

Demand drivers

• Growth in demand for food

grains: India has ~16% of the world's population and <2% of the total landmass. Increasing population and high emphasis on achieving food grain self-sufficiency, is expected to drive growth.

• **Limited farmland availability and growing exports:** India has 157 million hectares of gross cultivated area and the scope for bringing new areas under cultivation is severely limited. Available arable land per capita has been reducing globally and is expected to reduce further. The pressure is therefore to increase yield per hectare which can be achieved through increased usage of crop protection chemicals.

• **Increasing awareness:** ~15-25% of potential crop production is lost due to non-usage of crop protection chemicals. Companies are increasingly training farmers regarding the right use of crop protection chemicals in terms of quantity to be used, the right application methodology and appropriate chemicals to be used for identified pest problems. With increasing awareness, the use of crop protection chemicals is expected to increase.

Challenges

• **High research costs:** Research activities to develop a new crop

protection chemicals molecule takes an average of nine years and Indian companies typically have not focused on developing newer molecules and will face challenges in building these capabilities, while continuing to remain cost competitive.

• **Threat from genetically-modified seeds:** Genetically-modified seeds possess immunity against natural adversaries and thus adversely impact the business of crop protection chemicals.

• **Need for efficient distribution systems:** Since the number of end users is large and widespread, effective distribution via retailers is essential to ensure product availability. Lately, companies have been directly dealing with retailers by cutting the distributor from the value chain thereby reducing distribution costs, educating retailers on product usage and offering competitive prices to farmers.

• **Support for integrated pest management and rising demand for organic farming:** Promotion of integrated pest management, zero-budget farming and usage of bio-pesticides by the Indian Government and NGOs has hampered crop protection chemicals demand growth. As such, crop protection chemicals companies will have to address concerns pertaining to the negative impact of crop protection chemicals usage.

Opportunities

• Scope for increase in usage:

With lower proportion of the total farmland under the coverage of crop protection chemicals, there is a significant unserved market that can be tapped into. By educating farmers and conducting special training programmes regarding the need to use crop protection chemicals, Indian companies can hope to increase crop protection chemicals consumption.

• **Huge export potential:** The excess production capacity is a perfect opportunity to increase exports by utilising India's low-cost manufacturing capabilities.

• **Product portfolio expansion:** Threats like genetically-modified seeds, integrated pest management and organic farming, among others, can be turned into opportunities if the industry reorients itself to better address the needs of its consumers and broadens its product offering to include a range of inputs instead of only crop protection chemicals.

• **Off-patent products:** A multitude of products going off-patent would unleash a generics opportunity worth ~USD 3 billion between CY17 and CY20. By leveraging the strength of top-notch R&D and integrated manufacturing facilities, sectoral players can grab this imminent opportunity in the generics market.

SWOT analysis

Strengths

- Global manufacturing facilities
- Robust supply chain
- In-depth R&D capabilities
- Wide product portfolio
- Seamless quality control
- Strong backward integration
- Deep marketing reach

Opportunities

- USD 3 billion worth of crop protection chemicals to go off-patent by 2020
- Labour shortages



Weaknesses

- Competitive market
- High working capital requirement
- Cumbersome product registration process

Threats

- Unfavourable governmental policies
- Falling commodity prices
- Currency volatilities
- Climate change