



AFA SEMINAR

Advanced Fertilizer Technology and Lessons Learning



Lugano, Switzerland
24-26 June 2019



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Arab Fertilizers Association (**AFA**) is pleased to announce the seminar on **Advanced Fertilizer Technology and Lessons Learning**. will take place in **Lugano, Switzerland**, during the period: 24-26 June, 2019 with cooperation with CASALE

ADVANCED FERTILIZER

Technology and Lessons Learning

Objective : 3 Days of Comprehensive seminar will provide practical insights with focus on process troubleshooting, operations, performance improvements in Nitrogen and NPK plants to improve operation monitoring, Maintenance, reliability & Safety



THE SEMINAR PROGRAM IS IDEAL FOR :

personnel working in different areas of the fertilizer industry, such as :

- ✓ Industry Leaders in Fertilizer Industry
- ✓ Top Management and Managerial level
- ✓ Operation, Maintenance, Planning, HSE Engineers and Supervisors
- ✓ Specialized Design and Engineering
- ✓ Other stakeholders in the operation & Maintenance Function

SEMINAR TOPICS

- An introduction of today's Casale and its comprehensive range of services, processes and products available
- Casale Processes for solid fertilizers: a review on granulation, prilling and fattening - Part A: Urea
- Casale Processes for Solid fertilizers production: a review on granulation, prill, fattening - PART B: nitrates, phosphates and complex fertilizers
- Integrated complexes for the production of ammonia, urea, nitric acid and solid fertilizers
- A review of the extensive portfolio of technologies, schemes and options available to revamp ammonia and urea plants

- Casale Total Life Cycle approach: services and products to extend the operating life of key equipment
- Casale NDT services for urea HP equipment, ammonia cartridge refurbishment, pulsation analysis, UREMIUM duplex steel for urea service and others
- A review of Casale activity in the Arab world
- Metafrax's Ammonia-Urea-Melamine project. An example of product differentiation
- IFFCO's 8 urea and 5 ammonia plants combined revamping



SEMINAR TOPICS

- Azomures's two ammonia plants EPC revamping project :
lessons learned from the revamping of 2 vintage MW Kellogg plants
- Replacing vintage HP equipment in ammonia and urea plants a review of successful cases
- Casale Digital products :
An overview of Casale's new digital products ready to hit the market, including the Raman urea analyzer, gauze temperature meter and other products

GENERAL PROGRAM

24th, June, 2019

- Technical Program



25th, June, 2019

- Technical Program



26th, June, 2019

- Technical Program
- Visit to
Paul Scherrer Institut

PSI, is the largest research institute for natural & engineering sciences within Switzerland.

THAT TOOK A GREAT DEAL OF COURAGE.

In 1921 Luigi Casale founded the company that still bears his name to sell his process for manufacturing ammonia. In doing so, he broke BASF's previous monopoly in ammonia production and unleashed a frenzy of ammonia plant construction in the traditional industrial countries.

The ammonia industry was in its infancy. Synthesising ammonia required a quantum leap in technology, using combinations of pressure and temperature that were far outside the chemical industry's contemporary experience. New equipment designs were needed to withstand those high pressures, new machinery to produce them, and new catalysts to make the reactions go faster. Casale came up with them all. And he was so confident in the integrity of his process – in other words, that he had got everything right – that he and his backers were prepared to shoulder the responsibilities entailed in licensing it to the world at large. It paid off. A cool 200 ammonia plants were built using the original Casale process. And the Casale methanol process, which followed shortly after, dominated that industry for 45 years.

That spirit of innovation and enterprise is as alive as ever in today's Casale.

After some decades of specialising in improving the performance of ammonia, urea and methanol plants built by competitors, Casale has brought together the ingenious new technologies that it developed for updating their critical stages and its huge amount of accumulated experience to create complete process schemes for these products that can rival or even outperform any competing process in terms of efficiency, economy, reliability and safety.

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Most recently, Casale has complemented its technology portfolio by acquiring Borealis's melamine process and all its fertilizer processes and know-how (nitric acid, ammonium nitrate, phosphates and granular fertilizers). It has also added to its already substantial fund of experience and know-how in all stages of project management by acquiring the highly experienced contractor Chemoproject Nitrogen, which has been rebranded as Casale Project to underline the common drive toward achieving a greater scale, as a combined entity with a shared vision, in view of delivering a better and wider service to the our customers.

Few organizations can provide all the necessary technology for a complete fertilizer complex and also take charge of every other stage in the execution of the project, right through to commissioning. Thanks to its experience, diligence and enterprise, Casale can – convincingly. And that can save customers a lot of the trouble and expense involved in keeping a project on course when responsibility is divided between several parties.

This workshop will introduce you to Casale's state-of-the-art technologies and provide insight into the company's philosophy and policies for delivering excellence in all its projects.