Changes in Market Forces that Indian Shrimp Farmers Should Focus for Profitable Production
TOP PRODUCERS OF FARMED SHRIMP

Source: FAO
INdian FARMED SHRIMP PRODUCTION

<table>
<thead>
<tr>
<th>Year</th>
<th>Qty in MT</th>
</tr>
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<tbody>
<tr>
<td>2010-11</td>
<td>140,543</td>
</tr>
<tr>
<td>2011-12</td>
<td>220,452</td>
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<tr>
<td>2012-13</td>
<td>274,444</td>
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<tr>
<td>2013-14</td>
<td>330,850</td>
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<tr>
<td>2014-15</td>
<td>434,557</td>
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<tr>
<td>2015-16</td>
<td>497,622</td>
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<tr>
<td>2016-17</td>
<td>570,637</td>
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<tr>
<td>2017-18</td>
<td>691,748</td>
</tr>
<tr>
<td>*2018-19</td>
<td>719,000</td>
</tr>
</tbody>
</table>

* 2018-19: Estimated
BUYER PRIORITIES

QUALITY

FOOD SAFETY

SUSTAINABILITY
CONSUMER DEMOGRAPHICS

They care about environmental and social efforts more than any previous generation.

MILLENNIALS

- Largest consumer demographic.
- Increasing in their purchasing power and economic contribution.

75% of Millennials are altering their buying habits with the environment in mind.
CONSUMER DEMOGRAPHICS

MILLENNIALS

81% of Millennials expect and favor brands that have strong social and/or environmental commitments.

They want to know where their food comes from and how it was produced.

U.S. Millennials are projected to spend over $1.4 trillion USD in 2020 and are increasing their seafood purchases ~30% each year.
Ensuring Shrimp Production Meets Market Requirements
MARKET REQUIREMENTS

- ANTIBIOTIC FREE SHRIMP
- BIO-SECURE FARMING SYSTEMS
- TRACEABILITY
- THIRD PARTY CERTIFICATION
- SUSTAINABILITY REQUIREMENTS
ANTIBIOTIC RESIDUES: CONTEMPLATE

• Major concern is antibiotic residues on product and the development of antibiotic resistance in the environment.
• Responsibility of all from Fishmeal suppliers to Farmer to Processor.
• Awareness required on the control of usage and verification of inputs.
ANTIBIOTIC RESIDUES: MARKET RISKS

• Antibiotic free shrimp supply is a pre-qualification.
• Potential to disrupt demand from source country.
• Importers and distributors answerable to the consumers.
• Customers will look at alternative supply sources.
• Rejection liability on suppliers.
ANTIBIOTIC RESIDUES: TAKE RESPONSIBILITY

• Taking responsibility not limited to non-usage.
• Test larvae before stocking.
• Verify source of farm inputs like feed, probiotics etc.
• Trust your supplier but verify for compliance.
• Although antibiotic contamination is limited to a few, it can be damaging to the industry.
BIO-SECURE FARMING SYSTEMS

- Absence of bio-security makes farms vulnerable.
- Bio-Security measures can reduce disease risks.
- Improved Bio-Security will lead to better farm management, better productivity and safe shrimp.
- Better understanding of Bio-Security requirements.
- Investment required for bio-security infrastructure.
MAINTAINING TRACEABILITY

- Traceability important tool in disease diagnostics.
- Accountability in the Supply Chain.
- Mandatory requirement for 3rd party certification.
- Awareness to be created across Supply Chain especially among small farmers.
- Maintaining backup documentation about input source, helps identify issues from suppliers.
THIRD PARTY CERTIFICATIONS

- Cost of certification high for small farmers.
- Currently packer driven certification.
- Farm level ownership for certification standards ideal.
- Language is a barrier as standards are not in local languages.
- Effective implementation of certification standards.
- Documentation can help prove social compliance.
• Multidimensional factors - Social, Environmental, Legal
• Support of all stakeholders required.
• Influence of different factors vary from farm to farm and by location.
• Awareness of impact of farming operations.
• At minimum follow Good Aquaculture practices with:
  • Water usage and discharge
  • Usage of chemical inputs
  • Control of escapes
RECOMMENDATIONS

• Increasing Producer – Buyer engagement.
• Stakeholder involvement thru the entire Supply Chain.
• Responsibility for usage of resources.
• Leverage support from Government agencies like MPEDA and NaCSA.
RECOMMENDATIONS

• Group certification for better implementation of certification standards and reduced costs.

• Small farmers also be to actively engaged in the farming improvement programs.

• Leverage available technology for better farming operations.
COFFEE – AN EXAMPLE OF SUCCESS

25 million+ smallholder farmers globally help produce more than 600 billion cups of coffee.

~65% of global coffee production currently complies with a sustainability standard.
PURSUING SUSTAINABILITY – THIRD PARTY CERTIFICATIONS & CUSTOMERS
CONCLUDING NOTE

• Declining ocean catches.
• Aquaculture future seafood source.
• Sustainability responsibility of all stakeholders.
• Future Market (Millennials) prioritize food safety and sustainability.
• Changing weather patterns will challenge existing farming methods.
THANK YOU
October 2019