Decision Support Tools for Agricultural Production, Fertilizer Recommendations and Climatic Variability

Nairobi, Kenya – March 8-19, 2010

BACKGROUND

Agriculture and related activities provide the livelihood opportunities for 8 out of every 10 African workers. Yield-enhancing technologies, including improved seeds, crop protection products and integrated soil fertility management (ISFM) that includes inorganic and organic fertilizer materials, allow farmers to typically double, and in some cases, triple or quadruple yields. Available technologies also enable farmers to minimize expenditures and reduce risks regarding the application of costly mineral fertilizers by combining them with organic nutrient sources, applying non-conventional fertilizers with "point placement" or use of decision support tools (DSTs) for improved crop recovery of nutrients.

The cost of mineral fertilizers often comprises the largest single component in the smallholder farmer's overall costs of production. By reducing the cost of inputs, farmers can improve their net returns from agriculture. Simultaneously, improved yields offer market opportunities and associated improvements in food security.

IFDC and other partner organizations have engaged in research and development activities coupled with extensive field testing to validate decision support systems that can enhance decision-making at the smallholder farmer level. Such systems enable rapid assessment of more effective and economic combinations of locally available nutrient sources and inorganic fertilizers that farmers can apply on a site-specific basis to increase yields and income. These site-specific recommendations are developed within the framework of an assessment of climate variability and the potential for long-term climate change.

The workshop program "Decision Support Tools for Agricultural Production, Fertilizer Recommendations and Climatic Variability" will offer an opportunity to disseminate the results of the work of IFDC and other partner organizations while providing hands-on training in the application of decision support systems tools.

WORKSHOP PROGRAM OBJECTIVE

The objectives of this two-week program include*:*

- Increase participants' knowledge of decision support systems in improving the productivity of agriculture
- Give hands-on use of decision support tools to address a wide array of production questions
- Enhance participants' understanding of application opportunities for decision support systems to improve yields and achieve resource conservation

The program will enable those engaged in agricultural research and extension services to improve their ability to use geographic information systems (GIS) and modeling tools to collect, analyze and employ soil, weather and market information in systems to generate site- and crop-specific soil nutrient recommendations.

The course will improve participants' skills in integrating field data with DSTs and in the methods of disseminating and applying results that lead to better yields and higher profits.

WHO SHOULD ATTEND

This workshop is designed for agronomists, soil scientists, meteorologists and economists from national and international agricultural research institutes and universities in Africa as well as policy-makers from African governments and their ministries in charge of agricultural productivity and planning.

WORKSHOP PROGRAM CONTENT

The course will cover all facets of fertilizer recommendation systems including risks associated with climatic and market fluctuations. Topics to be addressed by a faculty of experts will include such topics as:

- General introduction to fertilizer requirements, ISFM and DSTs
- Using existing soil, climate, crop and socioeconomic data and crop simulation models for ex-ante analysis of yields and market accessibility for strategic site selection
- Identifying yield gaps and plant nutrient demand for target yields
- Determination of optimal nutrient rates within the context of ISFM
- Designing field trials and data collection exercises
- Maintaining and updating nutrient recommendations
- Employing DSTs (DSSAT and PRDSS) for rapid analyses and recommendations
- Application of GIS and IDSS tools for site-specific recommendations

METHODOLOGY

The program will include formal sessions and breakout groups. Field trips and interactive discussion involving the participants and lecturers will be integral parts of the program, ensuring that specific interests of the participants are covered.

FACULTY

The program faculty will include subject matter experts from IFDC and partner organizations involved in the subject.

Program Registration Form

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Program Registration Fee:

US $1,200 if received before February 9, 2010 (without penalty)

US $1,400 if received after February 8, 2010 (includes US $200 Late Fee)

Please complete this registration form and return with a US $200 deposit* or full program fee payment to IFDC prior to February 9, 2010.

Please PRINT or TYPE your legal name as you would like it to appear on ALL printed materials

(Dr., Mr., Mrs., Ms., Miss) Given Name (First Name) Surname (Last Name)

Position

Organization or Employer

Work Mailing Address

City State Country

Work Tel. No.: Fax No.: Home Tel No.:

E-Mail:

Organization/Company Funding Your Participation

Arrival Date and Time: Flight Number: Departure Date and Time: Flight Number:

Signature of Applicant Date

Signature of Employer/Funding Organization Date

*A non-refundable deposit of $200 is required with each registration. The deposit will be credited towards the program fee which is due 4 weeks before the program is scheduled. Thereafter a ***Late Fee*** will apply. The program fee, less the deposit, will be refunded for cancellations made 2 weeks before the commencement of the program; thereafter, 90% of the paid fee will be returned and 10%, in addition to the deposit, will be charged to cover administrative costs.