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International Fertilizer Development Center

WEST AFRICA FERTILIZER PROGRAM NEWSLETTER

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Dr. Sola Afolabi leading the panel discussion on the formation of a West Africa Fertilizer Trade Association.

NOTABLE UPCOMING EVENT

19–21 FEBRUARY
**2014 ARGUS FMB
AFRICA FERTILIZER
CONFERENCE**

The 2014 Argus FMB Africa Fertilizer conference will be in **Marrakesh, Morocco** from February 19–21, 2014.

A 15-member delegation consisting of WAFP and its private-sector partners from six West African Countries will be participating.

NEWSLETTER

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MAIDEN FERTILIZER FORUM FOCUSES ON POLICY, REGULATIONS TO IMPROVE ACCESS AND USE IN WEST AFRICA

More than 235 fertilizer value chain stakeholders participated in the first annual West Africa Fertilizer Stakeholders Forum, a two-day event focused on the theme “Ensuring a Favorable Policy and Regulatory Environment for Fertilizer Trade and Use in West Africa.” Held in Accra, Ghana in September, the event was organized by the USAID West Africa Fertilizer Program (WAFP) and implemented by IFDC in collaboration with the African Fertilizer and Agribusiness Partnership (AFAP).

The forum, hosted by the Economic Community of West African States (ECOWAS), brought together public officials, policymakers, fertilizer manufacturers and traders, importers, bankers, farmers and development partners. Participants discussed practical approaches to overcoming the challenges facing the fertilizer industry in order to improve the availability and use of quality and affordable fertilizer in West Africa.

According to the FAO Fertilizer Working Group, while fertilizer use in the region is below 10 kilograms (kg)/ha annually, compared with the global average of 107 kg/ha, fertilizer demand in Sub-Saharan Africa is estimated to grow by 3.11 percent per year through 2017. In order to develop an effective regional fertilizer market, national frameworks regulating the production and trade of agro-inputs must be harmonized.

“Technical issues related to productivity increases have received a lot of attention, but the regulatory and policy environment, which is equally important, has not,” said ECOWAS Commissioner for Agriculture, Environment and Water Resources, Dr. Marc Atouga. Delivering his keynote address, Atouga emphasized that in 2015 the region will be held accountable for meeting the fertilizer consumption target of 50 kg/ha set by African leaders through the Comprehensive Africa Agriculture Development Program (CAADP). “The forum offers a unique platform for introspection and an opportunity to give a new impetus to a collective commitment to make fertilizers available and affordable in the sub-region,” Atouga said.



Ghana's Minister for Food and Agriculture, Mr. Clement Kofi Humado visits the IFDC display together with the representative of the President, Mr. Fiifi Kwetey.

“Technical issues related to productivity increases have received a lot of attention, but the regulatory and policy environment, which is equally important, has not.”

– DR. MARC ATOUGAM, ECOWAS COMMISSIONER FOR AGRICULTURE, ENVIRONMENT AND WATER RESOURCES

The forum explored specific fertilizer-related obstacles, which included governments' failure to recognize agriculture as a broad-based engine for economic growth; poor port, transport and storage infrastructure; inefficiently managed fertilizer and seed subsidy programs; weak distributor and agro-dealer networks; and the lack of an effective regional fertilizer trade association that can advocate for members and effectively communicate with the governments of West Africa. Seeking to immediately address this question of advocacy, forum participants called for the formation of a West Africa Fertilizer Trade Association that would federate existing stakeholder organizations in the region. The group will represent the fertilizer industry and serve as an effective vehicle for bringing together a diversity of fertilizer stakeholders.

Representing Ghanaian President John Mahama, Minister of State in Charge of Financial and Allied Institutions, Honorable Fiifi Kwetey, used the Forum to announce approval of the nation's National Seed Policy. Hon. Kwetey emphasized increasing the efficiency of fertilizer use and acknowledged IFDC's work to improve soil quality through ISFM.

To facilitate a public-private dialogue on the new fertilizer quality regulatory system adopted by ECOWAS in 2012, Dr. André de Jager, director of IFDC's North and West Africa Division, led a panel discussion on the fertilizer industry and regulatory environment in West Africa. **ECOWAS Fertilizer Regulation C/REG. 13/12/12** paves the way for a favorable policy and regulatory environment for investments that improve the supply and use

of fertilizers in the region. IFDC is leading the coordination of a West Africa Committee for Fertilizer Control to support the implementation of the regulation in all 15 ECOWAS member states.

In addition to meetings and panel discussions, the forum held a business fair in which stakeholders demonstrated new fertilizer and seed technologies, innovative financing, market information and applications for information, communications and technology (ICT) systems related to agriculture.

The organization of the forum was a key mandate of the USAID WAFP project. WAFP is implementing activities designed to increase the private sector's regional supply and distribution of fertilizers and facilitating an enabling environment for fertilizer policy and regulatory framework development. The project is also increasing knowledge and use of improved agricultural technologies and improving the efficiency of regional market transactions. ■

The Forum program may be downloaded in PDF format here:
www.ifdc.org/Documents/Final_WAFSF_program_EN.pdf

Forum proceedings may be downloaded in PDF format at:
www.ifdc.org/Documents/Final_WAFSF_proceedings_EN-FR.pdf

IFDC TRAINS PARTNERS ON THE APPLICATION OF THE DSSAT MODEL FOR FERTILIZER RECOMMENDATIONS

Saly, Senegal, December 11-19, 2013: Twenty-four (24) soil scientists and researchers drawn from USAID West Africa Fertilizer Program (USAID-WAFP) partner institutions in Ghana, Mali, Liberia and Senegal have received training on the use of the Decision Support System for Agro-technology Transfer (DSSAT) model for making site-specific fertilizer recommendations. The regional training was organized by the International Fertilizer Development Centre (IFDC) and forms part of activities geared towards achieving USAID-WAFP's mandate of increasing efficient use of improved fertilizer formulas in West Africa.

The main objective of this training was to build the capacity of participants – mostly members/potential members of IFDC-initiated fertilizer recommendation task forces in the USAID-WAFP focus countries – towards the use of the DSSAT tool to come up with more effective fertilizer formulae adaptable to the different agro-ecologies in West Africa and thereby help to do away with existing out-of-date and blanket fertilizer recommendations that make agricultural enterprise in the region risky and unprofitable business.

The training also provided a platform for participants who are members of the National Agricultural Research and Extension Services (NARES) in their respective countries to network and harmonize approaches to developing fertilizer recommendations and generating robust databases for extrapolation of results within and across countries in the region.

Speaking about the DSSAT model, Dr. Jean Ekwe Dossa, an IFDC soil scientist and coordinator for technology development within the WAFP, explained that it is a tool that simulates crop growth,

development and yield as a function of the soil-plant-atmosphere dynamics. The model takes into account all the necessary factors including crop physiology, climate, rainfall, soil fertility dynamics, and relevant socio-economic factors to come up with a meaningful fertilizer formula that will address the prevailing productivity related issues in each agro-ecology. "The DSSAT is a powerful tool that helps to make decisions in a very short time as opposed to the traditional way of trials on experimental stations that requires so much time to yield results, not to mention the risk and uncertainty associated with it", he added.

Explaining further the usefulness of the model for agricultural productivity, another IFDC soil scientist and a facilitator at the training, Dr. Jean Sogbedji indicated that "the DSSAT model is a means of moving towards precision agriculture characterized by optimized yields and increased profits as against the experimental type that has been in practice over the years and is riddled with so much risk and uncertainties with little or no profitability to farmers." He further added that the model is a short cut to achieving better results; a very effective and powerful tool for addressing site-specific fertilizer formulation issues.

The nine-day training involved basic lessons on Integrated Soil Fertility Management (ISFM) and agro-technology processes, precision agriculture and modelling, crop physiology, and soil, water, climate and nutrient dynamics. Participants were taken through the manipulations of the DSSAT tool for simulating crop production under varying soil, water and climatic conditions to yield different results for comparative analysis and decision making. Participants also received instruction on how to apply the model in economic analysis of agricultural enterprises in relation to cost of inputs such as seeds, fertilizers, agrochemicals and technologies as against output factors such as yield and profit margins. Several test case exercises were practiced at every stage of the training to enhance better understanding and appreciation.

"The DSSAT is a powerful tool that helps to make decisions in a very short time as opposed to the traditional way of trials on experimental stations that requires so much time to yield results."

– DR. JEAN EKWE DOSSA, IFDC SOIL SCIENTIST AND WAFP COORDINATOR FOR TECHNOLOGY DEVELOPMENT

A group photograph of the DSSAT training participants.





Dr. Hassan Founouné Mboup of ISRA displaying the certificate she received upon completing the DSSAT training.

“...the right type and quantity of fertilizer to use under given conditions so as to maximize yields and profits and at the same time prevent excessive leaching and attendant environmental pollution.”

– DR. AMOS QUAYE OF THE UNIVERSITY OF GHANA AGRICULTURAL RESEARCH STATION

As a complement to the DSSAT model, participants were also introduced to the Information Decision Support System (IDSS) model which works along similar lines as Geographic Information Systems (GIS) and facilitates simulations and analysis of factors that affect agricultural production over larger geographical areas. Explaining the importance on the IDSS in an interview, Guillaume Ezui, an agronomist with IFDC and a facilitator, indicated that “the IDSS will help the participants to apply the results and recommendations obtained from DSSAT simulations to an entire country or region, and this is what is critical for making site-specific fertilizer recommendations.”

The training concluded with participants working on specific case studies in groups using the DSSAT tool. The groups worked on cases such as determining nitrogen response on; soils with low nitrogen status under rain-fed conditions, soils with low crop residue addition, soils with high nitrogen status and, nitrogen response in the case of an irrigated maize production system. Groups that excelled in their work received awards and all participants received certificates of participation.

Sharing their views on the training, participants were generally impressed with the knowledge and skills acquired with respect to the DSSAT model and indicated their readiness and enthusiasm to apply them in their work as scientists and researchers to help promote the African agricultural revolution agenda. According to a participant, Dr. Amos Quaye of the University of Ghana Agricultural Research Station, “this training will enable me make

recommendations to farmers as to the right type and quantity of fertilizer to use under specific conditions so as to maximize yields and profits and at the same time prevent excessive leaching and attendant environmental pollution.” It is expected that the availability of the DSSAT software for use by trainees, with follow-up technical assistance from IFDC Agricultural Technology Transfer Specialists, will improve fertilizer recommendation activities.

On her part, the head of plant research at *l’Institut Sénégalais pour la Recherche Agricole* (ISRA, Senegal), Dr. Yacine Badiane Ndour indicated that her institute will use the DSSAT model for a new project that will start in early 2014 to validate the existing fertilizer recommendations in order to address deficiencies in specific agro ecologies in Senegal. “Beyond this training, we hope to continue to receive technical support from our trainers and also exchange ideas with colleague NARES members in other countries on the use of the model so that its full benefits can be reaped” she added.

Participating NARES institutions represented at the training were ISRA, Soil Research Institute (SRI, Ghana), Savanna Agriculture Research Institute (SARI), Central Agricultural Research Institute (CARI, Liberia), Institute of Rural Economics (IER, Mali), *Institut National de Pedologie* (INP), *Université Gaston Berger – Saint Louis* (UGB), *Centre Regional pour l’amélioration de l’adaptation à la Sécheresse* (CERAAS), National Laboratory of Research on Vegetables Production (LNRPV) and University of Ghana Research Station (UG-Legon). ■



An official of ECOWAS goes through some literature at the IFDC/AFAP booth.

“The value chain exhibition brings another dimension to this year’s ECOWAS Trade Fair and a giant step towards achieving the regional integration.”

– DR. KOFI DEBRAH, CHIEF OF PARTY OF THE USAID WEST AFRICA FERTILIZER PROGRAM

IFDC AND AFAP LEAD FERTILIZER VALUE CHAIN EXHIBITIONS AT 7TH ECOWAS TRADE FAIR

The International Fertilizer Development Center (IFDC), in collaboration with the African Fertilizer and Agribusiness Partnerships (AFAP), played a lead role in mobilizing actors in the fertilizer value chain to participate in a special exhibition and business to business sessions specially designed for value chains in the agricultural sector at the 7th ECOWAS Trade Fair held in Accra, Ghana from October 31 to November 11, 2013.

This special value chain-oriented trade show formed part of efforts by ECOWAS to redefine its approach to organizing trade fairs to make them more effective and relevant to its objective of achieving proper economic integration through hazard-free and a vibrant trade among countries in West Africa. According to Dr. M. Olorunsola Afolabi, Business Environment Advisor to the Borderless Alliance and Coordinator of the Fair, this novel idea of exhibition by value chains will provide a very conducive platform for members within the value chains to dialogue, network, share business ideas, and discuss issues of mutual concern and benefits to all irrespective of countries of origin.

In a goodwill message delivered on his behalf at the official opening ceremony, the Chief of Party of the USAID West Africa Fertilizer Program, Dr. Kofi Debrah opined that the initiative could not have come at a better time coming right at the heel

of the First West Africa Fertilizer Stakeholder Forum where fertilizer sector players in the region took critical decisions towards unionizing for better service to West Africa. He was also of the view that “the value chain exhibition brings another dimension to this year’s ECOWAS Trade Fair and a giant step towards achieving the regional integration.”

On his part, the President of Borderless Alliance, Mr. Ziad Hamoui called on all advocates of regional trade to join forces and work hard towards achieving a truly borderless West Africa where people and goods can move freely. He further charged the private sector and civil society organizations to continue to play a catalytic role in achieving this regional economic agenda.

IFDC, AFAP, Envaserv, and Pure and Perfect Agro Limited who represented the fertilizer sector mounted exhibition booths to showcase materials, equipment, tools and literature on their respective programs and operations while exhibitors from the Shea and Cashew Alliances also exhibited a wide range of products.

ECOWAS hopes to use this initiative as a pilot for future regional fairs where such value chain-oriented trade shows will help to harness the full potentials of regional trade and strengthen business linkages, value chain alliances and trade associations across the region. ■

FERTILIZER STATISTICS

“West Africa has a total of 23 blending plants with installed capacity of 4.6 million metric tons a year. Fifty percent (50%) of these operations are in Nigeria.”

– PATRICE ANNEQUIN, SENIOR MARKET INFORMATION SYSTEMS SPECIALIST, IFDC, IN PRESENTATION “FERTILIZER PRODUCTION AND IMPORTATION TRENDS AND PROGRESS TOWARDS MEETING THE ABUJA SUMMIT TARGETS IN WEST AFRICA”

INTERNATIONAL FERTILIZER PRICES THROUGH DECEMBER 2013 (ALL FOB BULK SPOT, USD/MT)

FERTILIZER TYPE		JAN-13	FEB-13	MAR-13	APR-13	MAY-13	JUN-13	JUL-13	AUG-13	SEP-13	OCT-13	NOV-13	DEC-13	I MONTH	I YEAR
N	Urea (prilled, Arab Gulf)	406	420	410	393	356	319	319	306	288	293	320	333	4%	-21%
N	Urea (granular, Indonesia/Malaysia)	411	429	412	386	355	321	323	313	293	293	323	333	3%	-21%
N	Ammonium Sulphate (Black Sea)	211	221	208	196	171	147	137	131	124	132	135	144	7%	-36%
N	Ammonia (Yuzhny)	595	564	537	511	508	493	432	422	438	441	405	418	3%	-32%
P	DAP (Baltic/Black Sea)	500	498	511	511	491	476	468	458	418	393	383	384	0%	-23%
P	MAP (Morocco)	516	500	526	528	507	505	495	480	430	400	396	395	0%	-23%
P	TSP (Tunisia)	430	400	404	414	412	419	398	380	365	326	314	300	-4%	-27%
K	MOP (Israel)	425	410	410	410	410	410	410	406	363	345	323	305	-5%	-24%
K	SOP (in €, North-West Europe)	423	423	423	423	423	420	418	415	418	418	453	453	0%	7%
NPK	16-16-16 (FSU)	405	410	410	410	410	410	406	400	375	323	323	323	0%	-20%

(all FOB bulk spot, USD/MT)
Source: Argus FMB.

For more information and market analysis on International Fertilizer Prices please check the statistics section of www.africafertilizer.org.

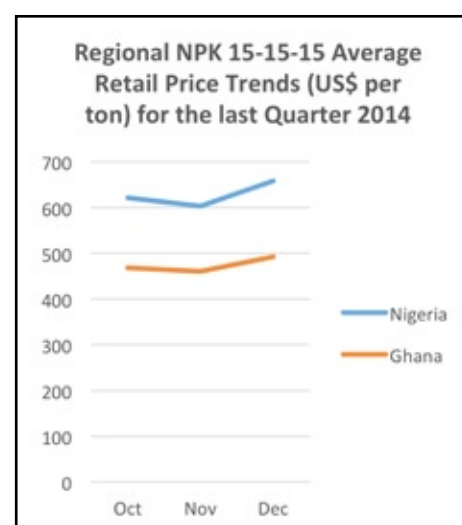
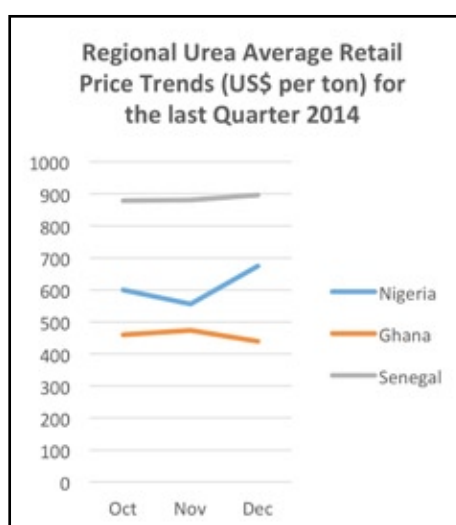
QUARTERLY FERTILIZER PRICE TRENDS ON MAJOR FERTILIZERS

UREA

Urea prices in the last quarter of 2013 were received from three countries. The monthly averages reported between the period saw Senegal prices increasing by 2% with its urea prices ranging between \$879 per ton in October and \$892 per ton by the end of December. The lowest price at the end of the quarter was still spotted from Ghana with the average price from the country declining by 5% ending the period at \$439 from \$460 at the beginning of the quarter.

NPK 15-15-15

Prices of the most common compound fertilizer in the region were received from only two countries during the last quarter of 2013. The highest average prices of NPK 15 15 15 were reported from Nigeria over the 3 month period at the following: \$622, \$603 and \$658 per ton. As usual, Ghana,



as a result of its government's subsidy program, reported the lowest prices in the quarter ranging between \$469 and \$492 in October and December representing a 6% increase. ■

This newsletter was produced for review by the United States Agency for International Development. It was prepared by IFDC. The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.