



**Growel Feeds Pvt Ltd. India**

B Ravikumar – DGM Technical

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Unit-II

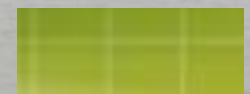
Unit-I

**Growel Feeds Private Limited**

**Andhra Pradesh, India.**

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**[www.growelgroup.com](http://www.growelgroup.com)**



# Growel Shrimp Feed - Highlights

- **Ultra modern plant with a capacity of 3,30,000 MT per year.**
  - **Shrimp Feed :1,25,000 MT**
  - **Fish Feed : 2,05,000 MT**
- **Export to Bangladesh, Sri Lanka, Nigeria and Malaysia.**
- **Mini R&D plant to test new formulations and on going improvement program.**
- **In-house R&D facilities (ponds and 120 floating cages) to evaluate the performance of feeds.**
- **Feed additives imported from EUROPE incorporated to improve disease resistance.**



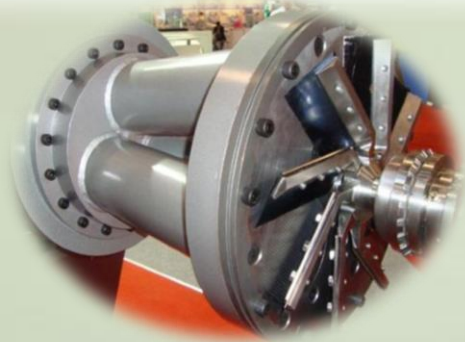
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SHRIMP FEEDS**

# Feed Sales (MT)



Year	2014	2015
Shrimp Feed	45600	60530
Fish Feed	105800	125700
Total	151400	186230

# Growel Technology



- We use a state-of-the-art fully automated process which is absolutely controlled by a computer-based system.
- Growel Feeds produces pelleted aqua feeds, extruded sinking feeds, extruded floating and slow sinking feeds.



# Growel Technology



**Growel uses a state-of-the-art fully automated process that is completely controlled by a computer based system**

# Growel Technology



**Pelletizers**



**Raw materials mixing chamber**

# Growel Technology



**Computer based controlling system**



# Nutrition for Vannamee



# Feed Type & Size

Feed Number	Type	Size - mm	
		Dia.	Length
1	Crumble		< 0.5
2	Crumble		0.5 - 1
3C	Crumble		1.0 - 1.5
3S1/S2	Pellet	1.4	1.5-3.0
3P	Pellet	1.6	3 - 5
4S	Pellet	1.8	3 - 5
4	Pellet	2	4 - 6



# Feed Composition

Feed No.	Crude Protein Min.	Crude Fat Min.	Crude Fiber Max.	Moisture Max.	ABW (gm)	Feeding/ day
1	36	5	2	11	-	3-4 times
2	36	5	2	11	-	3-4 times
3C	36	5	2	11	Up to 3 g	4-5 times
3S1/S2	36	5	2	11	2.5 - 6.0	4-5 times
3P	36	5	3	11	6.0 -12.0	4-5 times
4S	36	5	3	11	12.0 – 20.0	4-5 times
4	34	4.5	3.5	11	>20.0	4-5 times



# Nutrition for Monodon



# Feed Type & Size

Feed Number	Type	Size - mm	
		Dia.	Length
1	Crumble		< 0.5
2	Crumble		0.5 - 1
3 C	Crumble		1.0 - 1.5
3P	Pellet	1.6	3 - 5
4S	Pellet	1.8	3 - 5
4	Pellet	2	4 - 6
5	Pellet	2.4	4 - 6



# Feed Composition

Feed No.	Crude Protein Min.	Crude Fat Min.	Crude Fiber Max.	Moisture Max.	ABW(gm)	Feeding/day
1	41	5	2	11		3-4 times
2	41	5	2	11		3-4 times
3C	41	5	2	11	Up to 40g	4-5 times
3P	40	5	2	11	4.0 - 10.0	4-5 times
4S	40	5	3	11	10.0 - 16.0	4-5 times
4	40	5	3	11	16.0 - 25.0	4-5 times
5	38	4.5	3.5	11	> 25	4-5 times



# Performance of Growel Shrimp feed

- ✚ Premium quality raw materials.
- ✚ Special feed additives for Shrimp Immunity and Better Survival.
- ✚ Good water stability and palatability .



# Nutrition for Fish





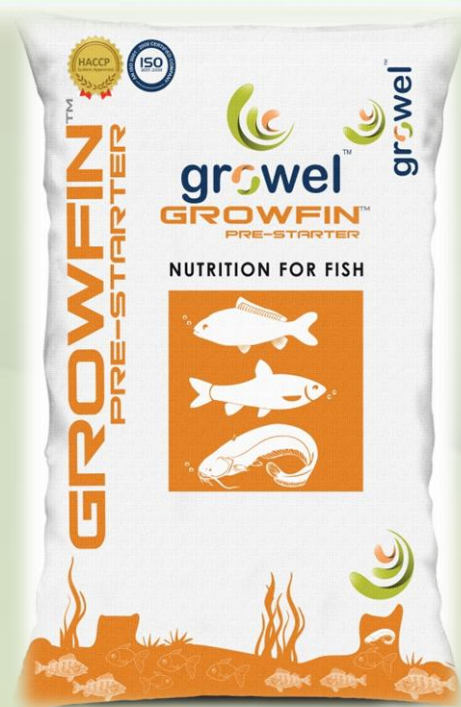
# Nutrition for Marine Fish - Nutrila



Feed Number	Type	Size (mm)	Protein%	Fat
1	Slow Sinking	0.8	50	10
2	Floating	1.2	45	10
3	Floating	1.8	45	10
4	Floating	3.0	40	10
5	Slow sinking	6	40	10
6	Slow Sinking	10	40	10
7	Slow Sinking	14	40	10

- High quality extruded feed for:
- Seabass; *Lates calcarifer*
  - Cobia; *Rachycentron canadum*
  - Silver Pompano; *Trachinotus blochii*
  - Rainbow Trout; *Oncorhynchus mykiss*

# Nutrition for Fresh Water Fish - Growfin



Feed Number	Range	Type	Size (mm)	Protein%	Fat
1	Pre-Starter	Floating	0.6	40	6
2		Floating	0.8	38	6
3	Starter	Floating	1.2	32	5
4		Floating	1.8	32	5
5	Grower	Floating	2.5	28	4
6		Floating	4.0	28	4

➤ High quality extruded feed for:

- Catla; *Catla catla*
- Rohu; *Labeo rohita*
- Climbing perch; *Anabus testudineus*
- Pangasius; *Pangasius sp*

# Nutrition for Ornamental Fish - Rainbow



Feed Number	Type	Size (mm)	Protein%	Fat
1	Floating	0.8	26	4
2	Floating	1.0	25	3
3	Floating	1.6	30	4

- Floating feed for all ornamental fish species.

# Research and Development @ Growel Innovation Centre



- Our Research and Development Wing does work continuously to bring out innovations.



- We have in house wet lab facility (Recirculatory Aquaculture system-RAS) and 120 net cages and ponds for conducting in-vivo studies.



- Onsite and offsite trials to evaluate the performance of the feed.

# A glance of our R&D activities



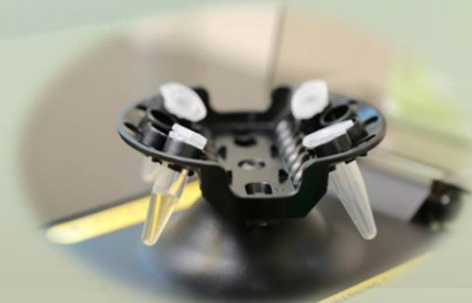
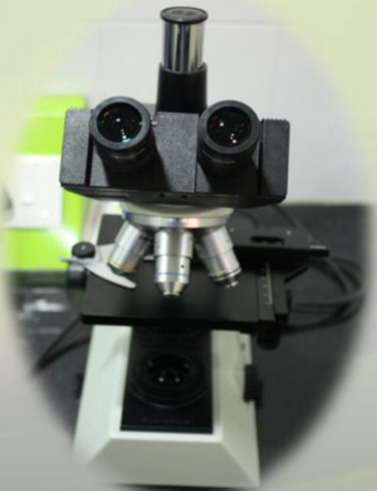
# A glance of our R&D activities



# Growel Aqua Labs



- To provide technical support to the farmers.
- R & D purpose



# Growel Processors





# Growel Processors

Raw Material Receiving Section



Mechanical-Roller Grader



Speed Packers



IQF Freezer



# Growel Processors

- **GROWEL Processing facility is being implemented and maintained as per European Union, USFDA, BRC (Global Food safety Standard) issue 7 and FSSC 22000 quality standards.**
- **Plant Capacity**
  - **Block Freezing Capacity: 15 MT /day(50 min Freezing time)**
  - **IQF – Spiral (Marel): 40 MT/day**
  - **Cold storage capacity: 2400 MT.**
  - **Water Storage : 4,50,000 Lts With RO treatment.**
  - **Chill Rooms : 85 MT capacity storage.**
  - **Tube Ice Plant: 80MT / day (for farm harvesting purpose)**
- **Antibiotic & Microbiological Tests are conducting as per US FDA & EU protocols.**

# Growel Team



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THANK  
YOU!

