

# Integrated Soil Fertility Management in the Tropics

## Lomé, Togo

### October 7-12, 2002

**Additional information on our 2002 training programs will be sent promptly upon request. We welcome your participation and encourage you to share that information with others.**

#### Rationale

**Substantial improvement in the productivity of agricultural systems is required to support the increasing rural and urban populations in the developing world. Because of increasing pressure on land resources, agricultural intensification of existing production systems (increasing cropping intensity and/or increased use of external inputs) is often the only way to increase agricultural production. There is, however, a broad concern about the sustainability of agricultural production systems in many developing countries. Particularly in sub-Saharan Africa there is a growing awareness of significant soil nutrient depletion or mining. There is a critical need to reverse this trend to meet the basic food requirements and protect the environment for future generations. Integrated soil fertility management (ISFM) is the key in raising productivity levels while maintaining the natural resource base. ISFM aims to:**

- Replenish soil nutrient pools.
- Maximize on-farm recycling of nutrients.
- Reduce nutrient losses to the environment.
- Improve the efficiency of external inputs

**This training program will present ISFM strategies that address these objectives. In addition to a range of soil fertility enhancing methods, such as improved crop management practices, measures to control erosion and leaching, and measures to improve soil organic matter maintenance, ISFM strategies include the combined use of soil amendments, organic materials, and mineral fertilizers to replenish soil nutrient pools and improve the efficiency of external inputs.**

**A successful ISFM approach also requires support for rural credit systems and market-oriented institutional changes, strengthening farmers' knowledge and skills, and improving linkages between research and extension support institutions.**

**Particular attention will be given to approaches for adapting ISFM options to the agronomic and socioeconomic needs and interests of farmers. Systems analysis tools and required data that allow ex-ante impact analyses of these ISFM options will also be discussed.**

**IFDC, in collaboration with international, regional, and national agricultural centers, has been at the forefront in developing, testing, and promoting integrated soil fertility management strategies in developing countries, particularly in sub-Saharan African countries such as Benin, Burkina Faso, Ghana, Nigeria, Togo, and Zimbabwe.**

#### Objectives

In this training program participants will be presented a holistic view of integrated soil fertility management through lectures, computer-based decision support tools, and direct interaction with farmers and researchers during field visits. Specifically, the program will focus on:

- Identifying agroecological, socioeconomic, cultural, and political factors influencing agricultural intensification and sustainability.
- Examining ISFM strategies to maximize profit and agronomic use efficiency.
- The role of integrated soil fertility management in developing country agriculture.
- Methodologies and tools to assess suitability, economic feasibility, and impacts of ISFM on agricultural production, soil fertility, and the environment.

#### Program Content

The program will cover various topics including but not limited to:

1. Nature and scope of nutrient mining in the tropics.
2. Agricultural sustainability and its importance.
3. Agricultural intensification as related to biophysical, socioeconomic, and political forces.
4. The role of rural credit systems, market development, and policy changes on agricultural development.
5. Identifying root causes for unsustainable practices and possible methods to overcome these constraints.
6. Maximizing benefits through integrated soil fertility management.
7. Adaptation of ISFM options to specific environmental and socioeconomic conditions through participatory methods and mutual learning.
8. The role of phosphate rock (PR) as a fertilizer and as an amendment in ISFM. Role of PR with legumes and application of PR to compost pits.
9. Roles of organic matter and residues as nutrient sources and as amendments in ISFM.
10. Use of decision support systems for:
  - (a) Phosphate rock (PRDSS, NuMaSS).
  - (b) Feasibility of legume use (DSS-FLU).
  - (c) Nutrient Management (NuMaSS, QUEFTS).
  - (d) Organic resources (CERES-ORD).
  - (e) Quantifying sustainability of management strategies (DSSAT).
11. ISFM strategy with:
  - (a) Improved fallows.
  - (b) Rotation with legumes.
  - (c) Complementary feeding of animals.
  - (d) Agroforestry.

#### Faculty

The program faculty includes scientists from IFDC with experience in integrated soil fertility management, socioeconomics, agricultural sociology, marketing, nutrient dynamics, integrated crop management, and decision support systems. In addition, scientists from international and regional organizations will also contribute to the program.

#### Eligibility

Participants in this program should:

- Be currently engaged or have an interest in crop production or agroecosystems-related research, teaching, outreach, planning, or development efforts.
- Have an understanding of soil and crop sciences and be relatively familiar with the terminology used in these fields. An in-depth knowledge is, however, not a prerequisite.
- Be familiar with personal computers—for basic applications.
- Be fluent in English.

#### Enrollment

To enroll, please mail, e-mail, or fax the attached registration form or register online by visiting our web site ([www.ifdc.org](http://www.ifdc.org)) by September 7, 2002. An organization wishing to enroll more than one participant must supply an enrollment form for each participant.

#### Program Costs

The program fee is US \$1,050 per participant for pre-registration and US \$1,200 for late registration. The fee can be paid by check/draft in favor of IFDC or by a major credit card—Visa, MasterCard, or American Express. The program fee is due 4 weeks before the commencement of the program; thereafter, the late registration fee applies. The program fee will be refunded in full for cancellation made 2 weeks prior to the commencement of the program; thereafter, 80% of the paid fee will be returned and 20% will be charged to cover administrative costs. The program fee covers the registration for the 1-week program, transportation for field trips, resource material, and tea/coffee breaks. The program fee does not cover meals and lodging during the program or air transportation and health insurance. Each participant is responsible for these costs. Food and hotel lodging will average about \$75-\$80/day. IFDC will make hotel reservations for participants.

**Program Registration**  
**International Training Program on**  
**Integrated Soil Fertility Management in the Tropics**  
**Lomé, Togo**

**October 7-12, 2002**

**Program Fee: US \$1,050**

**Late Fee (after September 7, 2002): \$1,200**

**Please complete this registration form and return**  
**the form with payment to IFDC before September 7, 2002.**  
**Registration can be done online at [www.ifdc.org](http://www.ifdc.org)**

**Please Print or Type**

Full Name (Mr., Ms., Dr.)—as you want it to appear on your attendance certificate

Birthdate: (Month) (Day) (Year)

Mailing Address:

City State Zip Code Country

Contact: Telephone Number/Fax/E-Mail:

Work Telephone

Home Telephone

Mobile/Cellular Telephone

E-Mail

Fax

Who Is Your Employer?

What Is Your Position Held at Your Organization?

Organization Funding Your Participation

Date Signature of Applicant

Date Signature of Employer/  
Funding Organization

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**Weather**

The weather in the Lomé area is warm and humid in October. The average temperature is 27°C.

**Visa Requirements**

A visa may be required to enter Togo and those requiring a visa should contact the Embassy or Consulate of Togo in their country of residence and also should fulfill any required health formalities at an early date.

**About IFDC**

IFDC—An International Center for Soil Fertility and Agricultural Development—is a nonprofit public international organization dedicated to increasing agricultural productivity and food production in the tropics and subtropics through the appropriate use of plant nutrients in sustainable crop production systems. Headquartered in Muscle Shoals, Alabama, U.S.A., IFDC conducts its research, training, and technical assistance programs in collaboration with private, national, and international organizations throughout the world. IFDC's Africa Division, based in Lomé, Togo, has specialized focus on market and policy, agricultural intensification, and input accessibility.

**About SM-CRSP**

The Soil Management Collaborative Research Support Program (SM-CRSP), is a program of the Economic Growth, Agriculture and Trade, Bureau for Field Support and Research of the U.S. Agency for International Development implemented by the Management Entity at the University of Hawaii and the following participating and collaborating universities: Auburn University, Cornell University, Montana State University, North Carolina State University, Texas A&M University, University of Florida, and NifTAL Center, University of Hawaii. SM-CRSP promotes integrated strategies for improving the efficiency of nutrient and water use by crops while preserving soil fertility and protecting water quality through the development and use of decision aids.

**As a non-profit organization, IFDC is not in a position to finance or sponsor any participant.**

You may subscribe to our e-mail announcements about IFDC training opportunities. Just send an e-mail message to [hrd@ifdc.org](mailto:hrd@ifdc.org) or [hrdu@ifdc.org](mailto:hrdu@ifdc.org) with "subscribe" as the subject message and you will receive periodic announcements.

Since 1974 IFDC has held over 590 workshops, study tours, and training programs for over 8,000 participants from approximately 150 countries. Apart from the IFDC Headquarters in Muscle Shoals, Alabama, these programs have been held in 48 other countries. The programs have covered a wide range of subjects including fertilizer marketing, production, distribution and handling, and numerous specialized subjects. In recent years, related courses on sustainability, computer modeling and simulation, fertilizer recommendations, and environmental aspects of fertilizer production and use have attracted participants from around the world. This International Training Program on Integrated Soil Fertility Management will offer the experience and expertise that IFDC and other international and regional organizations have gained in the recent years in developing and promoting productive and sustainable agricultural systems in the tropics.

**For more information:**

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 Togo

*IFDC reserves the right to modify or cancel any program or change the dates and/or venue of any program without the liability for compensation.*

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# *International Training* **Program on** **Integrated Soil** **Fertility** **Management** **in the Tropics**

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**October 7-12, 2002**

Organized by  
 An International Center for Soil  
 Fertility and Agricultural  
 Development



In cosponsorship with  
 Soil Management Collaborative  
 Research Support Program  
 University of Hawaii at Manoa

