Sulphur supply and demand outlook
Fertilizer Technology and Outlook Conference, Hyatt Regency, Jacksonville, Florida, USA

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  ◦ Energy
  ◦ Fertilizers
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• Indexation examples
  ◦ US crude oil
  ◦ US and European refined products
  ◦ US and European natural gas
  ◦ NGLs
  ◦ US and European environmental markets
Agenda

- Supply and demand overview
- 2018, another unexpected year
- Near term production and demand
- Regional focus
- Beyond 2019
- Key takeaways
Supply and demand overview
Elemental sulphur production

2018
- Oil based 47 pc
- Gas based 47 pc
- Oilsands based 4 pc
- Other including Frasch mined 2 pc

2020
- Oil based 48 pc
- Gas based 46 pc
- Oilsands based 4 pc
- Other including Frasch mined 2 pc

Source: Argus Analytics
Sulphur consumption for fertilizers

2018

2020

Source: Argus Analytics

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2108

Another unexpected year
East of Suez, $/t

Drop continuing post November 2017 spike in all global sulphur markets
Low levels of spot activity keep prices stagnant
Chinese end-users start returning to the market post New Year
Golden Week holiday and high cfr offers remove buyers
Weak sentiment impacts both prices

Spot prices start their steady and continuous climb
Muntajat tender award keeps fob stable
Slight softening continues driven by sentiment

Source: Argus Sulphur
illuminating the markets
West of Suez, $/t

Price drops from 2017 highs came but at a slight lag as liquidity was thin.

Low levels of liquidity persisted in the US Gulf because of maintenance.

Price movements in step as only Copebras active in spot market.

Global market trend of flat pricing as 3Q negotiations commence.

Supply/demand balance and global movements firm US Gulf prices.

Three spot purchases and contract conclusions firm spot price.

Lack of liquidity in both markets holding prices steady.

Spot prices soften on concluded business.

Source: Argus Sulphur

illuminating the markets

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Near term supply and demand
Regional demand, mn t

Source: Argus Analytics

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Demand highlights
Changes in supply to China

USA tariffs
• Removes up to 300,000t/yr from the supply chain

Iranian sanctions
• Chartering difficulties and freight increases
• Limited financing for sulphur purchases

Middle East supply
• Sulphur producers shifting supply focus
Regional production, mn t

Source: Argus Analytics

illuminating the markets
Production highlights
Regional focus
Increasing liquidity in the Baltic Sea, t

Sources: GTT, Russian rail

Russia Exports
Kazakhstan exports
Poland Exports

Rail deliveries to Baltic Sea
Rail deliveries to Black Sea

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• Production to increase from 13.5 mn t in 2017 to 17.9 mn t in 2021
• Winter weather limitations are a factor
• Stocks are estimated at 6mn t in 2017, growing to 9.6mn t in 2021
• Effective supply will always be approx 1mn t under production capacity

Source: Argus Analytics
illuminating the markets
Morocco imports, '000t

Source: GTT

illuminating the markets

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Between 2017-2021 Jorf Phosphate Hub demand increases by 828,000t

UAE to continue to hold position as number one supply market because of December agreement

Question around the return of Russia as a key contributor to the Moroccan supply chain

Source: Argus Analytics

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Beyond 2019
2020-2025 global production, mn t

- Kuwaiti and Qatari increase market share
- Eastern European production holds steady
- Chinese production to boost Asia’s supply position
- North America to become third biggest sulphur producing region
• China demand increase could be offset by domestic supply
• Saudi demand to lead Middle East increases
• Africa to see the biggest of regional demand increases
• USA demand diminishing slightly, along with West Europe
Key takeaways
Key takeaways

**Supply**
- More of the yellow stuff is coming, but delays and unexpected outages are a constant

**Demand**
- New demand is coming but limited to a few regions

**Trade**
- Term contract demand diverting tonnes from the spot market
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