Zinc Nutrient Initiative

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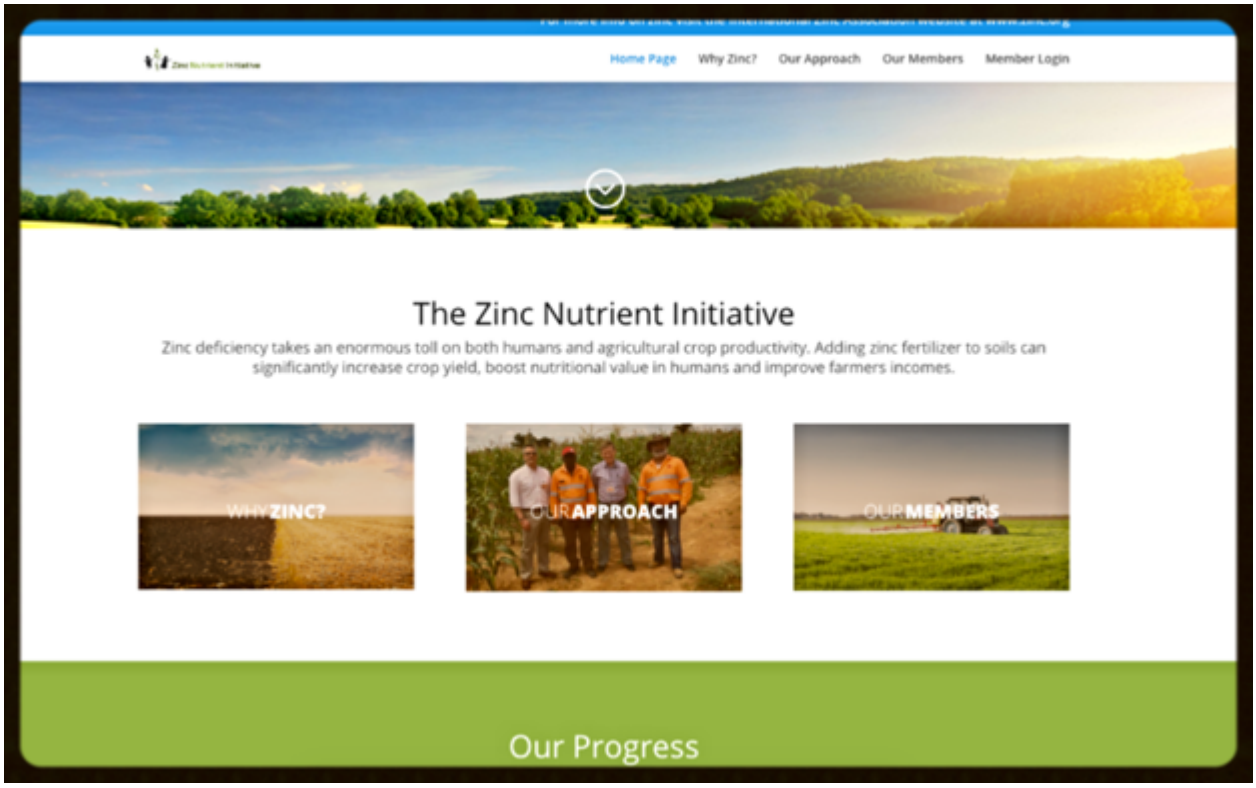
1. MEETING WITH WORLD BANK

THE WORLD BANK

Following on past activities with World Bank, including serving on their expert panel "How Agriculture Can Solve the Nutrition Crisis", a meeting was held In December of 2016 with World Bank to discuss the International Zinc Association's (IZA) Zinc Nutrient Initiative's (ZNI) activities. IZA highlighted the role zinc fertilizer could play in improving nutrition, a high-level priority for the institute, if included in global agronomic programs. IZA has since been invited to return to World Bank headquarters for a meeting hosted by their Agriculture Global Practice and Health and Nutrition and Population Global Practice, along with their cross-sectorial Secure Nutrition platform. A presentation at their Annual Bank Conference on Africa is also being planned.

For more information on the meeting held, and/or planned, with World Bank, please contact Andrew Green.

2. LAUNCH OF NEW ZNI WEBSITE



ZNI has recently introduced a new website: visit us at http://www.crops.zinc.org/

IZA is proud to announce the launch of the new Zinc Nutrient Initiative website, specifically dedicated to highlight zinc's important role in agriculture, fertilizer, and human health worldwide.

The new website provides a clear message of ZNI's mission and vision, as well as information on global zinc deficiency and zinc's vital role in securing food security and nutritional health. On the website you will also find an interactive project map to explore projects throughout countries in which ZNI works. At the moment, the country profile for CHINA is currently available and other countries will be added soon.

As the zinc-in-fertilizers sector continues to grow, as will the site with updates to project maps, new content features, and recent publications. IZA looks forward to working with the ZNI membership and telling zinc fertilizer's story – from more productive crop growth to improving child health, and showing that adding zinc to fertilizers isn't just an addition, it's a necessity.

We're open to feedback so let us know if you have any suggestions or comments.

Sincerely,

The ZNI Team

For more information or comments, please contact Shannon Simmons.

3. CHINA: NATIONAL FERTILIZER SYMPOSIUM 2016

Dr. Ming Fan presents at the symposium on Zn fertilizer technology.

"Zinc is the most deficient micronutrient in soil, crop and human nutrition in China. Zinc fertilizer could increase crop yield and nutritional value in Chinese farms."

This statement was offered by Professor Wu Yong, Deputy Director of Water Saving Agriculture Department, NATESC, at the Zinc Fertilizer and Food Nutrition Securities conference in China – organized by the International Zinc Association (IZA), the China National Agricultural Technology Extension and Service Center (NATESC), and the Ministry of Agriculture in September, 2016 in Yinchuan, Ninxia, China.

The symposium hosted over 200 agricultural governmental officials, institute researchers, extension workers, fertilizer and agribusiness representatives, and regional government representatives.

Dr. Ming Fan of IZA provided an overview of global Zn deficiency and Zn fertilizer demand, and updated attendees on the latest progress and achievements of the IZA-Teck-NATESC collaborative project. Four experts and four provincial collaborators also presented on the latest developments in research and promotion of Zn Nutrition and Zn fertilizers.

According to Professor Wu of Hebei Soil and Fertilizer Administration, "Hebei Province developed over 90 Zn containing fertilizer formulas; 22 Zn containing formulas have been transferred to fertilizer companies for production of Zn-containing formula fertilizers." He also noted that the total Zn fertilizer application in the province reached 8.60 million Mu (0.57 million ha), which consumed more than 344,000 tons of Zn containing fertilizers (344 tons of zinc).

Attendees visit Zn fertilizer demonstration sites during the post-symposium tour.

Professor Qiu Zhijun from NATESC reported that the total increase of major grain crop yield by Zn fertilizers reached 2 million tons nationwide in 2015, offering a $620 million (USD) economic return to farmers. This symposium demonstrated the strength of the China Collaborative Project's actions on improving Zn fertilizer production use in China.

The total increase of zinc fertilizer consumption through this project has reached 20,000 of zinc; Zn fertilizer application has reached over 2 million ha crop land (10kg Zn/ha). This has produced over 10 million tons of Zn-rich food for 40 million people, including 12 million children.

On the second day of the workshop, delegates visited the zinc fertilizer demonstration sites and observed Zn fertilizer effects on corn and soybean productions through soil and fertigation applications.

For more information on this symposium, please contact Dr. Ming Fan.

4. DRC: ZINC CROPS PROJECT UPDATE

IZA had previously launched a three-year program in the Democratic Republic of Congo (DRC) in cooperation with Lundin Mining Corporation. Since then, a new pilot project with MMG in the DRC has also been initiated. The objective of this work is to show stakeholders how an increase in crop productivity and nutrition can be achieved by adding zinc fertilizers to deficient soils.

Working with farmers, demonstration plots have been initiated at the Tenke Fungurume mine site and in connection MMG's mine site in the Lubumbashi area.

Demonstration plots consist of 10m x 10m areas and are being monitored by participating farmers who will gain first-hand knowledge and experience on the benefits of adding Zn to Zn deficient soils. Three to four different zinc applications are being used along with a control (i.e. NPK fertilizer without zinc).

In addition to measuring crop yield and grain zinc uptake from zinc fertilizers at different application rates from multiple sites, the plots will be monitored using time-lapse photography to visually demonstrate the value of Zn supplementation.

"Farmer Days" will be held throughout field demonstrations, inviting area farmers to view and discuss the effects of Zn supplementation.

For more information on programs in the DRC, please contact Paul Kazadi.

5. INDIA: ZINC AWARDS PRESENTED AT FAI CONFERENCE

INDIAN MINISTERS PRESENT ZINC AWARDS

Dr. Y.S. Shivary accepts his award from Mr. Ananth Kumar, the Union Minister for Chemicals and Fertilizers. Also pictured are Satish Chander (Director General, FAI), Rakesh Kapur (Chairman, FAI), and Kapil Mehan (Co-chairman, FAI).

Dr. Shivay, scientist and Professor at the Indian Agricultural Research Institute (IARI), was recently presented an award for "Promoting the Use of Zinc in Indian Agriculture" at the FAI Annual Seminar in December, 2016. The award was presented by Mr. Ananth Kumar, the Union Minister for Chemicals and Fertilizers and Parliamentary Affairs, and Mr. Mansukh Mandayiya, the Minister of State for Chemicals and Fertilizers, at the inaugural session of the FAI Annual Seminar.

This was the seventh year the award was presented.

Another award for the "Promotion and Marketing of Zinc Fertilizers in India" was given to Dayal Fertilizers, Meerut, Uttar Pradesh. This is the fourth year the award has been offered - instituted by Hindustan Zinc Ltd. HZL and FAI to promote zinc fertilizers in the Indian market.

IZA also displayed a booth at the conference featuring ZNI activities in India. The exhibit was visited by hundreds of delegates including representatives from international organizations, central and state government officials, scientists, and members of the fertilizer industry.

Approximately 1500 participants attended the FAI Annual Seminar - including 200 overseas delegates from 40 countries - making it one of the largest fertilizer conferences in the world.

For more information on this conference, contact Dr. Soumitra Das.

In front of the IZA booth (from left): Dr. Soumitra Das, Dr. Y.S. Shivay (award winner), Rahul Sharma (IZA), and Payal Chauhan (HZL).

Dr. Soumitra Das in front of the IZA booth.

Continued…

MOU SIGNED BETWEEN IZA AND BARI

FIELD PROJECT ORGANIZED

In May 2016, IZA launched a two-year project on the 'Promotion of Zinc Fertilizer Use in Bangladesh for Food and Nutrition Security' to address widespread zinc deficiency in soils, crops, and human health throughout Bangladesh. The project is a collaborative effort between the International Zinc Association (IZA) and the Bangladesh Agricultural Research Institute (BARI).

As part of this initiative, IZA signed a Memorandum of Understanding (MOU) with the Bangladesh Agricultural Research Institute (BARI), Ministry of Agriculture, and Government of Bangladesh on February 12, 2017 in BARI, Bangladesh.

Dr. Andrew Green and Dr. Soumitra Das meeting local farmers.

A view of the IZA-BARI Project Field Trial at Kapasia.

As part of this MOU, 11 field experiments will be undertaken, including five single crops and six cropping systems for major crops of the region. The treatment combinations will include ZnSO4 as well as Zn-core urea and Zn-urea briquette as the source of Zn.

Bangladesh has one of the most severe zinc deficiency problems in Asia - nearly 50% of its agricultural land is considered highly zinc deficient and 55% of its population is at risk for zinc deficiency. It is expected that this project will improve food and nutrition security by accelerating zinc fertilizer usage. In addition to soil and crop research, 'Field Days' and 'Crop Demonstration Trials' will also be conducted in the farmers' fields.

For more information on the Bangladesh project, please contact Dr. Soumitra Das.

BANGLADESH: COMMUNICATION MATERIALS PUBLISHED

In an effort to increase project awareness among stakeholders, policy makers, extension workers, and farmers, the Bangladesh Agricultural Research Institute (BARI), Ministry of Agriculture, and Government of Bangladesh have prepared and published articles on "Promotion of Zinc Fertilizer Use for Sustainable Food and Nutrition Security" in key publications in Bangladesh.


সকালের খবর
ঢাকা : সোমবার ৩০ মে ২০১৬
বাংলাদেশ কৃষি গবেষণা ইনস্টিটিউটের মৃত্তিকাবিজ্ঞান বিভাগের ব্যবস্থাপনায় অনুষ্ঠিত একটি কর্মশালার উদ্বোধন অনুষ্ঠানে প্রধান অতিথির বক্তব্য রাখেন পরিচালক (গবেষণা) ড. মোহাম্মদ জালাল উদ্দীন। এ সময় আরও উপস্থিত ছিলেন পরিচালক (সেবা ও সরবরাহ) ড. বীরেশ কুমার গোস্বামী, আইজেডএ, ইউএসএ'র পরিচালক ড. এন্ড্রু এস গ্রিন, জেডএনআই-এর পরিচালক ড. সৌমিত্র দাস এবং মৃত্তিকাবিজ্ঞান বিভাগের মুখ্য বৈজ্ঞানিক কর্মকর্তা ড. রওশন আরা বেগম

One of the local newspaper publishing's.

These articles have been advertised in the local dailies as well as in the BARI Newsletter. In addition, posters highlighting the slogan 'Zinc Fertilizer Promotion … For Food Security and Nutrition' have been printed and displayed in prominent locations for visibility and greater awareness.

For more information on the Bangladesh project, please contact Dr. Soumitra Das.

7. NUTRISOLUTIONS REPORT: ZINC DEFICIENCY SEVERE IN U.S.

Zn deficiency becoming more prevalent in crop production in the United States: 72% of corn and 60% of wheat samples nationwide are low in Zn.

Zinc and micronutrient deficiencies are becoming more widespread in U.S. crop production, according to the recent report from WinField United. The major findings of the plant tissue analysis in 2016 are summarized as follows:

- Corn was deficient in zinc, potassium and nitrogen. Seventy-two percent of the more than 17,500 corn samples taken nationwide were low in zinc. Sixty-eight and 66% of corn samples were low in potassium and

nitrogen, respectively. Other problem nutrients in corn included manganese, sulfur and boron — all were over 60% deficient in 2016 samples.

- Wheat exhibited micronutrient deficiencies. Zinc and/or magnesium levels were low in more than 60% of samples. Copper and potassium deficiencies were also common in wheat in 2016.

- Corn silage nutrient deficiencies included phosphorus, manganese, nitrogen and zinc. More than 50% of corn silage samples tested in 2016 were deficient in phosphorus, manganese, nitrogen and/or zinc.

For more details on the report, please go to http://www.croplife.com/crop-inputs/winfield-united-releases-2016-nutrisolutions-360-program-insights/

8. NEW MEMBERS: AMP AND CAMERON CHEMICALS

Advanced Micronutrient Products, Inc. (AMP) and it's subsidiary, Cameron Chemicals, Inc. (Cameron), have rejoined as ZNI members for the 2017 year. AMP and Cameron are leading manufacturers and distributors of granular micronutrients for use in the agricultural, horticultural, ornamental, and turf industries.

Both facilities produce high-quality single element formulations, multi-element packages, and customer proprietary mixes designed for all crops and geographies throughout the world. With a specialty in manufacturing oxy sulfate micronutrients, both facilities also have varying ranges of products, including sulfates, lignins, and chelates. AMP and Cameron are also leading suppliers of zinc-based micronutrients, as well as many other products, including boron, manganese, magnesium, iron and copper, positioning themselves to provide customers with a micronutrient product tailored to meet varying needs.

9. MEETINGS & CONFERENCES

IZA participates and presents at numerous conferences and summits around the world to promote zinc fertilizer usage, ZNI activities, and meet with our Members and key stakeholders. Below is a list of recent activities. Copies of presentations are available to IZA Members/Affiliate Members by contacting Shannon Simmons.

PAST CONFERENCES

- **Dr. Ming Fan** participated in **The Fertilizer Industry Round Table Meeting at Fort Lauderdale, Florida.** *November , 2016.*

- **Dr. Andrew Green** gave a presentation, "**Trends in Zinc-Fortified Fertilizer Manufacturing", at the Specialty Fertilizer Global Summit meeting in Austin, Texas.** *December, 2016.*

- **Dr. Soumitra Das** gave a presentation, **"Zinc in Food and Nutrition Security", at the 104th Indian Science Congress in Tirupati, India.** *January, 2017.*

Narendra Modi, Prime Minister of India (center) at the 104th Indian Science Congress on January 3, 2017 in Tirupati, Andhra Pradesh, India.

- **Dr. Andrew Green** gave a presentation, **"Biofortification & the Role of Fertilizers in Increasing Nutritional Quality & Human Health," at the Fertilizer Latino Americano conference in Buenos Aires, Argentina. CRU – Argus FMB event.** *January, 2017.*

- **Dr. Andrew Green** gave a presentation, "**Zinc in Balanced Fertilizer Use for Food and Nutrition Security", Argus FMB NPK and Water Soluble Fertilizers Conference in New Delhi, India.** *February, 2017.*

Dr. Andrew Green, Director, ZNI, speaking at the Argus-FMB Conference held during February, 9-10. 2017 in New Delhi, India.

- **Rob White, Regional Director of IZA South Africa** chaired the **Interactive Round Table Discussion, "Why Micronutrients are Important in Fertilizers" at the Argus FMB Africa Fertilizer meeting in Cape Town, South Africa.** *February, 2017.*

UPCOMING CONFERENCES

- **IZA-NATESC Training Workshop on Fertigation and Zn Fertilizer Technology**
  Jiangxi, China
  March 24-25, 2017

- **2017 Argus FMB Asia Fertilizer Conference**
  Beijing, China
  March 29-31, 2017

  Join over 500 delegates!
  ****Will include talk by Dr. Ming Fan.***

  READ MORE

- **Argus FMB Added Value Fertilizers Conference**
  Miami, Florida
  April 24-26, 2017

  ****Will include talk by Dr. Andrew Green.***

  VIEW AGENDA

- **World Food and Nutrition Conference**
  Shenyand, China
  September 2017

  READ MORE

ZNI AFFILIATE MEMBERS

Membership Benefits
ZNI Members enjoy a number of exclusive benefits, including:

- Access to communications materials such as fact sheets, brochures, and flyers
- Your logo company displayed on our website, in global/local presentations, and in our newsletter
- Comprehensive zinc fertilizer training program led by IZA's ZNI team with over 50 years collective technical expertise

VIEW FULL MEMBERSHIP BROCHURE

About this Newsletter
This newsletter is published by The International Zinc Association (IZA), a non-profit organization headquartered in Durham, North Carolina. IZA launched the Zinc Nutrient Initiative (ZNI) in response to the critical issue of zinc deficiency in soils, crops, and humans. For more information, please visit our website, or contact Dr. Andrew Green.