KPR Agro Chem Limited

Issue Snapshot:

Issue Open: June 28 – July 02, 2019

Price Band: Rs. 59 – 61 (Discount of Rs. 3 per share to employees and Retail investors.)

Issue Size: 46,426,229 eq shares (Fresh issue of 34,426,229+ 12,000,000 Offer for sale)

Issue Size: Rs.273.91 crs – 283.20 crs

QIB	upto 25% eq sh
Non Institutional	upto 35% eq sh
Retail	atleast 40% eq sh

Face Value: Rs 10

Book value: Rs 29.14 (December 31, 2018)

Bid size: - 200 equity shares and in multiples thereof

100% Book built Issue

Capital Structure:

Pre Issue Equity:	Rs. 85.46 cr
Post issue Equity:	Rs. 119.89 cr

Listing: BSE & NSE

Book Running Lead Manager: PL Capital Markets Private Limited

Registrar to issue: Karvy Fintech Private Limited

Shareholding Pattern

Shareholding Pattern	Pre issue %	Post issue %
Promoter and Promoter Group	72.02	48.04
Public & Employee	27.98	51.96
Total	100.0	100.0

Source for this Note: RHP
*Assuming pricing at the higher end of band

Background & Operations:

KPR Agro Chem Ltd is an agri-input Company focused on manufacturing, distribution and retailing of a wide range of crop yield enhancing and protection products. Its product portfolio includes crop protection, crop nutrients, seeds, veterinary feed supplements. Further, in order to secure supply of sulphuric acid, one of its key ingredients, it also ventured into manufacturing of sulphuric acid. It produces sulphuric acid as well as other sulphuric acid based chemicals like LABSA and oleum that has wider applications across industries like agrochemicals, veterinary feed supplements, pharmaceuticals, synthetic detergents etc. Its range of product encompasses products across the agri-value chain viz., from seeds to crop nutrients products to crop protection products and also veterinary feed supplements.

KPR Agro is a part of the K.P.R. group based out of East Godavari district of Andhra Pradesh. The group has interests in agri-inputs, chemicals, rice mills and poultries. It operates three manufacturing facilities viz one each at Balabhadrapuram and Biccavolu in East Godavari district of Andhra Pradesh and one in Koppal district, Karnataka and its seed processing unit is located in Warangal district, Telangana which is operated under its wholly-owned subsidiary, Sri Sai Swarupa Seeds Private Limited. It has an installed capacity of 555,000 MTPA of crop nutrient products, 21,560 MTPA of crop protection products, 34,560 MTPA for veterinary feed supplements, 175,800 MTPA for chemicals and the installed capacity of its seed processing unit is 15,000 MTPA. It has also set-up a waste heat recovery plant at its manufacturing facility at Biccavolu, East Godavari as well as Koppal, Karnataka to generate power in order to optimally use the steam produced during the manufacturing of sulphuric acid. The aggregate capacity of its waste heat recovery power plants are 2.5 MW (1.5 MW at Biccavolu, Andhra Pradesh and 1 MW at Koppal, Karnataka) which caters to its captive power requirements at its manufacturing facilities.

Objects of Issue:

The Issue comprises of a Fresh Issue aggregating up to Rs 2,100.00 million ("Fresh Issue") and an Offer for Sale of up to 12,000,000 Equity Shares by the Selling Shareholders.

KPR Agro intends to utilize the Net Proceeds for the following objects:

- Repayment/prepayment, in full or part, of certain borrowings availed by the Company;
- To meet additional working capital requirement of the Company;
- General corporate purposes.

Schedule of Deployment

Sr. No	Particulars	Total estimated amount	Amount deployed till March 31, 2019	Estimated Utilisation Net Proceed Fiscal 2020
1	Repayment/prepayment, in full or part, of certain borrowings availed by KPR Agro	300	-	300
2	To meet additional working capital requirement of KPR Agro	1,200.00	-	1200.00
3	General Corporate purposes*	*	-	-

Consolidated Revenue split

(Unless stated otherwise, ₹ in million)

Segments	Fiscal 2016		Fiscal 2017		Fiscal 2018	
	Net Sales	% of revenue from operations	Net Sales	% of revenue from operations	Net Sales	% of revenue from operations
Fertilisers*	4,075.05	70.25	4,102.28	70.28	3,551.57	59.21
Chemicals	450.97	7.77	445.55	7.63	618.42	10.31
Pesticides	1003.18	17.29	1,017.01	17.42	1,550.16	25.84
Seeds	271.66	4.68	272.54	4.67	277.98	4.63
Total	5,800.87	100.00	5,837.38	100.00	5,998.13	100.00

**including veterinary feed supplements and trading in fertilisers*

Competitive Strengths

Wide agri-input product portfolio with presence across the agri-value chain enabling diversification of revenue risk: Over the years, KPR Agro has grown significantly on account of diversification of its product range from being only a crop protection product company in the year 2007 to a wide agri-input product portfolio company. Its range of product encompasses products across the agri-value chain viz., from seeds to crop nutrients products to crop protection products and also veterinary feeds supplements. Its continued engagement with the dealers and wide reach to the farmers has helped KPR Agro to understand the specific product requirements of end customers thereby enabling it to identify new product opportunities from time to time. This along with its objective of being present across the agri-value chain and meet the growing needs of farmers has enabled the company to widen its product portfolio which has also helped to derisk revenues.

Strong and growing distribution network: In order to ensure timely supply and availability of KPR Agro's products as well as achieve last mile connectivity with the farmers, it has set-up company operated depots at 11 locations and also has C & F Agents at 4 locations across India that is established based on the location of the agricultural belts and / or for having ease of connectivity with its dealer network. Its products are distributed from its depots and manufacturing location based warehouses to a network of approximately 8,000 dealers/distributers spread across various states in India. It has a strong marketing team of 145 people as on March 31, 2019, who are in touch with its dealer network on a regular basis to understand demand patterns and also offer them various incentive structures, payment patterns, etc. in order to push its product sales. In order to provide support services to KPR Agro's end customers and dealers, it has also set-up a dedicated toll-free helpline for delivering product information, technical details, etc. This has helped it to reach and establish connectivity with its end customers. Further, its strong relationship with dealers and chain of company operated stores has enabled KPR Agro to introduce new products in its existing markets within a short time frame.

Material sourcing capabilities*:* The availability of multiple raw material providers across various jurisdictions for KPR Agro varied range of products helps it in not being dependent on a single or limited number of suppliers. It sources its technicals, chemicals, urea, DAP, MOP and other generic active ingredients in their finished form from third party manufacturers, domestically as well as internationally depending on the availability and pricing dynamics. It continues to develop and maintain its relationship with the third party suppliers to ensure timely delivery of raw materials. Further, KPR Agro is also licensed to import some technical products which are primary raw materials for some of its crop protection products. It does not have to depend on third party for sourcing these materials. Its ability to directly source raw materials enables it to plan its production and allocate resources effectively.

Certified manufacturing facilities*:* KPR Agro operates three manufacturing facilities viz one each at Balabhadrapuram and Biccavolu in East Godavari district of Andhra Pradesh and one in Koppal district, Karnataka and its seed processing unit is located in Warangal district, Telangana which is operated under its wholly-owned subsidiary, Sri Sai Swarupa Seeds Private Limited. Its combined installed capacities for production of sulphuric acid is 420 TPD used for both captive consumption as well as external sales. It has also set-up a waste heat recovery plant at its manufacturing facility at Biccavolu, East Godavari as well as Koppal, Karnataka to generate power in order to optimally use the steam produced during the manufacturing of sulphuric acid. It has a quality control laboratory at (i) Biccavolu facility, Andhra Pradesh, (ii)_Balabhadrapuram facility, Andhra Pradesh; (iii) Warangal facility, Telangana; and (iv) Koppal facility, Karnataka, which primarily monitors the quality of its major raw materials.

Experienced Promoters and management team: KPR Agro's Promoters has played a key role in developing its business and it benefit from their significant experience in the agri-input industry. Its individual promoters traditionally were into the business of rice mills and poultry farming. The domain knowledge and experience of its Promoters and its management team provides it with an advantage as it seeks to grow in its existing markets and enter new geographies. Its management's ability to identify new avenues of growth and implement its business strategies in efficient manner has been one of the important factors towards the Company's growth.

Business Strategy:

Enhance product offering: KPR Agro will continue to identify related product opportunities based on market trends and intelligence, feedback from its dealer network and identify opportunities in the off-patent chemistry products.

Geographical expansion: Currently, KPR Agro's products are marketed in Andhra Pradesh, Telangana, Maharashtra, Odisha, Rajasthan, Bihar, Tamil Nadu, Kerala, Karnataka, Punjab, Haryana, Jharkhand and Madhya Pradesh. It intends to expand its reach in these states by appointing more dealers. It also intends to market its products in other parts of India, namely, Uttar Pradesh, Himachal Pradesh, Chhattisgarh and West Bengal thereby increasing its footprint.

Increase market penetration: To further strengthen KPR Agro's timely supply and availability of products as well as achieve last mile connectivity with the farmers around manufacturing facilities, KPR has set up Kisan Seva Kendras – Company Operated retail stores. Currently, it has these stores in and around the districts of Andhra Pradesh Koppal, including Srikakulam, Vizianagaram, Vishakhapatnam, East and West Godavari and Krishna; in Karnataka around Gadag, Bellary and Raichur districts and in Warangal district of Telangana which

are closer to its manufacturing units. Further, to deepen its connectivity as well as expand its reach, KPR Agro will explore the possibility to increase the dealer network across various states in India.

Industry

Overview of Global Agriculture & Food Industry

Worldwide cereal production in 2019 expected to surpass 2018 levels: World-wide cereal (including wheat, rice and coarse grains) production reached a record levels of 2,613 MMT in CY2018 driven by a bumper crop of coarse grains (year on year volume growth of 3%), rice (year on year volume growth of 6%). As a result of the same, and coupled with relatively lower growth in utilization, world cereal inventories increased by 4.6% in CY 2018. Accordingly, worldwide cereal prices remained lower in 2018. (Source: Food and Agriculture Organisation (FAO). In response to the same, the area under cereal cultivation declined, which is expected to result in a decrease of ~2% in global cereal production to 2601 million tonnes in CY 2019. Higher rice production, is expected to be offset by lower wheat and coarse grain production. According to FAO estimates, global stock-to-use ratio for 2019 is expected to moderate to 22.0%.

Exhibit 5 – World Cereal Production

In MMT	2014	2015	2016	2017	2018- Est
Wheat	730.5	735.7	760.2	756.7	760.4
Rice	494.6	491.7	501	501.2	506.3
Coarse Grains	1338.2	1307	1346.3	1355.3	1391.3
Total	**2563.3**	**2534.4**	**2607.5**	**2613.2**	**2658.0**

(Source: FAO, ICRA Research)

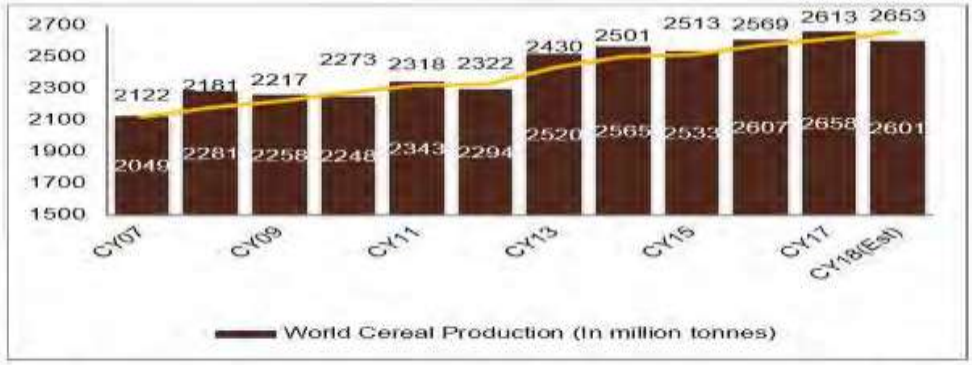

Exhibit 6 – World Cereal Production and Utilization (CY07-CY18E)
(Source: Food and Agriculture Organisation (FAO) of the United Nations, ICRA Analysis)

The world cereal consumption grew at a compounded annual growth rate ("**CAGR**") of 2.02% during CY07-17 owing to increasing population, rising per capita income in developing countries and use of grains for industrial and feed purpose. World cereal consumption is expected to increase by 1.5% to 2653 million tonnes in CY19 with a majority of the increase driven by coarse grains. Volume of cereals for direct human consumption is expected to increase by 0.2% over CY19, which will result in a stable cereal per capita food intake of 148.7 kg per year (as against 148.0 kg per year in CY2018). (Source: FAO).

Exhibit 7 – World Cereal Consumption

In MMT	2014	2015	2016	2017	2018 – Est
Wheat	703.6	711.1	732.8	734.5	737.2
Rice	491.4	495.3	497.8	498.3	503.7
Coarse Grains	1301.4	1306	1338.0	1339.0	1372.9
Total	**2496.4**	**2512.4**	**2568.6**	**2571.8**	**2613.8**

(Source: FAO, ICRA Research)

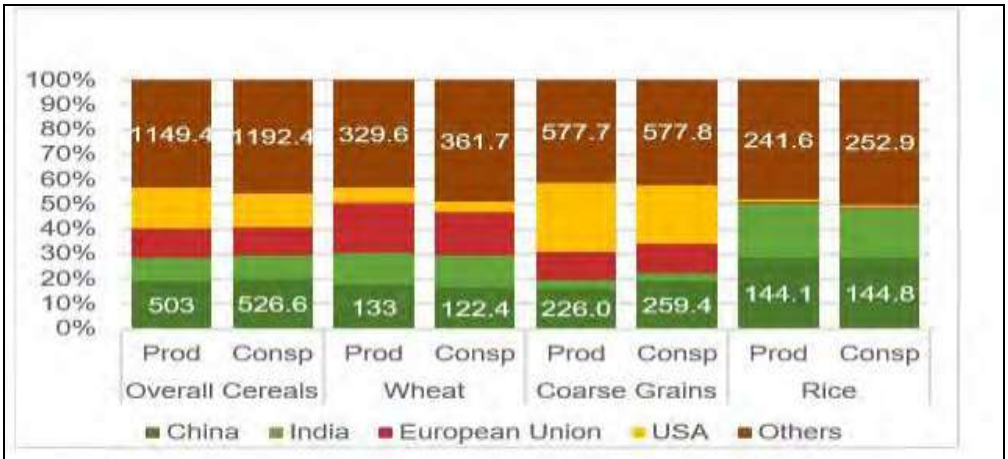

Exhibit 8 – Region-wise Production and Consumption Breakup (CY18E)- Absolute production, consumption (In million tonnes) & region wise contribution (in percentage terms)
(Source: FAO, ICRA Analysis)

Considering the region-wise production and consumption pattern, Wheat and Rice are majorly produced as well as consumed in China and India while USA remains the primary producer as well as the biggest consumer of coarse grains. Food consumption pattern varies widely between countries and among different cultures. Global per capita food supply increased from 2 200 kcal per day in the early 1960s to more than 2800 kcal per day by 2009. According to FAO, in 2011, average calorie intake in industrialised countries, developing and least developed countries stood at 3,430, 2,640 and 2,120 kcal per person per day.

Robust economic growth in many developing countries has resulted in improvement in per capita income which has resulted in a shift in lifestyle habits and dietary structure from low-protein, starch-based foods to more animal-based protein. Worldwide per capita meat consumption has increased from ~24 kg/ annum during 1960s to ~ 43 Kg/ annum by 2016. Global consumption of meat in 2018 is estimated at ~ 335 million tonnes, ~64% of which is expected to be contributed by the developing countries. With meat consumption expected to increase in the future, driven by higher consumption in India and China, demand for feed grains will rise which will be met through higher crop productivity.

Global arable land distribution skewed towards few countries: According to World Bank, total arable global land in 2014 stood at ~1416 million hectares, ~38% of which is cumulatively contributed by India (156 million hectares), USA (155 million hectares), Russian Federation (123 million hectares) and China (106 million hectares). In 2014, per capita land availability was highest for Australia at 2.00 hectares however it was very low for Russian Federation, USA, India and China and stood at 0.86, 0.49, 0.12 and 0.08hectares respectively. With limited as well as skewed arable land distribution, any increase in future production levels will be achieved through improvement in agriculture productivity in the countries with high land availability through number of measures viz. balanced fertilizer and pesticide usage, better quality seed usage, higher farm mechanisation etc.

Global cereal production dominated by China, USA, European Union and India: Global production of cereals is dominated by China, USA, European Union and India, with these regions together contributing to ~57% of the overall expected production during CY2018. While production of coarse grains (maize particularly) is dominated by USA (~29% expected in CY2018) followed by China (17%) and European Union (11%), wheat is primarily produced in European Union (19%) and China (18%). China also dominates the production of rice (28% expected in CY2018) followed by India (22%).

Outlook on global food consumption and production: According to FAO, demand growth for agriculture products is expected to slow considerably compare to the previous decade. The increase in demand for agricultural products over the previous decade was primarily driven by China and growth in biodiesel production. In China, income growth led to increase in food demand, their relevance is expected to diminish over the coming decade.

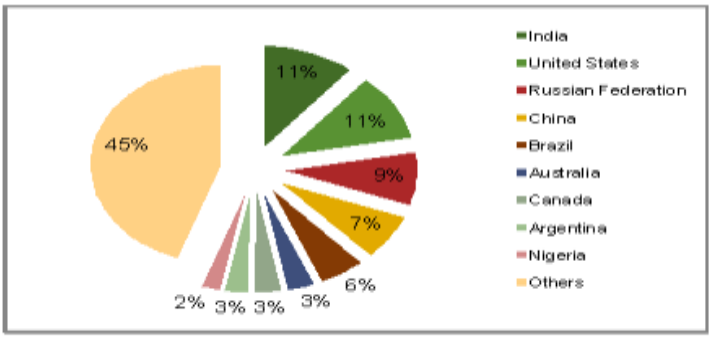

Exhibit 9 – Country-wise Arable Land (2014) Breakup
(Source: The World Bank, ICRA Analysis)

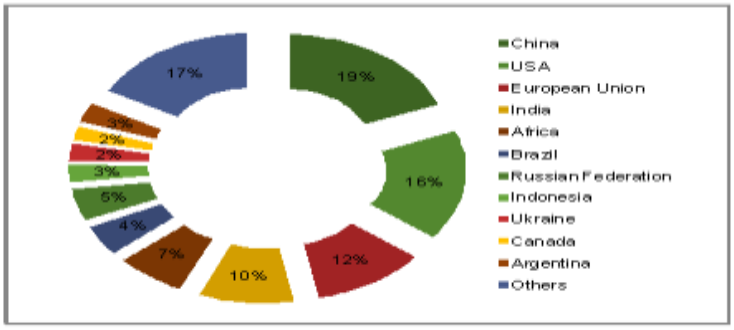

Exhibit 10 – Region-wise Global Cereal Production (FY17 Forecast)
(Source: FAO, ICRA Analysis)

Demand growth in China is slowing down, as income growth moderates and the propensity for households to spend additional income on food declines. Further, the evolution of biofuels markets is dependent on policies and crude oil prices, and hence harder to forecast based on demographic and economic trends. Global cereal production is estimated to grow by around 1% p.a., leading to a total increase of 11% for wheat, 14% for maize, 10% for other coarse grains, and 13% for rice by 2026. The bulk of the additional production over the forecasted period is expected to be generated through crop yield improvements. The increase in wheat production is expected to be achieved through higher yields, most notably in Asia and Pacific, which will account for ~46% of additional wheat production. Globally, India will account for the biggest increase in wheat production. Growth in rice production is expected to exclusively be driven by yield growth as the total area dedicated to rice is expected to increase by only 1% from the base period, while global yields of rice will increase by 12%. Major production gains are projected for India, besides other countries like Indonesia, Thailand etc (Source: OECD-FAO Outlook 2017-2026.)

Rise in production primarily driven by yield improvement: As can be seen from the Exhibit 11, crop yield has witnessed a healthy improvement over the last 30 years which has been the driving force of rise in global production levels over the period. Among the major producing countries, yield for USA has been the highest; it was least for India; however, the same offers a great opportunity to India to increase the cereal production levels through improvement in the yields with balanced fertilizers usage, efficient seeds, better water use efficiency etc. According to FAO, the three primary reasons contributing to the increased global crop production are 1) Increased yield per unit area (~75-78% contribution), 2) Increased cropland and rangeland area (15-17% contribution) and 3) Greater cropping intensity (5-8% contribution). Although it is difficult to determine, how much crop yield is the result of usage of commercial fertilizers, studies have been undertaken to compare yields of unfertilized crops with yields of crop treated with fertilizers. As per a study (Stewart et. al. 2005), 30-50% of crop yield can be attributed to commercial fertilizer input. As per the study, without the usage of N fertilizers, average yields in USA declined by 41%, 37%, 19% and 16% for maize, rice, barley and wheat respectively. According to the Sanborn Field study at the University of Missouri, N P and K fertilizer have contributed to almost 60% of the total yield of the crop. These studies indicate the importance of fertilizers in cereal productivity as it accounts for at least half of the crop yield.

Overview of the Indian Agriculture & Food Industry

Background: With only about 2.3% share in the world's total landmass and 4% of its water resources, India has to support about 17.5% of the world's human population and 15% of the livestock. Agriculture has played an important role in the economic development of India which is an agrarian society with ~15% of GVA and >55% of the population depending on it. In addition to providing the required food for the growing population of India, agriculture has provided income to rural areas as well as savings for investments, released labour for downstream industry and has increased demand for industrial goods. Agriculture's share in Indian economy has been significant, though the same has witnessed a declining trend as other sectors, particularly services, have grown considerably.

Robust growth in food-grain production: Despite a marginal increase in acreage (0.28% annual increase from 122.78 million hectares in 2001-02 to 128.03 million hectares in 2016-17), all India food grain production has increased by ~30% and at a CAGR of 1.73% from 212.9 million tonnes in 2001-02 to 275.1 million tonnes in 2016-17 driven by improvement in agriculture productivity. As per the first advance estimate (released in September 2018), the foodgrain production is expected to grow to 284 million tonnes in 2018-19. Rice and wheat are the primary food grain produced by the country with cumulative contribution hovering at ~75-80% over the period. India is the second largest producer of wheat and rice in the world and is the second largest producer and exporter of cotton in the world.

In terms of state-wise contribution, Uttar Pradesh, Punjab, Madhya Pradesh are the top three food grain producing states of the country and cumulatively contributed to ~40% of the total domestic production in 2017, increasing from ~38% in 2015. According to the Department of Industrial Policy and Promotion (DIPP), the Indian agricultural services and agricultural machinery sectors have cumulatively attracted foreign direct investment (FDI) equity inflow of about USD 2,565 million from April 2000 to December 2018. All India horticulture production has increased by ~108% and at a CAGR of 5.38% from 144.4 million tonnes in 2002-03 to 300.6 million tonnes in 2016-17 driven by higher

acreage (16.3 million hectare in 2002-03 to 25.11 million hectare in 2015-16) and better productivity (8.9 MT/Ha in 2002-03 to 12.0 MT/Ha in 2016-17). As per the first advance estimate, the horticulture production is expected to grow by 1.0% in 2018-19 given the uneven monsoon spread. The production mix is dominated by vegetables (58%-61%) and fruits (30%-32%). India's diverse climate ensures availability of all varieties of fresh fruits & vegetables. India is the second largest producer of fruits and vegetables after China. It is the largest producer of ginger and okra amongst vegetables and ranks second in the world in production of potatoes, onions, cauliflowers, brinjal, cabbages. Amongst fruits, the country is the largest producer of mango, papaya, lemon and banana. (Source: National Horticulture Board)

Human resources availability: India has a large labour force available to impart growth in the agriculture sector, as almost 69% of the total population resides in rural areas as compared to the global average of 49%. Around 32% of the total rural population is involved in agriculture work; 45% of which are cultivators and the rest being agricultural labourers with both cumulatively representing almost 55% of Indian work force. (Source: Registrar General of India) The share of cultivators is, however, declining over the last fifty years indicating the change in land tenure.

Huge land availability, though low on per capita basis: According to the World Bank, India has the largest area of arable and permanently cropped land in the world, estimated at 156 Mha in 2014 (~11% of the total land area), followed by the United States of America at 155 Mha. Being a highly populated country, land resources on a per capita basis in India stands at ~0.12 hectare (declined from 0.5 hectare in 1951) which is lower than the world average of ~0.20 hectare. Further, increasing urbanisation has resulted in a shift of land usage for non-agricultural purposes. So, due to the limited land availability coupled with the rising Indian population, higher aggregate production will be met through yield growth and improvement in crop intensity which can be achieved through more balanced usage of pesticides, fertilizers, high quality seeds, higher farm mechanisation etc.

Enhanced agriculture credit flows: The availability of cheap agriculture credit to farmers is one of the important drivers for improving agricultural production and productivity and mitigating farmer distress. Institutional credit available to the agri sector has grown at a healthy CAGR of 21.0% from FY2004 to FY2017 and provided financing options to the farmers at lower interest rates. To discourage distress sale of crops by farmers, the Indian Government has also provided interest subventions to small and marginal farmers having Kisan Credit Cards.

Irrigation coverage increasing, albeit at a very low pace: Indian agriculture is still heavily dependent on rainfall with 52% of the total land area used for foodgrains being irrigated. Further, distribution of irrigation across states is highly skewed. Though acreage (for foodgrains) under irrigation has increased over the last fifteen years, India faces high level of inefficiency in irrigation systems which is reliant on surface water sources (efficiency of 35-40%) as well as on ground water sources (efficiency of 65-75%). (Source: OECDFAO Agriculture Outlook). Water-use efficiency and productivity can be improved with increased focus on micro-irrigation systems like drips and sprinklers. The ultimate irrigation potential in the country is estimated at about 140 million hectares, out of which, about 58.5 million hectare is from major and medium irrigation sources while the remaining 81.5 million hectare is from minor irrigation sources (about 64.1 million hectare from groundwater irrigation and 17.4 million hectare from surface water). The central government, to complete the incomplete irrigation schemes, initiated the Accelerated Irrigation Benefit Programme (AIBP) under which Rs. 58,504 crore of central loan assistance/grant has been released up to 31 March 2017. Since its inception, ~297 projects have been funded by AIBP which has helped in creating an irrigation potential of ~24 lakh ha. Currently, work on about 99 projects identified under the AIBP program with an irrigation potential of ~76 lakh ha is underway across 18 states. However, the widening gap between irrigation potential created and that being utilized is required to be narrowed down in the near to medium term to make India less reliant on rainfall which has been highly fluctuating over the last few years.

Growing trade surplus: India has emerged as a leading agri-exporter with a trade surplus that has grown from Rs. 18,791 crore in FY2005 to Rs. 1,77,051 crore in FY2014. However, over the past three years (FY2015, FY2016 and FY2017), the trade surplus has dropped sharply to Rs.61,925 crore due to drought that lowered output of several agri export products like sugarcane, pulses, etc. as well as increased import of Products like edible oil where indigenous production remains comparatively lower. Additionally, anticipation of lower output and increase in prices of key agri-produce resulted in continuation of export restrictions and increase in import by the Government. Rice accounts for the bulk of the exports followed by meat, marine products, spices, cotton, etc. As per the World Trade Organization's (WTO) trade statistics, the share of India's agricultural exports and imports in world trade in 2015-16 was 2.1% and 1.8% respectively. Agricultural exports as a percentage of agricultural GDP increased from ~8-9% in FY2009 to ~13-14% in FY2014 before moderating to ~10-11% in FY2016. During the same period, agricultural imports as a percentage of agricultural GDP increased from ~3-4% to ~8-9% (Source: World Bank and WTO Statistics review).

Productivity growth key to increased production: With limited land availability, productivity growth has remained an important driver for India in achieving the growth in the foodgrain production. Although, India ranks first in productivity of grapes, banana, cassava, peas, and papaya, the productivity levels of Indian agriculture particularly in key food grains is way below global standards. According to The State of Indian Agricultural Report 2016-17, to improve the productivity, easy, economical and reliable access to key inputs such as, fertilizers,

pesticides, quality seeds, access to suitable technology tailored for specific needs, the presence of support infrastructure and innovative marketing systems to aggregate and market the output from large number of small holdings efficiently and effectively are necessary.

Agriculture Pricing Policy and MSP: The Government fixes the Minimum Support Prices (MSPs) of various agricultural crops on the recommendations of the Commission for Agricultural Costs & Prices (CACP), the views of concerned State Governments and Central Ministries/Departments as well as other factors considered relevant for fixing MSP. MSP was introduced to protect the agricultural producers against any sharp fall in farm prices. MSPs for the major food grains has been increased at a CAGR of 6- 11% over the last eight years to compensate for the rising cost of production as well as to incentivize farmers to increase the production as well as the productivity.

Government focus on driving farm incomes in the Union budget for FY2020 to aid agri-input sales: GoI's intent has been to double the farmer's income by the year 2022. In the current Union budget for FY2020, the government announced several initiatives to augment the farmer incomes and also alleviate the agri-stress currently prevalent. The government has also been working to towards structural reforms like issuance and acceptance of soil health cards, improving irrigation facilities etc.

Key Growth Drivers for the fertilizer demand

Growth in demand of food grains with increasing population and limited farmland availability: With only 2.3% share in world's total landmass, India has to ensure food security for 17.5% of world population. India has ~190 million hectares of gross cultivated area with limited scope of increasing the same in the future. Hence, improving the yield is critical to meet the growing demand for food-grains for the increasing population and hence, the demand of fertilizers would continue to grow going forward. Besides, other factors like higher meat consumption, increasing demand for more protein-rich diets and fruit and vegetables would further drive fertiliser demand.

Low productivity would drive the demand for fertilizers: Growing demand for food-grains, limited scope for increasing the cultivated area and low crop yield (as can be seen in the **Exhibit-29**), provide high potential for increase in the fertiliser consumption going forward. Although the fertiliser consumption (per hectare of arable land & land under permanent crops) which is higher than the world average as well as higher than nations like USA & Indonesia; the productivity is low for some of the major crops. As compared to China, the fertiliser consumption is very low, which may translate into higher usage of fertilisers in the future.

Rising MSPs of various crops: As farming is a risky business with the farmer's income dependent on the vagaries of weather and pests, as well as local and international price trends; the MSP mechanism shields farmers to an extent, from such risks, by guaranteeing a floor price for their produce. Rising MSPs of various crops boost the farmer's income and thus incentivizes the farmers to spend increasing amount on fertilizers and other agri-inputs like seeds, agrochemicals, etc. which in turn would have a positive rub off on companies in these segments.

Improving fertiliser use efficiency would drive the demand for NPK fertilizers: The per hectare consumption of P&K fertilisers in India is low vis-a-vis urea and vis-a-vis other countries due to historical, market and regulatory reasons. Historically, farmers have preferred urea in India due to lack of awareness as well as favourable urea pricing vis-a-vis other fertilisers on account of presence of domestic capacities. Nevertheless, in terms of soil fertility, Indian soil is moderately fertile w.r.t. phosphate nutrient and highly fertile w.r.t. potassium against low fertility in case of nitrogen nutrient. The proportion of usage of N:P:K nutrients improved to 4.3:2:1 in FY2010 from 7:2.7:1 in FY2001 due to a subsidy structure that led to affordable retail prices for P&K fertilisers vis-a-vis urea. However, post the implementation of nutrient based subsidy in FY2011, the subsidies remain capped and have largely followed a declining trend, while retail price continue to be significantly higher than urea prices. As a result of increase in retail prices the demand for P&K fertilisers has declined. Accordingly, the NPK usage ratio in FY2016 was estimated at 7.2:2.9:1. NPK usage ratio has improved to 6.8:2.7:1 in FY2017 due decline in retail price of P&K fertilisers during the year vis-a-vis urea. Nevertheless, the imbalanced usage of the fertilisers leads to lower average yield per hectare for cereal in India (2984 kg in 2014) vis-a-vis world average (3907 kg) and other countries (China 5886 kg, USA 7638 kg, Indonesia 5096 kg, Brazil 4640 kg). The yield and the soil fertility can be improved with scientific applications of fertilizers.

Global capacities and production: Overall, the global fertilizer sales in 2017-18 were estimated to be around 187 MMT nutrients, i.e. increase of 0.9% over 2016-17. The fertilizer demand was relatively static in Europe and East Asia, while modest growth prevailed in Latin America and Africa. The demand was subdued in North America, South Asia and West Asia. The demand is expected to grow by 0.9% CAGR 189 MMT in 2018-19 (Source: IFA). Globally the nitrogenous fertilisers production is widespread due to easy availability of key raw material, natural gas. Consequently, the global N fertilisers industry is less consolidated vis-a-vis the P&K fertilisers industry. India is the second largest producer and consumer of N fertilisers next to China. (Source: FAI)

Global urea prices have softened in last four years; near to medium term outlook remains subdued: Urea prices are a function of the input energy costs and demand. Urea prices have declined significantly over past four years owing to decline in energy prices and increase in Chinese supplies as coal prices declined significantly. Global urea prices have averaged around $250/MT for last five years (February 2014-February 2019) against $341/MT for the five-year period before (Jan 2009-Jan 2014).

China exerts significance influence on the global urea price dynamics as ~44% of the global urea capacity is based out of the country. Majority of the Chinese urea capacity is coal based and with decline in coal price since FY2012, cost of production for Chinese players has declined significantly. As a result, the share of Chinese exports in global urea exports has been on an upward trend since FY2012 rising from 16% of global urea trade in CY2012 to ~29% in CY2015 and downward pressure on urea prices. However, with recent crackdown of the Chinese government on polluting units, Chinese exports have declined in CY2018, which has provided some support to international urea prices recently. However, commissioning of capacities in low gas costs regions like U.S, Russia and Middle-East over next two-three years along with India looking at commissioning nearly 7-8 MMT of urea capacities in the next 3-4 years to achieve self sufficiency in urea production, the exportable surplus in the global markets will increase as urea consumption is expected to grow at a slower pace. Given these factors, ICRA research believes that urea prices will remain in the range of $240-$300/MT which would also be a reflection of expected supply increases over medium to long term.

DAP prices to be driven by Chinese supplies and Indian demand: Global prices have fluctuated significantly during the past decade. Prices had seen downward pressure in FY2014 owing to lower imports by India post implementation of the Nutrient Based Subsidy (NBS) scheme which led to significant increase in the retail price of phosphatic fertilisers vis-a-vis urea and thus leading to lower demand. International DAP prices have remained firm at levels near $400/MT over the last twelve months. The prices have witnessed upward bias driven by increase in raw material prices and lower global production due to lower operating rates in China, plant shutdowns in the US and slow ramp up of some new capacities. The prices however have started moderating in the YTD CY2019 so far and are expected to moderate given the weak demand for P&K fertilisers in India given the weak monsoon and low reservoir levels in the rabi season. While few capacity additions are planned in CY2019, no further capacity additions have been announced which should help in supporting the phosphatic prices in the medium term.

MOP prices have declined following collapse of BPC and higher supply vis-a-vis demand: Global sales and prices of potash have fluctuated over the past decade, with sales varying between 50-55 MMT in the last few years. The potash (MOP) supply is strongly concentrated as the mines are concentrated in specific regions – Canada, former CIS (Commonwealth of Independent States, primarily Russia and Belarus), Germany, Israel, Jordan, Chile, etc. Further, the suppliers have made marketing arrangements/cartels to ensure bargaining power. The industry had been largely organised, till 2013, as a duopoly between Belarusian Potash Company (BPC) and Canpotex (Canadian Potash Exporters), who had a market share of ~60-65% of the global production of potash. In July 2013, Uralkali pulled out of BPC, its marketing joint venture with Belaruskali accusing the latter of selling potash outside its marketing agreement. As BPC was the largest supplier in the international market, having a 35% market share in CY2012, the collapse of BPC, along with reduced demand from China and India, led to significantly lower prices of MOP, wherein the prices of MOP fell from US$ 393/ MT in July 2013 to US$ 305/ MT in July 2015. Since then potash prices have remained subdued and the Indian contract for the current season is at ~$290/MT. Going forward, ICRA research expects MOP prices to remain stable in FY2019and H1 FY2020 given the finalisation of the Chinese and Indian contracts and despite re-opening of the Canadian mines as global producers undertake output cuts. Possible revival of ties between Uralkali and Belaruskali may help in price recovery for MOP; however, any concrete development on this front remains to be seen.

Key Concerns:

- Agrochemical business is subject to extensive regulations, environmental and health and safety laws and regulations, which may subject KPR Agro to increased compliance costs.
- KPR Agro has high working capital requirements and if it is unable to secure financing for its working capital requirements, there may be an adverse effect on the business, growth prospects and results of operations.
- Any defect in KPR Agro products, may result in the company's manufacturing license being withdrawn and it could become liable to customers, suffer adverse publicity and incur substantial costs which in turn could adversely affect the value of its brand, and its sales could diminish if it is associated with negative publicity.
- KPR Agro does not own certain premises used by the Company such as depots, godowns and the premises where it operates its retail chain – Kisan Seva Kendras. Disruption of its rights as licensee/ lessee or termination of the agreements with its licensors/ lessors would adversely impact the operations and, consequently, its business.
- KPR Agro's pesticide business could be adversely affected by introduction of alternative pest management and crop protection measures such as bio technology products, pest resistant seeds or genetically modified crops.
- In addition to KPR Agro's existing indebtedness for its existing operations, it may require further indebtedness during the course of business
- KPR Agro operates in a competitive business environment. Competition from existing players and new entrants
- and consequent pricing pressures could have a material adverse effect on the business growth and prospects, financial condition and results of operations
- KPR Agro relies on third party and farmers for seed production of its Subsidiary and any discontinuation of services of such third party and farmers may affect the profitability.

- Any delays and/or defaults in payments from customers could result in increase of working capital investment and/or reduction of profits, thereby affecting company's operation and financial condition.
- KPR Agro primarily focuses on manufacturing of agri input products catering primarily to the agricultural industry, which is seasonal and cyclical in nature.
- KPR Agro is dependent on certain suppliers and do not currently have long term contracts or exclusive supply arrangements with any of suppliers for supply of raw material. Any major disruption in the timely and adequate supplies of raw materials or an increase in raw material costs or other input costs could adversely affect the business, results of operations and financial condition.
- Dependent on third party transportation providers for delivery of raw materials to KPR Agro from its suppliers and delivery of products to the customers and dealers/distributors. Any failure on part of such service providers to meet their obligations could have a material adverse effect on the business and results of operation.
- Changes in safety, health and environmental laws and regulations may require additional costs and as such this may adversely affect the results of operations and financial condition.
- Any change in the government policies vis-à-vis expenditure, subsidies and incentives etc. in agriculture sector or failure of farmers to realize expected prices for their crops could affect their ability to spend on agro input products, thereby affecting the business and profitability.
- Exposed to foreign currency exchange rate fluctuations, which may impact KPR Agro's results of operations and cause its results to fluctuate.
- KPR Agro have unsecured loans that may be recalled by the lenders at any time and it may not have adequate fund flows to make timely payments or at all.
- Business is dependent on manufacturing facilities and KPR Agro is subject to certain risks in its manufacturing process.
- The loss, shutdown or slowdown of operations at any of KPR Agro's manufacturing facilities or underutilization of its manufacturing capacities may have a material adverse effect on its results of operations.
- KPR Agro require certain approvals and licenses in the ordinary course of business and are required to comply with certain rules and regulations to operate its business, and the failure to obtain, retain and renew such approvals and licences or comply with such rules and regulations, and the failure to obtain or retain them in a timely manner or at all may adversely affect the operations.
- Sales and profitability could be harmed if KPR Agro is unable to maintain and further build brands.
- Currently, KPR Agro's operations and revenues are primarily concentrated in the southern regions of India and the inability to retain and grow its business in these regions and also growth in other regions/geographical areas of India may have an adverse effect on its business and prospects.
- Business is primarily dependent upon a continuing relationship with dealers/distributors for sales of the products.
- KPR Agro has experienced fluctuating operations / operating revenues and results thereof. If it continues to experience such fluctuations, it may face difficulties in executing its growth strategy which may affect its business prospects and financials.
- Pests may develop immunity to KPR Agro's products in the long term, which may adversely affect the business and results of operation.
- KPR Agro's failure to identify and understand evolving industry trends and preferences and develop new products to meet customers' demands may adversely affect the business.
- Success depends on senior management and ability to retain and attract technical personnel and various other professionals.
- KPR Agro is also dependent on contract labour at its manufacturing units. If it is unable to continue to hire skilled contract labour, the quality of its products being manufactured in its units can get affected.
- Inability to procure and/or maintain adequate insurance cover in connection with the business may adversely affect KPR Agro's operations and profitability.
- Failure to accurately forecast demand or any cancellation of orders could result in higher inventory, which could adversely affect the operations and profitability.
- Availability and cost of raw materials, power and fuel may adversely affect the business, financial condition, results of operations and prospects.
- Increases in interest rates may materially impact results of operations.

Profit & Loss **Rs in million**

Particulars	9MFY19	FY18	FY17	FY16
Revenue from operations	4825.3	5998.1	5837.4	5800.9
Other Income	7.4	10.1	69.6	13.2
Total Income	4832.8	6008.2	5907.0	5814.1
Total Expenditure	3958.0	4955.2	4882.0	4767.1
Cost of material consumed	3271.3	4064.4	2963.5	3792.9
Purchases of Stock-in-Trade	36.0	71.2	971.8	234.1
Changes in Inventories of finished goods, traded goods and work-inprogress	37.3	21.1	85.2	-140.6

Employee benefits expense	234.1	322.3	337.0	290.2
Other expenses	379.3	476.3	524.6	590.5
PBIDT	874.8	1053.0	1025.0	1047.0
Interest	367.5	466.9	550.1	508.7
PBDT	507.3	586.1	474.9	538.3
Depreciation and amortisation expense	150.8	207.7	199.0	175.5
PBT	356.5	378.4	276.0	362.8
Tax (incl. DT & FBT)	80.6	81.8	48.6	119.8
Current tax	102.3	77.5	59.3	96.2
MAT Credit	-25.3	-34.8	0.0	0.0
Deferred tax (net)	3.5	39.2	-10.7	23.6
Adj. PAT	275.9	296.5	227.4	243.1
EPS (Rs.) not annualised	3.23	3.5	2.7	2.8
Equity	854.6	854.6	854.6	854.6
Face Value	10.0	10.0	10.0	10.0
OPM (%)	18.0	17.4	16.4	17.8
PATM (%)	5.7	4.9	3.9	4.2

Balance Sheet: **Rs in million**

Particulars	9MFY19	FY18	FY17	FY16
Assets				
Non-Current Assets	**2737.0**	**2845.7**	**3070.9**	**3036.4**
Property, Plant and Equipment	2,163.53	2311.0	2458.3	2467.0
Capital work-in-progress	0.4	0.0	1.4	4.4
Goodwill	3.6	3.6	3.6	3.6
Other Intangible assets	0.4	0.5	0.6	0.6
Investments	0.0	0.0	105.4	105.4
Trade receivables	439.1	403.3	389.5	383.0
Loans	129.9	127.4	112.2	72.5
Current assets	**5620.9**	**5561.5**	**5663.0**	**5094.0**
Inventories	2905.3	2928.0	3237.9	2634.4
Trade receivables	2430.2	2356.2	2164.7	1988.7
Cash and cash equivalents	131.9	146.4	159.6	187.7
Loans	119.9	106.0	78.1	256.2
Other current assets	33.7	25.06	22.64	26.96
Total Assets	**8357.9**	**8407.3**	**8733.9**	**8130.3**
Equity & Liabilities				
Shareholders Funds	**2524.0**	**2248.1**	**1951.4**	**1723.5**
Equity Share Capital	854.6	854.6	854.6	854.6
Other Equity	1669.4	1393.4	1096.8	868.9
Non-Current Liabilities	**997.4**	**1177.2**	**854.1**	**1014.0**
Borrowings	618.4	803.8	520.7	672.1
Provisions	16.8	14.6	13.9	11.8
Deferred tax liabilities (Net)	362.3	358.7	319.5	330.2
Current Liabilities	**4836.5**	**4982.0**	**5928.3**	**5392.8**
Borrowings	2344.5	2520.7	2712.2	2588.2
Trade payables	1851.1	1838.6	2741.8	2042.1
Other current liabilities	408.8	479.4	371.3	596.2
Provisions	232.1	143.4	103.0	166.4
Total Equity & Liabilities	**8357.9**	**8407.3**	**8733.9**	**8130.3**

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