

## Fertilizers – An in-depth introduction

### Module 1 (3 hours and 10 minutes)

10 minutes

**Welcome and introduction to the course**

45 minutes

**Understanding agriculture, soil, and crop science**

- Basics of agriculture: What the industry needs to know
- Insight into different types of soil and crop seasonality across the globe
- Types of crops and their applications
- Future trends in the agriculture sector

15 minutes

**Break**

1 hour

**Ammonia**

- Introduction to the value chain
- Production and trade
- Factors influencing the international market and prices:
  - Billions of dollars are being poured into blue and green ammonia projects worldwide as part of an international decarbonisation drive, but where and why?
  - Designated as the vector for hydrogen transportation, ammonia has a crucial role to play in the battle against climate change
  - The race to develop ammonia-fuelled marine vessels is well underway, but what will this mean for the industry, how much extra capacity might be needed by 2050?

1 hour

**LNG market overview**

- Insight into global LNG production
- Understanding trading dynamics within the LNG industry
- Factors influencing changes in market and prices: What it means for the fertilizers business
- Emerging trends in the LNG market

### Module 2 (2 hours and 15 minutes)

30 minutes

**Potash**

- Introduction to the value chain
- Supply and major producing countries
- Factors influencing the international market and prices:
  - Global potash market: A "big-three" producer-led industry
  - How smaller projects might redefine trade flows
  - Belarusian sanctions – and their effects on future supply and demand balance
- Future trends: What lies ahead?

**15 minutes**                      **Break**

**1 hour & 15 minutes Urea and other nitrogen products**

- Introduction to the value chain
- Urea production and trade flows
- Factors influencing the international market and prices
  - How will the global urea market be impacted by emission cuts?
  - Insight into new capacity in West Africa
  - India's buying pattern in 2021 and its impact on the global market
- Future trends: What lies ahead?

**15 minutes**                      **Nitrates**

**15 minutes**                      **Summary and conclusion**

**Module 3 (2 hours and 45 minutes)**

**1 hour & 15 minutes Sulphur and sulphuric acid**

- Introduction to the value chain
- Production and trade, main players
- Factors influencing the international market and prices:
  - The difference between smelter and burner acid
  - How exposed is the global sulphuric acid market to trends in related industries?
  - Could China become a global superpower in acid?
- Future trends: What lies ahead?

**15 minutes**                      **Break**

**45 minutes**                      **Phosphate products**

- Introduction to the value chain
- Phosphate products described
- Factors influencing the international market and prices:
  - Affordability of phosphates in India with high raw material prices and the role of the domestic maximum retail price (MRP)
  - US import duties on Russian and Moroccan phosphates and how they will affect availability in North America
  - Sufficiency of global phosphates supply from China and production ramp-ups in other regions
- Future trends: What lies ahead?

**15 minutes**                      **Summary and conclusion**