

HIGHLIGHTS

The First National Potash Symposium, Tanzania:

Potassium for Sustainable Crop Production and Food Security

28-29 July 2015, Dar es Salaam, Tanzania



**INTERNATIONAL
POTASH INSTITUTE**



SUMMARY **RECOMMENDATIONS**

The first National Potash Symposium in Tanzania was held in Dar es Salaam on 28-29 July 2015. Over 60 scientists, extension officers, officials, fertilizer industry representatives and farm technicians attended along with chief guest, Mr. Peniel Lyimo, Deputy Chief Executive from the President's Delivery Bureau, the United Republic of Tanzania. The event was organized by the African Fertilizer and Agribusiness Partnership (AFAP) in collaboration with the International Potash Institute (IPI, Switzerland) and the Mlingano Agricultural Research Institute, Tanga.

Over the last five decades, potassium has been regarded as sufficient in most of Tanzania's soils. This generalization has led to little research work regarding soil potassium status, plant nutrition and fertilizer recommendations, including potassium in fertilizer formulations. Tanzania has potassium-blended fertilizer recommendations for a few crops (e.g. tobacco, sisal and tea) but other crops depend on inherent potassium supply in the soil, which is gradually declining due to inadequate supplies.

In recent years, it has been recognized that potassium levels in some soils are lower than anticipated, and that deficiency symptoms are common in some major crops (e.g. maize, cassava and rice). With such observed deficiencies, there is an urgent need to provide updated fertilizer recommendations to include potassium.

This symposium aimed to support sustainable increases in agricultural productivity by including potassium in fertilizer recommendations for various crops. This is envisaged through the following steps:

- Obtaining baseline information of potassium research in Tanzania
- Synthesizing the available information on potassium research in Tanzania
- Identifying research gaps to establish a potassium research agenda for Tanzania

Three keynote papers and 13 papers were presented by experienced scientists on the following sub-themes:

- Potassium distribution in Tanzanian soils
- Role of potassium for sustainable crop productivity in Tanzania
- Trends of potassium levels in Tanzanian soils
- Formulation and packaging of potassium-based fertilizers
- Economics of potassium-based fertilizers for sustainable crop production

RECOMMENDATIONS OF THE CONCLUDING PANEL SESSION



RESEARCH

- Conduct a diagnostic analysis and a literature review to establish the current potassium status and crop needs in selected areas of Tanzania
- Produce maps which show status of potassium distribution and hot spots for potassium deficiency in Tanzania
- Identify priority crops and geographic areas for potassium fertilizer experiments
- Conduct research trials to generate site/area-specific potassium fertilizer recommendations, effective application methods and management options
- Determine the quality of crops with respect to human and livestock health



POLICY

- Identify and prioritize areas related to potassium-based research and development which require policy support
- Identify areas for improvements to shorten the validation process for current fertilizers and fertilizer supplements
- Study effectiveness of current fertilizer quality control procedures
- Review and improve current fertilizer registration procedures
- Lobby for an efficient credit and subsidy system for agricultural inputs, including fertilizers



COLLABORATION

- Establish a stakeholder platform to promote potassium -based research and development
- Solicit international collaboration and participation in the research and development of potassium fertilizers for balanced nutrition in Tanzania
- Solicit and create an enabling environment for public-private partnership regarding fertilizer importation, use, availability, distribution and marketing in Tanzania



PROMOTION AND DISSEMINATION

- Assess needs and format of knowledge-sharing products required for extension officers and farmers
- Sensitize stakeholders (extension personnel, researchers and farmers) on potassium deficiencies and its impact on crop production, human and livestock health
- Design, develop and disseminate extension packages on potassium fertilizer use and management options in Tanzania



Plate 1. A group photo of the participants of the first National Potash Symposium in Tanzania.

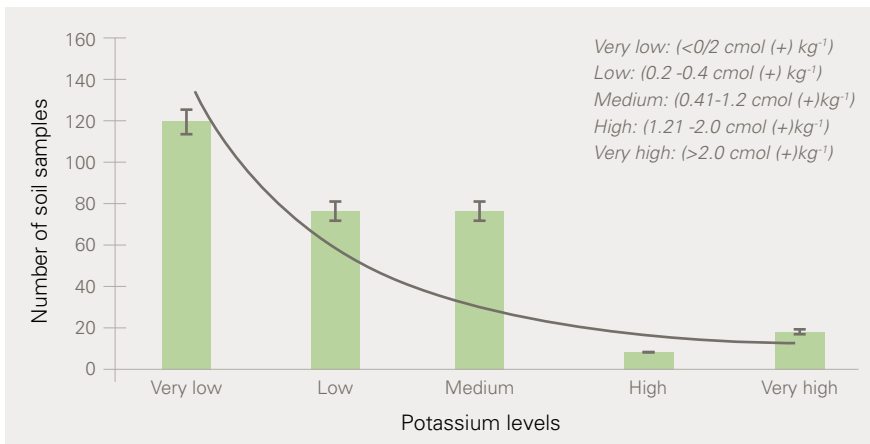


Fig. 1. Potassium levels in some soils of Tanzania (London, 1991).

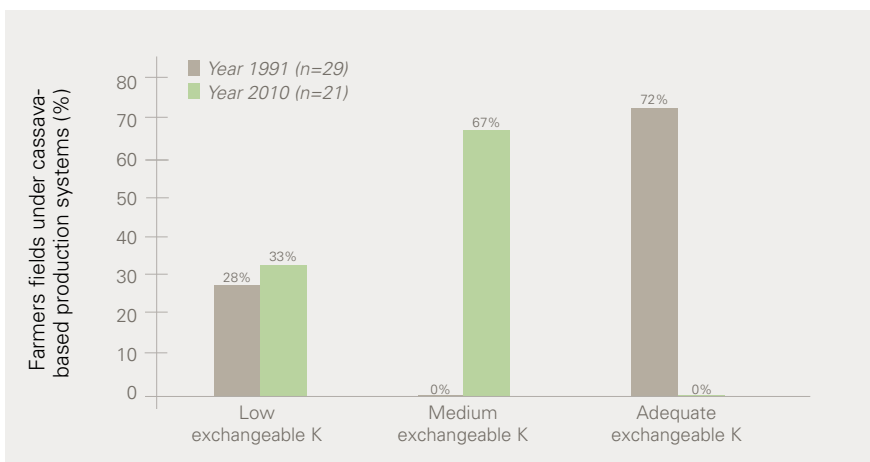


Fig. 2. Trends of potassium fertility status in selected farmers' fields under cassava-based production systems in the Coast region of Tanzania (Shekiffu, 2011).

Figures courtesy of Marandu, A.E., C.J. Senkoro, and Z.C. Mkangwa, Z.C. as presented at the first National Potash Symposium in Tanzania.



Plate 2. Chief guest Mr. Peniel Lyimo, Deputy Chief Executive from the President's Delivery Bureau, the United Republic of Tanzania.

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