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A long term commitment for aqua feeds in India

After making an impact in the fish feed market in India, Growel Feeds enters into the shrimp feed segment to serve the growing aquaculture industry.



From right, MVN Sesha Chary, Victor Suresh, PS Narendra, and Sandip Ahirrao

Growel Feeds Pvt Ltd can be considered as a relatively new entrant into India's large aquafeed industry as it only began producing floating fish feeds at its factory in Chevuru village, Krishna district, Andhra Pradesh in 2010. It started with one extrusion line and added another line to double capacity in 2011.

In December 2013, as part of its overall aquafeed business plan, Growel Feeds inaugurated a new factory with five shrimp feed lines, next to its fish feed plant. This is the most modern in India with 4-pass pellet mills, the latest design in twin screw extruder and a single screw extruder with oblique tube dies. This demonstrated its long term vision in the fish and shrimp feed market, not only in India but also in the region.

In this interview at their feed factory in Andhra Pradesh, the management team, executive directors, **MVN Sesha Chary** and **PS Narendra**, technical director, **Dr Victor Suresh** and the new head of marketing, **Sandip Ahirrao**, talked to AAP on its foray into the growing fish and shrimp feed market and future plans as it grows together with aquaculture in India.

From concept to fish feed production

This began in 2006 when the US Soybean Export Council, then called the American Soybean Association (ASA), organised a visit to China for potential entrepreneurs in aqua feed production from India. The aim was to show the usage of floating feeds in other Asian countries and use of extrusion technology for fish feed production. This impressed Sesha Chary who then decided to invest into this new business venture.

"A year later, we seriously considered a project for fish feed production and started Growel Feeds in 2008. By mid-2008, we had identified the machinery supplier. By March 2010, we had our first batch of extruded feeds. This worked well and I must thank the ASA team in India, who not only introduced the technology to us, but also carried out trials with our feeds in fish farms.

"We achieved full capacity for this 10 tonnes per hour (tph) extruder in June 2010 and I am glad that Narendra pushed us to install a second extruder of 15 tph. We finished this expansion trail in September 2011. Throughout 2012, our feeds were well accepted by farmers and we could only stop operations for maintenance. Farmers were encouraged to use floating pellets when they saw the good feed conversion ratio (FCR). Dr Suresh guided us along with feed formulation. We did all this despite being bogged down by power cuts!"

Today, the company produces freshwater fish feeds, mainly for the pangasius catfish and smaller volumes for the Indian carps (rohu and catla), pacu and tilapia. According to Ahirrao, sales in 2013 reached 110,000 tonnes and Growel has a leading position in the fish feed market in Andhra Pradesh.

"However, we do enjoy healthy competition with other major players. Indian Broiler with a larger production capacity has sales all over India. Andhra Pradesh has the largest fish feed market at 500,000 tonnes. The fish feed market is estimated at only 50,000 tonnes in the northern states such as Bihar, West Bengal, Uttar Pradesh and 10-15,000 tonnes in Tamil Nadu and Odisha. In India some 98% of the fish feeds produced are used for grow-out farms. There is the practice of stocking stunted one-year old pangasius fish into grow-out ponds. This segmentation in farming results in less demand for starter feeds which account only 1-2% of feed production. The exception is in Odisha and West Bengal where both locally and imported starter feeds are used"

Growel Feeds

Growel Feeds was founded by the Chary family, Narendra and several other partners. Narendra and some partners are involved in pangasius, carp, tilapia and shrimp farming and have interests in downstream business such as seafood processing and upstream activities such as seed production. The name Growel was taken from the 20-year old Growel Formulations (P) Ltd, founded by Sesha Chary's father Dr Ranga



The new shrimp feed plant

Chary, now chairman of Growel Feeds. This new aqua feed business not only rides on the goodwill of the Growel name but also uses the well established distribution network of Growel Formulations.

Narendra said, "The forte of Growel Formulations (P) Ltd is the supply of feed supplements and health management products to fish and shrimp farmers. Years ago, ASA did feed trials in our farms and this pushed us to look at the feed segment although it took us a long time before we decided to do so. I personally feel that because of our entry first into fish farming, we have enjoyed some stability in this business.

"We believe that there is potential for growth, both for fish and shrimp feeds. The installed capacity for fish feeds in India is more than current demand, and as the market matures, there will be a need for better products."

In the case of tilapia feeds, the company markets a small volume as the growth of tilapia farming has been slower than expected. Growel has the licence to import tilapia brood stock and a hatchery operated

by Narendra has completed the domestication of the Chitralada tilapia strain, imported from Thailand three years ago. It is now ready to supply fry and fingerlings to farmers. The constraint to an expansion in farming is the requirement for permits from state authorities to farm tilapia and biosecurity protocols to prevent escapees into local waterways.

"We know that in areas where the carp is the traditional fish, consumers' preferences have shifted to the tilapia. The meat is similar but without interstitial bones. This is similar to the trend in Bangladesh. But here, because of government restrictions, its farming has not taken up as fast as in Bangladesh," added Narendra.

The best for shrimp feeds

From the moment they entered into the aqua feed business, Growel had its eye set on the shrimp feed business. This is in line with the long term vision of Growel to be part of the large and growing aquaculture industry, both fish and shrimp, in India. Thus in December 2012, the team sat down to plan for its production of pelleted and extruded shrimp feeds. Subsequently, the choice of equipment demonstrate that this energetic and forward looking team wants to focus on producing the best in shrimp feed quality for the industry. It was Narendra, an engineer by training who decided that the new equipment should serve them well in the long term.

"We have made big investments in equipment. We bought three pellet mills from Muyang, China. The Wenger twin screw extruder, TX-3000 is the top of the line and the first to be installed in Asia and the Wenger single screw extruder X-185 is a proven workhorse. TX-3000 provides flexibility in controlling bulk density and we are confident that this will give us quality sinking feeds. The oblique tube dies with the single screw extruder will increase feed throughput. In shrimp feeds,

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there is room for product innovation to bring out the best in formulation and physical properties of the feed. The new twin screw extruder, will also give us the opportunity to produce innovative starter feeds for the market.”

Sesha Chary added, “We also planned for versatility in production with these equipment. We can go completely with shrimp feeds or if required, the single screw extrusion line will produce regular fish feed for the carps and pangasius. The twin screw is for extruded shrimp feeds but may also be used for marine fish and pet foods. Most probably, we can operate the twin screw extrusion lines at 6-7 tph. The total capacity for shrimp feed production will be 65,000 tpy.”

The team has the expertise of Dr Victor Suresh who has been providing technical services in their feed development since the beginning and who runs the in-house R&D centre.

“If we look back at the pelleting technology in shrimp feed processing, we see that vast improvements in physical properties of pellets have been achieved with pre and post conditioning. Now the standard is 3-4 pass conditioning in the new pellet mills. As the next step, extrusion will allow us to include ingredients that cannot be included in pelleting and therefore create innovative products physically and nutritionally. Growel will be using a state of the art formulation technology with in-built ingredient valuation tools that would take advantage of the vast amount of ingredients that are available in India.”

A major factor in the success of Growel is the management’s commitment to R&D, explained Suresh. “Growel has committed to support the industry and has invested in R&D systems that provide the ability to run reliable feeding trials on fish and shrimp, and evaluate ingredients and feed additives. We are setting up a process research centre that would allow testing formulations and process parameters at a pilot scale and also produce experimental diets for feeding trials. We are already seeing greater understanding of feed management optimization which directly benefits the farmers. Our topmost priority in R&D is to provide farmers with products, services and tools to be the most productive and profitable. Most of Growel’s directors are farmers themselves, so they keep challenging R&D to provide them value for their money.”

In February, Growel began marketing its pelleted shrimp feeds with two brands, each for vannamei and monodon shrimp. The Marigold and Nutriva feeds for vannamei shrimp contain 36-34% crude protein whilst the Tigeron and Nutrino feeds are for monodon shrimp with 41-38% crude protein.

Integration

A downstream integration of the group is ongoing with the construction of a processing plant, a few kilometres from the feed factory. As a feed producer, the advantage of having a processing plant is to help feed clients market their harvests. The boom in vannamei shrimp farming has resulted in demand for more processing capacity as the bulk of harvest occurs in June to August. There is a 2,500-tonnes cold storage facility to meet this small window of demand.

“For the moment, we start with shrimp processing but we have our roots in fish farming and always want to cater to the needs of fish farmers. So, we are also contemplating fish processing to cater to the rising demand for processed fish by the retail and food service sectors,” said Narendra.

Sesha Chary added “When we process fish, it will be the fish with the best export potential such as for the Middle East. Now, our pangasius is sold whole to brokers in New Delhi who is turn retail either whole fish or fillet the fish for the chilled and frozen markets. This shows a demand for pangasius fillet or steaks for a new group of consumers who are averse to preparing fish but see its health benefits.”

Competitive edge

Aside from the advantage of the farmer network and farm data of Growel Formulations (P) Ltd., it also helps that Narendra and the other directors are directly involved in aquaculture. Between them, they produce a total of 7-8,000 tonnes of fish and shrimp per year and use 10% of the fish feeds produced.

“We have been benchmarking our feeds which we believe are nutritionally better than several in the market. We are the only feed company with our own R&D ponds. Aquaculture is close to my heart, I live right in the middle of farming areas and have close relationships with the farming communities. This not only allows me to understand farming issues but also can make quick decisions. In feed marketing, we differ from other groups. I would say that we have industry’s largest team of qualified field staff. We focus on having field staff rather than sales staff, such that for the marketing of the current volume of fish feeds, we only have two non-technical sales staff,” said Narendra.

Growel also conducts farmer meetings, three times a year in each region. Each group will comprise 25-30 farmers. At these meetings, technical and sales staff explain the advantages of floating fish feeds especially with regards to lower pond pollution and higher productivity. They also collect field data on each farm, record harvests and analyse growth patterns and share the data via the company’s cloud-based IT system. These are used to advise farms on ways to improve fish growth performance and yields.

Moving forward

As a new entrant to the shrimp feed market, the immediate challenge for the team will be marketing these to farms in India. In the case of fish feeds, there have been some enquiries from farms in Africa. The team is confident of making inroads into the export market as they have benchmarked their feed quality with those from some leading producers in Asia. However, their main challenge is to be cost competitive in export markets.

Next on the agenda is not only the production of extruded shrimp feeds but also its marketing. Extruded feeds are well accepted by shrimp farmers in Latin America but there is still some reluctance among farmers in the Asian region. This is associated with higher feed costs as there is already a general understanding on the superior physical and less dust properties of extruded feeds, particularly for



Trial packing of the Marigold pelleted vannamei shrimp feed with crude protein of 36 to 34%.



At the inauguration of the shrimp feed plant, Sesa Chary and Narendra with directors of Growel Feeds, from left, Sateesh Ravella, Janardhan P, Sudheer Chintapalli and Srinivas Potluri

feeds, whereas feed manufacturers cannot invest in costly technology to produce high quality feeds without a steady demand and breakeven volume.

“Our new infrastructure now resolves this chicken-and-egg problem and offers an opportunity for the marine fish feed sector to grow. After all it is in line with our commitment to serve the large and vigorously growing aquaculture industry in India with the best in products and services,” said Narendra.



Growel was a sponsor at Aqua India 2014. Sandip Ahirrao with from left, Arun Kumar, Aresen Bio-Tech and Farms, B. Thirupathi Vasagan, Candida Biosciences and D. Vijay Anand, Salem Microbes

the vannamei shrimp. Also, adoption of novel technologies like twin-screw extrusion is expected to create innovative products that would transform shrimp and fish feeding and justify the cost.

Growel’s plan for growth also involve diversification into marine fish feeds. It has the technology and knowledge to produce marine fish feeds for the Indian market. Suresh said that in India, marine fish farming is currently constrained due to the lack of feeds. Farmers cannot produce marine fish without cost effective and performing

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