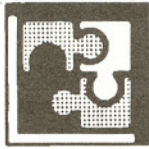


Report

*an update on
the work & progress at the
International Fertilizer Development Center*



Competition in Bangladesh's Fertilizer Market Promotes Efficiency

The August 14, 1990, headlines of the *Bangladesh Times* read . . . "Fertilizer Sales Increase by 20 Percent (over 1989 level) . . . Farm-level prices of fertilizer fell by at least 10 percent in 1989/90 over the previous year due to increased role of private sector in distribution and marketing."

Two years ago this newspaper story would have been phrased quite differently since all fertilizer marketing and distribution was then handled by the public sector.

A partnership forged in 1979 between the Government of Bangladesh, the U.S. Agency for International Development

(USAID), and IFDC is promoting a free and competitive marketing system for fertilizers in Bangladesh. Today, over 50,000 private dealers rather than the public sector are marketing fertilizer in Bangladesh.

Policies pursued by the Government of Bangladesh under this collaborative venture are resulting in savings for the country and its farmers. "Through a project started eleven years ago, the private sector is now making fertilizer more readily available to the farmers and at a lower price," says Kenneth L. Moots, Chief of Party, IFDC/Dhaka.

Fertilizer will play an increasingly

important role in agricultural production in Bangladesh, Moots says. Available land for crop production is limited, thus the only way to produce more food is to raise per-unit productivity of the presently cultivated land through increased fertilizer use.

Record-breaking yields in crop production during the past three consecutive cropping seasons represented significant increases over the previous best year's production in Bangladesh, according to Moots.

Fertilizer sales in Bangladesh totaled 2,043 thousand metric tons in 1989/90 (a 22% increase over the previous year) with an average use of 145 kilograms of fertilizer product per cropped hectare. Even though fertilizer use continues to grow, average consumption in Bangladesh remains low in comparison with that of other Asian countries like China and Pakistan.

Substantial savings to the national economy have resulted from the Government's policy shift to involve the private sector in fertilizer marketing and distribution. During 1989/90 the

(Continued on page 4)



(BADC photo)

Although the Government, through the Bangladesh Agricultural Development Corporation, still determines the kinds and amounts of fertilizer imported, the USAID/IFDC project has opened the marketing and distribution of fertilizer to the private sector.

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Comments From the Managing Director



(Photo by Charles Butler)

Dr. David B. Parbery
IFDC Managing Director

Tactical Plan Drafted

The main activities during the past quarter pertained to the planning process. Nearly all IFDC staff participated in the process, and the tactical plan was completed in draft form and discussed with the Board of Directors' Executive Committee via a telephone conference on 31 August. The plan will be discussed further with the entire Board during its annual meeting in October. We expect the reorganization of IFDC to be implemented during the remainder of 1990.

At this time, we do not know the status of IFDC's proposed membership in the CGIAR, but we expect to be advised by mid-September. This decision will affect the implementation of IFDC's tactical plan.

In the meantime, we have been invited to attend CGIAR Centers Week in Washington, D.C., in late October. At that time, we shall meet with donors and negotiate future support.

As part of IFDC's reorganization, a full-time position devoted to fund raising will be created within the Managing Director's Office. Because the competition for funding is intensifying, it is becoming more difficult to secure financial support for programs. Another aspect of reorganization

will be the reactivation of IFDC's commercial arm—in 1986 IFDC established a company that has been mostly inactive. This component will deal primarily with consultancies, profitable reimbursable projects, and marketing of IFDC's technology. It is hoped that this endeavor will become a joint venture with other appropriate research groups.

The Bangladesh Project: An IFDC Success Story

My scheduled visit to Bangladesh in late August was postponed due to health problems, which interfered with overseas travel.

IFDC's Fertilizer Distribution Improvement Project in Bangladesh is proving to be tremendously successful. With funding from the U.S. Agency for International Development (USAID), IFDC has been conducting this technical assistance project since 1979. The project has led to major policy reforms in Bangladesh, promoting a free and competitive marketing system for fertilizers. As a result, reforms enacted by the Government of Bangladesh have increased the availability of fertilizers at lower prices throughout the country.

The Bangladesh project received very favorable reviews from the USAID team that assessed IFDC's programs in early 1990.

Three Training Programs Conducted At Headquarters This Quarter

During the past quarter three training programs have been conducted at IFDC Headquarters. These were: "IFDC/Auburn University Soil Testing, Soil Classification, and Fertilizer Management," "IFDC/Purdue University Fertilizer Sector Development in Tropical and Subtropical Countries,"

and "Fertilizer Marketing Management Training Program."

During these programs I had the privilege of interacting with the training participants from developing countries and was enlightened concerning some of the problems that they face in their respective fertilizer sectors.

One of IFDC's most valuable products continues to be trained people. The training faculty and their support staff are to be commended for the fine job that they are doing in handling the busy 1990 schedule.

First African Named to Direct IFDC-Africa

Effective 1 September 1990, a native of Nigeria, Dr. Uzo Mokwunye, became the first African to head IFDC's regional center based in Lomé, Togo. Since 4 June 1990, Dr. Mokwunye has been serving as Acting Director of the African operation.

Dr. Mokwunye succeeds Dr. Paul L.G. Vlek, the first Director of IFDC-Africa. Dr. Vlek is now a Professor and Director of the Institut für Pflanzenbau in den Tropen und Subtropen, Georg-August Universität, Göttingen, West Germany.

Previously, Dr. Mokwunye held the position of Coordinator of Agronomic Research of IFDC-Africa; he has done an outstanding job in that position. Dr. Mokwunye has been employed by IFDC for 10 years, having joined the Center in 1980.

The architectural design for IFDC-Africa's permanent facility has been selected, and henceforth we shall be seeking US \$4 million required for its construction. As soon as funds are available, the facility will probably be built on the campus of the Université du Bénin, northern Lomé. At present, we are seeking permission from the Government of Togo to ratify the location of the Center at the University.

David B. Parbery

Zimbabwean Brings Extensive Experience in African Agriculture to Board

"I bring to the Board my experiences in agricultural research and development. . . . Because I understand the constraints to rural development, I hope to make a contribution on fertilizer resource development and use in developing countries." This was the way Dr. Samuel C. Muchena expressed his aspirations for future contributions to the IFDC Board of Directors.

Dr. Muchena's appointment to the Board brought an added breadth of experience in African agriculture to this group. In his present capacity as Deputy Secretary for Professional and Technical Services of the Ministry of Lands, Agriculture, and Rural Resettlement, Muchena assists the Secretary of Agriculture in Zimbabwe with the coordination of the technical issues of the Ministry.

To prepare for his career in agriculture, Muchena acquired B.S. and M.S. degrees in agriculture from Makerere University in Uganda and a Ph.D. degree in plant breeding, agronomy, and international agriculture from Cornell University (U.S.A.).

On his career path, Muchena has several achievements to his credit. Among the most notable of these accomplishments was his design of a breeding program to develop pearl millet and maize varieties adapted to areas of marginal rainfall in Zimbabwe. The dwarf pearl millet variety currently being disseminated in the communal areas under the name "Mugabe" was introduced into the country and genetically improved by Muchena. This variety is higher yielding and earlier maturing than local varieties.

After a stint of 1-1/2 years at the Harare Research Station, Muchena spent 4-1/2 years at the University of Zimbabwe lecturing in crop science and developing high-yielding drought-, pest-, and disease-resistant dwarf maize

hybrids. "In this work we had to place the material in different genetic backgrounds to develop dwarf maize hybrids that would have superior efficiency in water and nutrient utilization



(Photo by Charles E. Butler)

Dr. Samuel C. Muchena
Zimbabwe
IFDC Board of Directors

and improved agronomic varietal qualities so that we could produce a higher plant population and look to new plateaus in maize yield," Muchena says.

This was fascinating work for Muchena, but the next step on his career ladder beckoned him onward. "One of my students is continuing with the work on dwarf maize, and in the near future we hope to have dwarf maize varieties released for use by Zimbabwean farmers," he says.

Muchena finds his present work with the Secretary of Agriculture equally as interesting and challenging as his previous experience. "The most rewarding part of my job is translating research results into rural development," he says. This involves interdepartmental and interministerial as well

as private-sector coordination. "For example, I may call in the Ministry of Industry and Technology to ensure that a particular technology is translated into rural development," Muchena says.

"There must be a demand for the technology on the other side—someone must use it for it to be successful."

The Zimbabwean Board member's work leads him down many interesting paths. For instance, he recently introduced the production of silk in Zimbabwe. "Knowing that mulberry trees grow very well in my country, I wondered why we couldn't make silk. After seeking assistance, we are now at the point of setting up a pilot project. . . . the silk worm eggs are coming in . . . a multisectoral board involving the peasants, small-scale farmers, large-scale farmers, and a private company has been set up to produce silk."

Muchena's philosophy could well be phrased as: "Researchers provide the push—Industry provides the pull—As a result, something has to happen."

During his lifetime this Board member has made things happen, and in the process he has helped to increase food production in Zimbabwe, created employment for his people, increased rural income, and provided the means for his country to earn foreign exchange.

(Continued from page 1)

total overall saving to the economy was over TK 504 million (US \$14.5 million) in fertilizer.

The goals of the tripartite project are to remove constraints on the supply side of fertilizer, while ensuring adequate fertilizer availability at the farm level at competitive prices. Major (Retd.) Mohammad Abdul Hakim of M/s. Layla Enterprise, Naogaon, reports that the fertilizer distribution business in Bangladesh is "highly competitive, which causes profits to be marginal but sharpens dealers' business capabilities and is of tremendous benefit to the farmers."

Although the Government, through the Bangladesh Agricultural Development Corporation (BADC), still determines the kinds and amounts of fertilizer imported, the USAID/IFDC project has opened the marketing and distribution of fertilizer to the private sector. The estimated 50,000 plus private dealers (retailers) operate without any licensing requirements or restrictions on price or sales territory. Merchandise credit is commonly provided by wholesalers to dealers and by dealers to farmers.

Since 1979 IFDC has been responsible for consultancy services in fertilizer marketing, distribution, credit, and dealer training to the Government of Bangladesh and USAID.

The Center has organized 'train-the-trainer' courses/workshops and developed curricula/course materials for dealer training.

"We have found that some dealers make very good extension agents," he adds. "When a farmer comes to a dealer's shop to buy fertilizer, he doesn't rush off to find an agricultural extension agent to find out how to use it. He first will ask the advice of the dealer from whom he buys it."

As a result of collaborative efforts of the Bangladesh Government and IFDC, a dynamic private-sector distributor/dealer network has developed, creating improved fertilizer availability at competitive prices for Bangladeshi farmers. Withdrawal of restrictions on fertilizer movement has made marketing more responsive to shifts in demand and supply. Competition among dealers, sales promotion activities, and better

customer services have contributed to demand creation and growth in sales.

"During 1989 the market structure underwent a radical transformation," Moots says. "Over 369 private distributors from all over the country started purchasing fertilizer directly from factories, and their share of the urea market steadily increased from 6.14% in March 1989 to over 90% in January 1990."

The next major step toward achieving a fully competitive, cost-effective, and market-oriented fertilizer marketing and distribution system in Bangladesh is entry of the private sector into

fertilizer import. Private distributors, wholesalers, and dealers now have to depend on BADC for import of fertilizers. This reduces flexibility in obtaining supplies and limits product access.

As policy reform to develop a free and competitive fertilizer marketing system progresses toward its final stages, the size of the fertilizer operations of the private sector and their credit requirements are becoming larger and larger. To meet these growing needs major policy reform in the central bank and commercial banking sector has been taking place with assistance from IFDC.

IN MEMORIAM—DR. PIETER VAN BURG

With the untimely death of Dr. Pieter Van Burg on June 21, 1990, IFDC, its Board of Directors, and the fertilizer world lost a valuable ally, a renowned soil fertility research scientist, and an able administrator.

In an interview with the Report's editor in 1986, Dr. Van Burg expressed a desire to become an "ambassador for IFDC." As evidenced by his many contributions in that regard, he achieved that goal.

The Dutch citizen's accomplishments throughout life were numerous. Besides serving on the IFDC Board of Directors for more than 5 years, Van Burg was appointed Director of the Netherlands Fertilizer Institute (NMI) in 1975 and served in that capacity for more than a decade. In addition, he was the Editor-in-Chief of the international fertilizer research journal, *Fertilizer Research*; President of the Fertiliser Society, London, 1985/86; Committee member, Agricultural Group of the Society of Chemical Industry, London; and member and/or chairman of several selection committees of the Agricultural University and the Ministry of Agriculture to appoint either new professors or institute directors.

Born in Indonesia, the Dutchman moved to the Netherlands at an early age to receive his schooling. He received M.S. and Ph.D. degrees in soil science, tropical plant husbandry, and agricultural economics from the Agricultural University, Wageningen, the Netherlands.

Dr. Van Burg had a keen interest in the development of IFDC's Africa Center. He saw its development and growth as "imperative, particularly in light of the present situation of the agricultural sector."

It was very fitting that during his memorial service Dr. Van Burg's eldest daughter read an inspiring eulogy to her father. In that eulogy she quoted an African Chief Bambiane, who said, "Pray to the Father of our God to keep Pieter in peace for all his works in helping the poor."

We at IFDC, the Board members, his wife Dolly, his children and grandchildren will miss Pieter Van Burg, but we will never forget his humanitarian spirit, his positivism, his dedication to helping the developing-country farmer, and his ready smile.



Headquarters/Togo—

Data Management System That Will Contribute to Solutions of African Agricultural Constraints

IFDC has developed a fertilizer information database that will serve as a valuable decision-making tool for African policymakers, fertilizer marketing specialists, and researchers.

African decisionmakers have been in the dilemma of needing to provide solutions to farmers' problems through sound analysis of data without the advantage of reliable data or functional databases. If they do not have access to the data or if their data lack the reliability required for proper analysis—manpower, money, and time are required for sampling, collecting, recording, and assembling the necessary data for representative areas.

As a result of the efforts of a group of individuals, Africa's decisionmakers now can use a data management system to help in solving their dilemma. Rein Coster, formerly IFDC-Africa Market Analyst; Marc André, IFDC-Africa Marketing Specialist; Henny Gerner, IFDC/DGIS Data Management Specialist; Walter Ziering, Consultant; and Dr. Julio Henao, IFDC Biometrician, collaborated on the design and development of the data management

system, which is presently in operation in Lomé, Togo. This system is an outgrowth of the IFDC-Africa network, African Fertilizer Trade and Marketing Information Network or AFTMIN.

The system has been structured to maintain, update, and retrieve fertilizer data at the regional, subregional, country, and province level. The user can choose from menus that provide statistics on fertilizer supply, consumption, production, costs, and prices. Policymakers, scientists, and others can use this system in making decisions concerning crop production and fertilizer use, efficiency, and demand/supply.

"At present the system contains information on 49 African countries pertaining to fertilizer production, export, import, and consumption," says Henao. "Information on fertilizer products include data on farm prices, marketing costs, storage, bagging, margins, and subsidy."

Togo is the first country for which fertilizer and crop data are organized and structured at the province level. "This information is being generated from fertilizer sector studies and sur-

veys that contain annual and monthly data on fertilizer use, crop yields, cropped area, soil management information, and site factors," he adds. "Efforts will be made to include information at the province level for more countries in sub-Saharan Africa. These efforts will be coordinated through AFTMIN collaborators and national institutions."

To set up the system, the collaborating team contacted cooperators within the network countries, defined data structures, designed the data management system and reporting and information modules in support of regional and country needs, programmed database management modules, and exchanged fertilizer information with country collaborators.

"Actual and potential users of the system include African governmental institutions, such as the ministries of planning, rural development, and agriculture; fertilizer marketing organizations; national research institutions; international organizations; and development projects dealing with fertilizer sector studies," Henao says.

The aim of the data management system, which is being funded by the Directoraat General voor International Samenwerking (DGIS) of the Netherlands, is to promote the use of reliable fertilizer data for detailed country and regional studies and to encourage African national institutions in the use of simple techniques to collect, store, update, maintain, exchange, and disseminate agricultural information.

In the future the data management system will become even more useful. "The next step will be to expand the system to include information pertaining to fertilizer policy studies," Henao says. "This information will consist basically of indicators on the efficiency of fertilizer crop response, land use, agricultural development, and demographic and food nutrition factors."



(Photo by Charles E. Butler)

From left: Henny Gerner, IFDC/DGIS Data Management Specialist; Walter Ziering, Consultant; and Dr. Julio Henao, IFDC Biometrician, update the fertilizer database and discuss new approaches for data management information in countries of sub-Saharan Africa.



Costa Rica—

Technical and Financial Evaluation of FERTICA Completed

"I see hopeful signs in many developing countries that governments are looking to get out of the business of supplying inputs, machinery, and other services to farmers and turn these responsibilities over to private-sector entrepreneurs subject to controls imposed by competition and an open market," says Dr. Norman E. Borlaug, recipient of the 1970 Nobel Peace Prize, in a recent article.

An example of the hopeful signs that Dr. Borlaug mentions is found in Costa Rica. The Government of Costa Rica is taking steps to turn its main fertilizer-producing company over to the private sector. In preparing to take this step, the Fiduciaria de Inversiones Transitorias (FINTRA), under contract with the Costa Rican Government, sought the services of IFDC to conduct a technical and financial assessment of Fertilizantes de Centroamerica Costa Rica (FERTICA).

The thrust of the study revolved around required modifications to the installations and to the product mix of FERTICA, Costa Rica's primary fertil-

izer company, to make it attractive to investments from the private sector. Because FERTICA needs to be a profitable company with clearly defined production and marketing characteristics, FINTRA was prompted to secure the assistance of IFDC in making this assessment of FERTICA.

Having expertise in the technical areas of fertilizer production, marketing, and distribution, an IFDC team visited Costa Rica in late 1989. The team included Jorge R. Polo, Senior Project Analyst (team leader and chemical engineer); Dr. Edward W. Clayton, Transportation/Distribution Specialist; D. Ian Gregory, Marketing Specialist (financial analyst); and Dr. Adolfo Martinez, Agricultural Economist.

During their visit, the IFDC team reviewed operating conditions of various plants, examined the marketing/distribution system, and made a financial analysis of the different options for operating the plant as a private entity.

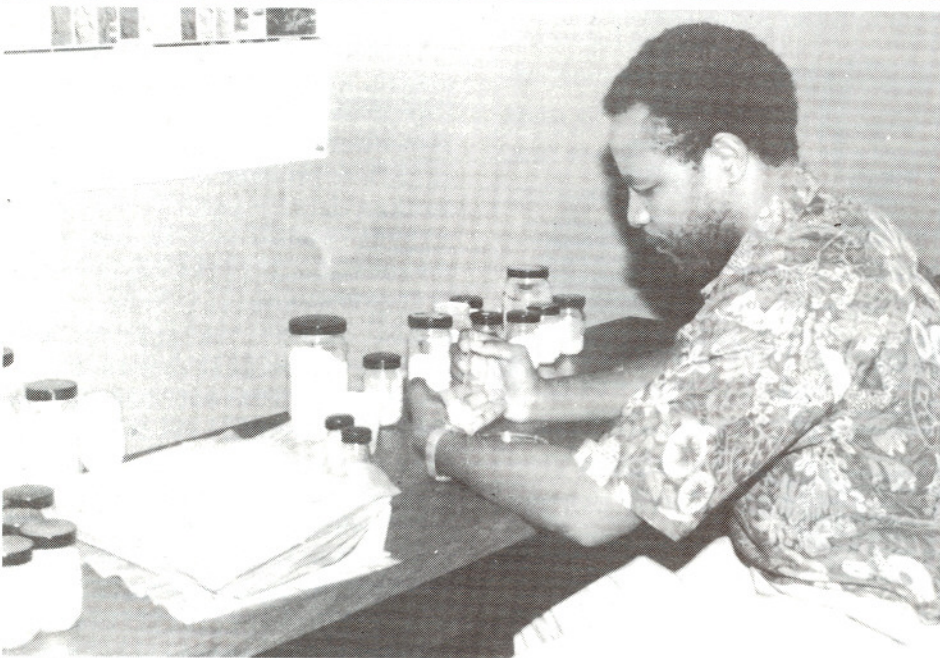
"We found a most efficient distribution system in place in Costa Rica, in which about 35% of the fertilizer moves

directly from the factory to the farmer, while the remainder goes directly to dealers or through company warehouses," Clayton says. "The multi-channel setup of private dealers ensures keen competition and low prices to the farmer."

The members of the IFDC team determined that the main constraint to the profitability of FERTICA was the pricing of its products. According to the team, by increasing its prices FERTICA can be profitable enough to continue operation and still produce finished fertilizer at a lower price than that of imported products.

On the production side, the team proposed that the company should continue operating with the present configuration after closing one of two duplicate nitric acid and ammonium nitrate plants.

"Operating FERTICA as a private company will save the Government of Costa Rica money and will prepare the company for growth and development," Polo says.



(Photo by Charles E. Butler)

A participant in the IFDC/Purdue University Training Program on Fertilizer Sector Development in Tropical and Subtropical Countries, Ellard Malindi from the Malawi Ministry of Agriculture inspects different types of fertilizers that were discussed during the program.



Headquarters—

**Training
Program**

Conducted on Fertilizer Sector Development in Tropical and Sub- tropical Countries

Ellard Malindi of the Ministry of Agriculture in Malawi knows firsthand the value of training in developing an effective fertilizer sector. As head of his country's National Extension Service, he is responsible for the training and work of 2,400 extension agents throughout Malawi.

Malindi participated in IFDC's Training Program on Fertilizer Sector Development in Tropical and Subtropical

Countries, conducted at Headquarters during July 23-August 3, 1990.

This program, organized jointly with Purdue University, proved to be beneficial to Malindi and the other participants. "We discussed the development of a fertilizer supply program, the improvement of the use efficiency of fertilizer to increase food production, the proper management of the extension service, the determination of future fertilizer demand, and the classification of soils and their fertility status," Malindi says. "For example, I learned how to determine the fertilizer requirements of our main food crops in Malawi—rice and maize."

Malindi was impressed with the knowledge base evidenced by the training faculty. "It was obvious that Dr. George Van Scoyoc, Professor of Agronomy, Purdue University, has conducted an abundance of soils research," Malindi says. "During Dr. Van Scoyoc's sessions, we studied soil classification and the toxicity, fertility, and management of soils. For example, we learned how to test for aluminum toxicity by germinating seeds of different crops in soils with varying levels of aluminum toxicity to determine aluminum tolerance."

Another distinguished speaker during the program was Dr. Stanley W. Buol, Professor of Soil Science, Ecology, and Forestry at North Carolina State University. The topic of Dr. Buol's presentation was "Soils of the Tropics and Subtropics and Their Use." Dr. Buol integrated soil genesis and classification information with basic factors of crop production including fertilizer use.

Some of the other topics that were discussed during the program included: "The Role of Marketing in Stimulating and Satisfying Farmers' Demand for Fertilizer," by D. Ian Gregory, IFDC Marketing Specialist; "The Economics of Fertilizer Use," by Gene T. Harris, IFDC Economist; "Crop Modelling," by Dr. Upendra Singh, IFDC Systems Modeller/Soil Scientist; and "World Fertilizer Situation," by Dr. Balu Bumb, IFDC Policy Economist.

The participants attending this program were from nine countries—Burma, Burundi, Malawi, Pakistan, Philippines, Rwanda, Uganda, United States, and Venezuela.

The program manager, Dr. L. E. Ahlrichs, IFDC Marketing Specialist, summarized the program in this way: "For many graduate students this program offers a chance to see how all of the pieces of the crop production puzzle fit together to form success. This opportunity is often not afforded them in the specialized training that they acquire in their graduate studies."



Gainesville, Florida, U.S.A.—

Training Program Teaches New Way to Forecast Crop Yields

Scientists at three institutions have provided a modern cost-effective approach to the problem of determining future yields of crops.

Because of the efforts of scientists from the University of Florida, the International Benchmark Sites Network for Agrotechnology Transfer (IBSNAT), Michigan State University, and IFDC, computer simulation models of the world's main cereal and legume crops are now available. These models can track the outcome of various combinations of irrigation, fertilizer, and other management factors. Using computer simulation models, the scientists can help farmers derive more reliable answers to questions concerning the probable results of their present management practices or any changes that they need to make to obtain better agro-economic results.

These models are all integrated into a software package called Decision Support System for Agrotechnology Transfer (DSSAT), developed by the scientists. The DSSAT provides data entry and application programs for organizing crop and soil experimental data and programs to link these data to the crop models and compare expected results with actual field results.

A training program on Computer Simulation of Crop Growth and Management Responses was conducted during August 13-24, 1990, at the University of Florida, Gainesville, Florida. During the program 19 participants from 11 countries learned about these models and conducted "hands-on" exercises on microcomputers using the models for soybean, maize, wheat, and

For Malindi the most important factor in agricultural development is "marrying the agronomic potential of a crop variety with the economics of fertilizer application." In future programs of this nature, he hopes that IFDC will allot more time to the economics of fertilizer use so as to answer the question, "How profitable is a particular agronomic practice?"

groundnuts. During a laboratory exercise, the agronomists/soil scientists learned techniques for collecting field data to be used in validation and application of crop simulation.

The faculty for this training program included scientists from the University of Florida, IBSNAT, and IFDC. They have been the leaders in developing computer models that simulate crop growth and soil/water/nutrient processes. These scientists have applied crop simulation models to solve problems of water and fertilizer management and to study the impact of climatic changes.

Dr. Upendra Singh, IFDC Systems Modeller/Soil Scientist, who served as a member of the faculty, noted that the program attracted "a very enthusiastic group of participants from developing and developed countries who are in positions to apply the systems simulation methodology in their countries' agriculture."

This type of program will be offered again during May 6-17, 1991, at IFDC Headquarters. Applicants should be university graduates who are currently involved in crop production-related research or planning. They should have some understanding of soil science and agronomy and be relatively familiar with terminology used in these fields. They should have some exposure to personal computers although proficiency in computing is not a prerequisite. The program fee of US \$1,400 is due with the application for enrollment. To enroll please apply to: O. W. Livingston, Director, IFDC Outreach Division.



Announcement—

IFDC to Conduct Third Annual Meeting of African Fertilizer Marketers

The third annual meeting of the correspondents of the African Fertilizer Trade and Marketing Information Network (AFTMIN) will be held at IFDC's regional office in Lomé, Togo, during November 13-15, 1990.

The annual AFTMIN meeting brings together African fertilizer marketers from both the public and private sectors and provides a forum in which problems and opportunities confronting the fertilizer sector in Africa can be discussed.

The focus of this year's program will be fertilizer supply and demand and the techniques used to develop medium-term supply and demand

forecasts. Specifically, presentations will be made on the outlook for the world nitrogen, phosphate, and potash situations; the present and future fertilizer situation in Africa; and techniques that are available and commonly used to forecast fertilizer supply and demand. The forecasting methodology used by the FAO/UNIDO/World Bank/Industry Working Group on Fertilizers will be discussed also. In addition, the sub-Saharan fertilizer database, which was developed by IFDC with DGIS support, will be demonstrated.

This year's meeting will involve a working session in which AFTMIN collaborators and IFDC staff will jointly

develop fertilizer supply and demand forecasts for each country in Africa. The individual country forecasts will then be used to develop a fertilizer supply-demand forecast for Africa.

Fertilizer traders dealing with Africa and representatives of donors and other international organizations are welcome to attend. Those persons interested in attending the AFTMIN meeting should contact M. Marc André, Coordinator, AFTMIN Project, IFDC-Africa, B.P. 4483, Lomé, Togo, Telephone: 228-21-79-71, Telefax: 228-21-78-17, or Telex: 5416 CIFDC TG.



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