and 30% respectively.

The most noteworthy performance for the period was that of India, becoming the sixth major shrimp exporter with 7,300 tons, increasing its market share from 3.2% to 6.3%. According to several observers this trend is likely to continue as harvests are predicted to continue growing. Imports from Mexico and China decreased by 48.8% and 16.5%. The Mexican shrimp export decrease is related to the ban imposed by the US authorities on wild shrimp captured without the use of TEDs, as well as to the weakness of the US dollar.

Shrimp supply, particularly vannamei, has improved since mid June from India and also from Thailand, thus a price correction is predicted in the coming months.

In volume, imports of headless shell-on counts 51/60 and smaller decreased significantly, with the >70 decreasing almost 30%, explained by an average rise in price of 34.6%. On the contrary, imports of headless shell-on counts 15/20, 21/25, 26/30 and 31/40 increased by 11%, 18.6%, 20.3% and 18.6% respectively. Other counts

remained stable. Imports of peeled frozen rose 14.4% and other frozen preparations rose by 74.3%.

Unit value increased in all product categories. Headless shell-on frozen prices increased on average 33.1%. This increase was mainly the result of an increase in prices of big and medium counts. 15/20 and 21/25 counts prices increased above the average, with increments of 37% and 38% respectively.

### **Europe: Strong demand continues despite financial crisis**

Demand for shrimp in the EU market posted strong growth this year as reflected by increasing imports despite the current financial crisis in some member countries. The strengthening of the Euro against the US dollar in recent months has also been an advantage for European buyers to compete with buyers from other countries in sourcing more shrimp from Asian and Latin American countries. As a result, during the first quarter of 2011, EU frozen shrimp imports from third countries grew by 19.1% in volume and 42.7% in value in a year-on-year basis, totaling 103 972 tonnes worth EUR 515.5 million (USD 736 million). Ecuador, as the leading supplier, increased its shipment by 35.9% in quantity, followed by India (+11.5%), Greenland (+34.7%), China (+31%), Bangladesh (+38.6%), Viet Nam (+39.6%) and Argentina (+78.5%) during the reporting period. The sharp increase in terms of value reflected increasing shrimp prices in the global market. Towards the end of June, shrimp prices also remained high mainly because of short supplies from Asian countries coupled with strong demand from other major markets.

Shrimp imports into the major EU markets increased with the

exception of France and Denmark. Despite being hit hard by the current financial crisis, Spanish imports remained strong, with imports up by 44% year-on-year. Imports of frozen shrimp went up by 43%, while processed shrimp imports doubled in quantity during the period under review. China and Argentina were the top two suppliers and their shipments increased by 52% and 105% respectively this year. Ecuador and Thailand also managed to increase their exports sharply to Spain.

The UK market also posted significant growth, which can be attributed to the sharp increase (+19%) in imports of frozen shrimp, while processed products were marginally higher.

Similarly imports into Germany and Italy grew by 6.7% and 8% respectively. Viet Nam doubled its shipments this year and became the largest supplier, over-taking Thailand.

In the Italian market, Ecuador maintained its number one position but supplies fell by 2%, while imports from India and Argentina increased sharply by 38.5% and 27.3% during the reporting period.

Meanwhile, shrimp imports into France and Denmark posted a slight decline in volume, but were significantly up in value.

As a result of the drop in supply from Canada, overall shrimp imports into Denmark also showed a negative trend this year, though there was a sharp increase in supply from Greenland.

### **Russia-growing market for farmed shrimp**

Russia is currently attracting a lot of attention from Asian packers. Even though initially there were a number of problems related to payment, over the years, good companies have moved

## MARKETING NEWS

in with serious business intentions. The popular tropical products are raw black tiger shrimp, peeled block, as well as IQF shrimp with a maximum glazing of 7%; the market pays better prices with good terms of payment.

Russia imported 18 447 tonnes of shrimp during January-March 2011, up 6.5% against the same period of last year. Canada commanded a 35% market share. The second largest supplier, China, sold 79% more this year, whereas imports from Viet Nam increased by 63%. Demand for farmed tropical shrimp is growing rapidly in the Russian market, which has grown to 20% at present compared with 5% in 2005.

### Outlook

For Asian countries, considering the supply situation, prices of black tiger shrimp are likely to remain firm

for a while, whereas vannamei prices may stabilize with improved supplies from India and Thailand, but no major price drop is forecast. Low inventory in Japan will support imports at moderate rates. Shrimp consumption is expected to improve during the summer holiday season in July/August. The market continues to support imports of value-added products, particularly for the retail trade.

Since the earthquake and subsequent power rationing nationwide, raw seafood is generally avoided for home cooking and demand for ready-to-cook products or ready-meals has increased.

In the USA the market is getting stronger as recession fears recede. Consumers are reacting very well and demand is increasing steadily in spite of high prices. In contrast, foreign

supply will have trouble in meeting demand, particularly from Asia, as several disasters have affected harvests in major supplying countries such as Thailand and Viet Nam.

India is becoming an important supplier because of the lack of raw material of its competitors and to the growing use of new technologies in their productions. Latin-American supplies are not compensating the Asian decrease in exports either as they are focusing on exports to the EU and Brazil. However, some analysts think that there will not be a serious shortage of shrimp but there will be pressure to keep prices high. Confirmation of these trends will only become apparent in the next quarter. The steady upward direction of the US market and the good summer demand should keep the market firm.

*Source: FAO GLOBEFISH 2011 with inputs from MPEDA, TPO, Tokyo*

## MPEDA wins the Indira Gandhi Rajbhasha Shield

MPEDA has won the Indira Gandhi Rajbhasha Shield (III Prize) constituted by the Govt. of India for Autonomous Bodies/Trusts/Societies for their excellent performance in implementing the Official Language Policy of the Govt. of India.

In recognition of the effective implementation of Official Language Policy of the Union Government, MPEDA has received many National as well as Regional awards, including the prestigious Indira Gandhi Rajbhasha Shield for the years 1988-89, 1991-92, 1997-98, 2008-09 and 2009-10. The Rajbhasha Shield is instituted by the Ministry of Commerce and industry since 1991.

Apart from this, MPEDA is also the recipient of the Rajbhasha Shield instituted by Cochin TOLIC for the past 20 years. 'Sagarika' the quarterly



*Shri. P. Mohanasundaram, Director, MPEDA receiving the shield from Her Excellency the President of India Smt. Pratibha Devi Singh Patil. Shri. P. Chidambaram, Hon'ble Union Minister for Home Affairs is also seen*

Hindi magazine published by MPEDA also has been receiving the award for the best house magazine every year.

The Shield was awarded in a befitting function arranged in the Plenary Hall, Vigyan Bhavan, New

Delhi on 14th Sept, 2011 by Her Excellency the President of India Smt. Pratibha Devi Singh Patil. Shri P. Mohanasundaram, Director, MPEDA has received the award for MPEDA.



## Fishing harbour development in India

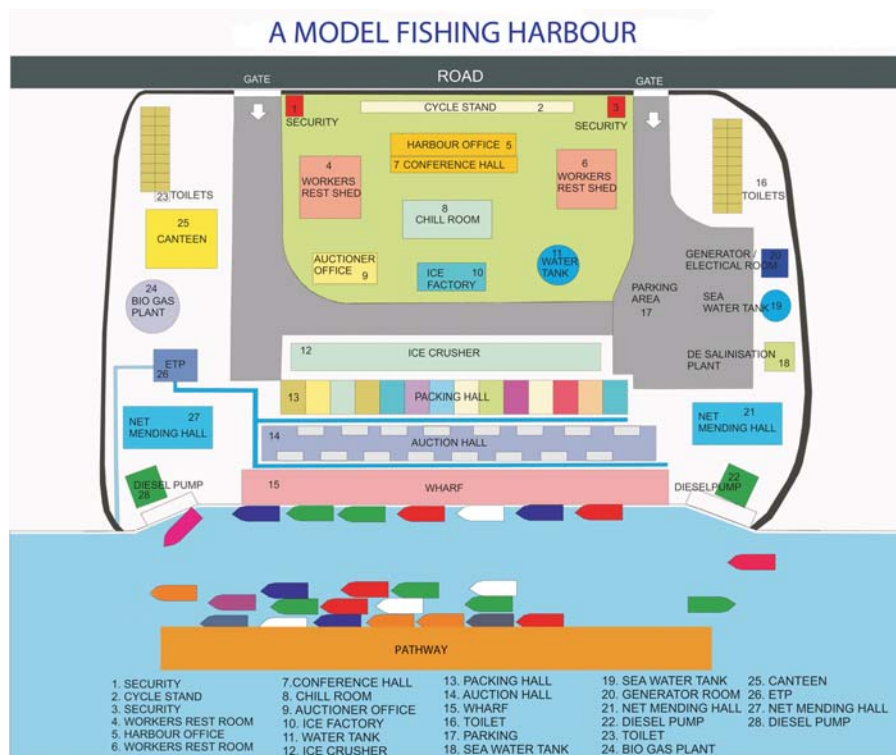
(Deepu A. V., Afsal V. V. and Joice V. Thomas, NETFISH, MPEDA)

Fishing harbours in India are gaining much attention now-a-days considering their important position in the seafood quality chain. The conditions prevailing in a fishing harbour may have consequences not only on human and environmental health but also on fish price and exports. Since the fishing harbour is an area whereby the sea caught materials pass through to the consumers, proper infrastructure development and strict implementation of code of conduct of responsible fishing as well as good handling practices are very important. Although bulk of fish landed in fishing harbours in India are destined for the local markets who have consumer rights advocacy on quality, it is crucial to improve the quality of the catch landed. The fishing industry as a whole can also be affected by the economic loss due to rejection of seafood consignments based on quality and other issues by overseas buyers. While having the right infrastructure at the right place, management and maintenance of fishing harbours are crucial considerations as well. Considering the importance of fisheries sector and fishing harbours as the threshold of the huge amount of fish products exported from India, concerted efforts from Government, stake holder groups and extension agencies are required to upgrade our fishing harbours to international standards. This article gives an overview of a model fishing harbour and its effective management.

### Fishing harbour standards

Standards of major importing countries (mainly European Union) and Export Inspection Council of India have to be considered while constructing or modernizing a fishing harbour. The salient features of the requirements of fishing harbours specified by Export Inspection Council of India are as follows (Anon, 2007):

1. The Landing sites /auction centres of fish and fishery products shall be located at a site ideal for the purpose and shall be free from undesirable smoke, dust, environmental pollutants and stagnant water.
2. The design and lay out of the landing sites /auction centres shall be such as to preclude contamination of fish and fishery products handled.
3. The landing sites /auction centres shall be properly covered to protect the fishery products from environmental hazards such as sun light, rain, wind blown dust etc.
4. The floor shall have sufficient slope for proper drainage and to avoid stagnation of water.
5. Raised smooth platforms, which can be easily cleaned and disinfected, may be preferably provided in the landing sites/ auction centres for the display of fishery products.
6. Proper drainage system shall be provided to facilitate easy removal of wastewater.
7. Provision of adequate quantities of potable water or clean seawater shall be made in the landing sites /auction centres for cleaning and sanitation.
8. Appropriate number of flush lavatories shall also be provided out side the landing sites /auction centres.
9. The utensils & equipments used to handle fish and fishery products shall be smooth and made of corrosion free material, which is easy to clean and disinfect and kept in a good state of repair and cleanliness.
10. During loading & unloading of fishery products, there must not using any equipment and practices that cause unnecessary damage to the edible parts of the fishery products.
11. Sign boards prohibiting smoking, spitting, eating and drinking shall be exhibited in prominent positions
12. The un-loading and loading activities shall be done rapidly to avoid the spoilage of fishery products. Care shall be taken to avoid contamination of fishery products during loading and un-loading.
13. Fishery products shall be properly iced to avoid temperature abuse. The ice used shall be of good quality made up of potable water with its source.
14. Vehicles emitting exhaust fumes



shall not be permitted inside the landing sites /auction centres/ fishing harbour.

- Suitable measures shall be taken to avoid entry of animals, birds and insects inside the landing sites / auction centres.

### A model fishing harbour

The site selection for construction of the fishing harbour is an important aspect and harbour should be constructed in such a way that water will not enter the harbour premises even at the highest high tide times and boats can be moored at any time without any effect of high and low tide levels.

Wave action shall be controlled by constructing break waters. Water movement in the harbour area is also very important; stagnation of water in the harbour and its premises may create unhealthy environment. Hence no construction is allowed in harbours blocking the smooth flow of water

A model fishing harbour shall

encompass the following infrastructure

- A compound wall with gate to prevent entry of stray animals and unrestricted entry of people.
- Broad and separate parking area for different vehicles like two wheelers, four wheelers, insulated vans etc.
- A neatly constructed drainage channel towards land side of the auction hall to collect the waste and connected with Effluent Treatment Plant (ETP).
- ETP for waste water treatment
- Auction hall with raised platforms and fly proof netting
- A neatly constructed wharf
- Separate net mending hall
- Rest room for workers
- Bathroom & Toilet facility
- Availability of electricity, fresh water and proper lighting at harbours
- Availability of good quality crushed ice

- Permanent waste bins for depositing and collecting non degradable wastes

Auction hall should have proper height to make the fish handling easy. Raised platforms should be constructed in due consultation with stakeholder groups. Proper lighting should be provided in the auction hall as well as in the premises of the fishing harbour. The floor slope of the auction hall should always be towards the drainage channels and not towards the open water. Flooring material should be non-slippery and strong enough to withstand rough usage. Wharf area should be big enough to enable easy handling of fish. Slope of the wharf area should not be towards open water but should be towards land. Wharf area should be properly concreted. Net mending hall and rest rooms should be provided for workers in the harbour.

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### Fishing harbour development in India

In India, many harbours are on the rail to development. Fishing harbours like Thoppumpady, Sakthikulangara, Puthiyappa, Beypore and Ponnai fishing harbours in Kerala,



*Deshapran fishing harbour under construction in West Bengal*



*Kakinada fishing harbour, Andhra Pradesh*

**Fishing harbour management**

Effective management of fishing harbours is also as much important as that of infrastructure development. In India, fishing harbours are mainly controlled and operated by the concerned State Fisheries Department and some of them are under the control of Port Departments. But it is noticed that government bodies alone cannot run the fishing harbours effectively without the participation of the stakeholder groups. A co-management or participatory approach is the best way with the active involvement of the people who are working inside the harbours. Munambum fishing harbour in Kerala state has proved a successful model for managing fishing harbours by creating a co-management society with the active participation of government and stakeholders. Munambam fishing harbour is the property of Department of Fisheries, Govt. of Kerala. The day-to-day activities of the harbour was controlled by the Department of Fisheries whereas, the developmental works including construction, maintenance, etc. was carried out under the supervision of Harbour Engineering Division of Govt. of Kerala. For the better management of the fishing harbour, a management society was formed for this harbour with the active support of the Marine Products Export Development Authority (MPEDA) and Department of Fisheries, Govt. of Kerala. Now the day-to-day activities of the fishing harbour are controlled by the society. The revenue collected from the fishing harbour by way of toll charges, rent etc., is going to the society account, which is being utilised for infrastructure development and other activities in the harbour. The control, administration and management of the affairs of the society are under the control of the Governing body which

Dhamra and Paradeep in Odisha, Muttam in Tamil Nadu, Kakinada in Andhra Pradesh, Petuaghat in West Bengal, Mangrol and Porbanthar in Gujarat, etc. are being upgraded with the financial assistance of various agencies in India and abroad. National Fisheries Development Board (NFDB) under Ministry of Agriculture is the major agency that provides funds for the construction and upgradation of fishing harbours in India with wide schemes for

infrastructure development of harbours. Besides, the state fisheries department of the various states also takes steps to create new fishing harbours and upgrade the existing ones. Mangrol and Dhamra fishing harbours were upgraded with the FAO assistance. It is noteworthy to mention that some private fishing harbours are also coming up in certain states considering the vast importance of fishing harbours in the hygienic food supply.



Raised platforms in Munambam fishing harbour, Kerala

comprises 14 members including the nominees from Government bodies like State fisheries, Port, MPEDA, NETFISH, MATSYAFED and stakeholder groups such as boat owners association, fishermen and workers union etc. The society directly plan, implement and manage the operations in Munambam fishing harbour with the help of the above two management committees. It has been empowered to make various revenue collections such as entry and parking charges of vehicles, landing/handling charges of fishing crafts, wharfage, and registration and licensing of

auctioneers, rent of shopping complex and canteen etc. A code of conduct has been successfully implemented and observed in this harbour by the management society. Many officials from various states are trying to emulate the Munambam model to the fishing harbours of their state. By all means it would be the best method to operate the fishing harbours in a most hygienic manner.

### Conclusion

Fishing harbour development in India is taking place in a swift manner recognising its important role in

production of high quality seafood from the country. Besides infrastructure development, effective management system is found to be the key aspect for the hygienic operation and smooth management of fishing harbours.

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Munambam fishing harbour

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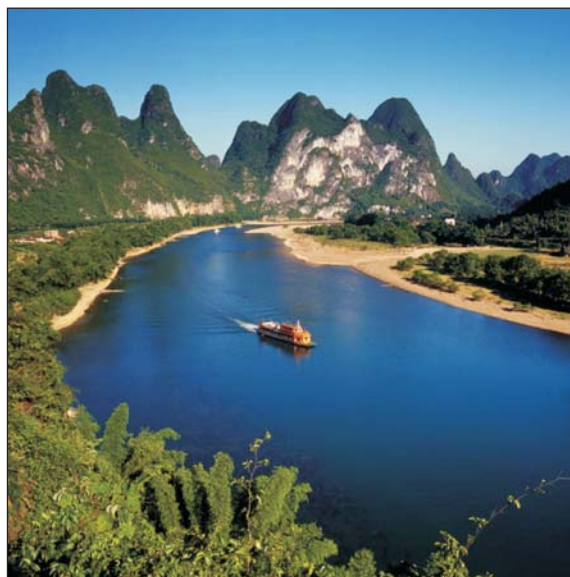
## Ornamental Fisheries Potential in Himachal Pradesh

The hill state, Himachal Pradesh, situated in the Western Himalayan region of India is geographically bordered by Jammu and Kashmir on the north, Punjab on the southwest, Haryana on the south, Uttarakhand on the southeast and Tibetan China on the east covering an area of 56,019 Sq. Km. Geographically, the state is divided into 12 districts. Out of these, Lahul, Spiti and Kinnaur districts have topologically difficult terrains and thus considered unsuitable for propagation of fisheries related activities.

The state also has a vast network of aquatic resources in the form of snow fed perennial rivers and streams besides man-made reservoirs, other impoundments, viz., lakes, soil water conservation in the form of check dams and village pond etc. Due to variation between hot and a humid temperature in the valley areas to freezing cold in high altitudes the state can be divided into two regions, Northern and Southern. The southern region of Himachal is almost as hot as plains with a mild difference in temperature in different areas. Northern region has a mild temperature in summer and very cold winter with heavy snow fall.



The ornamental fish aquaculture sector is in nascent stages in the state mainly due to lack of knowledge and skilled manpower. The Government owned ornamental fish farm at Deoli, (district Bilaspur) breeds gold fishes, guppies, mollies and Koi carp. On the other hand, the culture fisheries of Carps and trout is well developed in some districts of the state.



Himachal Pradesh is blessed with a rich diversity of indigenous ornamental fish species. There are about 25 species identified as potential ornamental fish species. Due to their attractive looks and various adaptive forms these species could serve as high value ornamental fishes in domestic and international markets. The important among them are the hill stream loaches (*Nemacheilus spp.*, *Botia spp.*), lower barils (*Barilius spp.*) sucker head (*Garra spp.*), barbs (*Puntius spp.*), mahseer (*Tor spp.*), featherback (*Notopterus spp.*), and catfishes (*Glyptothenax spp.*, *Mystus spp.*) etc. These fishes are adapted to live in varying form of natural aquatic resources such as rivers, streams, rivulets and high altitude lakes present throughout the state.

The ornamental fish sector is in promising stages in the state. Presently a fraction of native fish biodiversity is being utilized for the ornamental purpose. The collection of these fish species from wild is done mainly with the help of cast nettings, seines and other indigenous methods. So far, the

major demand of the ornamental fish industry in the state is covered mainly with the fishes imported from other states. Although the state owned fishfarm produces of exotic species, the breeding and culture strategies of major native ornamental fish varieties are yet to be achieved.

On the basis of water quality, temperature fluctuations, land availability, connectivity and presence of aquafarmers, the five districts namely: Una, Mandi, Solan, Sirmaur and Kangra can be considered as potential districts for the Ornament Fish Breeding Units. Ornamental fishes can be marketed in Himachal Pradesh in the districts of Mandi, Una, Hamirpur, Kangra and Solan Chamba, Shimla, Sirmour, Kullu and Bilaspur and also neighboring Punjab, Delhi, Uttarakhand and Jammu.

MPEDA has initiated its efforts to develop Governmental fish sector of the state since August 2011 with an aim to utilize the potential available in the state in a sustainable manner and also to generate employment for rural folk.

## MPEDA, RO, Kolkotta organizes basic training programme for ornamental fish farmers with CIFE, Kolkatta Centre

MPEDA, RO, Kolkotta organized a 5-days' basic training programme for Ornamental fish farmers during August 2011 at the CIFE, Kolkatta Centre. The training programme was inaugurated by Dr. B K Mohapatra, Officer-in-charge, CIFE, Kolkatta .

A total of 25 participants attended the training programme out of which 23 candidates were prospective beneficiaries under MPEDA financial assistance schemes for setting up ornamental fish breeding units of different grades.

The topics covered in the training programme included breeding technology with special reference to high value species of live bearers & egg layers, rearing, culture of live feed, diseases and treatment,



*Trainees with dignitaries*

preparation of artificial feed, packing for short /long distance transport and ornamental fish trade with special reference to export. The training programme also included one field visit

to MPEDA assisted Grade-III ornamental fish breeding unit. Certificates for participation in the programme were distributed to all the participants.

## Plastic Baskets Distribution by NETFISH at Kayamkulam

Kayamkulam fisheries harbour is located at the coastal village of Azheekal in Kollam district of Kerala. About 300 mechanized boats and 40 country crafts are operating from this harbour. For years, the loading and unloading workers of this harbour have been using bamboo baskets to bring fish from fishing vessels to the auction hall. Handling of fish using bamboo basket was found to create a lot of hygienic problems and these baskets are difficult to clean leading to the contamination of fish. In order to control the usage of bamboo baskets and to gradually eliminate it from the harbour, NETFISH emphasized the

demerits of bamboo baskets to the fishermen through its awareness programmes. Moreover, NETFISH introduced plastic baskets among stakeholders to familiarize its usage and to understand its advantage over bamboo baskets.

In continuation of this process, NETFISH has conducted a plastic basket distribution programme during August 2011 at Kayamkulam fisheries harbour in which 150 baskets were distributed to the loading and unloading workers in the Kayamkulam fisheries harbour. The programme was presided over by Smt. L. Sobha, member, Block Panchayat,

Karunagapally and the function was inaugurated by Smt. C. Baby, Vice President, Alappad Grama Panchayat.



*Distribution of plastic baskets by Dr. Shassi, State coordinator, NETFISH*

## Basic Training Programme on ‘Ornamental Fish Culture and Farm Management’ at KUFOS with MPEDA support

Shri C Mohanakumaran Nair, Pro Vice Chancellor, KUFOS inaugurated a five-day basic training on ‘Ornamental Fish Culture and Farm Management’ supported by the Marine Products Export Development Authority (MPEDA) at Kerala University of Fisheries and Ocean Studies (KUFOS), Panangad, Kochi during September, 2011.

The course covered all the major topics in ornamental fish culture like fish identification, biology, breeding, water quality and filtration, live feed and prepared feeds, disease and health management, farm design aspects, introduction to farm equipments, best farm management practices, harvesting and packaging apart from classes on aquarium plant and aquarium setting, and entrepreneurship development. The trainees were also given a farm exposure visit as part of the training. The trainees were evaluated on the final day of training and feedback



*Prof. C Mohanakumaran Nair, Pro-Vice Chancellor, KUFOS Inaugurates the training programme.(from left to right – Dr. Binu Varghese, Programme Manager (OFD), MPEDA RO-Kochi; Prof. T V. Anna Mercy, Course Director, KUFOS; Dr. Devika Pillai, Registrar, KUFOS*

information was also collected. 30 various districts of Kerala attended the beneficiaries of MPEDA scheme from training course.



*Participants with faculty members*

# QUALITY FRONT

## TRAINING PROGRAMME ON SEAFOOD HACCP ORGANIZED BY MPEDA, RO, MUMBAI

MPEDA, Regional Office, Mumbai organized a 4-day training programme on Seafood HACCP from 2nd to 5th August, 2011 at Kerala House, Vashi, Navi Mumbai for the benefit of technologists / executives working in seafood processing establishments of Maharashtra region. The programme was inaugurated by Shri. Rustom Irani, Regional President, SEAI, Maharashtra region. Shri. S. K. Varma, Regional co-ordinator, SEAI, Maharashtra region and former Deputy Director, EIA offered felicitation.

During the four days' technical sessions various topics were covered such as Introduction to Pre-requisite programmes & preliminary steps, CGMP, SSOP, Hazards, Hazard analysis & control measures, Critical Control Point, Critical Limits, CCP Monitoring, Corrective Action, Verification, Record keeping, US Seafood regulation, EU Directives / National Standards, Traceability and Group Presentations. Shri. K. Sasidharan Nair, Assistant Director (QC), Shri. S. S. Shaji, Assistant

Director, RO, Kochi and Shri. V. Vinod, Technical Officer (QC), MPEDA were the faculty members. Altogether 27 participants representing 19 seafood establishments in the region attended the programme.

The course certificates were distributed to the participants by Shri. K. N. Vimal Kumar, Joint Director (QC), MPEDA, Kochi during the valedictory function. Shri. P.G. Sreenath, Assistant Director and Shri. Rajesh Dagare, Technical Officer (QC), RO, Mumbai co-ordinated the efforts.

### Price List of MPEDA Publications / Periodicals

	PERIODICALS	Annual Subscription (Rs.)
1.	PRIME Weekly (Price Indicator for Marine Products)	350.00
2.	MPEDA Newsletter	300.00
	PUBLICATIONS	Price Per copy (Postage extra)
3.	Chart on Commercial Fishes of India	75.00
4.	Chart on Ornamental Fishes of India	75.00
5.	MPEDA Act, Rules & Regulations	25.00
6.	Statistics of Marine Products 2008	350.00
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9.	Product Catalogue	150.00
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15.	Ornamental Fish Breeders / Traders Directory	25.00
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17.	Directory of Exporters of Marine Products	75.00
18.	Directory of Exporters of Marine Products CD	30.00



# AQUACULTURE SCENE

## Extension programmes by field offices of MPEDA

### A. SRC (AQ), KOLKATA

#### Awareness campaign against use of antibiotics in aquaculture

West Bengal is one of the major shrimp producing states in India. There are different types of shrimp culture system prevailing in West Bengal. The *ghery* culture is being practised in North & South 24 Parganas while scientific shrimp farming is adopted in Purba Medinipur

campaigns “Against use of antibiotics in aquaculture” in various parts of the State.

SRC, Kolkatta has organized such a programme during August 2011 in Arampur village, Gosaba, South 24 Paragnas District which was attended by 40 farmers from different villages

farmers in rural areas.

Another campaign was arranged at Tuskhali Village, Sandeshkhali Block, North 24-Parganas District during September 2011 which was attended by 47 farmers belonging to Chotatuskhali, Zaliakhali and Badatuskhali village



Shri S. Mani AD (AQ) and Shri Sibasish Mohanty, JTO, SRC, Kolkatta



A view of audience at Tuskhali Village

district. To make the shrimp farmers of West Bengal aware about the adverse effects of antibiotic usage in shrimp farming, MPEDA, SRC, Kolkatta is regularly organizing

like Kalidaspur, Ramnagar, Satjelia Sukumari, Luxbagan, Cheragheri etc. in association with Sunderban Sir Daniel Ashram, a society that works for the development of poor SC/ST

who have shown interest to learn the latest developments taking place both in the culture as well as export sectors.

### Training Programme on “Eco-Friendly & Sustainable Aquaculture”

SRC, Kolkatta has also organized 5-days’ Training Programme on “Eco-Friendly & Sustainable Aquaculture” during September 2011 at Namkhana village, South 24 Paragnas Dist. for the benefit of 20 shrimp farmers of Namkhana block.

The Inaugural programme was attended by Shri Samanta Mali,

Pradhan, Namkhana Grampanchayat, and Shri Dhiren Kumar Dash, Pradhan, Haripur Grampanchayat. Shri D K Biswas, Deputy Director (Aq), MPEDA delivered the welcome address.

Leaflets against use of “Antibiotics in the Aquaculture”, CAA rules, Muddy Moldy smell in shrimp, MPEDA Schemes in Bengali

vernacular and manual on shrimp health management were distributed among farmers after registration.

The inaugural session was followed by technical sessions handled by MPEDA Officials on site selection, construction of shrimp farms, pond preparation, water quality management before stocking, seed

## AQUACULTURE SCENE

selection, PCR test, transportation, acclimatisation in pond, PCR techniques, water quality management during culture, feed management, species diversification, disease management, pre harvest test, deleterious effect of antibiotics in aquaculture, economics of shrimp culture, BMPs and crop plan, contract hatchery system and schemes of MPEDA.

Dr Sujeet Kumar, Scientist, Research Centre of CIBA, Kakdwip also delivered a lecture on disease management during shrimp farming. A field visit was arranged for the trainees on the fourth day to Henry Island at South 24 Parganas to expose them on various ongoing projects of State Fisheries Dept. like shrimp, seabass and Tilapia culture



*Trainees during field visit*

practices, ornamental fish breeding and nursery rearing of seeds. A shrimp hatchery under construction was also visited.

## B. RC (AQ), BHUBANESWAR

### Awareness campaign against use of antibiotics in aquaculture

To create awareness among the shrimp farmers about abuse of banned antibiotics/chemicals in aquaculture an “AWARENESS CAMPAIGN AGAINST USE OF ANTIBIOTICS IN AQUACULTURE” was organized at Kharasapur village, Balasore district during August 2011 for the benefit of 51 farmers and feed dealers. Sri A D Raju, Field Manager, NaCSA and Sri Pratap Ojha, a Lead farmer were invited as guests, while MPEDA coordinated the programme. Regular subjects of export oriented shrimp aquaculture was covered in the campaign.

Another campaign to control the use of banned antibiotics was organised at village Orasahi, Dist: Bhadrak during September 2011 in which 35 shrimp farmers of Kasturikona, Tentulida, Chandakuda,



*Shri G.Rathinaraj DD, MPEDA addressing the farmers during the awareness campaign at Kadalichuan, Dist- Kendrapara*

Neduali & Kaliapat villages participated.

Two more campaigns were organized at Padmapur and Gadaharishpur villages of Jagatsinghpur District and at Kadalichuan, Kendrapara district in which 108 farmers participated.

Leaflets on Antibiotics and guidelines on abuse of “Antibiotics in the Aquaculture”, Abstract of CAA rules & guidelines etc. in Oriya vernacular were distributed among farmers in all the programmes.



*View of farmers attending the awareness campaign*

### **Training programme on “Adoption of BMPs in shrimp culture and species diversification in aquaculture**

To disseminate technologies to the farmers about technological advances in aquaculture, a 3-day training programme on “Adoption of BMPs in shrimp culture and species diversification in aquaculture” was conducted during September 2011 in Inchudi village, Balasore district for the benefit of 20 farmers belong to Bidyanagari Aqua Farmers Welfare Society, Balasore.

The inaugural programme was attended by Shri Sarbeswar Das, President, Bidyanagari Aqua Farmers Welfare Society, Balasore.

Classes were handled by MPEDA officials on the role of MPEDA and its various schemes for the development of aquaculture sector,

Best Management Practices in shrimp farming, quality assurance of aquaculture produce, testing of shrimp/scampi samples by ELISA laboratory commissioned at Balasore by MPEDA, role of NaCSA and schemes for formation of societies, Site Selection, Design & Construction of shrimp farm, Pond Preparation, Seed selection & stocking and Water/Soil Quality Management, Feed & Feed management, economics of shrimp farming, species diversification in aquaculture etc.

A field trip was arranged on the second day afternoon to Golden Aqua Farms (P) Ltd. at Kalamatia, Inchudi, which has a water spread area of 10 Ha with 20 ponds. Shri Ranjan Das, Farm Manager, explained the culture

practices being followed in the farm and showed other infrastructure facilities to the trainees.

On the final day, two guest lectures were delivered by Shri Sadananda Mahapatra, DFO cum CEO BFDA/FFDA, Balasore and Shri Amar Kumar Dixit, Inspector of Cooperative Society on the CAA registration & Legal Aspects of shrimp farming and Cooperative Society approach for the development of aquaculture respectively.

A group discussion was arranged where the farmers interacted with the officials on various problems faced by them. Training certificates were distributed to all the 20 trainees during the valedictory session.

### **C. MPEDA, SRC, Karwar organises awareness campaign against use of antibiotics**

To make the farmers more aware against the use of antibiotics and chemicals in shrimp farms the Sub Regional Centre (Aquaculture), Karwar organized a Campaign on abuse of

Antibiotics at Haldipur, Honnavar in Uttar Kannada District in August 2011 for the benefit of shrimp farmers belonging to M/s. Sharavathi Sigadi Krashikar Sanga, Honnavar along with

the inauguration of the society’s new office. 15 farmers attended the programme.

Shri.K.H.Gowda, A successful farmer of the locality and President of

## AQUACULTURE SCENE

M/s. Sharavathi Sigadi Krashikar Sanga, Honnavar addressed the gathering and said that better management practices, feed management, testing of hatchery seed for WSSV and non-use of chemicals and antibiotics are the tools that will generate good production and better demand for their material.

MPEDA officials explained the adverse effects of antibiotics in shrimp farming and human health and requested the farmers to exercise tight checks to prevent the antibiotic abuse. Steps taken by MPEDA to ensure supply of antibiotic free shrimp seeds were also detailed. Farmers were also requested to maintain all relevant records for traceability purpose.

The programme was concluded with a brief discussion between officials and the farmers. Various doubts raised by the farmers on



Session in progress

banned antibiotics, MPEDA Schemes and testing of seed from hatchery were clarified.

Shri Naresh Vishnu Tambada,

Assistant Aquaculture Engineer and Smt. Shikha Rani Mahato, Field Supervisor, SRC, Karwar co-ordinated the programme.



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## Probiotics In Fish And Shrimp Feed

With the current development of the aquaculture industry, an increase in problems and challenges arises, including a widespread occurrence of diseases, such as parasitic infestations, bacterial and viral infections, writes Elisabeth Mayer, Technical Manager, Biomin.

Currently, there is growing interest in the use of beneficial bacteria, probiotics, as an alternative strategy to antimicrobial compounds. These naturally occurring live microorganisms can improve growth and survival of fish and shrimp.

A diverse range of beneficial bacteria is used as probiotics in aquaculture. Their selection and ability to thrive in the gut play a key role on the success of its application. The mode of action of probiotics include competitive exclusion of pathogenic microorganisms based on mechanisms like production of bactericidal substances, competition with pathogenic bacteria for nutrients and intestinal adhesion sites and modulation of the immune system. Ultimately, probiotics should contribute to efficient production in a sustainable way, promoting healthy and robust animals (Brittain et al., 2002).

Disease prevention and control in aquaculture are now priority research topics. This article reports on in vivo trials using beneficial strains as a probiotic feed additive in cultured aquatic species.

### Probiotic inclusion in fish feed

Increased stocking densities in intensive fish production systems lead to more challenging production conditions. This brings the need for solutions focusing on improving fish performance and survival in a

sustainable way. Several studies have demonstrated the efficacy and certain mechanisms of action of probiotics included in fish feed.

Adhesion and colonisation of the mucosal surfaces are possible protective mechanisms against pathogens through competition for binding sites and nutrients (Westerdahl et al., 1991). In a trial conducted by Kidchakan (2006) of the Prince of Songkla University, colonisation of the intestine was investigated with a

More possible benefits for fish linked to the administration of probiotics have been suggested: *B. subtilis* and *B. licheniformis* fed fish displayed a significant improvement of feed conversion ratio (FCR), specific growth rate (SGR) and protein efficiency ratio (Merrifield et al., 2009). Other protective mechanisms of probiotics against pathogens are production of inhibitory compounds with antibacterial activities and effects on the immune responses, such as

**Table 1 :** *E. faecium* in Tilapia's intestine (Cell/g intestine) at day 1 and day 10 after stopping feeding probiotics

experimental group	<i>E. faecium</i> in tilapia's intestine (x10 <sup>8</sup> cell/g intestine)		
	Day 1	Day 10	
	: Intestine with faecal materials	: Faecal material	: Intestine w/o faeces
Control group	0	0	0
Probiotic group	1.37 ± 0.85	1.52 ± 0.98	1.33 ± 0.28

Means ± SD. Using Fluorescent in situ hybridization (FISH), 5 - 15 microscopic fields were counted

commercial probiotic product containing *Enterococcus faecium* (AquaStar®, BIOMIN GmbH, Austria) in Nile Tilapia.

In this study it was shown that the probiotic *E. faecium* colonised the gut and it was even detected in the gut and faeces after 10 days of the product administration (Table 1). Different lactobacilli have reduced the adhesion of *A. salmonicida*, *C. piscicola* and *Yersinia ruckeri* to intestinal mucus of rainbow trout (Balcazar et al., 2006).

Chang and Liu (2002) showed that survival rates of European eels fed with *Enterococcus faecium* were significantly higher than in the control groups after being challenged with *Edwardsiella tarda*.

modulation of the white blood cell counts.

In a recent study conducted by BIOMIN (2010) the effects of dietary application of probiotics on health and growth performance of Tra catfish were investigated.

Two different multi-species probiotic products, AquaStar® Growout (*Bacillus* sp., *Enterococcus* sp., *Lactobacillus* sp., *Pediococcus* sp., colony forming units (CFU) one multiplied by 10<sup>9</sup>/g) and AquaStar® Shield (*Bacillus* sp., CFU one multiplied by 10<sup>9</sup>/g + cell wall fragments) were tested.

Groups of 40 fish (66.3 ± 0.3 g) were stocked into 300 L tanks and fed to satiation three times daily during an

## AQUACULTURE SCENE

eight week period.

The experiment was set up using five treatments and five replicates per treatment with both probiotics tested at two inclusion levels (AquaStar® Growout one g/kg and three g/kg, AquaStar® Shield one g/kg and two g/kg feed).

At the end of the trial blood samples from three fish per tank were taken for determination of haematological parameters (trombocytes, lymphocytes, monocytes and polymorphonuclear leucocytes). Dietary application of probiotics had a positive effect on several fish performance parameters. These effects were dose dependent and varied between the two probiotics.

Feed application of AquaStar® Growout at three g/kg and AquaStar® Shield at one g/kg resulted in increased ( $P < 0.05$ ) weight gains of 12 per cent and 11 per cent, respectively (Figure 1).

At those inclusion levels, these probiotics were also effective in improving FCR by 10 per cent and nine per cent, respectively, when compared to the control. Application of AquaStar® Growout at one g/kg and AquaStar® Shield at two g/kg improved fish performance but was not significant ( $P > 0.05$ ) when compared to control.

The haematological parameters shown in Table 2 indicate that AquaStar® Growout (one g/kg)



induced a significant reduction (20 per cent) in trombocytes and an increase (30 per cent) in lymphocytes when compared to the other treatments. Levels of monocytes and polymorphonuclear leucocytes were not affected by the treatments.

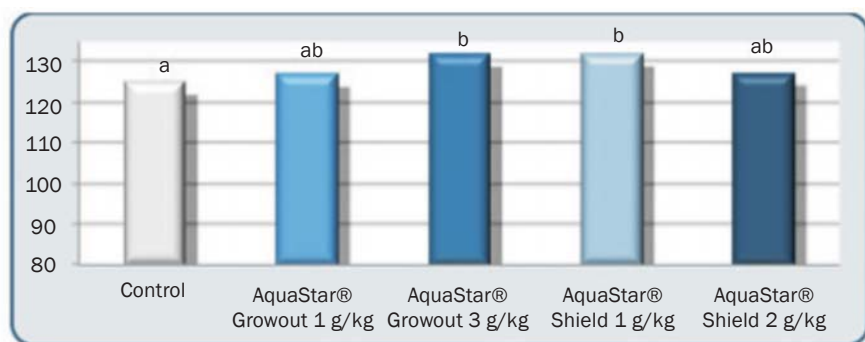
Results showed that probiotic application in fish feed can be an effective solution to improve growth performance and health status. Moreover, dosage application should be adapted to the composition of bacterial strains used

### Probiotic inclusion in shrimp feed

In the economically important panaeid shrimp, *Vibrio* species have become a major constraint on production and trade during the past two decades. They are responsible for several diseases and mortalities of up to 100 per cent, causing global losses of around US\$ three billion.

There is already experimental evidence that the prophylactic use of probiotics to control pathogens by competitive exclusion can improve health and performance of cultured shrimp. The positive impact of added probiotics on bacterial ecology in shrimp gut was shown in a trial conducted with white shrimp (*Litopenaeus vannamei*).

A multi-strain probiotic mixture containing *E. faecium* (AquaStar®, BIOMIN GmbH, Austria) fed to



**Figure 1 :** Final body weight (g) per fish fed control and probiotics after 8 weeks ( $P < 0.05$ )

**Table 2 :** Haematological parameters of Tra catfish fed control and probiotic after 56 days

	Control	AquaStar® Growout 1 g/kg	AquaStar® Growout 3 g/kg
<b>Trombocytes</b>	48.0 ± 2.5 <sup>ab</sup>	43.5 ± 1.9 <sup>ab</sup>	38.3 ± 3.7 <sup>a</sup>
<b>Lymphocytes</b>	39.7 ± 2.9 <sup>a</sup>	45.9 ± 2.6 <sup>ab</sup>	51.6 ± 2.6 <sup>b</sup>
<b>Monocytes</b>	6.5 ± 0.9	5.7 ± 1.0	5.7 ± 0.8
<b>PMN</b>	5.9 ± 1.2	4.9 ± 0.6	4.5 ± 0.6

*a, b* different superscripts in the same row indicate significant differences at  $p < 0.05$

Results are expressed as average ± SE

shrimp 5 times daily during a six week period at an inclusion rate of five g/kg feed has reduced the total number of *Vibrio* spp. found in the hepatopancreas and intestine of shrimp. This evidence showed that probiotic *Enterococcus* can colonize the shrimp gut and reduce the number of pathogens through competitive exclusion (Supamattaya et al., 2005).

Furthermore, the non-specific immune system can be stimulated by probiotics. Rengpipat et al. (2000) indicated that the use of *Bacillus* sp. in tiger shrimp provided disease protection by activating both

cellular and humoral immune defenses.

In a recent study, Jintasataporn et al. (2010) investigated the effect of AquaStar® Growout (BIOMIN GmbH, Austria) in white shrimp (*Litopenaeus vannamei*) production performance parameters. Groups of juvenile white shrimp ( $0.86 \pm 0.31$  g) were stocked into 240 L glass aquaria, at a density of about 100 shrimp/m<sup>2</sup>, and fed four times daily for eight weeks.

A commercial type diet was used as a control. AquaStar® Growout was supplemented to the feed at an inclusion rate of three g/kg.



Considering the shrimp production per square meter, the results in Table 3 and Figure 2 show that shrimp production was improved by 9.40 per cent in the group applied with AquaStar® Growout compared to the control. The analysis regarding the CFU of LAB showed significantly ( $P < 0.05$ ) higher levels in the probiotic group. Lactic acid can enhance growth performance due to optimum acidic conditions in the digestive system which promote nutrient digestion and absorption.

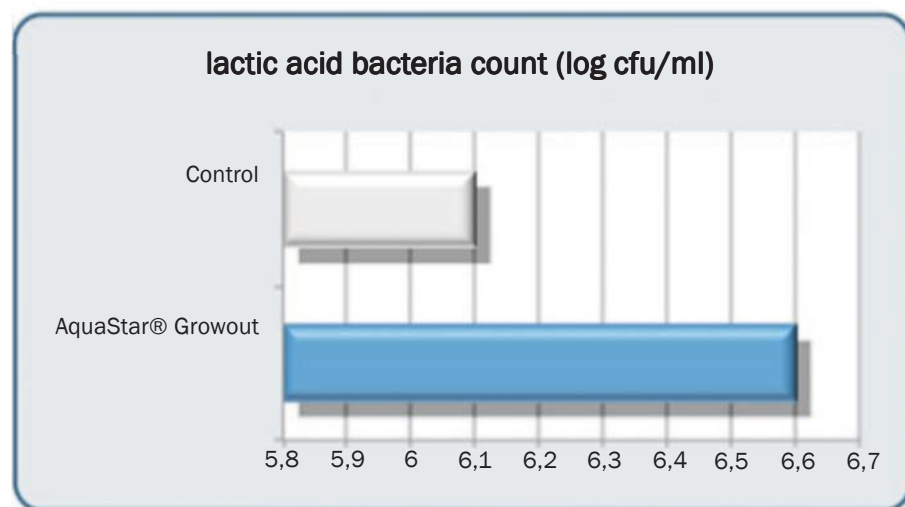
## Conclusion

Maintaining the balance of critical parameters is a fundamental requirement for successful aquaculture. In order to withstand the high stocking densities in shrimp and fish production probiotics are a promising feed additive to stimulate animal growth and secure a low disease response. The data of these studies suggest that the use of AquaStar® improved survival, growth rates and the general health status of fish and shrimp while also reducing pathogenic *Vibrio* spp.

More research effort is needed to secure even better results in the future. Probiotics have to be extensively investigated in terms of new bacteria strains, their mechanisms of action, efficacious level of administration alone or in combination with other natural products with ascertained health promoting activities (Ringo and Olsen, 2008).

**Table 3 :** Growth performance of shrimp after applied probiotic in feed for 2 months (mean + SD)

	Control	AquaStar® Growout
Final weight (g/ind.)	5.64 ± 0.10	5.68 ± 0.55
Feed Conversion Ratio (FCR)	1.36 ± 0.14	1.38 ± 0.07
Survival rate (%)	74.29 ± 7.32	81.43 ± 11.41
Production (g/m <sup>2</sup> )	355.3 ± 34.4	388.7 ± 38.3



**Figure 2 :** Lactic acid bacteria count from shrimp intestine after applied probiotic in feed for 2 months ( $P < 0.05$ )

## EC Proposes 2012 Fishing Opportunities

The European Commission presented its first proposal for 2012 fishing opportunities for certain stocks in the Atlantic and the North Sea. The proposal sets levels of total allowable catch (TAC) and fishing effort for the fish stocks managed by the EU exclusively, and not for stocks managed with third countries.

Based on scientific advice, the Commission proposes to increase the TAC for nine stocks (certain stocks of cod, anglerfish, herring, haddock, hake, sole, megrim and Norway lobster) and reduce it for 53 stocks.

For cod in the West of Scotland, the Irish Sea and the Kattegat, the Commission proposes that no fishing takes place in 2012, given the poor state of these stocks. The proposed changes would amount to an overall reduction in TACs (by weight) of 11 per cent compared to 2011. The Commission's goal is to set TACs at science-based levels which help recover the stocks and make fisheries sustainable in the long term.

Maria Damanaki, Commissioner for Maritime Affairs and Fisheries, said: "Our proposal's cornerstones are long-term management of stocks and reliable scientific data to base our decisions on, in line with our proposed reform of the Common Fisheries Policy. This reform will deliver a fisheries policy fit for the future, based on viable fish stocks which will assure fishermen a decent income."

The proposed catch limits are based on the scientific advice from the International Council for the Exploration of the Sea (ICES) and the Scientific, Technical and Economic

Committee for Fisheries (STECF). Stakeholders were also consulted on the basis of the Commission's Consultation document from May (IP/11/638).

The Commission's ultimate aim is that all stocks are fished at sustainable levels, the so-called Maximum Sustainable Yield (MSY), by 2015 – a commitment that the EU made to the international community, and which is also a key pillar of the proposed CFP reform.

To help achieve MSY by 2015, the International Council for the Exploration of the Sea (ICES) has started to frame its scientific advice with this goal in mind, whenever possible. Also, multi-annual management plans are being put in place for all major commercial stocks. Stocks managed in this way tend to fare better than those subject to short-term decision-making.

*-The FishSite News Desk*

## WTO Addresses US-Mexico Tuna Dispute

Following Mexico's claim to the World Trade Organisation (WTO) of unfair labelling by the US in regards to the ongoing tuna-dolphin dispute, the WTO has partly agreed with the claims, saying that the US have been more trade-restrictive than necessary but that the rules do not discriminate.

The announcement by the WTO means that the restrictions on the exporting of tuna from Mexico to the US may be lifted.

Due to claims by the US that Mexico's tuna fishing practices were harming dolphin populations, imports of tuna from Mexico were banned in the US in 1991.

Following the ban, Mexico complained to the WTO in October 2008 that the US's claims were discriminatory and unnecessary.

Mexico stated that the US's labelling practices have discriminated against the country as it has prevented Mexico from being able to label its tuna products 'dolphin safe', which is required to sell in the US market.

After reviewing the case, the WTO concluded that the US's 'dolphin safe' labelling is fair and is in compliance with Annex 1.1 of the Technical Barriers to Trade (TBT) Agreement, therefore rejecting Mexico's claim.

However, in respect to Article 2.2 of the TBT Agreement, the WTO found that the US is being more restrictive than necessary towards Mexico, in regards to the objectives of informing consumers and protecting dolphins.

*-TheFishSite News Desk*



## Exports record 44 % growth at \$24 b in August

Even as the trade deficit widened, India's export continued its upward trend, posting a 44.2 per cent year-on-year growth at \$24.3 billion in August despite slowdown in economic activity in the traditional Western markets and the eurozone.

According to data released by the Commerce Ministry on Tuesday, imports grew by 41.8 per cent to \$38.4 billion during the month, translating into a trade deficit of \$14 billion. The Commerce Ministry has already warned that growth in exports in the coming months could be hit on account of uncertainty in Western markets.

Oil imports were valued at \$10.3 billion in August, translating into a growth of 48.7 per cent compared to the corresponding month last fiscal, while non-oil imports rose to \$28 billion, an expansion of 39.4 per cent.

During April-August, exports grew by 54.2 per cent to \$134.5 billion. Imports expanded by 40.4 per cent to \$189.4 billion. The trade gap stood at \$54.9 billion in the five-month period against \$47.70 billion in the same months in the previous year.

The data also show that oil imports stood at \$52.3 billion and non-oil imports amounted to \$137 billion.

India's foreign trade has recorded a robust growth in recent months, buoyed by increased demand for engineering, chemical and petroleum products in the overseas markets.

Federation of Indian Export Organisations (FIEO) President Ramu S .Deora said that though the 44.2 per cent growth in exports was remarkable but against the backdrop of over 81 per cent growth in July, it would be termed as moderate. Mr. Deora said the export figure for August pointed to difficult

times ahead. "We may have to face further decline in export growth in the third and fourth quarters, primarily due to recessionary trend in advanced economies, pulling down the overall export growth in the current fiscal," he added. He said this also indicated that the pace of global recovery had been slowing down in 2011.

Global GDP is expected to grow by 3.1 per cent in 2011 following an increase of 3.9 per cent in 2010. The stimulus given by developed countries disappeared since the middle of 2010 and now the fundamental weakness in the recovery process in developed economies is visible.

The FIEO chief appealed to the government to announce immediate reduction in the interest rate for exports and the interest subvention scheme for exporters along with PCFC loans for the MSME segment.

*-The Hindu*

## Standardised Labelling System For Full Traceability

At AquaNor 2011, FHL (the Norwegian Seafood Federation) along with the seafood industry, launched a new bar code system, which will offer traceability of fish. Charlotte Johnston, TheFishSite editor spoke with Director Per Dag Iverson about the system.

"The idea is to create one standard which will be used by fishermen, farmers, processors, retailers and customers," said Mr Iverson.

"This will make it easier for participants in the supply chain to work together."

Since January 2010, Norwegian seafood producers have been required to label the date and origin of their catch on the box, under a catch

certificate scheme adopted by the European Union in 2008. The label helps inform customers about the quality of the catch.

The problem, Mr Iverson explained, is that each producer has a different method for labelling fish, making it difficult for those along the supply chain to track products.

The idea of a standardised labelling system stemmed from the transporters - who effectively demanded one system for all, said Mr Iverson.

After several meetings, in which current problems and ideas were discussed, it was decided that something new was needed.

Discussions about the barcode have been going on for about six months. "It was important to ensure that we had all the correct info on the barcodes," said Mr Iverson.

Now agreed, the barcode has been introduced as a Norwegian standard. Mr Iverson said that the idea is being rolled out in Europe, with FHL taking the idea to the EU, in hope that it will be introduced as a European standard. "Considering that the majority of Norwegian seafood is exported, this makes complete sense," he said.

The system is currently voluntary, said Mr Iverson. However some fishmongers are saying that if producers do not use the system, their fish will not be recognised.

The barcode can be traced internationally, allowing suppliers details to be found almost immediately as required. By scanning the bar code information such as where the fish is from, when the fish

was caught, how it was landed, whether it is farmed or wild, any treatments undertaken, the size of the fish etc can be found.

Mr Iverson said: "The system is completely unique. If put into place it

will be the first time that all players in the food chain co-operate to ensure full traceability.

It is expected to be implemented in Norway in 2012.

- *the fishsite*

## New Guide For Responsible Fishing In SE Asia

The Australian Department of Agriculture, Fisheries and Forestry has released a report to help guide future strategies to fight illegal, unreported and unregulated fishing in South East Asia.

The report *Net Returns*, commissioned by the department and funded by AusAID's Public Sector Linkages Programme, provides guidance to fisheries agencies on strengthening marine capture fisheries management at regional, national and local levels.

Parliamentary Secretary for Agriculture, Fisheries and Forestry, Dr Mike Kelly, said the release of the report comes at a critical time, as food security in South East Asia is becoming an increasingly important issue, with coastal fishing the only available source of income and animal protein for many millions of people.

"This new report, designed to help overcome the challenge of already depleted fish stocks and to ensure that fisheries are managed sustainably, is a significant policy development for the region," Dr Kelly said.

"The report was undertaken on behalf of the Regional Plan of Action, an eleven-country membership that signed an action plan in 2007 to

address emerging regional issues such as rapid fisheries development and overfishing."

"These countries recognise that the pace of fisheries development, coupled with an increase in overfishing and illegal fishing, requires urgent development of greater human and institutional fisheries management and governance capacity."

The report was informed by extensive consultation with member countries of the action plan including Australia, Brunei Darussalam, Cambodia, Indonesia, Malaysia, Papua New Guinea, The Philippines, Singapore, Thailand, Timor-Leste and Viet Nam.

In addition, many regional fisheries organisations contributed to the study at a regional workshop hosted by Viet Nam in November 2010.

The eleven countries will consider how to implement the report's findings at a meeting in Cambodia later this year.

The report *Net Returns: A Human Capacity Development Framework for Marine Capture Fisheries Management in South East Asia* can be found at [www.daff.gov.au/netreturns](http://www.daff.gov.au/netreturns).

-*The FishSite News*

## 2011 FinFish Study Highlights Fish Supply Trends

EU catches have decreased by 2.3 per cent, according to the *FinFish Study 2011*, produced by the EU Fish Processors and Traders Association (AIPCE-CEP).

This study has now been published for around 20 years and the industry has seen considerable changes during that time.

Nevertheless the study remains exemplifying the need for imported seafood, particularly whitefish to produce added value seafood within Europe.

These have been the lifeblood of the industry for many years and fulfil an essential role.

This report shows the trends in supplies of whitefish/finfish, tuna, herring, mackerel and surimi and reflects the significance of growth in consumer demand for seafood products and the market's ability to adapt.



Golden perch (*Macquaria ambigua*).

Sources from which EU processors have acquired their raw materials have changed significantly reflecting events occurring: Major new species that have emerged and become key components of the seafood trade in Europe include Alaska pollock from wild capture and Atlantic salmon and pangasius from aquaculture.

Without these introductions the ability of the sector to grow and respond to consumer needs and expectations would have been considerably more difficult.

Some of this year key findings are as follows:

- Total market supply has grown one per cent to 15.1 million tonnes.
- Imported share has grown to 9.394 million tonnes and equals 62 per cent.
- Whitefish import dependency has stayed level at 89 per cent for wild capture and > 91 per cent including aquaculture products.
- EU catches have reduced by 2.3 per cent to 5.224 million tonnes (inc. non-food use).
- EU aquaculture has increased by five per cent to 1.514 million tonnes.

This year is particularly important due to the number of key regulations being put forward for consultation including the reform of the CFP and CMO.

AIPCE-CEP does its best to contribute to this policy-making in its belief that a successful market is best served by having a vibrant and sustainable fishing sector here in the EU working in parallel with the use of resources from around the globe that are safe, sustainable and properly regulated.

*-The FishSite News*

## Meghalaya on fish mission

Meghalaya, the abode of clouds, now dreams of becoming an abode of fishes in a span of five years.

Chief minister Mukul Sangma today released the first draft of the Meghalaya state aquaculture mission prepared by the fisheries department. The mission will cover a period of five years starting 2012.

“I want Meghalaya to evolve from being a fish importer to a fish exporting state in a period of five years. This will be possible only when we can systematically channel our investments into the sector by adopting a mission approach. Convergence of human, technical and financial resources will be a *sine qua non* for the mission,” the chief minister said.

He also said the intention to launch the aquaculture mission parallel to the Twelfth Plan period is part of the dream to make the state not just self-sufficient, but also a leading fish exporter of the Northeast.

The chief minister said the mission was designed to make the rural areas in the state more attractive to live in by creating more livelihood opportunities based on the rich natural resources.

He also invited suggestions and comments from civil society, officials, progressive fish farmers, autonomous district councils, scientists, academicians and research institutions before the draft is finalised.

Sangma said the suggestions would be examined for incorporation in the final draft, which is expected to be released in January next year.

Commissioner and secretary of the fisheries department K.N. Kumar said nearly 30 per cent of the total land area of 22,429sqkm in Meghalaya is



Chief minister Mukul Sangma releases the aquaculture mission document in Shillong.

used for development of fisheries. He said interest in fisheries has been increasing in rural areas because of the favourable climatic conditions and abundance of land and water for pisciculture.

Kumar said the per capita consumption of fish in Meghalaya is estimated to be about 3kg. “If the nutritional standards of the country have to be met in terms of fish consumption that is 11kg/per capita, the requirement of fish would be about 32,604 metric tonnes per annum,” he added.

However, to meet the demand-supply gap, the state is currently importing fish from Andhra Pradesh and to a limited extent from Uttar Pradesh.

The only major scheme that the department has been implementing so far is the 1,000 pond scheme, which was launched during 2005-06. Since the inception of the scheme, 500 hectares of additional water bodies have been brought under fisheries and 2,336 people have taken to fish farming in the state.

However, through the aquaculture mission, the state intends to create an additional one lakh ponds.

Apart from area expansion, other major components of the mission include reclamation of marshy and

swampy areas, *bheels* and other water bodies; fish seed production in private sector; culture and breeding of ornamental fishes; setting up of fish feed mills in the private sector; capacity

building of officials and farmers; data collection and post-harvest infrastructure. Nearly Rs 497 crore will be invested in the mission.

- [telegraphindia.com](http://telegraphindia.com)

## New technology may revolutionize shrimp farming

A Texas AgriLife Research scientist has created new shrimp production technology that produces record-setting amounts of shrimp.

The patent-pending technology, known as super-intensive stacked raceways, yields jumbo-size shrimp weighing 1.1 oz each. These are known as U15 shrimp and give world-record production of up to 25 kg of shrimp per m<sup>3</sup> of water using zero water exchange and/or recirculating water, explained creator Dr Addison Lawrence at the Texas AgriLife Research Mariculture Laboratory at Port Aransas.

A worldwide license for the technology has been given to Royal Caridea, headed by Dr Maurice Kemp, president, and sub-licenses are being considered for some countries including Ecuador, Chile, Colombia, Mexico, Canada, China, Germany, Czech Republic and Russia.

Lawrence believes the indoor system will lower US dependence on foreign shrimp – the US imports about 90 per cent of the shrimp it consumes — and could help address world hunger, *AgriLife Today* reports.

The shrimp are grown in four columns of piled raceways; raceways are long tubs with circulating water of a depth measuring just 5-7in. As shrimp develop, they are moved to a raceway below; baby shrimp are added to the top while the mature shrimp below are harvested.

“These tanks require stringent control and supervision, 24/7 monitoring with computers tracking the shrimp,” Lawrence said. “But properly run, these systems can produce up to 1 million lb of shrimp per ac of water, or 2 ac of land per year.”

In contrast, he specified, traditional shrimp farms in the US produce only up to 20,000 lb of shrimp per ac of water per year. Tropical countries with year-round growing seasons produce up to 60,000 lb of shrimp per year.

He wants to establish stacked raceway facilities near major metropolitan areas throughout the US, producing live, fresh, never-frozen or fresh-frozen shrimp to be made available every day of the year.

“They would surely bring premium prices at supermarkets and restaurants in New York, Chicago, Las Vegas and other large cities. But more importantly, these systems could provide the protein that a booming world population desperately needs,” he commented.

Kemp’s company will own and run the world’s first commercial application of Lawrence’s stacked raceways.

“We’ll construct a facility of about 70,000 sqft, hire 15-20 people, some of them with advanced degrees, and produce shrimp year-round. We expect to produce some 835,000 pounds of shrimp per year,” he said. Economic data shows an estimated rate of return of 25-60 per cent.

“There are no disease problems; it’s biosecure. So, with predictable high internal rates of return, the system is economically viable. But the best part is, it’s totally organic with high-quality protein available every day of the year,” he concluded.

Texas AgriLife will show off Lawrence’s new technology at a shrimp production technology field day on 4 October.

- [www.fis.com](http://www.fis.com),



## First bluefin tuna farming trials deemed excellent

Spanish Company, Futuna Blue España announced that the first captive breeding trials of juvenile bluefin tuna (*Thunnus thynnus*) were completed successfully in the centre located in Puerto de Santa María (Cádiz).

The project initiators obtained more than a thousand larvae that were fed on copepods, microcrustaceans that match their natural diet profile and are grown on site, *Diario de Cádiz* reported.

Futuna Blue managers expect to turn the firm into the first fish farm in the world to develop the complete cycle of the bluefin tuna on an industrial scale, an achievement that will contribute to the preservation of wild populations of this species.

According to the company manager, Miguel Llerena, all the marked protocols for its launch in the 2012 season had been carried through with the first egg production.

“The first results are excellent with



very good hatching and a large group of fry. They have proved helpful to develop the facilities and to provide specific training for the personnel,” said Llerena.

The company launched this project in 2008, and it was just in the middle of this year when the plant started operations in El Puerto, where the breeding tanks are located.

In a second stage, which will take place in 2012, the construction of the vessels that will hold the tuna reproducers is planned.

Futuna Blue is investigating tuna and turbot farming, but plans to work

with other species of high market demand: the yellowtail or amberjack, and the sole. The idea is to concentrate on these two species during the six months of the year when the tuna reproductive cycle is not possible.

The firm plans to produce 500,000 bluefin tuna fry in the first years and collect EUR 40 million annually when the plant operates at one hundred percent.

It is expected to place fish of about 1.5 kilograms in the market, which will then be transferred to fattening centres until they reach 300 kg.

- [www.fis.com](http://www.fis.com)

## Farmers asked to stop breeding shrimp to stop disease

Authorities in Vietnam’s Mekong delta provinces of Tien Giang and Ben Tre are requesting that shrimp farmers pause the breeding of baby shrimps to stop any incidences of disease.

Trinh Ngoc Minh, deputy head of the Department of Agriculture and Rural Development in Tien Giang, believes that delaying the breeding of a new school of shrimps will slash the chances of any spread of disease.

Tien Giang’s People’s Committee is targeting organisations and farmers

that raise white-legged and tiger shrimps. Authorities want farmers to stop putting baby shrimps into breeding tanks to allow time to clean the tanks and kill any viruses before the upcoming harvest that will run from 1 October 2011 to 15 January 2012.

The farmers in districts Go Cong Dong and Tan Phu Dong of Tien Giang province breed shrimp across 1,200 ha of farmland and bring in lofty profits. Regardless, the government

does not want farmers to open additional farms, SGGP reports.

In Ben Tre province, the People’s Committee has also required that shrimp farmers push back the breeding of both kinds of shrimp for the next harvest until the administration issues new orders.

Ben Tre authorities noted that bad weather is not conducive for shrimp breeding because such conditions make the species more susceptible to and likely to spread the disease.

The government has asked related agencies to raise farmers' awareness across the region and make sure they abide by the rules.

Meanwhile, shrimp prices in Tra Vinh Province have fallen despite the shortage. Local farmers and officials think there may be foul play on the part of shrimp dealers and processors.

Prices have dropped by VND 15,000 (USD 0.71) - VND 20,000 (USD 0.95) a kg from early August, according to local farmers.

As well as authorities they said that shrimp dealers and processing factories are buying shrimp there at prices lower than in nearby provinces by between VND 5,000 (USD 0.24) and VND 10,000 (USD 0.47) a kg.

Duong Tan Dom, official from Cau Ngang District Agriculture and Rural Development office, said that as the district's farmers have harvested 7,500 tonnes of shrimp this season, they are going to lose tens of billions of dong in profits.

In Soc Trang province, the shrimp industry is facing other problems: a disease outbreak was announced last week. It appears on shrimp bred between 20 and 35 days and caused necrosis to the shrimp's liver and pancreas.

Provincial agriculture authorities have since required the testing of any shrimp before it can be transported to and from the province.

The lower production of raw shrimp due to disease outbreaks in black tiger shrimp has driven many farmers to switch to whiteleg shrimp (vannamei), a move which is mitigating the shortage of raw materials. Vannamei has a better source of seed, high disease resistance and a plentiful output.

- FIS News

## Foreign investors attempt to set foot in Vietnam's seafood industry

**An Iceland-based seafood company has bought back a catfish processing factory in Vietnam. Other foreign investors have also taken first steps to jump into the industry.**



According to Agroinfo, a farm produce market survey firm, Portunas is seeking the opportunities to support the sustainable development of Vietnam's seafood industry. Pálmi Pálmason, Chief Executive Officer of Portunas, said that Vietnam's total annual seafood output is about 4 million dong and the output may be even higher if Vietnam applies the exploitation and processing technologies which are being applied in Iceland.

Some analysts believe that Vietnam can increase its seafood output by two folds if it applies specialized production methods.

Vietnam's seafood industry proves to be lagging behind that in Iceland, which makes Icelandic people believe that they have great opportunities in

Vietnam once they apply their modern technologies in the country

Vietnam is clearly rich in aquatic resources, especially in aquaculture, the field that Portunas wants to invest in.

Catfish (tra and basa fish) and shrimp are considered the two species popularly farmed in Vietnam. However, Marine Farms, a Norwegian company, decided to invest in a cobia production factory in Vietnam. The company now owns a cobia production line in the central region which has been operating since 2005.

The white-meat fish are mostly exploited in Asia and warmly welcomed by the US importers. Marine Farms has also begun farming scads, a very popular fish species in Asia.

The production of bivalve aquatic species has also been developing well. The Vietnam Association of Seafood Exporters and Producers (VASEP) last week said that the clam and scallop growing areas in Mekong Delta provinces is believed to increase by three times in the next four years, and by four times in the next 9 years.

Earlier this year, a Danish investment group, joining forces with a Vietnamese commercial bank, provided a financial support to build and install necessary equipment at a collagen making factory, which will use the byproducts from the tra fish processing of Bianfishco.

Another Danish company has also revealed that it is considering setting up a factory in Vietnam in order to take full advantage of the Vietnamese cheap labor force. The factory will process cod and pollock products for re-export.

Before making investment in the seafood processing industry, foreign investors have also been injecting money in the aquaculture and aquatic feed production.

Thai CP Group, for example, has been developing its network of farms and establishments that make feed for shrimp, the most valuable aquatic product of Vietnam. Meanwhile, Chinese companies have also invested in shrimp processing factories, while joining hands with Vietnamese companies to expand the market share. Especially, many of them are hunting for the shares of the seafood companies listed on the bourses.

According to Nguoi lao dong, Uni-President Vietnam now has three factories that make aquatic feed with the output of 300,000 tons a year. The company is investing 20 million dollars to build one more feed factory in Quang Nam province, which is

expected to have the capacity of 100,000 tons per year.

Besides, Chinese vessels and boats have been running along the Vietnamese coastlines to collect fish, shrimp and cuttle fish caught by Vietnamese farmers. The materials are being processed directly in Vietnam or brought back to China for processing.

A Japanese importer, who usually buys seafood products from Agrex Saigon Company, now has a list of high

grade seafood product suppliers. A factory named GN (Gift of Nature) Foods, has just been built, which specializes in making high grade seafood products.

Analysts believe that Vietnam's fisheries industry, which has been developing strongly over the last 20 years, will become even stronger with the foreign investment.

*-http://english.vietnamnet.v*

## TN plans Fisheries University at Nagapattinam

The Tamil Nadu government plans to establish a fisheries university at Nagapattinam at an estimated cost of Rs 30 crore.

Chief minister J Jayalithaa informed the state Assembly that, with a coastline of 188 km, Nagapattinam was the preferred choice for the university as the area emerged as a hub of fishing activities with 9,000 fishing vessels.

The university would be on the lines of those in neighbouring Kerala and in several countries. The main objective is to improve the fish wealth in the state, introduce modern technology to ensure a sustained revenue for fishermen and to encourage fishing education.

The new university will come up on an 85 acre site in Panangudi and Nagore villages, she said.

In the first phase, the Fisheries College and Research Institute at Tuticorin, the research wing of the fisheries department, the Chennai-based Fisheries Institute of Technology and Training, Fisheries

Employees Training Centre and the Tamilnadu Maritime University would be affiliated to the University.

The chief minister said the new university would offer courses in shrimp farming, prawn, ornamental and other types of fish, fish processing and value addition, maintenance of fishing harbours, and machinery and inland and sea water training.

The university is expected to play a key role in upgrading the exchange of technology, extended education, human resource development and the benefits of fisheries wealth. Those trained at the university would get placed in India and abroad.

According to the chief minister, steps are being taken to establish fish dressing centres, purchase of mechanised fishing boats, encourage deep sea fishing, upgrading the infrastructural facilities like cold storage facilities and providing assistance to the fishermen.

*-Business Standard*

## Certification body accredited to GlobalGAP's new aquaculture standard

FOOD Certification International (FCI) has become the first certification body in the world to complete the process of accreditation to extend its scope of operation to cover the new GlobalG.A.P. Version 4 Aquaculture Standard.

The formal accreditation, just approved by the United Kingdom Accreditation Service (UKAS), means FCI is now able to provide accredited certification services against the new standard for an increased range of aquaculture species included within the finfish, molluscs and crustacean scopes.

The ability to cover this standard will be further enhanced by FCI's

recent award of accreditation to inspect and certify aquaculture feed production plants against the GlobalG.A.P Compound Feed Manufacturers v 2 standard. FCI was the first European based certification body to be awarded this accreditation.

Effectively, FCI is now in the position to further expand its range and distribution of services to new markets and in particular provide a complementary service to a wide range of aquaculture producers and their compound feed suppliers. Already, FCI has gained a number of new clients in Turkey for the farming of sea bass, the

Faroe Islands for salmon and in Suriname for the production of farmed shrimp.

Martin Gill, FCI managing director, said: "We are delighted to have become the first certification body in the world to be accredited to the GlobalG.A.P. Version 4 standard.

"It greatly extends our scope of services to the aquaculture sector, which is great news for the industry. It is vital that the aquaculture companies underline their responsible practices through the achievement of such recognised standards."

- *fishnewsen.com*

## Fishing Vessel Personnel standards come into force in 2012

THE International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995 (STCW-F 1995) is set to enter into force on 29 September 2012, after the required 15 ratifications were reached on 29 September 2011, with ratification by the Republic of Palau.

The STCW-F Convention sets the certification and minimum training requirements for crews of seagoing fishing vessels of 24 metres in length and above. The Convention consists of 15 Articles and an annex containing technical regulations.

According to Article 12 of the Convention, it will enter into force 12 months after the date on which not less than 15 States have ratified it. The STCW-F Convention has now been ratified by: Canada, Denmark, Iceland, Kiribati, Latvia, Mauritania, Morocco, Namibia, Norway, Palau, the Russian

Federation, Sierra Leone, Spain, the Syrian Arab Republic and Ukraine.

IMO Secretary-General Efthimios E. Mitropoulos welcomed the entry into force of the STCW-F Convention as a significant development to enhance safety at sea, coming as the Organization prepares to hold, in 2012, a diplomatic conference in South Africa for the purpose of adopting an Agreement on the implementation of IMO's other instrument relating to fishing vessel safety, the 1993 Protocol relating to the 1977 Torremolinos International Convention for the Safety of Fishing Vessels. That Agreement aims at facilitating the entry into force of the 1993 Protocol, which was adopted to amend the original Torremolinos Convention of 1977.

"The safety of fishermen and fishing vessels forms an integral part of the Organization's mandate but the

two instruments on fishing vessel safety, which have been adopted by the Organization, have not come into force due to a variety of technical and legal obstacles and unfortunately the fishing sector is still experiencing a large number of fatalities every year. Now, the entry into force of the STCW-F Convention, in 2012, and the ongoing work to bring into force the Torremolinos Protocol as a binding international safety regime, are expected to play a part in helping reverse that trend," he said, expressing the wish that the Torremolinos Protocol would also meet entry force requirements as soon as possible.

IMO – the International Maritime Organization – is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships.

- *fishnewsen.com*



# TRADE ENQUIRY

## Trade Enquiries received during Dubai Seafood Expo - 2011

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*Fresh water Fish and shrimp*

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*Fresh and Fr. Tuna*

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*All Indian Seafood*

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*Shrimp PD and PUD*

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*Fr. Shrimp and Fish fillet*

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*Fr. Shrimp PD of 20/26 and above  
Fish Fillet, Tuna loins.*

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*Fr. Fish, ribbon fish and mackerel*

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*Chilled/ Fr. Silver and white Pomfret,  
Grouper and other fishes*

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*Ready-to-eat products*

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*PD Shrimp, Sand and Rock Lobster*

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*Ready to eat and cook products*

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*Fr. Fish*

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*HO, PD Tail on and PUD Shrimp*

23. Mr. Moustafa El Sayed (Manager)

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*Shrimp PD & PUD and Pomfret*

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*Clam meat*

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*Fr. Fish HO, Tail on Shrimp*

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*Chilled Shrimp, Scampi, Emperor Fish,  
Squid and King Fish*

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*Fr. Tuna*

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*Fish and large count Shrimp*

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*Fr. Tuna*

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*Frozen and Chilled Seafoods*

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*Frozen Fish*

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*Cuttlefish, HO Shrimp and Lobster*

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Factory- New Industrial Area,  
Ajman, UAE  
*All Indian seafoods*

41. Dr. Bahram Shohreh (DVM-PHD)  
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Industrial Estate-Phase 2  
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Mob: 98(0)912 132 3028  
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Web: www.Beryangoosht.com  
*Surimi analogue products*

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*Fr. Cut Crab*

43 Mr. Mohamed Jegalaoui  
(Purchase & Quality Assurance  
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*Fr. Shrimp and Lobster*

44. Mr. Witsanu Witthayphanit  
(Mang. Director)  
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*All Indian seafoods*

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*Shrimp PD, PUD*

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*Squid whole, King Fish, Reef cod, Pomfret  
Black, FW Fish*

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Email : tristarfgt@hotmail.com  
*Fr. Squid Rings, Shrimp PUD*

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*Fr. & Chilled Fish all varieties*

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*Fr. Fish and Squid*

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*Chilled treated Tuna*

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*Fr. Fish all varieties*

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Rua marcelino mesquite,  
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*Ready to eat and cooked products*

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*Shrimp & fish fillet*

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*All varieties of shrimp*

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*Different varieties of fish*

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*Shrimps, Pomfret, mullet & Surimi products*

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*Various seafood items*

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*All varieties of fish & fish fillets*

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Fax: 973-17-769754  
Mob: 973 39033166  
E-mail: alseef@batelco.com.bh  
*Flower white shrimp*

70. Mr. M. Thomas Thomas  
(Asst. Manager-Whole sale)  
**Farm Fresh L.L.C.**  
P.O.Box 118351, Dubai, UAE  
Tel: 971-4-3387103  
Fax : 971-4-3387235  
Mob : 050 4 547245  
E-mail : mtthomas@farmfreshllc.com  
Web: www.farmfreshllc.com  
*All items of fish & fish fillet*

71. Mr. Nabil M. Shama  
(Executive Chief)  
**Mohammed S. Shama & Partners  
For Foods Co.**  
P.O.Box 16488, Jeddah, 21464 K.S.A.  
Direct Line: 966 2 6577916

Mob : 966 505647226  
966 548992222  
Tel Admin: 966 2 6577915  
Fax : 966 2 6577918  
Free Tel : 920014441  
E-mail : n.shama@live.com  
Web : www.shamafisheries.com  
*Fish, cephalopods & shrimps*

72. Mr. Tijo Kainikkara  
(Asst. Manager)  
**Al Batha Trading Co. W.L.L.**  
P.O.Box: 25584, Abu Dhabi, UAE  
Tel: 02 4481595  
Fax: 02 4481596  
Mob: 050-8113974  
*All kinds of fish & fish fillet*

73. Mr. Burak Seskir  
(European Area Export Exe.)  
**AYFROST**  
Headquarters  
Ayten Sok. No.9 Tandogan,  
Ankara 06580 Turkey  
Tel: 90 312 212 66 12  
Fax: 90 312 223 55 11  
Plant  
Konya Yolu 22.km Golbasi,  
Ankara 06830 Turkey  
Tel: 90 312 484 99 99  
Fax: 90 312 484 99 00  
E-mail: bseskir@deniz.com  
Web: www.ayfrost.com  
*Different items of fish & fish fillet*

74. Tina  
(Sales & Purchasing Manager)  
**Yantai Water-Star Foodstuff Co. Ltd.,**  
Bajiao Industrial Park,  
Yantai ETDZ, China  
Tel: 0086-535-6959099  
Fax: 0086-535-6959988, 6959969  
Mob: 13963871836  
E-mail: tina@water-star.com.cn  
Web: www.water-star.com.cn  
*Comments: All products*

75. Mr. Ketan Vaja  
**Abdulla Mazroel Metal Trading**  
Suite 105B, 1<sup>st</sup> Floor,  
Mohd Al Makhawi Building Umma  
Hurair Road,  
P.O.Box: 5739, Dubai, UAE  
Tel: 971 4 3342022  
Fax : 971 4 3356916  
Mob : 971 50 2567858  
E-mail : ketan@ametal.ae  
*Cephalopods & fish items*

76. Mr. K.M.Mathew (Manager)  
**Cee Cee Fisheries L.L.C.**  
P.O.Box: 971, Ajman, UAE  
Tel: 06-7435363  
Fax: 06-7436373  
Mob: 050-2180101  
E-mail: mathewdubai@gmail.com  
ceecee@ceecee-intl.net  
*Tuna loins(sashmi grade)*

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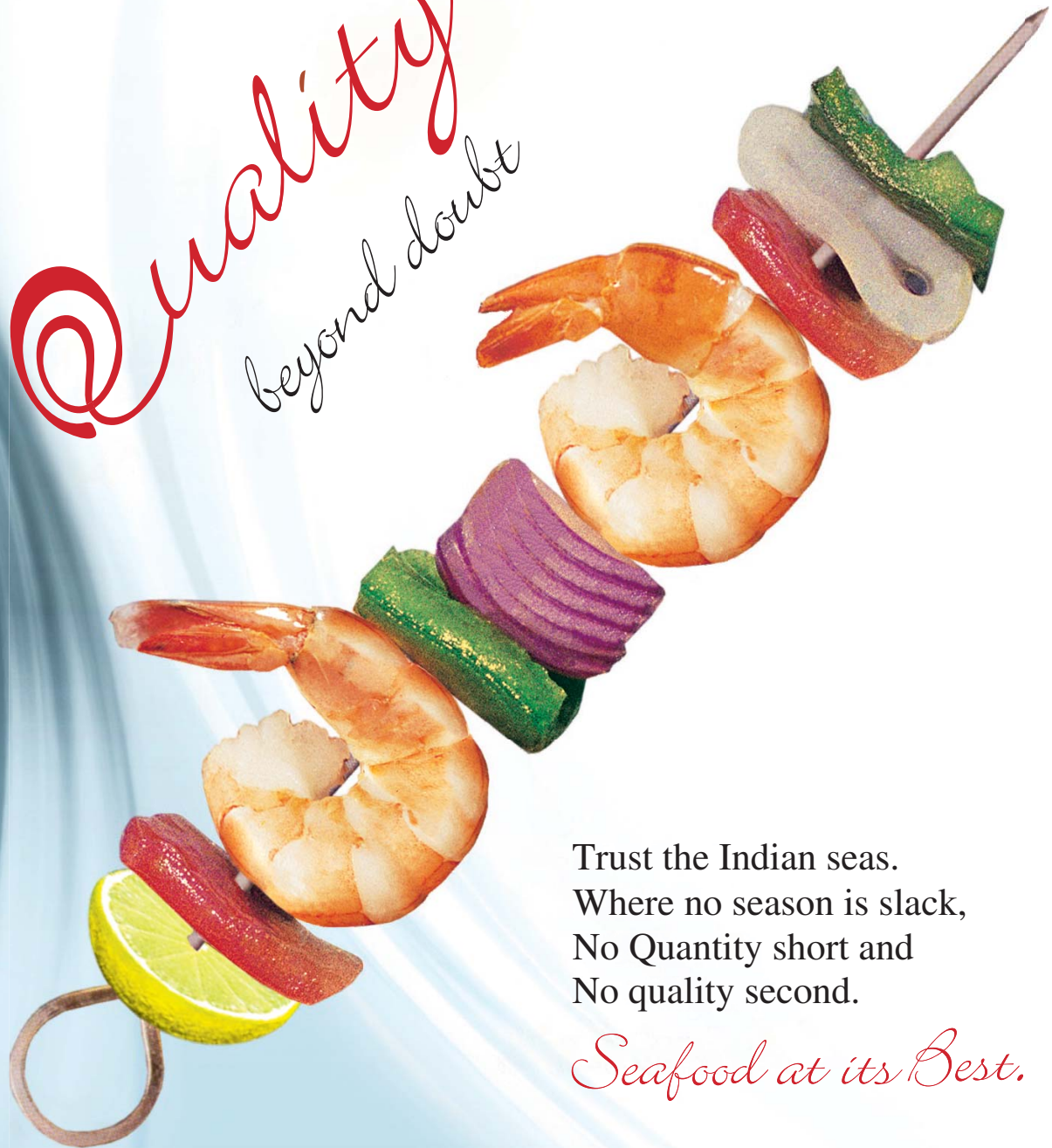
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