



THE ROLE OF POTASSIUM IN CROPPING SYSTEMS OF SUB-SAHARAN AFRICA: CURRENT STATUS AND POTENTIAL FOR INCREASING PRODUCTIVITY

1ST IPI – MINISTRY OF AGRICULTURE – AGRICULTURAL TRANSFORMATION AGENCY ETHIOPIA JOINT SYMPOSIUM

4-5 SEPTEMBER 2014

SUB-SAHARAN AFRICA 1st IPI – Ministry of Agriculture-ATA Ethiopia joint symposium

The role of potassium in cropping systems of sub-Saharan Africa: current status and potential for increasing productivity

4-5 September 2014, Addis Ababa, Ethiopia

SECOND ANNOUNCEMENT

Scientific Program

CONFIRMED SPEAKERS

- Tilahun Amede (ICRISAT, Kenya)
- Gezahegn Ayele (USAID/CIAFS, Ethiopia)
- **o** S. K. Bansal (Potash Research Institute of India)
- **o** Benayahu Bar-Yosef (Agricultural Research Organization of Israel)
- o Khalid Bomba (CEO, Agricultural Transformation Agency, Ethiopia)
- o Mulugeta Demiss (Agricultural Transformation Agency, Ethiopia)
- Peter van Erp (Soilcares Research, The Netherlands)
- Eyasu Elias (CASCAPE, Ethiopia)
- o Sileshi Getahun (State Minister of Agriculture, Ethiopia)
- Mart Farina (Adviser, Omnia Fertilizers, South Africa)
- Sam Gameda (IFPRI, Ethiopia)
- Mitiku Haile (Ethiopia representative to UNESCO, France)
- Wassie Haile (Hawassa University, Ethiopia)
- Hillette Hailu (Haramaya University, Ethiopia)
- Bashir Jama (Director of Soil Health Program, AGRA)
- o Huising Jeroen Elzo (IITA-International Institute of Tropical Agriculture, Kenya)
- Erik Karltun (Agricultural Transformation Agency, Ethiopia)
- o Selamyihun Kidanu (Agricultural Transformation Agency, Ethiopia)
- Teshome Lakew (Ministry of Agriculture, Ethiopia)
- Hillel Magen (IPI director, Switzerland)
- o Tekalign Mamo (Minister's Advisor and State Minister of Agriculture, Ethiopia)
- John Mellor (Prof. Emeritus Cornell University, U.S.A)
- Abebe Shiferaw (Agricultural Transformation Agency, Ethiopia)
- John Wendt (IFDC- East & Southern Africa Division, Kenya)
- Nega Wubeneh (Agricultural Transformation Agency, Ethiopia)
- o Uri Yermiyahu (Agricultural Research Organization of Israel)

BACKGROUND

The sustainability of agricultural systems greatly depends on balanced fertilization to improve soil fertility for secure and sustainable food production. Potassium (K) fertilizers play a crucial role in improving the quality and yield of crops and thus contribute to the welfare of farming communities. Governments, private companies and foreign countries have invested in extensive agricultural projects in Africa that demonstrate the benefits of applying proven practices and guidelines derived from scientific field experiments. Many African countries have the potential to produce not only for their own consumption, but also for other countries across the continent and beyond to feed the growing global population.

In many African countries, one of the main obstacles to agricultural productivity is soil fertility depletion. African soils have been subjected to severe degradation caused by both natural and human factors. In addition to low use of chemical fertilizers, use of farmyard manure or crop residues has also been minimal, thus exposing soils to higher risk of nutrient depletion. In general, the smallholder agricultural production system is exposed to low level of input use, particularly with respect to fertilizers and improved seeds.

In several sub-Saharan African (SSA) countries, although fertilizer use has slowly been increasing, the average intensity of fertilizer use throughout the region remains much lower than elsewhere. Of the major nutrients, K is used in smaller quantities, thus not meeting crop demand. In many countries, nitrogen (N) and phosphorus (P) have been considered as the nutrients least present in soils; therefore, DAP (di-ammonium phosphate) and urea fertilizers have been the only fertilizer sources that have been in use in Ethiopia and in several other SSA countries. Moreover, until recently, it was widely believed that K fertilizer was unnecessary. In Ethiopia, a shift in this erroneous common thinking was triggered by research activities conducted by stakeholders during the last few years, the results from nationally launched soil fertility mapping, and ongoing new fertilizer demonstration trials being conducted in many areas. Results from these initiatives proved that several nutrients including K are limiting crop yield. Based on these results, Ethiopia introduced six new fertilizers (including K) for distribution to farmers beginning in the 2014 cropping season.

One cause for the low use of K is related to the often higher levels (are above levels considered critical) of exchangeable K in soils, particularly in Vertisols with higher clay contents. On the other hand, even in such soils, good crop response to K application is being found. The Symposium "The role of potassium in cropping systems of sub-Saharan Africa: current status and potential for increasing productivity" will address the issues related to the role and benefits of K fertilizers, focusing on chemical, physical and biological processes in soil and plants, farm management and economic application of fertilizers. During the symposium, issues including soil fertility, quality of mineral fertilizers, and efficient use of fertilizers will be discussed. This event will be of interest to soil and plant nutritionists, agronomists,

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extension officers, as well as governmental/non-governmental organizations and private companies that have an interest in balanced fertilization. Invited speakers will include scientists from the region, and beyond. Poster presentations are open to all, and students are encouraged to participate and present relevant research related to the themes of the symposium.

MAIN THEMES

- Potassium fertilizer management in major cropping systems of sub-Saharan Africa.
- Current advances made in the determination of potassium status in soils and plants.
- Evaluation of soil potassium fertility in Ethiopia and East Africa.
- Evidence of the effect of potassium fertilization on nutrient and water use efficiency.
- The beneficial role of potassium in tackling biotic and abiotic stresses in cropping systems.
- Nutrient mining and stagnation of agricultural productivity in sub-Saharan Africa.
- Potash production in Ethiopia: prospects and challenges.

ORGANIZATION

EXECUTIVE COMMITTEE

- Chair: Mr. Hillel Magen, Director, IPI, Switzerland.
- Prof. Tekalign Mamo, Minister's Advisor & State Minister, Ministry of Agriculture, Addis Ababa, Ethiopia.
- Dr. Marco Quinones, Senior Director of Implementation, Agricultural Transformation Agency, Addis Ababa, Ethiopia.
- Mr. Eldad Sokolowski, Sub-Saharan Africa coordinator, IPI, Switzerland.

ORGANIZING COMMITTEE

- Chairman: Prof. Tekalign Mamo, Minister's Advisor & State Minister, Ministry of Agriculture, Addis Ababa, Ethiopia.
- Secretary of the symposium: Mr. Fanossie Mekonen, A/Director, Soil Fertility Program, Ministry of Agriculture, Addis Ababa, Ethiopia.
- Dr. Selamyihun Kidanu, Director of soil health and fertility Program, ATA, Addis Ababa, Ethiopia.
- Mr. Eldad Sokolowski, Sub-Saharan Africa coordinator, IPI, Switzerland.

VENUE

The symposium will take place in Addis Ababa, Ethiopia, at Harmony Hotel from Thursday the 4th of September to Friday the 5th of September, 2014.

Address: Harmony Hotel, Cameroon Street, Bole Medhanialem Addis Ababa. <u>www.harmonyhotelethiopia.com</u>

HOTEL ROOM ACCOMMODATION

Assistance with room booking for all speakers will be arranged at Saro-Maria Hotel, Bole Medhanialem road. <u>www.saromariahotel.com</u>

REGISTRATION

Participants must be registered before August 22nd, 2014. No participation will be accepted after this date.

REGISTRATION FEE

Only invited and pre-registered participants will be allowed to take part.

• ETB 200 for Ethiopian participants until July 31th, 2014 (ETB 100 for postgraduate students).

- USD 40 for foreign participants until July 31th, 2014 (USD 20 for postgraduate students).
- ETB 250 for Ethiopian participants after July 31th, 2014 (ETB 150 for postgraduate students).
- USD 50 for foreign participants after July 31th, 2014 (USD 30 for postgraduate students).

SUBMISSION OF PAPERS

Speakers who have not yet submitted their abstract should submit to the secretariat by July 30th, 2014 as a word document via e-mail. The title should be typed in capital letters, followed by author names. Underline the presenting author. Use single line spacing and 12 point Times New Roman font. The paper should not be longer than 10 pages of text and all figures should be accompanied with the data on an excel sheet and all tables should be in word format.

Manuscripts will be subjected to review by the organizing committee.

In addition, all papers presented and reviewed will be published in the symposium's proceedings, which will also include all presented posters (papers in English or Amharic, and Amharic papers with English abstract).

PROGRAM

Thursday September 4 th	07:30 – 09:30: Registration
	09:30 – 11:00: Opening session
	11:00 – 11:30: Coffee break and Group photo
	11:30 – 13:10: First session- Status of Food Security in East Africa
	13:10 – 14:30: Lunch
	14:30 – 16:35: Second session- Role of Fertilizers and Fertilizer Value Chain in SSA
	16:35– 17:05: Coffee break
	17:05 – 18:00: Third session - Part I- The Role of K in Soil and Plant Systems in East Africa/SSA
	19:00: Gala dinner hosted by ICL (By Invitation Only)
Friday September 5 th	09:00 – 10:15: Third session - Part II-The Role of K in Soil and Plant Systems in East Africa/SSA
	10:15 – 10:45: Coffee break
	10:45 – 12:50: Fourth session- Evaluation of Soil Potassium Fertility
	12:50 – 14:00: Lunch
	14:00 – 16:05: Fifth session- Balanced Nutrition for Increased Productivity
	16:05 – 16:30: Coffee break
	16:30 – 17:30: Panel discussion
	17:30 – 17:45: Closing
Saturday September 6 th	07:30 – 18:00: (Speakers and Invited Guests) Field trip to witness the dramatic effect that proper application of fertilizers with an emphasis on potash can have on field crops.

LANGUAGE

English will be the official language of the symposium.

UPDATES AND INFORMATION

http://www.ipipotash.org/en/events/SSA+2014.php

VISA TO ETHIOPIA

In addition to your valid passport (at least six months of validity), visas are required for all participants travelling to Ethiopia. Holders of diplomatic, service, AU, UN and ADB passports and Kenyan and Djiboutian citizens will not require visas to enter Ethiopia.

We advise all delegates with Ethiopian Embassies to acquire their visas before travelling if possible to avoid any unnecessary inconveniences.

Visa on Arrival

Tourist visas can be issued on arrival at Bole International Airport for nationals and residents of the following countries: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Greece, India, Ireland, Israel, Italy, Japan, Kuwait, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Democratic people's Republic of Korea (northern Korea), Poland, Portugal, Republic of Korea (south Korea), the Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, United Kingdom, and United States of America.

If, and only if, you do not have an Embassy or Consulate in your country of residence and you are unable to secure your visa due to this reason, you can receive assistance to obtain a business visa upon arrival from the secretariat. In order to do this, you MUST notify Naomi Amare at naomi@flawlessevents.net by August 1, 2014 and send a scanned copy of your passport with the picture page. We will then get the permit required to obtain a visa from the immigration authorities of Ethiopia in Addis Ababa and send a scanned copy of the permit to the delegate.

The delegate must then print this permit and show it to immigration authorities at the airport once they arrive in Addis Ababa in order to obtain a visa on arrival. All visas on arrival will be granted against the payment of either USD 20 or 17 Euros in CASH. No other currencies and credit cards will be accepted.

SECRETARIAT AND CONTACT INFORMATION

Ms. Naomi Amare Event manager Flawless events Addis Ababa, Ethiopia Office: +251-11-6186911/15 Tel: +251-935999235 ⊠ naomi@flawlessevents.net

ABOUT ETHIOPIA AND ITS CAPITAL

Ethiopia occupies 1.13 million sq km (450,000 sq miles), and is situated in the Horn of Africa bordered by Djibouti, Eritrea, Sudan, Kenya and Somalia. The country is divided into nine regional states and two city administrations. Ethiopia is truly a land of contrasts and extremes - a land of remote and wild places. Some of the highest and most stunning places on the African continent are found there, including the jaggedly carved Semien Mountains, one of UNESCO's World Heritage Sites - and some of the lowest, such as the hot but fascinating Danakil Depression, with its sulfur fumaroles and lunar-like landscape.

Naturally adorned with many deep and stupendous gorges, crowned by high and magnificent mountains, necklaced by a chain of lakes, studded with burning deserts and great escarpments that plunge down from its highlands, Ethiopia remains a land of incomparable beauty. But it is not simply the sheer scale of its physical beauty, which characterizes this land where the Blue Nile has carved one of the world's greatest and most awesome gorges. Its ancient and medieval monuments, its proud and colorful cultures, and its varied and often unique wildlife set it apart from all else. It is a land claiming a history that goes back to the Old Testament. Ethiopia is the land of Sheba, and of Axum and Lalibela; of towering obelisks and the Ark of the Covenant - a land that was Christian before much of Europe and yet unknown to Europe for 1,000 years or more.

Agriculture is the major sector contributing to the national economy. It also employs the major work force. Until recently, the sector's growth was very slow or stagnant, but during the last eight to nine years, it has consistently registered high growth. The country expects to more than double its 2010 agricultural production level by 2015, which is the end of the Growth and Transformation Plan (GTP). By 2025, Ethiopia plans to join the middle-income countries, and by that time, it is also expected that the contribution of agriculture to the economy will be surpassed by industry and service sectors.

Addis Ababa, Ethiopia's capital, as well as Africa's political capital, is where the 1st IPI-MoA-ATA symposium will be held. Addis Ababa lies on the central plateau at an altitude of 2,400 meters, 9 degrees north of the equator. Its average temperature is 16° C. Established in 1887 by Emperor Menilik II, and aptly named 'New Flower' by his empress Taitu, Addis Ababa is host to the African Union (AU), the United Nations Economic Commission for Africa (UNECA), and many regional and international organizations.

Addis Ababa Bole International Airport serves the city of Addis Ababa, Ethiopia. Formerly known as Haile Selassie I International Airport, it is the main hub for Ethiopia and throughout the African continent, as well as providing a nonstop service to Asia, Europe, and North America.

POST SYMPOSIUM TOURS

(Starting on the morning of the 7th of September)

The secretariat will assist in coordinating one to two day tours from the following options (all costs to be paid by the participants) please contact the Secretariat for coordinating your tour arrangements before August 15th :

ONE DAY TOURS:

- 1. Debre Birhan and Ankober.
- 2. Tiya and Adadi Mariam.
- 3. Wonchi Crater Lake and Ambo mineral resource.



TWO DAY TOURS:

- 1. Awash National Park.
- 2. Menz-Guassa community conservation area.





There is an option to arrange a longer tour which will need to be tailored by the travel agent.



REGISTRATION FORM FOR IPI-MOA-ATA

Surname:	 -
First Name:	 _
Organization:	 _
Position Title:	 _
Address:	 _
Country of Residence:	
Country of Citizenship:	 _
Phone:	 _
Fax:	 _
E-mail:	 _

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Please send the registration form to Symposium secretariat

by E-mail: naomi@flawlessevents.net or Fax: +251-116630159