BRINGING WORLD CLASS TECHNOLOGY TO INDIAN FARMERS
Disclaimer

This presentation contains statements that contain “forward looking statements” including, but without limitation, statements relating to the implementation of strategic initiatives, and other statements relating to Insecticides (India) Limited (“Insecticides India” or the Company) future business developments and economic performance.

While these forward looking statements indicate our assessment and future expectations concerning the development of our business, a number of risks, uncertainties and other unknown factors could cause actual developments and results to differ materially from our expectations.

These factors include, but are not limited to, general market, macro-economic, governmental and regulatory trends, movements in currency exchange and interest rates, competitive pressures, technological developments, changes in the financial conditions of third parties dealing with us, legislative developments, and other key factors that could affect our business and financial performance.

Insecticides (India) undertakes no obligation to publicly revise any forward looking statements to reflect future / likely events or circumstances.
## Agenda

<table>
<thead>
<tr>
<th>Agenda</th>
<th>Page No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Overview</td>
<td>4</td>
</tr>
<tr>
<td>Research and Development</td>
<td>13</td>
</tr>
<tr>
<td>Regulatory, Market Development and Manufacturing</td>
<td>42</td>
</tr>
<tr>
<td>Sales and Marketing</td>
<td>68</td>
</tr>
<tr>
<td>Procurement</td>
<td>89</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>95</td>
</tr>
<tr>
<td>Corporate Social Responsibility</td>
<td>105</td>
</tr>
<tr>
<td>Growth Strategy and Outlook</td>
<td>111</td>
</tr>
</tbody>
</table>
1. Business Overview
IIL Mission and Vision

Mission
Our purpose, what we are

We work to make agriculture sustainable and profitable for our farmers, ensuring food security for all living beings on earth, using simple and effective technologies.

Vision
Our dream, our big contribution to this planet earth

We will make this earth greener and cleaner through our work and our various product portfolio that will become the first choice for all farmers worldwide.
Business Overview

Engaged in the manufacturing and marketing of crop-protection products

Four product categories: Insecticides, Herbicides, Fungicides, Biologicals and Plant Growth Regulators (PGRs)

5 R&D centers – Developing a comprehensive range of agro chemical products

State-of-the-art manufacturing facilities in Chopanki (Rajasthan), Samba & Udhampur (Jammu & Kashmir) and Dahej (Gujarat)

100+ Branded products
20+ Technical
375+ SKUs

60,000+ retail outlets
5,000 Distributors
28 depots/branches
500+ sales team

Nation-wide strong customer reach under umbrella brand ‘Tractor Brand’

Headquarters - Delhi, started operations in 2001-02
IIL Business Segments

Our Business

Domestic

Brand

Maharatna

Other Brand

Institutional

International

Formulations

Technicals

Agrochemicals

Biological Products

Household Products
Agriculture Sector in India

- With a population of 1.27 billion India is the world's second most populous country
- India is the world's largest producer of milk, pulses and jute, and ranks as the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsistence farming</td>
<td>Green Revolution</td>
<td>Surplus production</td>
<td>MNC players brought in better technology and processes</td>
</tr>
<tr>
<td>Stagnation in Agriculture</td>
<td>Farm machinery development</td>
<td>Economic reforms introduced: Encouragement to exports</td>
<td>Higher production, supported by various government policies: national Horticulture Mission, Green Revolution in Eastern India</td>
</tr>
<tr>
<td>Low growth in crop and grain production</td>
<td>High Yield Variety of seed, increased use of agrochemicals</td>
<td>Achieved food security and reduced import of food grains</td>
<td></td>
</tr>
</tbody>
</table>

~USD 3 Bn
Indian Agrochemicals Market Size - 2019

Growth Drivers

- **Government Policy Support:** Increasing MSP, Exports facilitation and Promotion Schemes
- **Innovation:** Hyrbid and genetically modified seeds, mechanization and irrigation system development
- **Market Demand:** Increasing population and disposable income
- **Infrastructure:** Large proportion of agricultural land and increasing storage capacity
IIL Brand Principle

“To bring synergetic benefits to farmers by providing a comprehensive range of agro chemical product mix.”

- Always evolving in best interest of farmers
- Continuously adopting innovative measures
- Eco-friendly production
- Advancing towards sustainable agricultural practices
- Ultra-modern automated manufacturing for consistent quality and safety.
IIL Evolution

2001
Chopanki (Rajasthan) formulation plant started
Commenced operations

2002
Samba (J&K) plant commissioned

2004
Plant at Chopanki got ISO 9001: 2008 certification
Set up of R&D Lab

2005
Listed on NSE & BSE
Chopanki Technical plant commenced
Samba plant expansion

2007
Received OHSAS 18001 certification

2008
Acquired MONOCIL from NOCIL Ltd.
2 new plants at Dahej & Udhampur

2011
Launched Akido, Sofia, Encounter & Hercules

2012
Launched NUVAN with AMVAC, USA
Launched HAKAMA & PULSOR with NISSAN, JAPAN

2014
Started product invention R&D center in JV with OAT Agiro Co., Ltd., JAPAN
Started new formulation unit at Chopanki

2015
Launched Bio product, MYCORAJA
Bonus shares Issued
Follow-on QIPs

2016
Tie-up with NIHON NOHYAKU, Japan for SUZUKA and HAKKO
Launched GREEN LABEL (Bispyribac Sodium 10% SC) manufactured in India for the first time

2017
Launched revolutionary biological Soil Energiser product, KAYAKALP

2018
IIL Evolving in All Directions

Innovate, Integrate and Lead

Development & Training
- Emphasis on field activities
- Farmer awareness
- Salesforce training

R&D
- NABL QC Labs
- In-house R&D Centre
- JV with OAT Agrio Co., Japan for dedicated invention R&D center

Marketing
- Sales & Market development
- Branding
- International Tie ups and collaborations

Manufacturing
- 5 Formulation plants
- 2 Technical Synthesis plants
- Biological manufacturing plant*

*under toll arrangement
There is definite need to innovate and focus on new products / molecules to stay relevant in the competitive and dynamic landscape.

Chopanki was the IIL’s first R&D centre established in 2004 and as of today we have, 5 R&D centres with 75+ well experienced scientists.

IIL has built State-of-the-art R&D centre for Technicals, Formulations, Reverse Engineering and Biologicals.

R&D centres have delivered many successful product such as Green Label, Hercules, Encounter, Sofia.

Many products are in pipeline, our R&D remains fully committed and working on the products to be launched in the medium term and long term.

Investing in R&D today for a better tomorrow and this will allow IIL to stay ahead of its competition in the long run.

R&D has played a pivotal role in transforming IIL business and will continue to drive future growth.
2. Research and Development
2.1 R&D - Chopanki
Vision of R&D Centre - Chopanki

- Chopanki was the IIL’s first R&D centre and was established in 2004
- Focus on reverse engineering of off patented products
- Development of New Formulations; ecofriendly & ready-mix solutions for farmers
- Development of New Technicals (Active Ingredients)
- Optimizing parameters for process of technicals for cost reduction
- Work on effluent treatment to minimize cost for it
- Replacement of toxic solvent
- To work with DSIR, Ministry of Science and Technology to contribute towards the growth of Indian agriculture
- Contribute towards the growth of Indian agriculture
- Process development for import substitution
- Registration of the products
R&D Infrastructure and Team – Chopanki

- Well-designed instrument and process lab
- International exposure to R&D scientists
  - Participation in National and International conference
- Patent granted for import substitute products like Imidacloprid and Acetamiprid, MNIO and PMIDA
- All lab procedures are carried out as per GLP guidelines
- Pre-inspection audit for GLP recognition done

R&D Equivalent to International Standards

Team

- Experienced and dedicated scientist in R&D
- Team of 12 employees at Chopanki R&D centre
  - Doctorate – 2
  - Post Graduate – 6
  - Graduates - 4

R&D Equipment

- Well furnished and best-equipped R&D laboratory with all safety measures
- LC-MS: 1, HPLC: 3, GC –MS : 1, GLC:3, Prep-HPLC : 1, FTIR: 1, UV-visible spectrophotometer: 1
- R&D is well equipped with all utilities. We have 6 fumehoods where 12 reactions can be carried out simultaneously
## Certifications and Recognitions – Chopanki

<table>
<thead>
<tr>
<th>Certification</th>
<th>Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 9001:2015</td>
<td>Quality Management System</td>
</tr>
<tr>
<td>ISO 14001:2015</td>
<td>Environment Management System</td>
</tr>
<tr>
<td>ISO 45001:2018</td>
<td>Occupational Health &amp; Safety Management System</td>
</tr>
</tbody>
</table>

### Recognitions

- Recognized by DSIR: Since 2005
  - IIL In-House R&D Centre recognized by DSIR, Ministry of Science and Technology, New Delhi
- NABL Accreditation of QC Labs at Chopanki
Process of Scaling Up from Lab to Commercial

In House R&D Labs for Testing and Commercializing Potential Products at a Low Cost and Shorter Turnaround Time

Lab Scale
• Gram level

Kilo Lab

Pilot Plant Scale

Commercial Scale
Achievements – Chopanki

<table>
<thead>
<tr>
<th>Achievements</th>
<th>Products Developed</th>
<th>Commercialized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insecticides</td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>Herbicides</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Fungicides</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>51</strong></td>
<td><strong>31</strong></td>
</tr>
</tbody>
</table>

**Strategy for Process Improvement**

1. Quality Improvement
2. Remove Cumbersome Process
3. Removal of Multiple Solvents
4. Make Processes - Simple, Shorter and Cost-Effective

**Key Technical Products Developed Contributing to Maharatna**

<table>
<thead>
<tr>
<th>Technicals</th>
<th>Chlorpyrifos</th>
<th>Thiamethoxam</th>
<th>Diaphenthiuron</th>
<th>Acetamiprid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brands</td>
<td>Lethal Range of Products</td>
<td>Bheema</td>
<td>Hercules</td>
<td>Hercules</td>
</tr>
<tr>
<td></td>
<td>Bheema Super</td>
<td>Logo/ Gama</td>
<td>Sharp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arrow</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Way Forward**

Identified new products to meet farmer requirements and 15 products are under development.
2.2 R&D - Dahej
R&D Objectives and Capabilities – Dahej

Key Objectives
- Process improvement of existing products with respect to cost
- To develop the process for new products/intermediates in terms of competitive cost, energy efficient and environmental friendly to stay ahead of farmer’s requirement and market competition
- Formulation development
- Backward integration
- Contribute for safe and eco friendly practices in agriculture
- Adopt and implement new research technology

Capabilities
- Design and Development
- Project approval to commercialization
- Product registration (CIB/Export)

Unit Process
- Grignard
- Friedel-Crafts
- Reduction (Using Pd/C, Raney Ni, Sodium borohydride)
- Pressure reaction (Hydrolysis, Hydrogenation)
- Telomerization / Cyclization
- Halogenation (Cl₂n, Br₂n, Fₙ)
- Phosgenation (Using Triphosgene)
- Diazotization
- Phosphorus / Sulfur chemistry
R&D Infrastructure and Team – Dahej

**Dahej R&D Overview**

- Established in 2014
- Well equipped with latest technology and facility
- New molecules development, process scale up and technology transfer to plant
- Impurities synthesis and characterization
- Plant trouble shooting/support
- Five batch analysis as per GLP guidelines

**Team**

- Team of 10 employees at Dahej R&D centre
- Doctorate – 1
- Post Graduate – 7
- Others - 2

**R&D Equipment**

- 2 Labs with fume hoods and all required facilities.
- Separate dedicated ADL facility with GC, HPLC etc.
Backward Integration – Dahej

Objectives:
1. Independency of the key raw materials procurement
2. Cost benefits: Reduce the cost of purchasing the raw materials. Will also result in reduction of wastages, transport costs and other costs
3. Increased control: Control the supply chain process in a more efficient manner

Six intermediaries developed to get independency of the key raw materials and realize cost benefits
## Achievements – Dahej

### Technicals

<table>
<thead>
<tr>
<th></th>
<th>Products Developed</th>
<th>Commercialized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insecticides</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Herbicides</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Fungicides</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>8</td>
</tr>
</tbody>
</table>

### Formulations for Exports

<table>
<thead>
<tr>
<th></th>
<th>Products Developed</th>
<th>Commercialized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insecticides</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Herbicides</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>12</td>
</tr>
</tbody>
</table>

### Key Products Developed Contributing to Maharatna

<table>
<thead>
<tr>
<th>Technicals</th>
<th>Imazethapyr</th>
<th>Bispyribac Sodium</th>
<th>Glyphosate</th>
<th>Pretilachlor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brands</td>
<td>Selector</td>
<td>Green Label</td>
<td>Hijack</td>
<td>Racer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hijack Super</td>
<td>Super Racer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Flight 71</td>
<td></td>
</tr>
</tbody>
</table>
2.3 R&D - Biological and Patents
Why Biologicals?

- Modern science is **200 years** old while nature science is **3 billion years** old
- Nature science wonders - Sequoia tree 100ft wide, 100ft tall withstand 100 tons of load in structure made of cellulose - strength is more than steel
- Integrated Crop Management (ICM) and Soil health - Low toxicity to humans and nontarget insects

**Modern science following nature science path:**

<table>
<thead>
<tr>
<th>Material science</th>
<th>Biopolymers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine</td>
<td>Penicillin to cefixime etc., Taxol to Docetaxil, Neutraceuticals- Plant Derived</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>Herbal blends</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Pyrethin to synthetic pyrethroids, Nerotoxins to insecticides</td>
</tr>
</tbody>
</table>

**Recent trends** – Biosimilar molecules in medicines, biosimilar peptides derived from spider venom as effective as agrochemicals with zero harvest waiting period **Is On A Rising Trend**
Global Bio-Control Market

Future Market Drivers

- Fewer new synthetic crop protection active ingredients will emerge - too expensive
- Improved market access for bio pesticides and bio stimulants
- Federal registration guideline for bio stimulants in EU & USA will make market more attractive
- ICM + Soil health
- MNC’s in last 4 years have acquired Agri biological products manufacturing companies
Biological Facility Overview

**Lab Facility:** Aseptic lab, autoclaves, microscopes, laminar air flow, incubator, cryo centrifuge

**Location:** Shamli, Uttar Pradesh

**Biological Team:** Doctorate – 4, Post Graduate - 1, Graduate - 3

---

**Total Product range**

- Biofertilizer, Organic Manure, Soil Enrichment and Biostimulants
- Projected reduction in chemical fertilizers by 25%

---

**Business Potential**

- Current CAGR 10-15% in global Agri bio business
## IIL Biological Journey... Long Way to Go...

### Products Commercialized

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MYCORAJA</td>
<td>Vascular Arbuscular Mycorrhizae based fungal formulation</td>
</tr>
<tr>
<td>PRIME GOLD</td>
<td>A biologically fortified PGR</td>
</tr>
<tr>
<td>MILSTIM</td>
<td>A liquid organic manure</td>
</tr>
<tr>
<td>ROOT BEAD</td>
<td>For increasing root nodule formulation in pulses</td>
</tr>
<tr>
<td>KAYAKALP</td>
<td>A consortia of micro organisms for soil enrichment. It has potential for</td>
</tr>
<tr>
<td></td>
<td>rejuvenating soil and has the capacity to protect plants from soil borne</td>
</tr>
<tr>
<td></td>
<td>pathogens</td>
</tr>
</tbody>
</table>

### Products in Pipeline

1. **Kayakalp PRO**: Kayakalp application was on farm fermentation for 6 days. Kayakalp Pro designed to 12 hrs on farm fermentation. Capacity for soil rejuvenation and controlling soil borne pathogens.

2. **Zinc Solubilising Bacteria**: Under launching, capable of fortifying produce with Zinc and will support combating diabetes.

3. **Glomus Arbuscular Mycorrhizae**: Production by root organ culture technique. Developing roots in jars in aspetic conditions with mycorrhizae. Very good activity for transfer of nutrients to roots. Good export potential to USA, EU, Australia.
IIL Formulation Products- Agrochemicals

- **Design Of Formulation**
  - Activity by contact, systemic or stomach
  - Single or multiple activities
- **Threats**
  - Hydrophobic agrochemical, 50-250g to spread over 1 acre in terms of land and 20-30 acres when calculated on leaf area in 1 acre
  - Uniform distribution up to target
  - Synergism establishment in case of combinations
- **Solutions** – Micronization, surface chemistry aided by suitably designed surfactants. Tank mix adjuvants
- **Types Of Formulations**- EC/SC/WP/WG/CGR/SC/CS/EW/SE/ME

### No. Of Formulations

<table>
<thead>
<tr>
<th></th>
<th>Commercialized</th>
<th>Under Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Al</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Combinations</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>Tank Mix Adjuvants</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

**Development Support**

- Developing synergistic combination formulations performing multiple actions through different modes of action with increased bio efficacy duly supported by bio- efficacy team
- New generation formulation in SC/SE/CS/SG/ME form which are farmer friendly
Patents

Intellectual property of developed innovative products / process preserved through patents

| Patent Application Process | Patentability Search:  
• Novelty, inventive step | Freedom to Operate (FTO) (Infringement search):  
• To assess any possible modification to avoid infringement | Patent Validity Search:  
• To gauge the validity of the claims in a granted patent |


| 7 | Patents Granted |
| 22 | Patents Pending |

<table>
<thead>
<tr>
<th></th>
<th>Biotech</th>
<th>Formulation</th>
<th>Synthesis</th>
<th>New A.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patents Granted</td>
<td>-</td>
<td>3</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Patents due for Grant</td>
<td>1</td>
<td>12</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>
Quality Assurance

Aim – ZERO DEFECT

Target – Adherence to quality policy

Advantage – Farmer’s satisfaction and brand development

Evaluation Criteria
✓ Standard operating procedure
✓ QC-RM/PM/FG
✓ Market complaints
✓ Corrective Action Preventive Action (CAPA)

Well Defined Process

- Product Activity
- Product Design
- Lab Scale Preparation
- Bio Efficacy Evaluation
- Commercial Production Methodology
- Specs of inputs - Plant & Machinery, Packing material, Finished goods
- Quality Manual
2.4 R&D - OAT & IIL India

Mr. Kazuya Kishimoto
MD & CEO
OAT & IIL India Laboratories
Indian Experience

Indian Experience on R&D

❖ India is suitable for R&D with nearly all crops and seasons
❖ Man-power is good and available reasonably
❖ Efficacy testing is possible round the year
❖ Easy to do field trials due to IIL’s pan-India presence

Relationship with IIL and Experience

❖ IIL’s long term vision for Research is a major reason for association
❖ OAT and IIL will bring the new chemistry with least possible cost
❖ Relationship with IIL has been great in these years and look forward to work on many more ventures
❖ Management is aggressive and fast decision is one of core strength’s
OAT & IIL India

**Vision**

- Becoming a first-class research & development centre, which continuously invent/develop new molecules to contribute to the world crop protection markets (including India & Japan)
- Will target to be a first company to invent an "Invent in India“ first pesticide

**History**

- Established on 6th March, 2013 with approximately 50 employees, consisting of chemists/biologists and supporting staffs.
- 4 chemistry laboratories
- Total number is increased to 60 as on Nov, 2019
2.5 R&D - OAT & IIL India

Dr. Kallolmay Biswas
GM – R&D
OAT & IIL India
Laboratories
OAT & IIL Journey

- 2013: Establishment of OIL (OAT & IIL Joint Venture)
- 2014: Inauguration of R&D centre
- 2016: Start-up CRO Business
- 2018: Expansion of existing green house facilities
- 2019: Opening of a new synthesis laboratory, Start-up of a new formulation plant
## Mission

- Contribute to sound crop production through novel sophisticated crop protection agents and support the rich diet and health of people
- Creation of new agrochemicals with high safety to mammals, animals and non-target organisms and no impact to environment
- The residue of this product will be insignificant so that the crop can be used for consumption even after one day of spray

## Invention at R&D Centre

- First time, a Japanese company established such facility in the field of agro-chemicals in India
- Approved by DSIR, Ministry of Science and Technology
- 45+ scientists are conducting research
- Lead by renowned scientist with more than 20 year of experiences in the field of agrochemicals
- We have 5 Japanese leading the R&D centre
Synthesis and Biology Lab

West Building - Synthesis Lab

East Building - Biology Lab
Invention at R&D Centre

Laboratories

- **Synthesis**: 4 synthesis laboratories
- **Analytical**: Equipped with latest machines and equipment like NMR and UPLC-MS to analyze and characterize new molecules
- **Biological**: Ultra modern green houses to conduct effective in-house testing Breeding rooms, bio-assay rooms and spray cabinets
New Formulation Facility - Chopanki, Rajasthan

**Chaperone**

**Sodium Para - Nitrophenolate 0.3% SL**

- Plant Growth Regulator (PGR) which effects various stages of development of plants
- Stimulation of activity of enzymes resulting in faster cytoplasmic streaming, more efficient photosynthesis and mineral uptake

**Advantages:**
- Enhances germination and rooting
- Stimulates Vegetative growth and Flower bud development
- Accelerates Pollen germination
- Improves health as well as quality of crops
- Resulting in higher yield which gives more profit to farmers

**Way Forward**

- Develop new generation products and new generation formulations
- The flexible business model has enabled us to deliver good outcomes in a relatively short period of time
- The team is now concentrating on cost reduction, customer friendly and environment safe products
3. Regulatory, Market Development and Manufacturing

Mr. Sanjay Vats
Vice President

Mr. Sanjay Singh
GM – Market Development

Mr. Bhupendra Tiwari
Head Manufacturing
3.1 Regulatory
## Regulatory Environment in India

<table>
<thead>
<tr>
<th>Regulatory Environment in India</th>
<th>Registration Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>❖ India is one of the most dynamic generic pesticide manufacturers in world and is fourth largest pesticide manufacturer after China, USA and Japan</td>
<td>1 Registration is done under various sections of Insecticides Act, 1968</td>
</tr>
</tbody>
</table>
| ❖ Use of pesticides in India is regulated by the Insecticides Act, 1968 and Rules, 1971 | 2 Application for the registration is prepared in Form-I and submitted online  
  • All requisite data (Chemistry, Toxicology, Bio-efficacy and Packaging) as per approved latest guidelines of CIB & RC is submitted |
| ❖ All pesticides (Insecticides, Fungicides, Herbicides, Public Health insecticides) must be registered with Insecticides Board & Registration Committee (CIB & RC) | 3 Scrutiny of submitted data by concerned scientists/technical officers to check data conformity |
|                                  | 4 Registration approval by the Registration Committee |
Registration Categories and Challenges

Registration Categories and Timeframe

<table>
<thead>
<tr>
<th>Category</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-time manufactured/imported in India</td>
<td>5-6 Years</td>
</tr>
<tr>
<td>Already registered pesticides</td>
<td>2.5-3 Years</td>
</tr>
<tr>
<td>Original Registration</td>
<td>Data generation: 2.5 - 3 Years</td>
</tr>
<tr>
<td>Me-too Registration</td>
<td>CIB &amp; RC: 2-3 Years</td>
</tr>
</tbody>
</table>

Registration Process Challenges

- Immense data requirement for registering new product in India
- Slow process to scrutinise the application resulting delay in registration approval

Dedicated Team to Speed Up the Process

Team

- 6 experienced members specialized in different streams and following up with regulatory departments:
  - Toxicology
  - Chemistry
  - Bio Efficacy
  - Packaging

Capital Market Presentation 2019
## IIL 9(3) Registrations

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>Product Category</th>
<th>Brand Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bispyribac Sodium Technical 95% Min.</td>
<td>Technical</td>
<td>-</td>
</tr>
<tr>
<td>Bispyribac Sodium 10% SC</td>
<td>Formulation</td>
<td>Green Label</td>
</tr>
<tr>
<td>Imazethapyr Technical 93% Min</td>
<td>Technical</td>
<td>-</td>
</tr>
<tr>
<td>Bifenthrin 8%SC</td>
<td>Formulation</td>
<td>To be launched</td>
</tr>
<tr>
<td>Metsulfuron Methyl 20%WG</td>
<td>Formulation</td>
<td>To be launched</td>
</tr>
<tr>
<td>Diafenthiuron 40.1% + Acetamiprid 3.9%WP</td>
<td>Formulation</td>
<td>Hercules</td>
</tr>
<tr>
<td>Emamectin Benzoate 3% + Thiamethoxam 12%WG</td>
<td>Formulation</td>
<td>Encounter</td>
</tr>
<tr>
<td>Hexaconazole 4% + Carbendazim 16%SC</td>
<td>Formulation</td>
<td>Sofia</td>
</tr>
<tr>
<td>Buprofezin 22% + Fipronil 3%SC</td>
<td>Formulation</td>
<td>Aikido</td>
</tr>
<tr>
<td>Bifenthrin 3% + Chlorpyrifos 30%EC</td>
<td>Formulation</td>
<td>Lethal Gold</td>
</tr>
<tr>
<td>Bifenthrin 8.8%CS</td>
<td>Formulation</td>
<td>Rockstar</td>
</tr>
<tr>
<td>Cyenopyrafen 30%SC</td>
<td>Formulation</td>
<td>Kunoichi</td>
</tr>
</tbody>
</table>

**Technicals** | **Formulations**
--- | ---
2 | 10
IIL Number of Registrations

- **Category 9(3)**: 12 registration certificates approved by CIB & RC
- **Category 9(4)**: 47 technical and 225 of formulation registration certificates approved by CIB & RC

<table>
<thead>
<tr>
<th>Year</th>
<th>9(3) Registrations</th>
<th>9(4) Registrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-20</td>
<td>02</td>
<td>12</td>
</tr>
<tr>
<td>2018-19</td>
<td>05</td>
<td>29</td>
</tr>
<tr>
<td>2017-18</td>
<td>02</td>
<td>30</td>
</tr>
<tr>
<td>2016-17</td>
<td>02</td>
<td>26</td>
</tr>
<tr>
<td>2015-16</td>
<td>-</td>
<td>35</td>
</tr>
<tr>
<td>Upto 2014</td>
<td>01</td>
<td>140</td>
</tr>
</tbody>
</table>

**Registration Pipeline**

<table>
<thead>
<tr>
<th>9(3) Registrations</th>
<th>9(4) Registrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>06</td>
</tr>
</tbody>
</table>

IIL strategic focus on developing newer technicals and products which can be registered under 9 (3) category and can contribute towards growth of Maharatna Products.
3.2 Market Development
Tractor Brand – Farmer’s Choice

- A trust of decades
- Umbrella Brand for end to end solutions
- Farmers’ first choice pan India
- Symbol of Confidence
Product Selection & Offering

Continuous process from product identification to commercialization and offer complete solution to farmers

- Problem Identification
  - Identification of crop specific farmers problems
  - Weed, Insect, Pest & Diseases

- Market Research
  - Market research on current solutions available
  - Market size of opportunities

- Find Solution
  - Look forward to International tie-up
  - In-house R & D-product selection

- Registration
  - Official data generation to register the products by Registration team

- Commercialization
  - Launch product in the Market
  - Educate farmers about its application and benefits

- Continuous process from product identification to commercialization and offer complete solution to farmers

  - In-house R & D-product selection
    - Data generation in different agro-climatic zone vis a vis with current solution to identify the bio-efficacy superiority- Involvement of national and state level team
    - Replications from trials plot to pilot plot to reconfirm the findings
Global Partners and Achievements

Nissan, Japan

Marketing Tie up for specialty products Fungicide PULSOR (2012), Selective Herbicide HAKAMA (2012) and Miticide KUNOICHI (Oct 2019)

<table>
<thead>
<tr>
<th></th>
<th>FY13</th>
<th>H1FY20</th>
<th>FY23E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pulsor</strong></td>
<td>5.0</td>
<td>44.4</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Hakama</strong></td>
<td>7.8</td>
<td>26.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Kunoichi</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14.0</td>
<td>60.0</td>
<td></td>
</tr>
</tbody>
</table>

(All figures in Rs. Crore)

* Projections are based on company internal estimates
Global Partners and Achievements

**OAT Agrio, Japan**

OAT Agrio Co., Ltd.

- JV to set up a dedicated R&D Centre in India to invent new agrochemical molecules.
- PGR ROOT BEAD (2017)
- PGR CHAPERONE (Dec 2019)

**Nihon, Japan**

- Tie up for SUZUKA (Flubendiamide) (2016)

**Momentive, USA**

- Tie up with MOMENTIVE Performance Material INC, USA for AGRO SPRED MAX (2016) for silicone based super spreader

**AMVAC, USA**

International Tie-ups and Timeline

- **2006**
  - THIMET (Insecticide)
    - AMVAC, USA
  - NUVAN (Insecticide)
    - AMVAC, USA

- **2012**
  - HAKAMA (Herbicide)
    - Nissan, Japan
  - PULSOR (Fungicide)
    - Nissan, Japan

- **2016**
  - SUZUKA (Insecticide)
    - Nihon, Japan
  - HAKKO (Insecticide)
    - Nihon, Japan
  - PULSOR (Fungicide)
    - Nissan, Japan
  - AGRO SPRED MAX (Super Spreader)
    - Momentive, USA

- **2017**
  - ROOT BEAD (PGR)
    - OAT Agrio, JAPAN

- **2018**
  - AIKIDO (Insecticide)
    - Nihon, Japan

- **2019**
  - KUNOICHI (Miticide)
    - Nissan, Japan
    - (Oct. 2019)
  - CHAPERONE (PGR)
    - OAT Agrio, Japan
    - (Dec. 2019)
## Innovative Technology – Select Success Stories

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root bead</td>
<td>Nodule enhancer in pulse crops</td>
</tr>
<tr>
<td>Pulsor</td>
<td>A unique product for rice sheath blight- Best solution available in India</td>
</tr>
<tr>
<td>Hakama</td>
<td>Strong graminicide</td>
</tr>
<tr>
<td>Agrospred Max</td>
<td>A silicon based spreading agent- need for the farmers</td>
</tr>
<tr>
<td>Kunoichi</td>
<td>A strongest miticide from Nissan kills all the stages of mites including eggs.</td>
</tr>
<tr>
<td>Hercules</td>
<td>A promising product for cotton to control white fly- most damaging pest</td>
</tr>
<tr>
<td>Encounter</td>
<td>A perfect product for simultaneous solution of Looper and Tea Mosquito bug in tea</td>
</tr>
<tr>
<td>Sofia</td>
<td>Established as the first spray of crop protection against various diseases</td>
</tr>
</tbody>
</table>

Many more examples are the success stories of IIL and the journey continues...
Key Products – Sales and Forecasts

(Sales and Forecasts in Rs. Crore)

<table>
<thead>
<tr>
<th>Product</th>
<th>FY19</th>
<th>H1FY20</th>
<th>FY23E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sofia</td>
<td>13.8</td>
<td>14.7</td>
<td>50.0</td>
</tr>
<tr>
<td>Hercules</td>
<td>11.3</td>
<td>32.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Encounter</td>
<td>15.6</td>
<td>6.2</td>
<td>50.0</td>
</tr>
<tr>
<td>Lethal Gold</td>
<td>6.0</td>
<td></td>
<td>50.0</td>
</tr>
</tbody>
</table>

* Projections are based on company internal estimates
Market Development – Structure and Manpower

Team
- Head Office - Delhi
- H.O. Market Development Team - 5
- Network Distributed in Zones:
  - North, East, South, West
- Market Development Team:
  - Pay Roll: 72
  - Third Party Roll: 600-850

North Zone
Pay Roll: 18
TPR: 100-150

East Zone
Pay Roll: 10
TPR: 150-200

South Zone
Pay Roll: 23
TPR: 200-300

West Zone
Pay Roll: 21
TPR: 150-200
Market Development Activities

Demonstrations: Crops vs Pest Specific

Field Days: Seeing & Believing

Farmer Meetings: Solution for specific problems

Mega Farmer Meetings: Crop solution
Market Development Activities

Intensive Consumer Awareness Program

Dealers Training Program

Market Development Activities & Large Farmer Contact

<table>
<thead>
<tr>
<th></th>
<th>Mega Meeting</th>
<th>Farmer Meetings</th>
<th>Group Meetings</th>
<th>A V Van Campaign</th>
<th>Demo</th>
<th>Field Days</th>
<th>Balloon Show</th>
<th>Total Farmers contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>750+</td>
<td>1,000+</td>
<td>20,000+</td>
<td>6,500+</td>
<td>5,000+</td>
<td>2,500+</td>
<td>250+</td>
<td>20+ Lakhs</td>
</tr>
</tbody>
</table>

Engaged with 20+ lakh farmers through Market Development Activities & Farmer Contact Initiative
Market Development Activities

Mass Media Campaign: News Paper, Radio and TV campaign

Social Media: WhatsApp groups of Farmers across country

Android App and WhatsApp Group for Farmers and Dealers for product information
3.3 Manufacturing

Mr. Bhupendra Tiwari
Head Manufacturing
Manufacturing Sites – Formulations

Unit 1: Chopanki, Rajasthan

Unit 2: Chopanki, Rajasthan

Unit 3: Dahej, Gujarat

Unit 4: Samba, J&K

Unit 5: Udhampur, J&K
Manufacturing Capacity and Formulations

Aggregate Installed Capacity

- **19,400 KLPA**
  - Liquid Formulation
- **75,750 MTPA**
  - Granules Formulation
- **18,770 MTPA**
  - Powder Formulation
- **13,800 MTPA**
  - Technical Garde

New Generation Formulations

- New generation formulations are effective, safer, easier to handle and environment friendly

- Water Dispersible Granules (WG)
- Suspension Concentrate (SC)
- Concentrated Emulsion (CE)
- Microemulsion (ME)
- Controlled Release Formulation (CR)
- Suspo-emulsion Formulation (SE)
Manufacturing Capabilities – Formulations

**Automation**
- Most of the plants are having automation in formulation and packaging

**Quality Check Laboratory**
- All factory sites are having well established test lab with ultra modern facilities and experienced chemists to check
  - Raw materials
  - Intermediates
  - Finish goods
  - Packing materials
  - Environmental samples
- **NABL Accreditation at Chopanki**
Manufacturing Sites – Technicals

Unit 1: Chopanki, Rajasthan  
(Technical Production started in 2007)

Unit 2: Dahej, Gujarat  
(Technical Production started in 2011)

Aggregate Installed Capacity

13,800 MTPA  
Technical Garde
Manufacturing Capabilities – Technicals

Characteristics

- Multi-products plant and multipurpose lines
- Self dependent in utilities
- Backward integration for products
- Independent quality control
- Remarkable R&D support for process improvement, validation of new products & innovative ideas
- Adaptability of latest technology in term of cost & environment friendliness
- State of art Effluent Treatment facility
- Trained safety team with training facility
- Higher capacity utilization
- Efficient regulatory and technical team
- Due to backward integration less dependency on suppliers
- Low site operating cost due to expansion on same site

Team and Infrastructure

**Chopanki**
- Regular Employee : 100
- Contractual : 150

**Dahej**
- Regular Employee : 300
- Contractual : 300
- Total area : 50 Acre
# Products Manufactured

## Insecticide & Fungicide Plant - Dahej

<table>
<thead>
<tr>
<th>Product</th>
<th>Brand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpyrifos</td>
<td>Lethal Range of Products</td>
</tr>
<tr>
<td>Cartap hydrochloride</td>
<td>Indan</td>
</tr>
<tr>
<td>Thiophanate Methyl</td>
<td>Prism</td>
</tr>
<tr>
<td>Diafenthiuron</td>
<td>Hercules, Logo/ Gama</td>
</tr>
<tr>
<td>Tricyclazole</td>
<td>Force11</td>
</tr>
<tr>
<td>Acetamiprid</td>
<td>Hercules, Sharp</td>
</tr>
</tbody>
</table>

## Insecticide & Fungicide Plant - Chopanki

<table>
<thead>
<tr>
<th>Product</th>
<th>Brand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lambda Cyhalothrin</td>
<td>Bravo, Metacil</td>
</tr>
<tr>
<td>Bifenthrin</td>
<td>Super Star, Lethal Gold</td>
</tr>
<tr>
<td>Thiamethoxam</td>
<td>Arrow, Bheema, Bheema Super, Encounter</td>
</tr>
<tr>
<td>Coded Fungicide</td>
<td>Fungicide for CRAMs</td>
</tr>
</tbody>
</table>

## Herbicide Plant - Dahej

<table>
<thead>
<tr>
<th>Product</th>
<th>Brand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrazine</td>
<td>Strike</td>
</tr>
<tr>
<td>Pretilachlor</td>
<td>Super Racer, Racer</td>
</tr>
<tr>
<td>Metribuzin</td>
<td>Anchor</td>
</tr>
<tr>
<td>Sulfosulfuron</td>
<td>Kaiser</td>
</tr>
<tr>
<td>Imazethapyr</td>
<td>Selector</td>
</tr>
<tr>
<td>Bispyribac sodium</td>
<td>Green Label</td>
</tr>
<tr>
<td>Diuron</td>
<td>Duron</td>
</tr>
<tr>
<td>Clodinafop propargyl</td>
<td>Omega</td>
</tr>
</tbody>
</table>

## Capacity Expansion Plans To Manufacture Technicals

- Target to add 5 new technical in 2020
- Target to backward integrate intermediates for three technicals
Expansion and Growth Plans

Backward Integration Plan at Dahej and Chopanki

- Developed land is readily available for expansion
- Due to geographical location of Dahej, logistics & easy availability of raw material will help in cost reduction as compared to other part of India
- Gearing of ourselves to meet future demands of new customers and enhance overall profitability

Advantages

- Lower dependency on supplier
- Low manufacturing cost of finished products
- Reduction in overhead cost per tonne
- Optimum utilisation of existing utilities
- Better control on process
- Lower inventory build-up and shorter working capital cycle

Setting up “SEZ” unit at Dahej

- We are coming with export oriented unit at SEZ Dahej for formulation of Insecticides & herbicides
- Production is expected to commence in February 2020
- This will enable us to multiplying our exports and meet our FY2023 targets

Advantages

- 10-year tax holiday in a block of the first 20 years
- Exemption from duties on all imports for project development
- Exemption from GST on domestic sourcing of capital goods for project
- Exemption from import duty, GST and other taxes
4.1 Sales & Marketing – Domestic Sales
Agricultural Production vs Pesticides Consumption

<table>
<thead>
<tr>
<th>Country</th>
<th>World rank in Agriculture Production</th>
<th>Agriculture Production ($ bn)</th>
<th>Pesticide Use (tons, 2017)</th>
<th>Number of Pesticide molecules registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1</td>
<td>978</td>
<td>1,763,000</td>
<td>681</td>
</tr>
<tr>
<td>India</td>
<td>2</td>
<td>394</td>
<td>52,750</td>
<td>282</td>
</tr>
<tr>
<td>EU</td>
<td>3</td>
<td>269</td>
<td>362,421</td>
<td>467</td>
</tr>
<tr>
<td>USA</td>
<td>4</td>
<td>164</td>
<td>407,779</td>
<td>481</td>
</tr>
<tr>
<td>Brazil</td>
<td>7</td>
<td>81</td>
<td>377,176</td>
<td>477</td>
</tr>
<tr>
<td>Japan</td>
<td>9</td>
<td>58</td>
<td>52,248</td>
<td>583</td>
</tr>
<tr>
<td>Thailand</td>
<td>13</td>
<td>41</td>
<td>35,287</td>
<td>364</td>
</tr>
<tr>
<td>Australia</td>
<td>17</td>
<td>37</td>
<td>63,416</td>
<td>561</td>
</tr>
<tr>
<td>Argentina</td>
<td>21</td>
<td>32</td>
<td>196,009</td>
<td>414</td>
</tr>
</tbody>
</table>

Important Observations:
- India, the second largest agricultural producer, uses much less pesticides both in volume and in variety
- “Indian farmers use excessive pesticides” is a mischievous propaganda by foreign funded environmental activists to malign Indian agriculture in the international trade

Source: Crop Care Federation of India
### Region-wise Pesticides Ratio

<table>
<thead>
<tr>
<th>REGION</th>
<th>2002</th>
<th>2018</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Zone</td>
<td>13%</td>
<td>20%</td>
<td>Generic dominant and fast-growing market</td>
</tr>
<tr>
<td>West Zone</td>
<td>20%</td>
<td>25%</td>
<td>Combination of Generic &amp; Research and fast-growing Market</td>
</tr>
<tr>
<td>North Zone</td>
<td>30%</td>
<td>25%</td>
<td>Research dominant and growing in Value</td>
</tr>
<tr>
<td>South Zone</td>
<td>37%</td>
<td>30%</td>
<td>Combination of Generic &amp; Research And growing in value</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REGION</th>
<th>IIL Share in B2c Sales 2018-19</th>
<th>Market Share 2018-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Zone</td>
<td>27%</td>
<td>6%</td>
</tr>
<tr>
<td>West Zone</td>
<td>22%</td>
<td>5%</td>
</tr>
<tr>
<td>North Zone</td>
<td>23%</td>
<td>6%</td>
</tr>
<tr>
<td>South Zone</td>
<td>28%</td>
<td>5%</td>
</tr>
</tbody>
</table>

IIL presence is well diversified across states and zones
Sales Team & Strategy

Strategy to move to Blue Ocean

Team

<table>
<thead>
<tr>
<th>Designation</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice President</td>
<td>4</td>
</tr>
<tr>
<td>Marketing Manager</td>
<td>2</td>
</tr>
<tr>
<td>Zonal manager</td>
<td>7</td>
</tr>
<tr>
<td>Regional Manager</td>
<td>38</td>
</tr>
<tr>
<td>Area Manager</td>
<td>54</td>
</tr>
<tr>
<td>Sales Executive</td>
<td>43</td>
</tr>
<tr>
<td>Sales Officer</td>
<td>115</td>
</tr>
<tr>
<td>Sales Representative</td>
<td>193</td>
</tr>
<tr>
<td>Development team</td>
<td>72</td>
</tr>
</tbody>
</table>

500 + Team with 600-850 TPR

Farmer Engagement for the Product Launch

- Engaging farmers and channel partners from the initial trials
- Collecting the feedbacks and maintaining the data for next season
- Working with the farmers at every stage of product application
- Continuous recall by PoPs, AV vans, Electronic media and digital campaigns
- Showing results practically to farmers by demos
IIL Brand Business Strength

❖ Farmer centric approach

❖ Strong Brand Image and Recall
  o **Old brands:** Lethal, Lethal Super, Thimet, Monocil, Victor, Sharp, Hijack And Racer
  o **New brands:** Pulsor, Xplode, Nuvan, Mycoraja, Green Label, Hijack Super, Hakama, Super Racer, Lethal Gold, Hercules, Sofia, And Kunoichi

❖ PAN India Quality & Stable network
  o Depots: 28
  o Distributors: 5,000
  o Dealers: 60,000

❖ Strong market development team and robust product identification to commercialization process
5- Way Test

- Strengthen the team
- Strengthen the market
- Strengthen the field
- Strengthen the product portfolio
- Strengthen the system and policy
4.2 Sales & Marketing – Institutional Sales

Dr. Arun Kohli
Vice President – Institutional Sales
B2B Institutional Sales

Institutional Sales Contribution

<table>
<thead>
<tr>
<th>FY2019 Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2B, 31%</td>
</tr>
<tr>
<td>Others, 69%</td>
</tr>
</tbody>
</table>

Institutional Sales Trend

Constant growth in sales over the years
B2B Capabilities and Key Products

IIL Capabilities
- Two synthesis plants
- Five formulation plants
- Capability to produce complex molecules
- R&D support
- Good brand perception with large customers
- Good quality product
- Timely execution capabilities

Diversified Range of Products

<table>
<thead>
<tr>
<th>Insecticides</th>
<th>Fungicides</th>
<th>Herbicides</th>
<th>Household Insecticides</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETAMIPRID</td>
<td>TRICYCLAZOLE</td>
<td>GLYPHOSATE</td>
<td>D-TRANS ALLETHRIN</td>
</tr>
<tr>
<td>LAMBDA CYHALOTHIN</td>
<td>THIOPHANATE</td>
<td>ATRAZINE</td>
<td></td>
</tr>
<tr>
<td>IMIDACLOPRID</td>
<td>METALAXYL</td>
<td>IMAZETHAPY</td>
<td></td>
</tr>
<tr>
<td>BIFENTHRIN</td>
<td>MYCLOBUTANIL</td>
<td>PRETILACHLOR</td>
<td></td>
</tr>
<tr>
<td>DIAFENTHIURON</td>
<td></td>
<td>BISPYRIBAC SODIUM</td>
<td></td>
</tr>
<tr>
<td>CHLORPYRIFOS</td>
<td></td>
<td>SULFOSULFURON</td>
<td></td>
</tr>
<tr>
<td>CARTAP</td>
<td></td>
<td>CLADINOFOF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>QUIZALOFOP Bulk</td>
<td></td>
</tr>
</tbody>
</table>
**Top Products & Customers**

### Top 10 Products – FY2019

- Glyphosate
- Pretilachlor
- Lambda
- Bifenthrin
- Thiamethoxam
- Atrazine
- Thiofanate Methyl
- Quizalofop
- Cartap
- Tricyclazole

### Top Customers – FY2019

- UPL
- Willwood Chemicals
- Parijat Industries
- Crystal Crop Protection
- Dhanuka Agritech
- IFFCO
- Indofil Industries
- Bharat Group
- Sumitomo Chemicals
- Adama
- Zuar Agro
B2B Strategy and Outlook

Strategy

▪ Adding new chemistries and molecules
▪ Focus on complex molecules with low competition
▪ Identifying the products getting off patented and focus on reverse engineering
▪ Have large scope for sales to new and existing customers
▪ Pan India presence already and plan is to go deeper in the market through strong sales and distribution network

Future Scope

▪ Agriculture markets to grow by double digit
▪ Commodity prices are high
▪ Farmers are prepared to invest in Agri Input/agro chemicals
▪ The changed product portfolio caters to all segment
▪ We are future ready to cater to customers
▪ Our Business relations with our customers
▪ Dual working on buying and selling
▪ Technology transfers and sharing
4.3 Sales & Marketing – International Sales

Mr. Shrikant Satwe
Head - International Business
B2B International Sales

Highlights

• IBD grown at 82% CAGR between FY16-19
• IBD contribute 4% of total IIL Sales
• Presence in 18 countries with 42 customers
• APAC contributed maximum (40%) followed by Africa & ME
• Herbicides Contributed maximum followed by Insecticides & Fungicides
• Formulation contribute > 90% of the business
• WDG; EC formulations maximum contributed
• 80% business from IIL core products
• “Trading House Status” confirmed in FY18

International Sales Trend (Rs. Cr.)

<table>
<thead>
<tr>
<th>FY</th>
<th>Sales (Rs. Cr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY16</td>
<td>12</td>
</tr>
<tr>
<td>FY17</td>
<td>12</td>
</tr>
<tr>
<td>FY18</td>
<td>34</td>
</tr>
<tr>
<td>FY19</td>
<td>60</td>
</tr>
</tbody>
</table>
Market Expansion Strategy

Cost Efficient Generic Supplier having Competency in adding Value Chain

Volume & Margin Expansion through Long Term Supply Contracts & Sustainable Relationship

- Differentiated Product Mix to Existing & New Customers
- Geographical Presence through Regulatory compliance
- Leveraging R & D Capability to Develop Off patent Product/Chemistries
- Growing Outsourcing market Opportunities Through CSM business
- Value added Product Portfolio like Biocides; Intermediates & Public health Products

Capital Market Presentation 2019
### Key Products: Data in Progress

<table>
<thead>
<tr>
<th>Insecticides</th>
<th>Herbicides</th>
<th>Fungicides</th>
</tr>
</thead>
<tbody>
<tr>
<td>❖ Acetamiprid</td>
<td>❖ Bispyribac sodium</td>
<td>❖ Thiophanate Methyl</td>
</tr>
<tr>
<td>❖ Thiamethoxam</td>
<td>❖ Diuron</td>
<td>❖ Tricyclazole</td>
</tr>
<tr>
<td>❖ Dinotefuran</td>
<td></td>
<td>❖ Myclobutanil</td>
</tr>
<tr>
<td>❖ Diafenthiuron</td>
<td></td>
<td></td>
</tr>
<tr>
<td>❖ Lambda Cyhalothrin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>❖ Bifenthrin</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*insecticides (INDIA) LIMITED*
Regional Alliance Status

Regional Alliances

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY20</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Customers</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Dossier</td>
<td>12</td>
<td>105</td>
</tr>
<tr>
<td>Registrations</td>
<td>5</td>
<td>74</td>
</tr>
</tbody>
</table>

Highlights

- Presence in 30 countries & > 100 customers through registrations
- Total 227 Dossiers submitted till Nov 2019
- Total 74 Registrations received till Nov 2019
Focus Markets

Registration Activities

Brazil 10.00 12.3
Argentina 1.7 1.8 2.3
Mexico 0.7 0.8 1.0
Ukraine 0.5 0.9 1.2
Russia 0.9 1.0 1.2
Australia 1.1 10.9 1.0
China 3.6 6.5 7.5
South Korea 0.6 0.6 0.7
Vietnam 0.6 0.6 0.7
Thailand 0.6 0.6 0.7
Germany 1.7 1.7 1.8
Spain 0.9 1.0 1.0
Poland 2.1 0.9 0.7
France 0.7 0.7 0.6
UK 0.6 0.7 0.6
Canada 0.6 0.7 0.6

2013 : $ 30.00 USD
2018 : $ 31.35 USD
2023 : $ 36.80 USD

(in USD BN)
**Market Challenges**

<table>
<thead>
<tr>
<th>Regulatory</th>
<th>Government</th>
<th>Supply Chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>❖ Stringent Data Compliance &amp; regulatory guidelines</td>
<td>❖ Slow Economy</td>
<td>❖ Major Uncertainties in Raw Material availability &amp; Pricing</td>
</tr>
<tr>
<td>❖ Lead time for Registration</td>
<td>❖ Distressed Farm Commodity prices</td>
<td>❖ Lead time to register alternative source for major Intermediates</td>
</tr>
<tr>
<td>❖ Restricted product usage due to resistance issue</td>
<td>❖ Stringent ESH norms</td>
<td></td>
</tr>
<tr>
<td>❖ GM area Expansion</td>
<td>❖ Trade Sanctions</td>
<td></td>
</tr>
<tr>
<td>❖ OECD registration must for MEENA markets</td>
<td>❖ Credit Risk</td>
<td></td>
</tr>
<tr>
<td>❖ “REACH” &amp; Quality Compliance</td>
<td>❖ Currency Volatility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>❖ Trade Blocks &amp; Trade agreements like US-China Trade Agreements; BREXIT</td>
<td></td>
</tr>
</tbody>
</table>
Exports: A Credible Large Opportunity

Exports from India (USD Bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value (USD Bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1.1</td>
</tr>
<tr>
<td>2011</td>
<td>1.2</td>
</tr>
<tr>
<td>2012</td>
<td>1.4</td>
</tr>
<tr>
<td>2013</td>
<td>1.7</td>
</tr>
<tr>
<td>2014</td>
<td>2.0</td>
</tr>
<tr>
<td>2017</td>
<td>2.5</td>
</tr>
<tr>
<td>2023E</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Highlights

- Exports from India to grow up to 4.10 USD Bn by 2023
- Global players incrementally looking to diversify their sourcing base to India
- Strong Ethanol demand 15% as bio diesel
- Proportion of High Generic molecules in rise leading to lower IP protection concerns
- Demand for Ecofriendly / Innovative product
- Consolidation within industry
- Higher Prices of the Agriculture commodities
- Demand for high Value & Industrial Crops
- Rising Per Capita Income & demand from emergent economies in both Crop & Non crop
IIL Exports Projections

International Sales Trend (Rs. Cr.)

Growth Outlook

• In FY23 revenue to grow up to Rs 300 crs which is 16.2% of Total Sales
• Formulation to Tech Sales Ratio 65 to 35
• APAC will contribute (33%) followed by Africa(28%); Middle East (15%); LA (15%) & Europe (8%) each & NAFTA( 1.6%)
• Expecting some contribution from CRAM & Biopesticides business
• Insecticides will contribute maximum followed by Herbicides & Fungicides
• Demand for eco-friendly formulation
• Focus on cost effective “SEZ” based supply
• “2 STAR Trading House” status in FY20
5. Procurement
Centralized Procurement

Production | Warehouse | Machine Maintenance | Utilities | Assets | R&D | ETP | Lab | Safety/Security
---|---|---|---|---|---|---|---|---
Dahej Plant - 5
Chopanki Plant - 2
Dahej SEZ Plant - 3
Chopanki Technical - 4
Samba Plant - 6
Shamli Plant - 7
Udhampur Plant - 8
Procurement Spend Analysis – FY2019

Procurement Expenses – Category Wise

- 90% Raw Material
- 7% Packing Material
- 2% Consumable
- 1% Assets

Raw Material

Domestic vs Import
- 35% Domestic
- 65% Import

Geography
- 90% China
- 6% Japan
- 4% Taiwan
**Procurement Mix**

**PM Procurement Bifurcation FY 2019**

- Bags 0.95%
- M/Caps 1.12%
- Misc. 2.1%
- Cartons 3.47%
- Labels etc 5.96%
- Laminates 11.07%
- C-Box 15.27%
- Containers (Bottles/Drums) 60.06%

**Top 10 spends CHINA FY 2019**

- Lambda Cyhalothric Acid 27%
- 2-chloro-5-chloro Methyl Thiazole 11%
- N-Propanylethyl-N-2,6 Diethyl Aniline (PE) 10%
- 2-ethyl-sulfonylimid azo-1,2a Pyridin Sulf 10%
- 4-Phenox-2,6-diisopropyl Phenyl Isothiocy 8%
- Trimethyl Phosphite (TMP) 9%
- 3-methyl-4-nitroimino Perhydro-1,3,5-oxa 9%
- 4-Phenox-2,6-disopropyl Phenyl Thiour 6%
- Bifenthrin Alcohol 5%
- Cyanuric chloride 5%
Moving from Traders to Manufacturers in China

<table>
<thead>
<tr>
<th></th>
<th>Manufacturer (%)</th>
<th>Trader (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY19</td>
<td>41</td>
<td>59</td>
</tr>
<tr>
<td>FY18</td>
<td>37</td>
<td>63</td>
</tr>
<tr>
<td>FY17</td>
<td>30</td>
<td>70</td>
</tr>
</tbody>
</table>

Capital Market Presentation 2019
## Strengths and Challenges

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>❖ High dependency on China</td>
<td>❖ In-house R &amp; D to support process improvement issue / new technology adoption</td>
</tr>
<tr>
<td>❖ Supply commitment from China</td>
<td>❖ IIL is one of the top repute company – Gets priority supplies and pricing</td>
</tr>
<tr>
<td>❖ Price volatility</td>
<td>❖ Clear vision helps in long term planning</td>
</tr>
<tr>
<td>❖ Consistent quality</td>
<td>❖ Clear-cut strategy to shift from Traders to Manufactures</td>
</tr>
<tr>
<td>❖ Strong influence of mediators/Traders</td>
<td>❖ Multiple sources for each items ensuring risk minimization</td>
</tr>
<tr>
<td>❖ Disruptive new process/Technology</td>
<td>❖ Stringent In-house quality assurance system for vendor selection</td>
</tr>
<tr>
<td>❖ Compete and maintain China bench marking prices</td>
<td>❖ Setting up backward integration plant at Dahej</td>
</tr>
</tbody>
</table>
6. Financial Performance
Financial Performance – Last 5 years

Strong EBITDA and PAT growth with margin improvements every successive years

Revenue from Operations (Rs. Mn)

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Revenue from Operations (Rs. Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY15</td>
<td>9,652</td>
</tr>
<tr>
<td>FY16</td>
<td>9,882</td>
</tr>
<tr>
<td>FY17</td>
<td>9,942</td>
</tr>
<tr>
<td>FY18</td>
<td>10,733</td>
</tr>
<tr>
<td>FY19</td>
<td>11,919</td>
</tr>
</tbody>
</table>

CAGR: 5.4%

EBITDA (Rs. Mn)

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>EBITDA (Rs. Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY15</td>
<td>1,110</td>
</tr>
<tr>
<td>FY16</td>
<td>920</td>
</tr>
<tr>
<td>FY17</td>
<td>1,114</td>
</tr>
<tr>
<td>FY18</td>
<td>1,478</td>
</tr>
<tr>
<td>FY19</td>
<td>1,856</td>
</tr>
</tbody>
</table>

CAGR: 13.7%

PAT (Rs. Mn)

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>PAT (Rs. Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY15</td>
<td>548</td>
</tr>
<tr>
<td>FY16</td>
<td>396</td>
</tr>
<tr>
<td>FY17</td>
<td>597</td>
</tr>
<tr>
<td>FY18</td>
<td>843</td>
</tr>
<tr>
<td>FY19</td>
<td>1,228</td>
</tr>
</tbody>
</table>

CAGR: 22.3%

Capital Market Presentation 2019
Products Freshness Index

Proven track record of successful new product launches exhibits IIL’s strong R&D capabilities and continues to provide competitive edge.

Revenue from new product launches (Rs. Cr.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>69</td>
<td>131</td>
<td>166</td>
<td>111</td>
<td>131</td>
<td>148</td>
<td>90</td>
</tr>
<tr>
<td>172</td>
<td>221</td>
<td>30</td>
<td>133</td>
<td>38</td>
<td>66</td>
<td>34</td>
<td>9</td>
</tr>
<tr>
<td>103</td>
<td>131</td>
<td>60</td>
<td>89</td>
<td>38</td>
<td>66</td>
<td>65</td>
<td>41</td>
</tr>
<tr>
<td>69</td>
<td>30</td>
<td>45</td>
<td>65</td>
<td>34</td>
<td>41</td>
<td>45</td>
<td>84</td>
</tr>
<tr>
<td>131</td>
<td>89</td>
<td>41</td>
<td>65</td>
<td>34</td>
<td>41</td>
<td>45</td>
<td>84</td>
</tr>
<tr>
<td>131</td>
<td>89</td>
<td>125</td>
<td>221</td>
<td>133</td>
<td>221</td>
<td>133</td>
<td>221</td>
</tr>
<tr>
<td>44</td>
<td>69</td>
<td>131</td>
<td>166</td>
<td>111</td>
<td>131</td>
<td>148</td>
<td>90</td>
</tr>
<tr>
<td>172</td>
<td>221</td>
<td>30</td>
<td>133</td>
<td>38</td>
<td>66</td>
<td>65</td>
<td>41</td>
</tr>
<tr>
<td>103</td>
<td>131</td>
<td>60</td>
<td>89</td>
<td>38</td>
<td>66</td>
<td>65</td>
<td>41</td>
</tr>
<tr>
<td>69</td>
<td>30</td>
<td>45</td>
<td>65</td>
<td>34</td>
<td>41</td>
<td>45</td>
<td>84</td>
</tr>
<tr>
<td>131</td>
<td>89</td>
<td>125</td>
<td>221</td>
<td>133</td>
<td>221</td>
<td>133</td>
<td>221</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>7.1%</td>
<td>19.9%</td>
<td>22.9%</td>
<td>30.3%</td>
<td>37.9%</td>
<td>43.1%</td>
<td>44.9%</td>
<td>47.3%</td>
</tr>
</tbody>
</table>

New Products launched during the year

% of Revenue from Operations
Realization Trend

Increasing Sales Rate Per KG Trend

Sales Rate per KG/LTR

- FY16: 234
- FY17: 256
- FY18: 260
- FY19: 274
- H1FY20: 353
# Key Return Ratios

**Consistently improving return ratios and generating wealth for shareholders**

<table>
<thead>
<tr>
<th>Return on Equity</th>
<th>Return on Capital Employed</th>
<th>Return on Asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY15 18.9%</td>
<td>FY15 15.8%</td>
<td>FY15 6.0%</td>
</tr>
<tr>
<td>FY16 9.8%</td>
<td>FY16 12.5%</td>
<td>FY16 4.4%</td>
</tr>
<tr>
<td>FY17 12.9%</td>
<td>FY17 14.6%</td>
<td>FY17 6.1%</td>
</tr>
<tr>
<td>FY18 15.4%</td>
<td>FY18 20.2%</td>
<td>FY18 8.4%</td>
</tr>
<tr>
<td>FY19 18.6%</td>
<td>FY19 17.4%</td>
<td>FY19 9.1%</td>
</tr>
</tbody>
</table>

- **Return on Equity**
  - FY15: 18.9%
  - FY16: 9.8%
  - FY17: 12.9%
  - FY18: 15.4%
  - FY19: 18.6%

- **Return on Capital Employed**
  - FY15: 15.8%
  - FY16: 12.5%
  - FY17: 14.6%
  - FY18: 20.2%
  - FY19: 17.4%

- **Return on Asset**
  - FY15: 6.0%
  - FY16: 4.4%
  - FY17: 6.1%
  - FY18: 8.4%
  - FY19: 9.1%
## Capital Structure

<table>
<thead>
<tr>
<th>(Rs. Million)</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018</th>
<th>FY2019</th>
<th>H1 FY2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long Term Debt</strong></td>
<td>775</td>
<td>519</td>
<td>283</td>
<td>145</td>
<td>68</td>
<td>34</td>
</tr>
<tr>
<td><strong>Short Term Debt</strong></td>
<td>2,409</td>
<td>1,514</td>
<td>2,060</td>
<td>968</td>
<td>2,952</td>
<td>2,972</td>
</tr>
<tr>
<td><strong>Total Debt</strong></td>
<td>3,184</td>
<td>2,033</td>
<td>2,342</td>
<td>1,112</td>
<td>3,020</td>
<td>3,006</td>
</tr>
<tr>
<td><strong>Cash &amp; Cash Equivalents</strong></td>
<td>86</td>
<td>71</td>
<td>68</td>
<td>196</td>
<td>89</td>
<td>91</td>
</tr>
<tr>
<td><strong>Net Debt</strong></td>
<td>3,098</td>
<td>1,962</td>
<td>2,274</td>
<td>917</td>
<td>2,931</td>
<td>2,915</td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td>2,908</td>
<td>4,049</td>
<td>4,645</td>
<td>5,476</td>
<td>6,613</td>
<td>7,407</td>
</tr>
<tr>
<td><strong>Net Debt/Equity</strong></td>
<td>1.07x</td>
<td>0.48x</td>
<td>0.49x</td>
<td>0.17x</td>
<td>0.44x</td>
<td>0.39x</td>
</tr>
</tbody>
</table>

**Key Highlights**

- Higher debt in FY2019 was represents amount invested in building up higher inventory of Thimet and Nuvan.
- Debt is expected to normalize to the range of ~150 Cr by the end of the current fiscal year with zero long term debt.

Note: Capital Employed = Total Debt + Total Equity
Cash Flow from Operations

Key Highlights

- At the end of FY2019 Inventory of Thimet and Nuvan amounted to Rs. ~250 Crores
- Thimet inventory to be fully cleared by the end of current year
- Nuvan inventory to be fully cleared by the mid of next fiscal year
- Positive and growing cash flows going forward
R&D Expenditure Trend

Capital, Revenue and Data Generation Expenditure (Rs. Mn)

<table>
<thead>
<tr>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.8</td>
<td>14.9</td>
<td>34.2</td>
<td>39.9</td>
<td>46.5</td>
</tr>
<tr>
<td>30.9</td>
<td>5.1</td>
<td>12.4</td>
<td>4.2</td>
<td>62.6</td>
</tr>
<tr>
<td>4.2</td>
<td>0.04</td>
<td>4.2</td>
<td>0.04</td>
<td></td>
</tr>
</tbody>
</table>

Capital Exp  Revenue Exp  Data Generation Exp
Management is fully committed to improving its working capital cycle

Key reasons for high working capital

- Higher inventory for work in progress products as company manufactures both technical and formulations
- Lower inventory levels of finished goods
- Advance purchases of intermediaries to get the better prices
- FY2019 inventory levels were exceptional due to Thimet and Nuvan inventory

Strategy

- Backward integration and reduce dependence on raw material imports
- Payables days have increased as a result of new MSMe payment policy, company is committed to fund the working capital through internal accruals i.e. without raising working capital loans
Segment Reporting - FY2019

Gross Sales by Product Category:
- Insecticides: 29%
- Herbicides: 11%
- Fungicides: 5%
- PGR: 55%

Gross Sales by Segment:
- B2C: 31%
- B2B: 4%
- Exports: 65%

Gross Sales vs Internal Consumption:
- Sales: 45%
- Internal Consumption: 55%

Breakdown of Top Seller Range in B2C:
- Maharatna Products: 47%
- Other Products: 53%
7. Corporate Social Responsibility

Mr. Sanjay Vats
Vice President
CSR Vision - Empowering Sustainable Living

- Empowering Children & Farmers of India
- Rural initiatives for a sustainable living
- Projects around Farmer Knowledge Enhancement & Child education
- Farmer First Approach
- Millions of beneficiaries till date
- Employee Participation & Volunteering
Education Program

❖ Children education programs in districts of Punjab, Rajasthan, Bihar, UP and Odisha

❖ Adoption of village schools

❖ Distribution of books, study materials and stationeries to children

❖ Empowering people with dignity and respect by organizing livelihood programs
Kisan Jagrukta Abhiyana

- Aimed at educating farmers on crop protection and judicious use of agrochemicals
- Promoting the cultivation of 3rd crops for soil fertility and extra income
- Organizing special camps

Signed a MOU with ICAR – IARI for training of farmers to maximize their yield & entrepreneurship in 2017
Insecticides Jaroori Hai

An awareness initiative of informing all the stake holders of the society about the importance, need and judicious use of agro-chemicals

• Involving the agro experts from ICAR-IARI and different universities
• Using social media to take the same to the stake holders
• Involving our industry players in the initiative
• Creating a sense of our responsibility towards farmers

Insecticidesjaroorihai.com
Social Media Initiatives

Social media initiatives help in improving the internal as well as external communication about company and its activities.

- **Facebook**
- **Youtube**
- **Twitter**
8. Growth Strategy and Outlook

Mr. Rajesh Aggarwal
Managing Director
Agriculture Sector in India– FY23 Outlook

- India’s Population 1.46 billion
- Limitation in Arable Land
  - Limited expansion possible
- Growing Middle Class
  - High demand for calories
- Climate Change
  - High Volatility in crop production

Important Characteristics

- Crop protection continue to grow
- Demand for innovative Products will shape the industry
- Farmers will look to combine crop protection, seeds, digital and application technologies while fulfilling societal requirements
Capital Expenditure Plan

Capex will be incurred in a phased manner over next 3 years and will drive IIL future growth

❖ Out of Rs. 150 Crores, already incurred Rs. 32 Crores of Capex for setting up SEZ unit at Dahej. SEZ will result in increased expanding our exports to newer geographies

❖ Remaining capex will be incurred in a systematic phased manner

❖ Chopanki Brownfield Expansion – Expanding existing facility to add new manufacturing lines to produce high value products

❖ Dahej Brownfield Expansion – Setting up backward integration plan to reduce dependence on imported raw materials and reduce cost of sales

❖ These investment will yield result in long run and will enhance IIL overall capability to manufacture high value product, complex molecules and facilitate exports into new geographies
Phasing out the generic products and introduction of new products in Maharatna category will significantly grow topline and bottomline by FY2023

- Revenue is expected to grow by 11-13% CAGR in FY19-23 period
- The topline growth will be primarily driven by recent and upcoming innovative product launches
- Maharatna products will constitute more than half of sales by the end of FY23
- Exports will grow three times from current level, contributing ~15% of the sales as compared to ~5 of sales in FY19
- Identified 25 products which are in the process of tail cutting and with new product launches every year will ultimately result in better product mix and improved margins
- Efficient working capital management and backward integration of key intermediaries will result in enhanced bottom line
## Building Blocks of Growth

### R&D will result in New product launches in Maharatna Category
- Focus on in-house R&D and international partners to launch new products
- 28 registrations are in pipeline out of which 22 registrations are in 9(3) category

### Backward and Forward Integration
- Moving on the strategic path of backward and forward integration
- Capitalize on the Make in India initiative
- Will result in better margins across technicals and formulations

### Exports
- Working on registration in new countries with 100+ export agreements
- Expanding in new geographies: Exporting to 20+ countries
  Expand to 50+ countries and 100+ customers by the end of FY2023

### Focussed Approach on Biologicals
- Developed and commercialized VAM (Vascular Arbuscular Mycorrhiaze)
- Developed and commercialized soil energizer, Kayakalp
- Development of 3-4 new biological products is in pipeline

### Phase out Generic Products
- Phasing out the Generic Products (high volume-low margin)
- Introduction of new products in the Maharatna category and moving up the value chain

### Optimum Capital Structure and Operational Efficiency
- Focus on sustainable generation of cash flows
- Capex of Rs. 1.5 bn in next 3 years in a phased manner for setting up SEZ, synthesis facilities and backward integration plant

---

**Capital Market Presentation 2019**
Thank You

For further information, please contact:

<table>
<thead>
<tr>
<th>Sandeep Aggarwal</th>
<th>Ravi Gothwal / Vikas Luhach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Financial Officer</td>
<td>Churchgate Partners</td>
</tr>
<tr>
<td>Insecticides India Ltd.</td>
<td></td>
</tr>
<tr>
<td>+91 11 2767 9700</td>
<td>+91 22 6169 5988</td>
</tr>
<tr>
<td><a href="mailto:sandeep@insecticidesindia.com">sandeep@insecticidesindia.com</a></td>
<td><a href="mailto:InsecticidesIndia@churchgatepartners.com">InsecticidesIndia@churchgatepartners.com</a></td>
</tr>
</tbody>
</table>