

Council Meeting Sets Positive Tone for Fertilizer Industry's Challenging Year

Despite a cautious outlook for the fertilizer market in the next twelve months, an upbeat atmosphere marked the 30th IFA Enlarged Council Meeting, held in Santiago, Chile, from 1 to 3 December 2004. In the much anticipated short-term forecasts, the Secretariat told members that low prices for wheat, maize, soybean and cot-

ton are likely to depress fertilizer demand in the coming year. The El Niño phenomenon raises questions for the southern hemisphere, whereas a buoyant rice market should support Asian demand for crop nutrients. If the slowdown is not too sharp, the supply/demand balance should remain fairly even, as the market for most products has

been relatively tight over the past year. That being said, several urea projects are expected to come onstream in 2005, thus adding to the nitrogen surplus.

Spirits were high at the opening of the meeting. Many participants had taken part in the whirlwind

AtaQama Tour 2004, which was kindly hosted by SQM, IFA's largest member in Chile. In the two days preceding the Enlarged Council Meeting, industry representatives were whisked across northern Chile to visit SQM's Atacama salt flats production facilities, test the company's nitrate rail transport and see the port of Tocopilla, from which many of SQM's products are shipped.

IFA members gained further insight into Chile's place in the global industry through two high-level presentations graciously arranged by SQM.

Continued on page 2



IFA / K. Sukalac

Purified potassium salts are obtained through evaporation from naturally occurring brines before final processing.

Participants wait to board the SQM Nitrates Train during the AtaQama Tour.



IFA / K. Sukalac

Fertilizer Industry's Environmental Commitment Highlighted at Climate Change Talks

The fertilizer industry has been successful in reducing greenhouse gas emissions resulting from its activities. It has also been proactive in promoting best agricultural practices to reduce direct emissions from croplands. The International Fertilizer Industry Association (IFA) presented this message to government delegations and other key stakeholders at the tenth Conference of the Parties (COP-10) to the United Nations Framework Convention on Climate Change (UNFCCC).

The UN meeting in Buenos Aires, which took place from 6 to 17 December 2004, marked the tenth anniversary of the historic climate change agreement. The usual detailed COP negoti-

ations were punctuated by events celebrating the progress made so far in addressing this key sustainability challenge.

During an event organized by the International Chamber of Commerce, IFA—represented by Kristen E. Sukalac, Head of Information and Communications—explained that the industry's energy use and emissions intensity have declined dramatically in recent decades. She also emphasized the industry's dedication to the stewardship of its products throughout their life cycles.

Analyses of fertilizer production and use show that far more energy and greenhouse gas emissions are captured through the increased growth made possible by the crop nutrients in our



IFA / R. Renne

K. Sukalac presents the fertilizer industry's experiences to COP-10 participants.

industry's products than are produced during their manufacture, transport and application combined. Nonetheless, the industry is committed to promoting appropriate site-specific agricultural practices to make this equation as positive as possible.

Continued on page 12



INSIDE

pages 2-3

- Key Nitrogen Message Released
- Fertilizer Life-Cycle Study is Positive
- IFA Positions Industry for the 21st Century

pages 4-5

- focus on**
- International Potash Institute

pages 6-7

- information resources**

pages 8-9

- highlights from IFA**
- Nitrogen and Phosphate Workshops Announced
- Successful PIT Conference in Dubai
- Crop Nutrition Award Reminder

pages 10

- word: Association**
- Choosing Our Words Carefully
- IFA Regional Conference
- IFA 2005 Annual Conference

pages 11

- events**

The International Fertilizer Industry Association is pleased to offer you its best wishes for the New Year. This year's online message can be viewed on the IFA web site at www.fertilizer.org.

In 2004 IFA published three issues of *Fertilizers & Agriculture*, in January, May and September.

Continued from page 1



IFA President John Van Brunt with Hernán Büchi

Hernán Büchi Buc, former Chilean finance minister and internationally known economic consultant, presented an overview of the Chilean economy in the context of persistent global upheaval. His perspective on the recovery of the “Latin Tiger” was largely positive, although he cautioned that Chile’s peak growth levels are unlikely to return in the foreseeable future.



Jorge Molina

Jorge Molina, Governor of the Antofagasta Region, explained the economic issues facing this region, where Chile’s mineral wealth and mining operations, including SQM’s own facilities, are found. With the world’s largest reserves of natural nitrates, lithium and copper, as well as the second largest deposits of iodine and molybdenum, the “Second Region” accounts for about one-third of Chile’s exports.

The keynote speaker, Ross Welch, a plant physiologist for the Agricultural Research Service of the United States Department of Agriculture (USDA), outlined the potential to increase human well-being by addressing micronutrient deficiencies through crop nutrition. Selenium and zinc have already been added to human diets through crop nutrition, but other nutrients may be more difficult to provide in this manner.

The bulk of the Enlarged Council Meeting was dedicated to reports from IFA’s Regional Vice Presidents on the situation in their respective regions. These presentations give an insider’s view of industry developments and are a valuable complement to the Secretariat’s analyses. ●

Nitrogen Declaration Calls on Policymakers to Balance Benefits Against Environmental Impacts

On the last day of the Third International Nitrogen Conference, participants adopted the “Nanjing Declaration” urging policymakers to maximize the benefits of nitrogen use and minimize the adverse effects of N losses to the environment. The wording is a compromise among all the parties in attendance. The declaration will be presented to the Executive Director of the United Nations Environment Programme (UNEP). It is likely to be submitted to the February 2005 meeting of UNEP’s Governing Council.

Attended by almost 300 delegates from all over the world, the conference was held in Nanjing, China, from 12 to 16 October. Most participants were agricultural or environmental scientists. The fertilizer industry was also well represented, with some ten delegates, including representatives from IFA, the Potash and Phosphate Institute (PPI) and The Fertilizer Institute (TFI).

The conference addressed a wide range of topics related to the importance of nitrogen in food production and the adverse effects of nitrogen losses to the environment from agricultural, industrial or urban sources. The conference programme, abstracts of the presentations and the list of participants can be found on the internet at www.issas.ac.cn/n2004.

IFA Provides Nitrogen Outlook for Scientific Deliberations

During the Third International Nitrogen Conference, Michel Prud’homme, Executive Secretary of IFA’s Production and

International Trade Committee, presented a “Global Nitrogen Fertilizer Supply and Demand Outlook”. His paper provided a brief overview of the world nitrogen fertilizer demand, highlighted global and regional trends for production capacity and offered a medium-term perspective for the global nitrogen supply/demand balance.

Scientists gathered at this key forum were told that global N fertilizer demand is projected to expand at an annual rate of 1.7 per cent in the medium term, reaching 95 Mt N in 2008. Urea-based products will capture most of the increase in the demand for nitrogen fertilizers. No shortage of urea is foreseen in the near term. The global supply of urea is projected to increase at a faster rate than demand. With the exception of China, most new projects are located in the gas-rich countries of West Asia and are dedicated to export markets. The urea supply/demand balance for the period 2004 to 2008 indicates a growing surplus, which could eventually decline if further rationalization takes place and if industrial uses, such as clean fuel technologies, expand.

The regional supply/demand balances for ammonia and derived products show an increasing deficit in key consuming regions. West Asia will dominate global urea trade by 2008.

See also Publications section: *The Second International Nitrogen Conference Proceedings are available.* ●



Members of the Science and Policy Committee of the Third International Nitrogen Conference gather for a “family photo”

New Life-Cycle Study: Fertilizers Protect the Environment

By Frank Brentrup, Yara International

Arable farming at very low production intensity is not environmentally favourable. Yara's agronomic researchers investigated nitrogen fertilizer use in wheat production from an environmental perspective.

An optimum supply of crop nutrients is economically desirable, whether these nutrients come from mineral or organic sources. This principle has been part of good agricultural practice for decades. It is also accepted wisdom that fertilizer application rates should be adjusted to crop demand for environmental reasons. What may surprise some people, however, is that in a new life-cycle assessment (LCA) study comparing wheat production at different nitrogen fertilization intensities, arable production without the use of nitrogen fertilizer is actually shown to be environmentally harmful.

What is life-cycle assessment (LCA)?

LCA is a standardized methodology (ISO 14040ff) for investigating and evaluating the total environmental impact of products, processes or services, taking into account the entire life cycle—including extraction of raw materials and production, use and disposal. The environmental impact of agricultural products can be assessed using LCA. Agriculture, particularly arable farming, has particular environmental impacts such as diffuse, infield nutrient losses (e.g. nitrate leaching or ammonia volatilization) and the extensive, long-term conversion of wilderness to cultivated land. To consider all the relevant environmental impacts associated with arable farming, Yara recently developed an LCA method adapted to arable crop production.

LCA of fertilizer use in wheat production

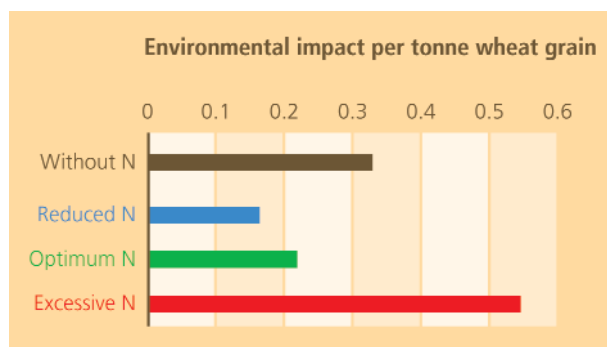
Based on a long-term field trial (the Broadbalk Experiment at Rothamsted Research in the United Kingdom), scientists com-

pared production of winter wheat at four different rates of nitrogen (N) use: without N fertilizer, at an economically optimal N rate, at half of the optimal rate and at 50 per cent above the optimal rate.

It is often assumed that arable farming without the use of fertilizers is best for the environment. But this assumption was not confirmed by the LCA study. Instead, it showed that the economically optimal N rate has environmental effects almost as low as those of economically suboptimal N fertilizer application. In contrast, the environmental burden per tonne of grain clearly increases when no N fertilizer is applied and when the N fertilizer rate is well above the economically advised level.

The overall environmental impact includes contributions to global warming, acidification, eutrophication and land use. A peer-reviewed account of the LCA study has appeared in the European Journal of Agronomy.

It is often assumed that arable farming without the use of fertilizer is best for the environment. This assumption was not confirmed by the LCA study.



Combined environmental impact per tonne of grain for four N application rates

Contact

Frank Brentrup
YARA International
Centre for Plant Nutrition Hanninghof
Hanninghof 35
D-48249 Dülmen
Germany
Tel: +49 2594 798 137
Fax: +49 2594 7455
frank.brentrup@yara.com
www.yara.com

IFA Positions Fertilizer Industry for 21st Century



Ross Welch

Long considered a provider of "old-fashioned" commodity products, the image of the fertilizer industry is receiving a makeover as a result of IFA's refreshed agricultural work programme. The Association began to monitor the link between agricultural biotechnology and crop nutrition in 2003. Micronutrients' role in agriculture also gained greater prominence with the organization of IFA's first international symposium on this topic. Recent developments continue the trend of positioning the industry to meet forthcoming challenges with a forward-looking strategy.

IFA's Task Force on Enhanced Efficiency Fertilizers is planning an international workshop, to be held in Frankfurt from 28 to 30 June 2005, at which the benefits of these fertilizers will be considered along with constraints on their use. In the meantime, the task force is working on agreed product terminology to reduce marketplace confusion. A glossary will be considered by the Agriculture Committee in June 2005.

Although speciality fertilizers include enhanced efficiency products and micronutrients, IFA has recently established an additional task force to consider the needs of this segment of its membership. The remit of the task force is largely to determine the overall scope of future IFA activities regarding this high added-value sub-sector.

Following Ross Welch's presentation at the 2004 Enlarged Council Meeting, the leadership of IFA's Agriculture Committee opted to examine how the fertilizer industry can best embrace the opportunity to promote fertilizer use that meets the triple challenge of boosting crop productivity, protecting the environment and contributing directly to enhanced human nutrition.

International Potash Institute



By Hillel Magen, Director of IPI

The International Potash Institute (IPI) is a non-governmental, non-profit organization founded 52 years ago by the German and French potash industries. After some years, the Belarusian, British, Israeli, Italian, Jordanian, Russian and Spanish potash industries joined IPI. Today, the members are the Arab Potash Company (APC), Belaruskali, Dead Sea Works (DSW), the International Potash Company (IPC), K+S Kali GMBH, Silvinit, Tessenderlo Chemie and Uralkali.

Some history

Four years after the discovery of potash deposits at Stassfurt, Germany, in 1856, plants were first documented to react to potassium (K) fertilization in field trials. The first agricultural research and advisory institution in Stassfurt was founded in 1891, and by 1910 some 32,000 field trials on potash had been conducted. The International Potash Institute was founded in 1952.

The potash industry has always played an important role in the economies of countries where it is located. As well as providing steady employment to tens of thousands of people, this sector has helped introduce advanced industrial operations to its host regions. The stability of the industry, as well as its engagement with local communities, has contributed significantly to regional welfare and the economic well-being of IPI's members.

An IPI workshop in Minsk

IPI places much emphasis on women and household education.



Is K different from the other major nutrients?

Unlike nitrogen and phosphate sources, potassium mines and aquatic sources are relatively scarce. Thus global production is concentrated in only a few regions. Potash, in the form of potassium chloride (KCl) (also known as muriate of potash-MOP) or potassium sulphate (often shortened to K_2SO_4 or SOP), is traded extensively. MOP and SOP can be applied directly or used in the production of compound fertilizers and/or other downstream K products such as potassium nitrate and other potassium salts used for industrial purposes.

The effects of potash on plants are distinct from those of other nutrients. Because potassium activates biochemical processes in plants, and promotes the production of assimilates and their transport into storage organs, the benefits of K fertilization are often more obvious in the improved quality of the produce than through increased yields. Potassium also plays an important role in mitigating the effect of stresses such as drought, salinity, pests and diseases. Adequate and balanced potash fertilization can therefore be considered part of "integrated pest management" systems as well as of crop nutrition.

Because of K's behaviour in soil, a simple



Farmers day in Bangladesh

soil test is often insufficient to predict a plant's response and requirements. Leaf, whole plant and petiole analyses are increasingly used to give a reliable picture of the plant's K status, thus enabling the farmer to correct it during the various growth stages. The use of kits or regular laboratory analysis is common.

Regardless of the quantities in which it is applied, potassium is not known to have any negative environmental impact. Furthermore, due to the law of the minimum, balanced potash use increases both nitrogen and phosphate fertilizer use efficiencies.

Teaching Farmers the Complexities of Potassium

Throughout its 52 years of activity, IPI has contributed greatly to the wealth of existing scientific knowledge about plant nutrition in various crops, soils and agro-climatic zones. IPI has disseminated numerous books, proceedings, leaflets and other scientific data in many languages, benefiting scholars, industry, farmers, dealers and scientists from various governmental and research entities.

However, strong advisory services remain the key to agricultural success. They also help farmers cope with the new policies, regulations and challenges that agricultural production faces.

IPI makes a significant investment in reaching out to farmers and their close circle of assistants. In recent years, we have shifted our efforts (and budgets) from scientific activity to field-level promotion and dealer



Potassium helps improve the quality of soybeans (left) and alleviate water stress in maize (above).

outreach. We work hand in hand with organizations that share our vision, including extension services and universities and other research entities willing to take part in farmers' gatherings, field days, open seminars, training courses and other learning activities. Our coordinators interact with thousands of farmers, exposing them to experiments and the latest information on the benefits of balanced fertilization and potassium nutrition, in particular.

Dealers often act as an advisory service and play an important role in our strategy. Supplying dealers with up-to-date information in the local language provides benefits to both farmers and input suppliers.

Building a Knowledge Network

IPI carries out its activities through a network of coordinators, based in member companies. In this way IPI is able to operate in the Baltic states, Bangladesh, Belarus, Central and Eastern Europe, China, India, Latin America, Moldova, Sri Lanka, the West Asia and North Africa region and Ukraine. IPI and the Phosphate and Potash Institute (PPI/PPIC) are conducting a joint programme in Brazil and South-east Asia. Our coordinators work very closely with local agribusiness, researchers, government offices, universities and extension services.

Given this decentralized structure, information technology provides an excellent and efficient tool to compile, update and display large amounts of information for reference. Interactive tools can simulate and calculate the nutritional requirements of a specific crop under given conditions. Such tools help meet one of IPI's challenges for the future: to reach farmers, using their language, and supply them with information, knowledge and support for the best decisions on balanced

fertilization. IPI current "e-dissemination" strategy relies on web sites in English (www.ipipotash.org), Chinese—in cooperation with NATESC in China (www.ipichina.org), and Portuguese (www.cnptia.embrapa.br/projetos/ipi/ipi/homepage)—in cooperation with Embrapa in Brazil.

IPI strongly believes that lack of appropriate knowledge is a greater limiting factor than any missing plant nutrient. Therefore, IPI strives to increase extension and knowledge transfer, harness information technology effectively, deepen our knowledge of education and communication capacities, and cooperate with farmers, dealers and the scientific community.

IPI aims to create awareness, trust and confidence among farmers, advisors and decision-makers about the need for appropriate nutrient management. ●

Contact

Hillel Magen
 Director
 IPI - International Potash Institute
 P.O. Box 569, 8810 Horgen, Switzerland
 Phone: +41 43 8104922
 Fax: +41 43 8104925
ipi@ipipotash.org
www.ipipotash.org

(All photos are courtesy of IPI.)

Some IPI publications in different languages

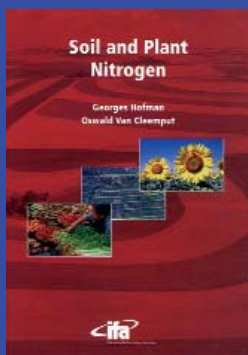


Information resources

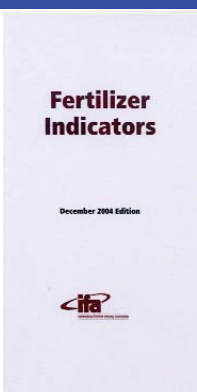
New IFA publications

Soil and Plant Nitrogen

G. Hofman and O. Van Cleemput. IFA, Paris, France, September 2004. 48 pp. ISBN 2 9506299 9 7 IFA has just issued a scientific publication on "Soil and Plant Nitrogen". It provides updated information on the nitrogen cycle, nitrogen transformations in soil, the role of nitrogen in plants, nitrogen fertilization in crop production and nitrogen fertilization and environmental issues. "Soil and Plant Nitrogen" was written by two well-known scientists: Georges Hofman and Oswald Van Cleemput from the University of Ghent in Belgium.



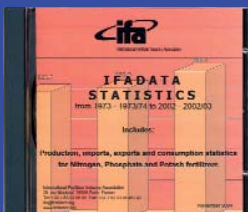
Fertilizer Indicators



IFA, 3rd edition, December 2004. 16 pp. A compilation of graphs, diagrams and brief texts explaining the development in different regions of the world of the capacities, production, consumption and trade of nitrogen, phosphate and potash fertilizers, and certain important intermediates and raw materials.

IFADATA Statistics 1973-2002

The IFADATA cd-rom with the 2002/03 figures has just been finalized. The cd-rom contains new features such as time series since the early 1960s for a number of relevant indicators. The cd-rom is restricted to IFA members.



Copies of these three publications are available from IFA. See order form page 12.

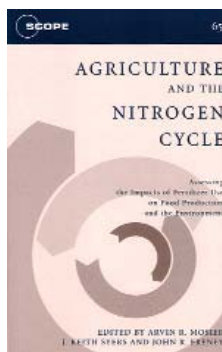
Agriculture and the Nitrogen Cycle

Assessing the Impact of Fertilizer Use on Food Production and the Environment

Ed. A.R. Mosier, J.K. Syers and J.R. Freney, SCOPE 65, 2004. 296 pp.

ISBN 1 55963 710 2 This book provides an up-to-date assessment of the role of nitrogen fertilizer in the nitrogen cycle. The authors emphasize the need to maintain food and fibre production while minimizing environmental impacts where fertilizer is abundant. They also highlight the need to enhance fertilizer use in systems where nitrogen is limited. A SCOPE workshop that brought together the world's leading nitrogen scientists provided the basis for this volume.

Some copies are available from IFA (see order form page 12).



Optimizing Nitrogen Management in Food and Energy Production and Environmental Protection

2nd International Nitrogen Conference, Potomac, MD, USA 14-18 October 2001

Ed. J. Galloway, E. Cowling et al. Balkema Publishers and The Scientific World, Netherlands, 2002. 1013 pp. ISBN 90 265 1927 3

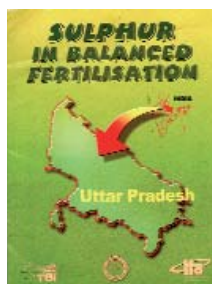
Contact
www.balkema.nl
www.thescientificworld.com



Sulphur in Balanced Fertilisation

Uttar Pradesh
TSI, FAI, IFA, 13 pp.

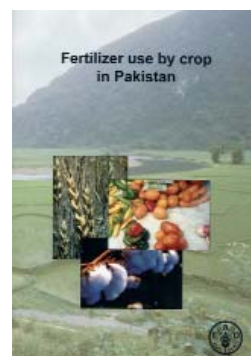
Contact
Fertilizer Association of India, FAI
New Delhi, India
Fax: +91 11 26960052
ags@faidelhi.org
www.faidelhi.org



Fertilizer Use by Crop in Pakistan

FAO, 1st edition, Rome, Italy, 2004. 36 pp. Pakistan has a population of over 150 million people, growing at an annual rate of 2 percent, with almost a third living in poverty. A three-fold increase in food crop production during the past thirty years has been made possible by an increase in fertilizer use. However, fertilizer usage does not always respect recommended practices, with consequent inefficiencies, yield losses, financial waste and the loss of plant nutrients to the environment.

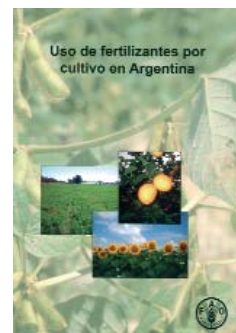
Some copies are available from IFA (see order form page 12).



Uso de fertilizantes por cultivo en Argentina

FAO, 1st edition, Rome, Italy, 2004. 49 pp.

Some copies of the Spanish version are available from IFA. (see order form page 12).

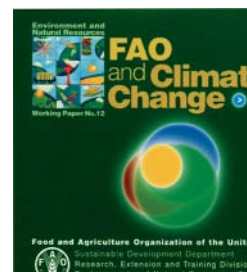


FAO and Climate Change Environment and Natural Resources Working Paper No. 12

FAO, Rome, Italy, January 2003. Cd-rom.

An interactive cd-rom containing a wealth of information on FAO policies, projects and actions on climate change in relation to agriculture, forestry, fisheries, sustainable development...

Contact
FAO Sales and Marketing Group, Rome, Italy
Fax: +39 06 57053360
publications-sales@fao.org
www.fao.org/ag/agl/oldocs.jsp



Items are included on this page as a matter of information.

Inclusion does not constitute an endorsement by IFA.

Nutrient Management for Farmers and the Environment

AIC, UK, 2004. 10 pp

This whole-farm nutrient plan provides guidelines on the aspects of food production that relate to the fertility of the soil and the use of nutrients. It is written to help farmers meet the latest acceptable standards.



Contact

Agricultural Industries Confederation
Peterborough, UK

Fax: + 44 1733 385270

The plan can also be downloaded at:

www.agindustries.org.uk

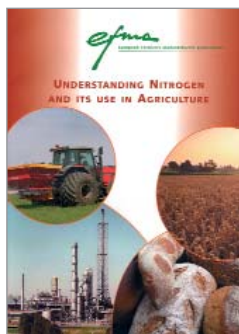
enquiries@agindustries.org.uk

Understanding Nitrogen and its Use in Agriculture

EFMA, Brussels, Belgium, 2004.

64 pp.

The book describes the technology and science which underpins the European nitrogen fertilizer industry today and its provision of a primary plant nutrient that allows the people of Europe to enjoy a plentiful supply of essential food.



Contact

EFMA, Brussels, Belgium

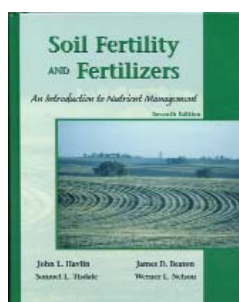
Fax: +32 2 675 39 61

main@efma.org www.efma.org

Soil Fertility and Fertilizers

An Introduction to Nutrient Management

J. L. Havlin,
J. D. Beaton,
S. L. Tisdale, and
W. L. Nelson.
Perason Education,
7th ed., USA,
August 2003.
515 pp. ISBN
0130278246



Contact

www.prenhall.com/agsite

Pakistan: research shows benefits of boron fertilization of rice

Extensive field research in Punjab, Pakistan, carried out by the country's National Agricultural Research Centre in 2002, demonstrates the importance of boron (B) fertilization for rice production. Researchers, who tested two cultivars, obtained 20 to 25 per cent greater paddy yields by applying 1.0 kg boron per hectare. Boron application also improved milling return, head rice recovery and desirable cooking traits. B concentration in mature grains was shown to be a good indicator of a plant's B nutritional status. In terms of yield increases, the value-cost ratio of B use was 40:1. Improvements in milling return and grain quality enhanced the economic value of B fertilization, which is especially important for rice growers whose soils are B-deficient.

Full article: A. Rashid, M. Yasin, M. Ashraf and R.A. Mann, "Boron deficiency in calcareous soils reduces paddy yield and impairs grain quality". International Rice Research Notes, Vol. 29.1/June 2004. International Rice Research Institute: Los Baños, Laguna, Philippines (pp. 57-58).

Contact

Abdul Rashid

Chief Scientific Officer & Programme Leader

Land Resources Research Programme

National Agricultural Research Centre (NARC)

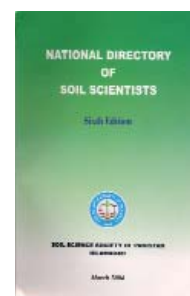
Islamabad 45500, Pakistan

Fax: +92 51 925 503 4

www.parc.gov.pk

abdul.rashid@comsats.net.pk

Some Publications available from NARC

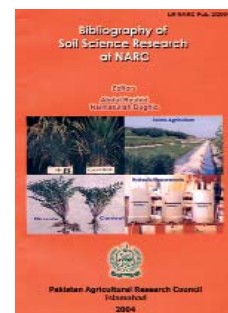


National Directory of Soil Scientists

A. Rashid, Mahmood-ul-Hassan. Soil Science Society of Pakistan, 6th edition, March 2004. 96 pp.

Bibliography of Soil Science Research at NARC

A. Rashid, N. Bughio. NARC, June 2004. 103 pp.



Soil Science Research at NARC

Leaflet, 2004.

If I submit a publication for the "Information Products" section of Fertilizers & Agriculture, will IFA include it?



IFA receives many publication submissions from around the world. While we make every effort to include what is sent, items are prioritized by a number of criteria including their appeal to a global audience, the direct relevance to fertilizers, IFA's involvement and institutional relationship with the publication and its author, date of publication and how long it has been waiting to be reviewed in our newsletter. Even with a delay, we cannot always guarantee that items will appear.

IFA/IFDC Nitrogen and Phosphate Fertilizer Technology Workshops Announced

Nitrogen Fertilizer Production Technology Workshop



13-17 June 2005-Maastricht, The Netherlands



- Global overview and outlook for the nitrogen fertilizer industry
- Economics of the industry
- Ammonia production
- Nitrogen fertilizer production
 - Nitric acid
 - Ammonium nitrate
 - Calcium ammonium nitrate
 - Ammonium nitrate-sulphate
 - Urea
 - Ammonium sulphate
- Fertilizer chemical and physical specifications and product quality
- Energy, environmental and safety issues
- Packaging, transportation and handling

Further details can be found at www.fertilizer.org/ifa/confifa_ifdc_2005_06.asp

Phosphate Fertilizer Production Technology Workshop



26-30 September 2005-Brussels, Belgium



- Global overview and outlook for the phosphate fertilizer industry
- Economics of the industry
- Phosphoric acid production
- Phosphate fertilizer production
 - Single superphosphate
 - Triple superphosphate
 - Ammonium phosphates
 - Nitrophosphates
 - Compound (NPK) fertilizers
 - Ammonium nitrate based
 - Urea based
 - Bulk blends
- Fertilizer chemical and physical specifications and product quality
- Energy, environmental and safety issues
- Packaging, transportation and handling

Further details can be found at www.fertilizer.org/ifa/confifa_ifdc_2005_09.asp

The cost of each 5-day workshop is US\$ 2,100 per participant for IFA members and US\$ 2,200 for non-IFA members.

To register, contact IFDC at hrd@ifdc.org or fax +1 256 381 7408

Fertilizer industry engineers, particularly those who have recently assumed new responsibilities, can increase their technical knowledge of nitrogen and phosphate fertilizer production during the 2005 IFA/IFDC Fertilizer Technology Workshops. Young engineers can also become better acquainted with new technologies. These training events will improve participants' skills and broaden their vision and understanding of the entire industry, including technology, economics, energy use, safety and environmental stewardship.

The workshops are designed to provide engineers with an in-depth view of fertilizer production technologies, and to identify future trends and needs. They will highlight the most recent fertilizer production technologies and provide an opportunity for the exchange of ideas and information through discussion of the various technical, economic, safety and environmental issues. The curriculum is designed to help participants solve specific problems at production facilities, as well as to improve their operation and enhance their profitability.

The workshop will be conducted in formal sessions. Case studies and discussion panels involving participants and faculty will be an integral part of each segment.

2006 IFA Agriculture Conference

The next IFA Agriculture Conference will be held from 28 February to 2 March 2006 in Kunming (Yunnan), China.

The conference theme will be "optimizing resource use efficiency for sustainable intensification of agriculture". The conference will be preceded by a one-day workshop on micronutrients on 27 February 2006.

Successful Production and International Trade Conference Held in Dubai

The 2004 Production and International Trade Conference attracted some 130 participants from more than 30 countries. The successful event—the Committee's first in the region since 1981—included 14 presentations with an emphasis on future supply developments in the Middle East. A welcoming address was delivered by Saif Al-Ghaffli of FERTIL, IFA's Vice President for the Middle East.

Strong support was received from IFA member companies in the region. SABIC, QAFCO, GPIC, PIC and FERTIL kindly hosted the conference dinner. The Production and International Trade Committee wishes to express its appreciation for all the hospitality and support offered by local members.

The First Open Session focused on issues affecting fertilizer production and trade, notably:

- Global transportation issues, presented by Jarle Hammer of Fearnleys;
- Marine safety and transportation of ammonia, presented by Frank Bracquez of Yara International; and
- Global LNG supply outlook, presented by Marie-Françoise Chabrelié of Cedigaz.

Future trends in ammonia production and urea trade were covered by Omar Mababaya of SABIC ("Situation and prospects for the Middle East nitrogen industry") and Frances Wollmer of Fertilizer & Chemical Consultancy Ltd ("Global urea trade to 2013"). Their papers emphasized the importance of West Asia as an emerging dominant exporter of ammonia and urea in the near term, well positioned to supply developing markets at very competitive levels.

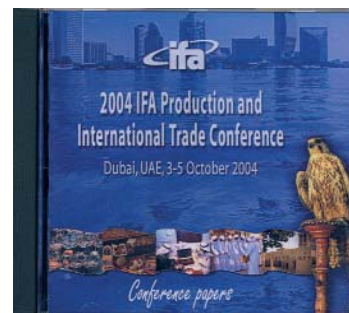
The Second Open Session focused on the future supply of potash and sulphur in the medium term. Potash developments in Udon Thani (Thailand) were presented by John Bovard of Asia Pacific Potash Corporation (APPC), who highlighted the next steps for commissioning of the Udon Thani potash operation by 2008 and subsequent phases in the long term. Kurt Montgomery of Enersul Technologies presented an overview of the main sulphur-forming technologies and projects in West Asia and Eastern Europe and Central Asia (EECA), which

will result in additional sulphur export potential in the short term. The Middle East will show the largest increase in sulphur production during the next five years, according to two papers that provided a detailed look at future gas-related sulphur output in Saudi Arabia ("Sulfur utilization prospects in Saudi Arabia" by Mustafa Salaman of Saudi Aramco) and Qatar ("An overview of Qatar-gas with a focus on sulphur production, handling and export" by Bill Toivonen of Qatargas) in the near term.

The Third Open Session was dedicated to developments in the supply of processed phosphates, with a focus on West Asia and Africa. Henry Mhlongo of Foskor used a series of challenging scenarios to discuss likely transformations of the South African phosphate fertilizer sector. Future developments in the phosphate industry in Tunisia and Jordan were presented by Mohamed Ben Charrada of GCT ("Growth of the Tunisian phosphates sector") and Samir Arar of JPMC ("JPMC, supply and development"). Both papers highlighted plans to expand the production and quality of processed phosphates, while taking into account environmental and economic aspects. Finally, Chris Naser of Ma'aden presented an overview of the Al-Jalamid phosphate project in Saudi Arabia. Representing the largest single DAP development of the past ten years, this project is expected to be completed during 2008.

The Conference generated lively audience participation. A cd-rom and hard copies of the papers and presentations were made available in November to all participants. Non-participants will only have access to these materials in six months.

Next year's Production and International Trade Conference will take place in São Paulo, Brazil, from 11 to 14 September.



Production and International Trade Committee Sets Objectives at Its Annual Meeting

The Production and International Trade Committee held its annual meeting on the occasion of the Dubai Conference in early October. The mission statement and strategic objectives of the Committee were revisited and adopted by the members.

The Committee validated the priorities defined by the Secretariat for 2004/05, the coverage and publication schedule of its statistical reports in 2005, and the criteria for the location of the Committee's future meetings and conferences.

The Convenors summarized the activities of their respective working parties. In this context, the Committee extended its appreciation to Terje Bakken of Yara International, who stepped down as Convenor of the Ammonia and Derived Products Working Party, for his active work in that capacity during the past year.

The Secretariat informed participants about a new brochure on the rules of procedure for meetings of the Committee's working parties. Members were reminded to ensure that reports produced by IFA remain restricted to IFA's membership, unless they are explicitly destined for the general public. ●

2005 IFA International Crop Nutrition Award

Members are reminded to help IFA identify candidates for the 2005 IFA International Crop Nutrition Award. The 2005 Award will recognize a researcher in a developing country who has contributed to advancing the efficient, balanced and environmentally friendly use of fertilizers. Applications must be submitted to an IFA member in a developing country by 31 January 2005 and then forwarded to the IFA Secretariat with a letter of support by 20 February 2005. IFA members are encouraged to nominate high-level scientists who will contribute to the prestige of the Award.

word: Association

Choosing Our Words Carefully

In an age of dazzling advertisements, we sometimes forget the virtues of plain language. I will admit that I am as guilty of being seduced by important sounding words as the next person. But sometimes it is essential to stay simple.



*Luc M. Maene
IFA Director General*

In the fertilizer industry's policy and public relations, we often use euphemistic language, but we try to do so to correct misperceptions, not to mislead. For example, I believe that it is important to talk about "crop nutrients" more than "fertilizers". The first term focuses us on the fact that the plant does not differentiate between nutrients, regardless of whether they come from "manufactured" or "organic" sources.

In fact, to call modern fertilizers "artificial" or "chemical" is an error. Fertilizers are produced from natural sources mined from the ground or captured out of thin air. The chemical transformation that many manufactured fertilizers undergo concentrates the nutrients in the forms that plants absorb best—forms that are found in nature, but in insufficient quantities for today's high levels of agricultural production. This transformation also helps remove impurities.

At other times it is better to use commonly accepted words. Some of our members recently expressed concern that the term "reactive nitrogen" could trigger mistaken associations of fertilizers with nuclear reactivity. We already spend enough time

explaining the true complexities of plant nutrition without losing more time on wrong ideas. So we took this comment seriously. As well as discussing the issue internally, we consulted members and external stakeholders. In the end, we came to the conclusion that "reactive nitrogen" is the only clear and correct term.

"Active nitrogen" was suggested as a substitute to distinguish between the plant-available forms and the inert dinitrogen found in the atmosphere. However, especially after discussing the matter with scientists, it became evident that this would be incorrect and could only create more confusion. Inert nitrogen may be very active, but it is never chemically reactive.

The international diversity of our industry provides another good reason for speaking plainly. Anyone who speaks more than one language knows that it is far easier to understand and translate ideas that are expressed simply.

The complicated use of language has become such an obstacle to mutual understanding that a number of public authorities have launched campaigns to encourage the use of simple language. Not surprisingly, bureaucracies such as government offices are particularly prone to the syndrome.

If our industry is serious about reaching out to the general public and convincing people that we really do have a positive role to play in modern agricultural production, we are better off using the language of the common person. Let's choose our words carefully, so that our critical messages will be understood well. ●

Kiwi Warmth Contributes to a Successful IFA Regional Conference for Asia and the Pacific

The IFA Regional Conference for Asia and the Pacific, held from 14 to 16 December 2004 in Auckland, New Zealand, gathered some 280 participants from 29 countries. The programme was designed to promote maximum interaction among the delegates. The panel session on the need for a more positive image of the industry and the half-day workshop on the current regional market and prospects for NPK fertilizers generated lively debates.



*Charlie Engelbogen
(BASF Australia),
winner of the first
K.G. Soh Memorial
Trophy*

The keynote address on "The Nitrogen Challenge in China" was given by Zucong Cai, from the Asian Regional Centre of the International Nitrogen Initiative.

Locally focused topics included the evolution of agriculture in New Zealand, as well as the national industry's experience in developing and promoting its code of practice for fertilizer use.

Agronomic papers looked at soil fertility decline in tropical plantations and lessons to be drawn from the use of enhanced efficiency fertilizers in Japanese rice production.

More business-oriented presentations considered the bundling of services and products, the outlook for the regional potash market and prospects for bioenergy in Asia and the Pacific.

The papers presented at the conference are available on cd-rom and on the IFA web site at www.fertilizer.org.

Strong support from the New Zealand fertilizer industry was a vital component of the event's success. Besides assisting with the organization of the regional conference, IFA members Ballance Agri-Nutrients Ltd and Ravensdown Fertiliser Co-operative Ltd joined forces to host an evening of New Zealand culture and cuisine.

IFA's local members also provided significant help with the organization of the first annual Kim Gai Soh Memorial Golf Tournament, which preceded the conference. ●

IFA Annual Conference

IFA has kindly been invited by Petronas to hold the 73rd IFA Annual Conference in Kuala Lumpur, 6-8 June 2005.

The compact three-day format, adopted in response to member demand, will be maintained.

Look for registration materials in your mailbox and on IFA's web site in January.





Calendar

IFA - 2005

11 - 13 April 2005

IFA Technical Committee Meeting and Plant Visit

Alexandria, Egypt #

Registration deadline: 14 March 2005

6 - 8 June 2005

73rd IFA Annual Conference

Kuala Lumpur, Malaysia #

Registration deadline: 29 April 2005

13 - 17 June 2005

IFA-IFDC Nitrogen Fertilizer Production Technology Workshop

Maastricht, The Netherlands

Registration deadline: 13 May 2005

To register, contact IFDC*

28 - 30 June 2005

IFA International Workshop on Enhanced Efficiency Fertilizers

Frankfurt, Germany #

11 - 14 September 2005

2005 Production and International Trade Conference

Sao Paulo, Brazil #

26 - 30 September 2005

IFA-IFDC Phosphate Fertilizer Production Technology Workshop

Brussels, Belgium

Registration deadline: 26 August 2005

To register, contact IFDC*

15 - 17 November 2005

31st Enlarged Council Meeting

Sevilla, Spain #

6 - 8 December 2005

IFA Regional Conference for Asia and the Pacific

Bali, Indonesia

Restricted to IFA members

Non-IFA - 2005

28 January - 1 February

International Conference on Soil, Water and Environmental Quality, Issues and Strategies

New Delhi, India

Fax: +91 11 258 41529 isss@vsnl.com www.isss-india.org

30 January - 4 February

9th International Symposium on Soil and Plant Analysis (ISSPA)

Cancún, Mexico

Fax: +49 6307 401104 palmmail@convservices.de www.spcouncil.com

While every attempt is made to provide accurate information, IFA cannot guarantee the details for non-IFA events. Contact the organizers for confirmation.

1 - 3 February

AFA 11th International Annual Conference

Cairo, Egypt
Fax: +20 2 4173721 info@afa.com.eg www.afa.com.eg

6 - 8 February

TFI Fertilizer Marketing Business Meeting

Orlando, FL, USA
Fax: +1 202 962-0577 lmabee@tfi.org

www.tfi.org/Meetings/Fertilizermarketingbusinessmeetingmain.asp

13 - 17 February

IFDC* International Training Program on Innovative Management Practices for Nitrogen Use Efficiency

Dhaka, Bangladesh

27 February - 2 March

British Sulphur Nitrogen 2005 International Conference

Bucharest, Romania

Fax: +44 20 7903 2432 conferences@crugroup.com

www.britishsulphur.com/publishing/fertilizers.nsf/conferences_nit.htm?OpenPage

2 - 4 March

2nd FMB Asia Fertilizer Conference

Beijing, China

Fax: +44 208 979 4573 fmb@fmb-group.co.uk www.fmb-group.co.uk

13 - 15 March

16th Annual British Sulphur Fertilizer Latin America Conference

Santo Domingo, Dominican Republic

Fax: +44 20 7903 2432 conferences@crugroup.com

www.britishsulphurconferences.com

16 - 18 March

3rd New Ag International Conference and Exhibition

Antalya, Turkey

Fax: +44 20 8744 1705 exhibitions@newaginternational.com

www.newaginternational.com

3 - 5 April

British Sulphur Phosphates 2005 International Conference

Paris, France

Fax: +44 20 7903 2432 conferences@crugroup.com

www.britishsulphurconferences.com

11 - 15 April

IFDC* International Training Program on Integrated Soil Fertility Management

Accra, Ghana

17 - 19 April

20th TSI Sulphur Phosphate Symposium

Amsterdam, The Netherlands

Fax: +1 202 293 2940 sp@sulphurinstitute.org

www.sulphurinstitute.org/meet.html

9 - 13 May

IFDC* - International Training Program on Market Information Systems

Accra, Ghana

*IFDC—An International Center for Soil Fertility and Agricultural Development
Fax: +1 256 381 7408 hrd@ifdc.org www.ifdc.org

To view a more exhaustive list of conferences click on "Conferences and Events" on IFA's web site.



Continued from page 1... **Climate Change Talks**

IFA, with the support of the Canadian Fertilizer Institute (CFI), also hosted a side event on "Greenhouse Gas Emissions, Nutrients and Agriculture: Working Together to Address Key Questions". Well attended by government delegates from around the world, this event provided a platform for discussions on how to address agricultural issues related to climate change. Arnaldo Girotti, IFA's Vice President for Hispano-America, presided.

Rob Rennie, Vice Chairman of IFA's Agriculture Committee, set the stage by outlining the industry's efforts to maximize environmental performance in fertilizer production and use.

He was followed by Susan Wood, Associate Research Director of BIOCAP Canada, who discussed formulating an integrated response to climate change in the agricultural sphere. Among other key points, she noted her conviction that nitrogen compounds have been assigned too much importance in current estimations. Susan Wood stated that N₂O is only 21 times more powerful than CO₂ as a greenhouse gas, in sharp contrast to 310 times, the approximate value usually cited. The difference, she explained, stems from the relative stability of the two molecules. CO₂ can be likened to a relatively dim light bulb that burns for a very long time, whereas N₂O burns more intensely but flickers on and off.

The event was rounded out by Alejandro Delfino, Director of Sociedad Rural Argentina,

who spoke on behalf of the International Federation of Agricultural Producers (IFAP). He described farmers as stewards of the land in which they invest, and as among those most vulnerable to changes in climate patterns.

COP-10 also provided an opportunity to widen the distribution of *Global Estimates of Gaseous Emissions of NH₃, NO and N₂O from Agricultural Land*, a report produced jointly by IFA and the Food and Agriculture Organization (FAO) of the United Nations. The distinguished authors of this document question the estimated contribution of agriculture to greenhouse gas emissions, arguing for a figure at least six per cent lower than that used as the basis for the Kyoto Protocol negotiations. Their case is all the more compelling because several of them were involved in the initial Kyoto calculations.

The Buenos Aires meeting was the last COP, strictly speaking. Following ratification by Russia in November, the Kyoto Protocol will take effect in February 2005. From then on, only governments participating in the Protocol will have official status at UNFCCC talks. All other governments will be observers, starting with the COP/Meeting of the Parties (MOP) scheduled for late 2005. The influence of major non-ratifiers, such as the United States and Australia, within formal negotiating channels will therefore be reduced. ●

International Fertilizer Industry Association (IFA)

28, rue Marbeuf
75008 Paris, France
Tel: +33 1 53 93 05 00
Fax: +33 1 53 93 05 45 / 47
ifa@fertilizer.org
www.fertilizer.org

IFA comprises more than 450 member companies in some 80 countries and includes manufacturers of fertilizers, raw material suppliers, regional and national associations, research institutes, traders and engineering companies.

IFA collects, compiles and disseminates information on the production and consumption of fertilizers and acts as a forum for its members and others to meet and address technical, agronomic, supply and environmental issues.

IFA also sponsors research related to the efficient use of plant nutrients in agriculture, and liaises closely with relevant international organizations, such as the World Bank, FAO, UNEP and other UN agencies.

IFA President

John Van Brunt, President
Agrium Inc., Canada

IFA Director General

L.M. Maene

Mailing list

Subscription to F&A is free of charge. Send full address details to be added to the mailing list. Additional copies may be supplied to organizations to circulate on behalf of IFA.

Letters

We invite your contributions of letters, documents, articles, photographs, etc.

-Editor: Kristen E. Sukalac
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-Design: Dora Maltz

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IFA Request Form fertilizers  agriculture **January 2005**

Please tick the box below and return to IFA by fax: +33 1 53 93 05 45 / 47 or send an e-mail to publications@fertilizer.org

Note: most IFA materials are available via the web site at www.fertilizer.org

- Soil and Plant Nitrogen
- Fertilizer Indicators
- IFADATA Statistics cd-rom *restricted to IFA members*
- Agriculture and the Nitrogen Cycle
- Fertilizer Use by Crop in Pakistan
- Uso de fertilizantes por cultivo en Argentina

Name

Company/Organization

Address

.....

E-mail Web