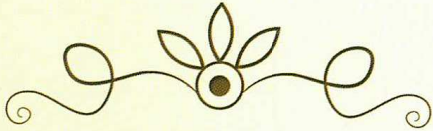


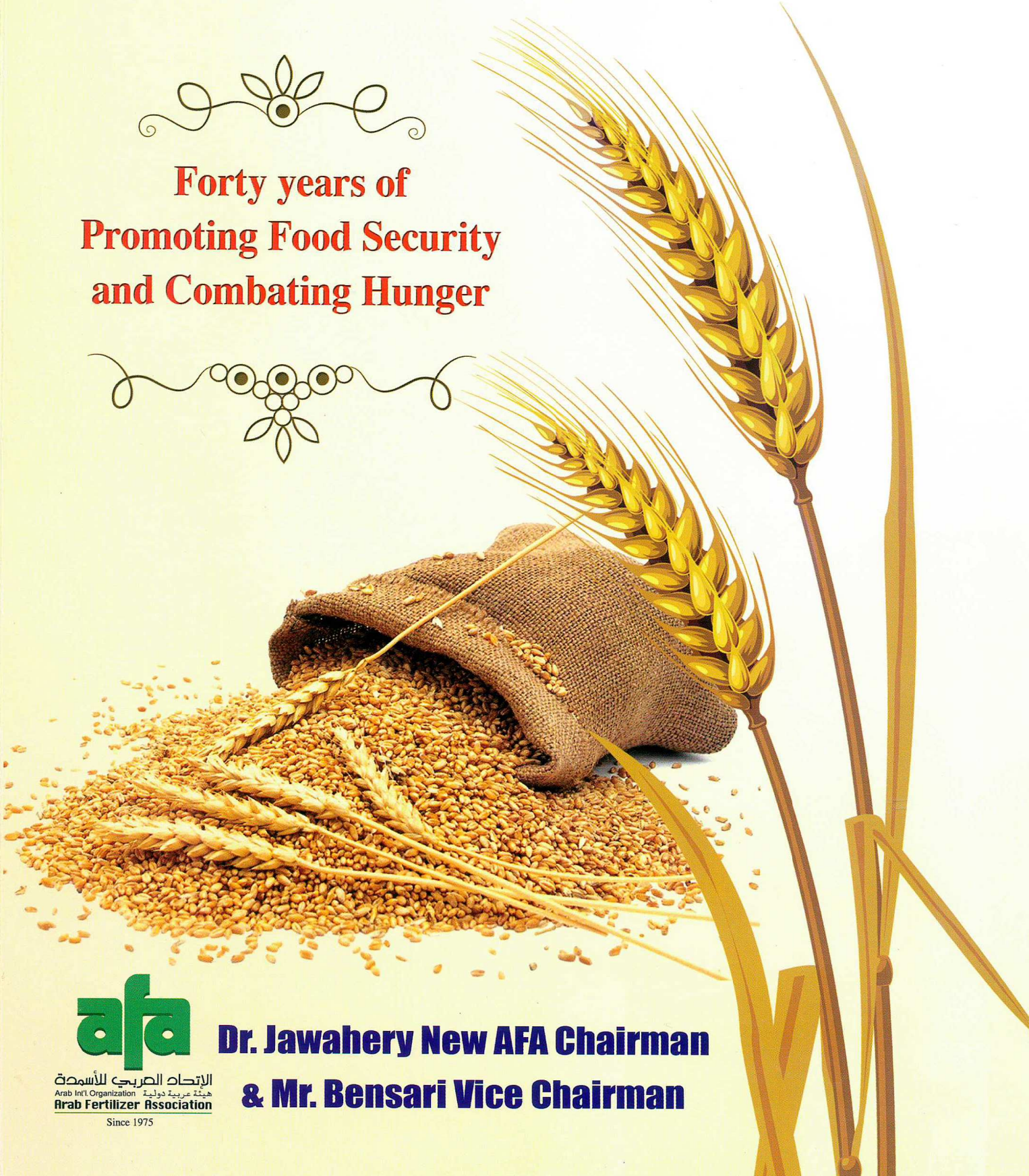
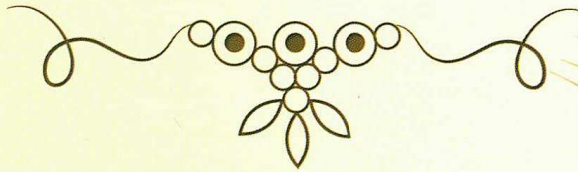
Arab Fertilizer

Welcome to the
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Forty years of
Promoting Food Security
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QAFCO INITIATES PILOT PLANT FOR PRODUCT DIVERSIFICATION

QAFCO contracts NIIK to install a new High Speed Drum Granulation unit to produce value added urea as well as fertiliser compounds.

Doha: QAFCO and NIIK (a Russian engineering and technology company specialized in urea) signed a contract for design and supply of a pilot High Speed Drum Granulation unit (HSDG) to produce various value added urea products in Qatar.

Mr. Khalifa A Al Sowaidi, QAFCO CEO; signed on behalf of QAFCO and Mr. Igor Esin, President and CEO NIIK signed on behalf of NIIK. The ceremony was attended by Mr. Ivan De Witte, Chief Operations Officer, QAFCO; Mr. Hamed Al Marwani, Chief Administration Officer, QAFCO; and Ms. Natalia Kargaeva, Head of International Affairs Department from NIIK (R&D Institute of Urea), Russia.

Construction activities in the pilot plant are expected to start middle of next year and the plant is expected to start production by end of next year.

The high speed drum granulation pilot unit, with a capacity of 2.4 ton per day, will allow QAFCO to develop various urea based products by adding sulphur, ammonium sulphate and a diverse range of other micronutrients. The first of its kind pilot unit is a first step to develop higher value urea based fertiliser utilizing the efficient asset base of QAFCO as largest single site urea producer, as well as utilizing the abundant sulphur available in QATAR.

Based on the experience from the pilot unit, actual larger capacity units for producing the specialty urea will be installed. By implementing that, part of the large quantity of Sulphur available and now exported from Qatar will be utilized inside Qatar for producing value added product.

The HSDG can be used to diversify the range of fertilizers offered; depending on market requirements the producer can decide what fertilizer is best suited to satisfy market demand and has a higher added value, and can adjust the HSDG accordingly for production of a particular fertilizer blend. The range of applications for the HSDG technology is quasi infinite.

QAFCO CEO Mr. Khalifa Al-Sowaidi said "The signing of this agreement to set up High Speed Drum Granulation Unit by QAFCO comes in line with QAFCO strategy to diversify away from commodity urea and the fact that QAFCO since its inception has taken upon itself the task of drawing up an ambitious future vision to ensure further development of the company in view of the reality that QAFCO accords particular importance to its capability for responsiveness to the market needs; meeting the expectations of the shareholders; and contributing tangibly to the development of the national economy". Mr. Khalifa added "The initiative is a response to the changing dynamics of global agriculture where the focus is on improved land use based on balanced fertilization to allow increase of yields and lessening the environmental impact".

"Successful operation of the pilot HSDG will be a step to a commercial-scale one", according to QAFCO's CEO Khalifa Al-Sowaidi. Food security makes farmers think how they use their land, and experienced and reliable fertilizer producers like QAFCO take care of global agriculture sustainable development. "This pilot unit and the prospect of producing higher value urea based fertilizers is unique not only in the Middle East, but even globally, and QAFCO is committed to utilize its resources to develop better fertilizers with higher crop yields and lower overall im-



pact on the environment."

Technical and economic advantages

The High Speed Drum Granulation Unit offers whole lot of advantages over the current technology used in various plants manufacturing compound fertilizers. The plant occupies smaller footprint area at the same capacity due to intensification of the process. This easy to install unit offers low capital and operational cost as well as flexibility.

The main item of the new facility will be High Speed Drum Granulation unit, it is smaller in size compared to a normal drum granulation unit, and therefore it saves energy. The other items in this unit will be coolers, screens, scrubbers, storage bins for raw material and final product.

The pilot High Speed Drum Granulation Unit designed and developed by The R&D Institute of Urea, and which is based on a similar plant designed and tested by NIIK at their facilities, will allow to refine the technology and to produce batches of fertilizers for field trials. The HSDG is used to produce granulated urea and produce compound fertilizers like ammonium sulphate, and other urea based fertilizers (Urea+ fertilizers), compounds.

From economic perspective, sulphur - one of the vital nutrients for plants as it is a component of numerous protein enzymes that regulate photosynthesis and ni-



NIK (R&D Institute of Urea), Russia

Signing Ceremony of Agreement
of Establishing High Speed Drum
Granulation Pilot Plant
23 October 2014 - Doha



شركة قطر للأسمدة
QAFCO
QATAR FERTILISER COMPANY

حفل توقيع اتفاقية إنشاء
وحدة تصنيع لإنتاج الأسمدة المركبة
٢٣ أكتوبر ٢٠١٤ - الدوحة



nitrogen fixation- is a by-product of petrochemical industry, abundantly available in Qatar and easily accessible to allow for incorporation of the nutrient into urea, will allow it to diversify into compound fertilisers based on the combinations of Urea & Sulphur and Urea & Ammonium Sulfate, a commodity fertilizer sold in large quantities all over the world.

Besides, Urea+Sulfur and Urea + Ammonium Sulfate, produced in the HSDG, have properties (strength and shape) similar to those produced by fluid-bed granulation technology. This will allow the products of the HSDG unit to be stored over long periods and delivered over long distances. They are rather slowly dissolved when they are applied in soil while gradually releasing their nutrients, to support for plant growth. They avoid wastage of nutrient N to atmosphere and soil increasing Nitrogen use efficiency. High nitrogen use efficiency not only leads to financial gain to the farmers, it also avoids environmental problems by avoiding Nitrate leaching to water bodies. They decrease the risk of fertilizer burn associated with heavy applications of conventional fertilizers. They can be used in alkaline soil

It is worth to mention that, in its development course, QAFCO has followed a motivated strategy to responding adequately to the world market demand. In addition to boosting its fertiliser production, QAFCO has taken

further steps in the product diversifying direction and ventured into new product areas and joint investments, including the production of urea formaldehyde and melamine. In 2003 QAFCO established the Gulf Formaldehyde Company (GFC) as a private Shareholding company. The company is engaged in the production and sale of Urea Formaldehyde Concentrate ("UFC") which is an anti-caking agent vital to urea production. Gulf Formaldehyde Company now own 2 Formaldehyde plants with 60,000 MT annual production capacity. Another step in the product diversifying direction is the establishing of Qatar Melamine Company in 2006 to produce and sell melamine. The Qatar Melamine Company plant is the largest melamine plant in the Middle East and one of the largest melamine plants in the world with a production capacity of 60,000 MT per year i:e 5% of the world melamine consumption.

About QAFCO

QAFCO is a key world producer and exporter of ammonia and urea based fertilizer. QAFCO was founded in 1969, Since then QAFCO has steered its way successfully and steadily developed over the years.

QAFCO complex comprises 6 Ammonia and 6 Urea completely integrated trains; In addition to a Melamine plant and 2 Urea Formaldehyde plants. With an annual production capacity of 3.8 million

MT of ammonia and over 5.6 million MT of urea, QAFCO is now the world's largest single-site producer of ammonia & urea and the world's fourth largest urea producer. This enabled Qatar to be a key player in the global fertilizer market and the largest exporter of urea in the world with about 15% share of the world urea supply.

QAFCO production capacity of Melamine is 60,000 MT and 60,000 MT of Urea Formaldehyde per annum.

Currently, QAFCO products are exported to more than 45 nations across the globe.

QAFCO boasts three ISO Certifications: ISO 9001: 2000, ISO 14001: 2004. and OHSAS 18001 standards. QAFCO also achieved certifications in RC 14001 and the IFA Product Stewardship Certificate of Excellence. With these certifications, QAFCO enjoys the prestige of being a globally recognized manufacturer in the chemical process industry

About NIIK

NIIK is a leading engineering company in FSU countries founded in 1952. NIIK was involved in construction and revamps of all almost all the urea plants in FSU. At present NIIK keeps the leadership as a Russian engineering company. NIIK has been involved in construction and upgrading of more than 100 chemical plants in Russia, Ukraine, Belarus, Lithuania, Estonia, Algeria etc.

As an engineering company NIIK is involved in all the stages of the project: feasibility study, adaptation of foreign licensors' detailed design package, equipment procurement, NIIK is an EPC contractor for OSBL and has expertise in performing engineering services for both urea and ammonia plants and also for other chemical plants.

As technological company NIIK is a licensor for its own urea technologies and for urea-based fortified fertilizers produced by High-Speed Drum Granulation technology.