

COST AND ENROLLMENT

The program fee for this training course is US \$2,700 per participant (inclusive of a US \$250 non-refundable deposit) and should reach IFDC no later than July 20, 2018, four weeks before the program is scheduled. Those received thereafter will be accepted at IFDC's discretion and incur a late fee. Participants will be given the opportunity to take advantage of an early-bird rate if registration and payment is received by IFDC prior to June 20, 2018. Please refer to the table below for pricing:

Early Bird - Registration and Payment by June 20, 2018	Regular - Registration and Payment by July 20, 2018	Late - After July 20, 2018
\$2,500	\$2,700	\$2,900

The program fee, less the non-refundable deposit, will be refunded for cancellations made two weeks before the commencement of the program. Ninety percent of the paid fee will be returned and 10 percent, in addition to the deposit, will be charged to cover administrative costs for cancellations made between two weeks and one week before the commencement of the program. Cancellations made less than one week before the commencement of the program will receive no refund.

Registration will be on a first-come, first-served basis. Paid participants will receive priority. An organization wishing to enroll more than one participant should supply information and payment for each participant.

Payment of the program fee can be made by: (1) check or draft payable to IFDC; (2) wire transfer to IFDC's account in the U.S.A. through First Metro Bank, 406 West Avalon Avenue, Muscle Shoals, Alabama, U.S.A., ABA number 062203955 for credit to IFDC account number 55281; or (3) major credit card – MasterCard, Visa, or American Express.

The program fee covers registration, training and reference material, coffee/tea breaks, all lunches, and surface transportation on field trips. The fee does not include air travel, lodging and dinner expenses, or medical and communication expenses.



FOR MORE INFORMATION

Director, Training and Workshop Coordination Unit
IFDC

P.O. Box 2040

Muscle Shoals, Alabama 35662, U.S.A.

Telephone: +1 (256) 381-6600

Fax: +1 (256) 381-7408

E-Mail: training@ifdc.org Website: www.ifdc.org

NOTE: As a nonprofit organization, IFDC does not finance or sponsor any participant.



IFDCTraining



@IFDCTraining

THE INTERNATIONAL FERTILIZER DEVELOPMENT CENTER ANNOUNCES AN INTERNATIONAL TRAINING PROGRAM

U.S. Study Tour on Technology Advances in Agricultural Production, Water, And Nutrient Management

Alabama, Arkansas,
Iowa, Missouri, Tennessee,
and Washington, D.C.
August 20-31, 2018



Developing Agriculture from the Ground Up

BACKGROUND

By 2050, the global population is projected to be more than 9 billion, doubling demand of global food and fiber. Sustaining production at that level is a major challenge only compounded by safeguarding environmental integrity and maintaining public health. Agricultural intensification through high-yielding crop varieties, fertilization, irrigation, and crop protection remain the most likely options to combat these challenges. In the past, the emphasis was on improving potential yield, but today's focus is increasingly on strategies such as improving the nutritional value of foods, reducing post-harvest losses, improving stress tolerance, and reducing reliance on chemical crop protection products (CPPs).

Agricultural technology continues to make enormous advances in increasing crop production and safeguarding the environment. The integration of IT and systems-research tools, such as GIS, GPS, and remote sensing, have spurred a continual development of precision agriculture tools, such as variable rate technology and in-season prediction of crop yield potential. These tools allow farmers to maximize their cost-benefit ratio while mitigating environmental impacts.

Additionally, water management techniques are benefiting from these advances, such as the use of soil moisture sensors to control irrigation. Soil moisture sensors detect when the substrate water content drops below a grower-defined point and automatically turn on the irrigation when needed.

These emerging technologies are ushering in a new era that will affect farmers' day-to-day operations and improve their ability to compete in the global market. These innovations will also contribute to increased agricultural productivity and transformation of agribusiness infrastructure.

Many of these advanced technologies, as well as the concepts and approaches in strategic farming in the U.S., are directly applicable to agricultural production in developing and developed country environments. Therefore, the study tour will provide participants with a unique opportunity to develop their professional skills and, at the same time, build collaborations with U.S. organizations and other participants.

With well-established relationships with many public and private sector organizations that impact agricultural production in the U.S., IFDC is uniquely positioned to stay abreast of the latest technologies related to soil fertility and water management and how they can be applied to developing and developed country agriculture.

This study tour allows participants to visit some of these organizations, including farmer cooperatives; the U.S. Department of Agriculture; Pioneer; Syngenta; The Fertilizer Institute; research and education centers of major agricultural colleges and universities; and many large- and small-scale farmers. Interactions with these entities provide participants with an opportunity to see how farmers, agribusinesses, and policymakers are adjusting to today's agriculture challenges. Additionally, participants are offered the unique opportunity to visit the Farm Progress Show, the largest outdoor farm show in U.S. agriculture, featuring the most extensive state-of-the-art farm equipment and information and technology available for today's agricultural producers.



OBJECTIVES

The objectives of the 10-day training program and study tour are to:

- Improve participants' knowledge and understanding of recent technological advances in the areas of biotechnology, sensor-based irrigation, information management, precision agriculture, and remote-sensing technologies.
- Familiarize participants with the farm-level impact of each of these advances on water and nutrient management under changing climatic conditions.
- Provide an opportunity for participants from many countries and backgrounds to observe and discuss the practicality and economics of integrating these innovations into the mainstream of major crops.
- Expose participants to trends and challenges in the agricultural global market and show how farmers, agribusinesses, and policymakers are adjusting to them by using state-of-the-art information and technology.

WHO SHOULD ATTEND

This workshop is designed for innovative farmers, agronomists, soil scientists, researchers, and extensionists from national and international agricultural research institutes and universities, as well as policymakers from governments and ministries in charge of agricultural productivity and planning. Executives and managers of fertilizer and agricultural input organizations will find this program particularly interesting. Government officials involved in developing strategies for increased agricultural production through the use of emerging technologies that promote resource conservation and increased efficiencies will also benefit from the program. Participants should be fluent in English.



CONTENT

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

- Overview of U.S. agricultural production and fertilization.
- Economic benefits of integrating agricultural technology advances in U.S. agriculture.
- Fertilizer and nutrient use efficiency in agricultural production.
- Nutrient management using precision agriculture and remote-sensing technologies.
- Overview of advances in water management in agricultural production, e.g., sensor-based irrigation management.
- Precision agriculture involving nutrient and water spatial and temporal variability management.
- Precision agricultural systems' farm-level impacts (real and/or potential) from national policies and international agreements on trade and the environment (e.g., biofuel production and its impacts on commodity prices, reserve stocks, and national fiscal, environmental, and energy policies).
- Information management and agricultural extension services such as smart phone applications and advisory services (crop management, fertilizer use, irrigation schedules, weather and pest control).
- Strategic planning and risk management in times of uncertainty.
- Biotechnology and advances for crop improvement.
- Managing natural resources and environment under changing climatic conditions.
- Advances in sustainable, environmentally-safe use of CPPs and bio-engineered agriculture.
- U.S. Government policies and regulations on fertilizer and crop protection.

FEATURES

The program offers exceptional highlights and features, including but not limited to:

- International faculty from IFDC, leading U.S. agricultural producers, and other international experts.
- Diverse and participatory activities based on training activities and key lectures.
- Written training materials for permanent reference.
- 8.5 days of field visits to observe recent advances in irrigation and nutrient management, biotechnology, precision agriculture, etc., and 1.5 days of classroom-style presentations and discussion opportunities.

The discussions and interactions will generate considerable information, which will help prepare participants to improve their abilities to compete in the global market and assist farmers in their day-to-day operations.





FACULTY

Faculty for this training program and study tour will include IFDC specialists with more than 25 years of soil science experience with a focus on improving nutrient use efficiency and facilitating the transfer of innovative agro-technologies. Other faculty participating in this training will include farmers, extension agents, public sector researchers, entrepreneurs, and other representatives of the private sector involved in using, supplying, or developing the technologies.

TRAVEL AND VENUE

The program will begin Monday morning, August 20, 2018, at IFDC headquarters in Muscle Shoals, Alabama. Thus, participants are expected to arrive on Sunday, August 19, 2018. After two days in Alabama, participants will travel as a group via bus to Tennessee, Arkansas, and finally to St. Louis, Missouri. Participants will travel as a group via plane from St. Louis to Washington, D.C., where the program will conclude on Friday, August 31, at approximately 5:00 p.m. While the training will officially end Friday evening, an optional half-day bus tour of Washington, D.C., will take place on Saturday, September 1, provided that we have enough participation. Participants should return to their home country from Washington, D.C. It is up to the participants to select their departure date, bearing in mind that the negotiated room rate in D.C. may not be available for extended stays past September 1.

COST OF LIVING

The food and lodging expenses will average approximately US \$130/day in Alabama, Arkansas and Tennessee (6 days); approximately US \$140/day in Missouri (3 days); approximately \$170/day in Iowa (2 days); and approximately US \$200/day in Washington, D.C. (2 days).

BREAKDOWN OF AIR TICKETS NEEDED

Home country to Huntsville (airport code HSV), Alabama

- Participants should plan to arrive no later than Sunday, August 20.
- Huntsville is the nearest city with an international airport and is located approximately 75 minutes from Muscle Shoals/Florence area.
- An IFDC staff member will meet participants at airport and provide transport to the selected hotel.
 - * The selected hotel is located in Florence, Alabama, which is just three miles away from IFDC headquarters, where the training will take place while in Alabama.

Des Moines, IA (airport code DSM) to Washington, D.C. (airport code DCA)

- To ease in logistics and stay together as a group, all participants should book a flight for Wednesday, August 29, on Delta Flight #5115 connecting #547 departing Des Moines at 3:26 (15:20) p.m. and arriving in Washington, D.C. at 9:30 (21:30) p.m. A link to this itinerary can be found here: <https://goo.gl/flights/t9jGb>

Washington, D.C., to Home Country

- Participants should return to their home country from Washington, D.C.
- While the training will officially end Friday evening, August 31, at approximately 5:00 (17:00) p.m., an optional half-day bus tour of Washington, D.C., will take place on Saturday, September 1, provided that we have enough participation.
- It is up to the participants to select their departure date, bearing in mind that the negotiated room rate in D.C. may not be available for extended stays past August 31.
- Participants planning to extend their stay are kindly requested to contact the hotel in advance to get the applicable room rate to their additional days.

Note: Participants are advised to book tickets as early as possible as the above-mentioned plane could become full and prices will continue to increase until departure date.

LODGING

VENUES SNAPSHOT

Venue	City	State	Check In	Check Out	Rate
Marriott Shoals Hotel & Spa, 10 Hightower Place, Florence, AL	Florence	Alabama (AL)	Aug 19	Aug 22	\$93/night plus tax
Hampton Inn & Suites-West 1301 S. Shackleford Road, Little Rock, AR 72211	Little Rock	Arkansas (AR)	Aug 22	Aug 23	\$92/night plus tax
Holiday Inn Express & Suites-West 220 Eldridge Road Forrest City, AR 72335	Forrest City	Arkansas (AR)	Aug 22	Aug 23	\$92/night plus tax
Residence Inn Marriott 201 South 20th Street St. Louis, MO 63103	St. Louis	Missouri (MO)	Aug 24	Aug 27	\$109/night plus tax
Best Western Holiday Manor 208 W 4th St N Newton, IA 50208	Newton	Iowa (IA)	Aug 27	Aug 29	\$79.99/night plus tax
Hampton Inn 901 6th Street NW Washington, D.C. 20001	Washington	District of Columbia (D.C.)	Aug 29	Aug 31	\$159/night plus tax

LODGING IN FLORENCE, AL, WHILE AT IFDC HEADQUARTERS

Check In: August 19, 2018 | Check Out: August 22, 2018

The 4-diamond Marriott Shoals Hotel & Spa is a one hour drive from Huntsville International Airport. Some local attractions in the area include: the historic FAME and Muscle Shoals Sound Studio recording studios, the University of North Alabama, W.C. Handy's birthplace, the Historic Wilson Lock and Dam, the Birthplace of Helen Keller, and the Frank Lloyd Wright Rosenbaum House.

Located in Florence, the hotel is minutes away from Muscle Shoals and Sheffield. From the hotel, there is a remarkable selection of exclusive resources on site, including Alabama's only revolving restaurant, a spa, and indoor and outdoor pools.

All accommodations boast a range of superb amenities, including free Wi-Fi, plush bedding, and a private balcony, which offers stunning views of the Tennessee River and Wilson Dam. Participants will be extended IFDC's special negotiated single occupancy room rate of USD \$93 per night including applicable state/local taxes and breakfast. Participants are responsible for reservation and payment of accommodations at the Marriott Shoals Hotel & Spa. Please contact the hotel to reserve your room **NO LATER THAN August 6, 2018**. After this date, reservations will be subject to hotel room availability and at the best available rate.

Booking Information

Marriott Shoals Hotel & Spa

10 Hightower Place

Florence, Alabama 35630

Tel: +1 (256) 246-3600

Online: <http://bit.ly/2o2YWQz>

Cut-off Date for Reservations: August 6, 2018

LODGING IN LITTLE ROCK, ARKANSAS

Check In: August 22, 2018 | Check Out: August 23, 2018

The Hampton Inn & Suites West Little Rock hotel is located less than five miles from Little Rock's finest attractions. This clean and comfortable Hampton Inn & Suites hotel in Little Rock-West is just 10 minutes away from downtown, where you'll find an array of quaint shopping and dining destinations.

Participants will be extended IFDC's special negotiated single occupancy room rate of US \$92.00/per night, inclusive of breakfast. Applicable state/local taxes will apply. Rooms are equipped with free high-speed internet access, lap desks for laptop computers, 32-inch flat screen televisions, microwaves, refrigerators, coffee/tea maker, and iron/ironing board. Participants are responsible for reservation and payment of accommodations at the Hampton Inn & Suites West Little Rock. Please contact the hotel to reserve your room **NO LATER THAN August 1, 2018**. After this date, reservations will be subject to hotel room availability and at the best available rate.

Booking Information

Hampton Inn & Suites West Little Rock

1301 S. Shackleford Road

Little Rock, AR 72211

Tel: +1 (501) 537-3000

Online: [http://hamptoninn.hilton.com/en/hp/groups/personalized/L/LITWTHX-](http://hamptoninn.hilton.com/en/hp/groups/personalized/L/LITWTHX-IFD-20180822/index.jhtml?WT.mc_id=POG)

IFD-20180822/index.jhtml?WT.mc_id=POG

Cut-off Date for Reservations: August 9, 2017

LODGING AT HOLIDAY INN & SUITES, FORREST CITY

Check In: August 23, 2018 | Check Out: August 24, 2018

The Holiday Inn and Suites Forrest City hotel is conveniently located on I-40 at 241-B which allows quick access to local restaurants and tourists destinations. A few points of interest located close to Holiday Inn and Suites Forrest City include Village Creek State Park, Mississippi River State Park, Parkin Archeological State Park, and EACC Fine Arts Center.

Participants will be extended IFDC's special negotiated single occupancy room rate of US \$124.99/per night, inclusive of breakfast. Applicable state/local taxes will apply. Rooms are equipped with free high-speed internet access, 42-inch flat screen televisions, microwaves, and refrigerators. Participants are responsible for reservation and payment of accommodations at the Holiday Inn and Suites Forrest City. Please contact the hotel to reserve your room **NO LATER THAN August 9, 2018**. After this date, reservations will be subject to hotel room availability and at the best available rate.

Booking Information

Holiday Inn and Suites Forrest City
220 Eldridge Road
Forrest City, Arkansas 72335
Tel: +1 (870) 633-3700
Reference Code: IFDC
E-Mail: Sales@HIEForrestCity.com

Cut-off Date for Reservations: August 9, 2018

LODGING IN ST, LOUIS, MO

Check In: August 24, 2018 | Check Out: August 27, 2018

The Residence Inn offers spacious suites with separate areas for sleeping, working, eating and relaxing. You will have plenty of space for entertaining or meeting with colleagues and space to work efficiently and comfortably. Enjoy all of the complimentary extras offered, including deluxe breakfast buffet, high speed Internet access, grocery shopping service, fitness center and hotel shuttle within a three-mile radius from 7:30 a.m. until 10:30 p.m. With their convenient downtown location, you will be just minutes away from all of the excitement happening in Downtown St. Louis Riverfront – Arch, St. Louis Cardinals, St. Louis Rams, Washington Avenue and more.

Participants will be extended IFDC's negotiated special Studio Suite rate of US \$109.00 per night. This rate includes a full complimentary hot breakfast that is offered daily. Applicable state/local taxes will apply. Each room comes equipped with a full kitchen, including a full-size refrigerator, stove, microwave, dishwasher, iron and ironing board, coffeemaker and LCD television. There is a newly designed patio with a fire pit and gas grills, several communal tables with charging stations and much more. Participants are responsible for reservation and payment of accommodations at the Residence Inn. Please contact the hotel to reserve your room **NO LATER THAN August 1, 2018**. After this date, reservations will be subject to hotel room availability and at the best available rate.

Booking Information

Residence Inn St. Louis Downtown
525 S. Jefferson Avenue
St. Louis, MO 63103, USA
Tel: +1 (866) 448-7500
Booking Link: <http://bit.ly/2sYWryM>

Cut-off Date for Reservations: August 1, 2018

LODGING IN NEWTON, IA

Check In: August 27, 2018 | Check Out: August 29, 2018

Minutes from downtown and attractions like the Iowa Speedway, guests at the Best Western Holiday Manor enjoy newly remodeled rooms and spaces, as well as numerous travel-inspired amenities. Local attractions like the Iowa Speedway, Knoxville Raceway, Adventureland Park and Prairie Meadows Casino are all nearby as well as the grounds for the Iowa State Fair.

Participants will be extended IFDC's special negotiated single occupancy room rate of US \$79.99/per night, inclusive of breakfast. Applicable state/local taxes will apply. The spacious, updated rooms are outfitted with a 32" TV, mini-refrigerator, microwave, coffee/tea maker and a separate work area. Every room provides guests with access to free high-speed Internet. Guests can enjoy the heated, indoor pool, and fitness center. Participants are responsible for reservation and payment of accommodations at the Best Western Holiday Manor. Please contact the hotel to reserve your room **NO LATER THAN August 13, 2018**. After this date, reservations will be subject to hotel room availability and at the best available rate.

Booking Information

Best Western Holiday Manor
208 W 4th St. N
Newton, Iowa 50208
Tel: +1 (641) 792-3333
Reference Code: IFDC

Cut-off Date for Reservations: August 13, 2018

LODGING IN WASHINGTON D.C.

Check In: August 29, 2018 | Check Out: August 31, 2018

The Hampton Inn Washington-Downtown-Convention Center, DC is in the center of it all brimming with politics, culture, entertainment and American history. You will be just a short walk from many of D.C.'s most recognizable museums, monuments, attractions and the city's Convention Center. While you are a guest, you will be just a few blocks from Chinatown, the Spy Museum, Capitol Complex and the White House. The Washington Monument, mall, U.S. Botanic Garden, Library of Congress, Supreme Court and Capitol Visitors Center are all less than a mile away. The hotel features an indoor pool, whirlpool, fitness center, 24 hour business center and complimentary internet access.

Participants will be extended IFDC's special negotiated single/double occupancy room rate of US \$159.00/per night. This rate includes a complimentary hot buffet breakfast each morning for every guest, king or queen size accommodations and in-room microwaves and refrigerators. Applicable state/local taxes will apply. Rooms are equipped with a 32-inch LCD color television, coffeemaker, iron/ironing board, easy-to-operate alarm clock/radio and large work surface. Participants are responsible for reservation and payment of accommodations at the Hampton Inn. Please contact the hotel to reserve your room **NO LATER THAN July 31, 2018**. After this date, reservations will be subject to hotel room availability and at the best available rate.

Booking Information

Hampton Inn Washington Downtown
901 6th Street NW
Washington, D.C. 20001, USA
Tel: +1 (888) 370-0981

Reference: IFDC Study Tour

Booking link: https://hamptoninn.hilton.com/en/hp/groups/personalized/W/WASHHHX-IFD-20180829/index.jhtml?WT.mc_id=POG

Cut-off Date for Reservations: July 31, 2018