

# InfoAg 2003

## Information Agriculture Conference



**July 30 – August 1, 2003**

**Adam's Mark**

**Indianapolis Airport**

A Conference on Site-Specific Crop and Soil Management  
and Computer Communication Systems for Agriculture

**Organizers:**



**Potash & Phosphate Institute  
Potash & Phosphate Institute of  
Canada**



**Foundation for Agronomic Research**



**CropLife Media Group**

**[www.ppi-far.org/infoag](http://www.ppi-far.org/infoag)**



## Plan Your Own Program

The major program topics for InfoAg 2003 are:

- Collecting and using site-specific data
- On-farm research
- Novel GIS applications
- Latest site-specific and high-yield research
- Opportunities in nutrient management planning
- Remote and on-site sensing



## Hands-on Workshops

Unique hands-on computer workshops will guide you through:

- Analyzing trends in soil test data
- Manure management planning
- Cleaning yield monitor data
- Estimating nutrient budgets
- Using yield data in innovative ways



## Hotel

All sessions and exhibits for InfoAg 2003 are located at this hotel:

Adam's Mark Indianapolis Airport

2544 Executive Drive

Indianapolis, IN 46241

Phone: (317) 248-2481

Fax: (317) 381-6159

Web: [www.adamsmark.com/indy-airport](http://www.adamsmark.com/indy-airport)



## Name Badges/Registration

Registration is required to enter all InfoAg 2003 program sessions. Official conference name badges should be worn at all times to verify registration.

The registration desk is open:

Wednesday, July 30—

7:00 a.m. to 5:30 p.m.;

Thursday, July 31—

7:00 a.m. to 5:30 p.m.;

Friday, Aug. 1—

7:00 a.m. to 10:00 a.m.



## Lunch Tickets

Lunches are included in the registration fee for InfoAg 2003 each day of the conference.



## Exhibits

Exhibits for InfoAg 2003 are in the Hall of Champions.

The exhibit area is open during each of the session breaks, lunches, and evening reception.



## Website

The Information Agriculture Conference website features additional details and links to other sites. The URL is:

[www.ppi-far.org/infoag](http://www.ppi-far.org/infoag)



## CEU Credits

CEU credits are pending on every session. Sign-in sheets will be available at each session.



## Proceedings on CD-ROM

Conference proceedings of InfoAg 2003 will be posted to the website after the conference. Registered conference participants may order a CD of the proceedings from the website. Proceedings are not available in printed form.

For more information, visit the website: [www.ppi-far.org/infoag](http://www.ppi-far.org/infoag)

Or call (605) 692-6280

Or fax (605) 697-7149

Or e-mail: [ppates@ppi-far.org](mailto:ppates@ppi-far.org)

# InfoAg 2003 Program

**Welcome to the 2003 Information Agriculture Conference.**  
**Additional program details and/or revisions will be announced during the Conference.**

## Wednesday, July 30, 2003

7:00 a.m.–5:30 p.m. Registration Open

10:00 a.m.–11:30 a.m. Opening Plenary Session—Golden Ballroom

Moderator:  
Terry Roberts

*Welcome to the Conference*

David Dibb, President, PPI

*Visualizing Ag Information—Now and Tomorrow*

Max Crandall, Agriculture Marketing Manager, ESRI

*With Vision There Is Hope*

Bruce Vincent, Vincent Ventures

11:30 a.m.–1:00 p.m. Lunch  
Sponsored by AGCO Global Technologies for Agriculture



11:30 a.m.–8:00 p.m. Exhibits Open—Hall of Champions

1:00 p.m. Afternoon Sessions Begin  
(see next page)



InfoAg 2003 is made possible in part through a grant from the USDA-CSREES Initiative for Future Agriculture and Food Systems (IFAFS).



**Using Soil Test Data—Golden Ballroom 1**

Moderator:  
Michael Larkin

*Appropriate Uses of Soil Test Data*

Dale Leikam, Nutrient Management Specialist, Kansas State University

*Practical Sampling Strategies*

Scott Murrell, Northcentral Director, PPI

*Looking for Trends in Soil Test Data*

Lance Murrell, Lance Murrell Consulting

*Estimating Nutrient Budgets*

Dan Froehlich, U.S. Country Agronomist, Cargill Crop Nutrition

**CyberDealer: Selling Services—Golden Ballroom 2**

Moderator:  
Jess Lowenberg-DeBoer

*Results of 8th Annual Purdue/CropLife Precision Adoption Survey*

Eric Sfiligoj, Managing Editor, CropLife

*Retailer Panel on Selling Services*

Jess Lowenberg-DeBoer, Director, Site-Specific Management Center, Purdue University

**GIS Software Showcase—Fortune Square C-D**

Moderator:  
Jonathan Norvell

*New AGCO Technologies Including Auto-Guide*

Terry Panbecker, Worldwide Hardware and Software Support Manager,  
AGCO Global Technologies for Agriculture

*SSToolbox 3.4 and SST Summit: A Data Sharing Partnership*

David Waits, President, SST Development Group, Inc.

*Farm Works: Farm Trac/Farm Site*

Anthony Bowers, Senior Software Engineer, Farm Works Software, CTN Data Service, Inc.

*MapShots EASi Suite Pro*

Ted Macy, President, MapShots

**Workshop: Manure Management Planner—Fortune Square A–B**

*Nutrient Management Planning Software*

Brad Joern, Professor, Purdue University

Phil Hess, Purdue University

**Break and View Exhibits**

Refreshments sponsored by MapShots



Moderator:  
Max Crandall

**PPI/FAR GIS Projects for Agriculture—Golden Ballroom 1**

*Spatial Analysis of Soil Test Calibration Research*

Tom Bruulsema, Eastern Canada and Northeast U.S. Director, PPI

*Mapping the Enterprise Database*

Steve Couch, IT Manager, PPI

*Soil Test Summaries—National Data Sets and Example Field Data*

Harold Reetz, Midwest Director, PPI

*Using GIS for Hybrid Selection*

Jonathan Norvell, University of Illinois

*Yield Profitability Mapping*

Scott Murrell, Northcentral Director, PPI

Moderator:  
Paul Fixen

**Current Issues in Ag Tech—Golden Ballroom 2**

*Take a Closer Look*

Kathy Mathers, Vice President, Public Affairs, The Fertilizer Institute

*Fertile Minds*

Kim Polizotto, Chief Agronomist, PotashCorp/PCS Sales

*Back-to-Basics*

Ray Hoyum, Vice President, Market Development and Marketing Communications,  
IMC Global, Inc.

*Info Integration Needs in Agriculture*

Mark Bernstein, Senior Policy Analyst, Rand

Moderator:  
Tim Smith

**GIS Software Showcase II—Fortune Square C-D**

*MapCalc Professional: Spatial Analysis of Precision Ag Data*

Carol Snyder, Director of Sales, Red Hen Systems, Inc.

*Total Scout: Scouting and Sampling Utilizing GPS and Bar Coding*

Dion Harste, President, AgCode, Inc.

*AGIS GPC*

John Wagner, Ag Retailer Program Planning and Consulting, AgRePlan, LLC

*Ag Leader SMS Advanced*

Corey Weddle, Product Manager, Ag Leader SMS Advanced

**Workshop: Modeling P and K Management Decisions—Fortune Square A-B**

*Using System Dynamics Models to Compare Management Options*

Robert Stewart, Senior Consultant, AEC/Centrec

Chris Schroeder, Partner, AEC/Centrec

Harold Reetz, Midwest Director, PPI



**7:00 a.m.–5:30 p.m.**

**Registration Open**

**Exhibits Open during Session Breaks and Lunch—Hall of Champions**

**8:00–9:50 a.m.**

**Concurrent Sessions**

Moderator:  
Scott Drummond

**Using Yield Data—Golden Ballroom 1**

*Collecting Quality Yield Data*

Scott Shearer, Professor, University of Kentucky

*Processing Yield Data for Site-Specific Management*

Achim Dobermann, Associate Professor, University of Nebraska

*One-Year Yield Data Analysis*

Gregg Carlson, South Dakota State University

*Normalizing Yield Data*

Gregg Carlson, Professor, South Dakota State University

Moderator:  
Chris Schroeder

**Identity Preservation—Golden Ballroom 2**

*Practical Benefits of an Identity Preservation System*

Matt Wiebers, GIS Specialist, Cargill Crop Nutrition

*Identity Preservation and the Food-Value Chain*

James Mock, Crop Verifeye, LLC

*Identity Preserved Opportunities in Crops and Livestock*

Phil Neff, IdentityPreserved.com

*Growers' Perspectives on Value-Enhanced Crops*

Burt Swanson, Professor of Rural Development, University of Illinois

Moderator:  
Damien Lepoutre

**Data Sources for Your GIS—Fortune Square C-D**

*Formats, Uses, and Availability of Digital Soil Survey Data*

Reed Cripps, Resource Soil Scientist, NRCS

*Terra Server – CALMAR*

Curt Ross, CALMAR

*NASS and Ag Census Data*

Rick Mueller, GIS Analyst, National Agricultural Statistics Service

*Geography Network*

Nick Thomas, Agriculture Solutions Specialist, ESRI

*USDA/NRCS Geospatial Data Gateway*

Larry Davis, Technical Information Specialist, National Cartography and Geospatial Center

**Workshop: Analyzing Trends in Soil Test Data—Fortune Square A-B**

Scott Murrell, Northcentral Director, PPI

Lance Murrell, Consultant, Lance Murrell Consulting

**9:50–10:30 a.m.**

**Break and View Exhibits**

Refreshments sponsored by OmniSTAR



**10:30 a.m.–12:20 p.m. Concurrent Sessions**

Moderator:  
Don Lamker

**Data Mining Showcase—Golden Ballroom 1**

*Utilizing the SST Information Lab*

Dwight Koops, Vice President, Crop Quest Agronomic Services

*Adapting Precision Agriculture Technologies to California Agriculture*

Michael Larkin, Agronomist, Precision Agri-Lab Western Farm Service

*High-Q*

Pat Schaddel, Brandt Consolidated

*AgFleet: Tactical Modules for Agricultural Decision-Making*

Joe Russo, President, ZedX Inc.

Moderator:  
Eric Rund

**Competition: Brazil and Argentina Production Systems—Golden Ballroom 2**

*Production Systems in Argentina*

Fernando García, PPI/PPIC Southern Cone Program (INPOFOS)

*Soybean Production System in Brazil and its Competitiveness in the World Market*

T. Yamada, PPI/PPIC Brazil Program (POTAFOS)

*Competing with South America*

Jess Lowenberg-DeBoer, Director, Site-Specific Management Center, Purdue University

Moderator:  
Steve Couch

**Field Data Collection—Fortune Square C–D**

*Electrical Conductivity and pH Sensing*

Eric Lund, Veris Technologies, Inc.

*RTK Elevation Maps*

Ron Schlatter, Owner/President, Schlatter's Inc.

*Geospatial Hardware*

Phil Rasmussen, Department Head/Professor, Utah State University

**Workshop: Cleaning Yield Monitor Data—Fortune Square A-B**

*Issues and Methods for Better Data Sets*

Scott Drummond, Computer Specialist, USDA-ARS

**12:20–1:00 p.m.**

**Lunch**

Sponsored by John Deere AMS



1:00–2:50 p.m.

Concurrent Sessions

**Using On-Farm Research—Golden Ballroom 1**

Moderator:  
Tom Bruulsema

***Implementing a National On-Farm Research Program***

Jerry Dewitt, Iowa State University

***A Retailer's Use of On-Farm Research***

Darel Walker, Agronomy Leader, Northern Indiana, Cargill AgHorizons

***How to Avoid "Unplanned Treatments" with Commercial Applicators***

Nyle Wollenhaupt, Worldwide Agronomy Manager, AGCO Global Technologies

***Are Those Real Differences I'm Seeing?***

Bob Nielsen, Professor of Agronomy, Purdue University

**Innovative Site-Specific Research—Golden Ballroom 2**

Moderator:  
José Espinosa

***Using the Hybrid-Maize Model for Site-Specific Management***

Achim Dobermann, Associate Professor, University of Nebraska

***Zones 2: Biotic Factors***

Harlan Palm, Research Assistant Professor, University of Missouri

***Potassium for Soybeans***

Sylvie Brouder, Agronomy Department, Purdue University

***Nitrogen Management Zones***

Tania Nanna, Research Assistant, Soil Science, North Dakota State University

***Site-Specific Assessments of Water Stress***

Gregg Carlson, Professor, South Dakota State University

**Remote Sensing I—Fortune Square C-D**

Moderator:  
Ken Copenhaver

***DigitalGlobe***

John Ahlrichs, Agricultural Marketing and Product Development, DigitalGlobe

***Resource21***

Jeff Keiser, Manager, Business Development, Resource21

***Image-Based Variable-Rate Plant Growth Regulator in California Cotton***

Matt Bethel, Senior Image Analyst, Institute for Technology Development

***SaMZ : Take a Look into the Past to Better Plan the Future***

Laurent Layrol, Business Manager, GEOSYS, Inc.

***Remote Sensing in Nitrogen Management for Winter Wheat***

Susan White, Senior Scientist, Institute for Technology Development

**Workshop: Mapping Profitability—Fortune Square A-B**

***Mapping Profitability: Using Yield Data in Innovative Ways***

Scott Murrell, Northcentral Director, PPI

Gregg Carlson, Professor, South Dakota State University

Cheryl Reese, Research Assistant, South Dakota State University

2:50–3:30 p.m.

**Break and View Exhibits**

Refreshments sponsored by Rawson Control Systems





**Variable Nutrient Management—Golden Ballroom 1**

Moderator:  
Dale Leikam

*InSite VRN*

Don Lamker, Training Manager, Precision Partners

*The Illinois Soil Nitrogen Test*

Richard Mulvaney, Professor, University of Illinois

*Strategies to Variably Manage Nutrients: Do They Work?*

Rajiv Khosla, Assistant Professor, Colorado State University

*Within-Boom Variability*

Sylvie Brouder, Department of Agronomy, Purdue University

*Variable-Rate Nitrogen and Seeding in Rolling Terrain*

Richard Barnhisel, Executive Secretary, ASMR

**Innovative Information Teams —Golden Ballroom 2**

Moderator:  
Mark Alley

University of Kentucky, Scott Shearer, Professor

Purdue University, Jess Lowenberg-DeBoer, Director, Site-Specific Management Center

Nebraska Ag Technology Association (NeATA), Dave Varner, Extension Educator,  
University of Nebraska

Kansas State University, Scott Staggenborg, Extension Specialist, Crops and Soils

Ohio State University, Nathan Watermeier, Program Leader, Technology, and  
Geospatial Extension Specialist

**Remote Sensing II—Fortune Square C-D**

Moderator:  
Tim Gress

*Remote Sensing in Hybrid Seed Production*

Brian Gott, Remington Hybrid Seed Co.

*Variable Rate Herbicide Prescriptions*

Dane Ehler, Farmer, Illinois

*Practical Applications of Remote Sensing*

Larry Tracy, President, Precision Agronomics

*Oklahoma State University GreenSeeker™ Optical Sensor Applicator*

John Solie, Professor, Oklahoma State University

**Workshop: Quick and Easy Plot Design—Fortune Square A–B**

*Using EFRA to Create Plots and Analyze Data*

Quentin Rund, PAQ Interactive, Inc.

## Friday, August 1, 2003

7:00 a.m.–10:00 a.m. Registration Open  
Exhibits Open—Hall of Champions

### 8:00–9:50 a.m. Concurrent Sessions

Moderator:  
Paul Fixen

#### Opportunities in Nutrient Management Planning—Golden Ballroom 1

*Multi-Level Nutrient Management Scenarios*

Chuck Lander, National Agronomist, NRCS

*Latest Developments in Nutrient Management Planning*

Jerry Lemunyon, Nutrient Management Specialist, NRCS

*Elements of a Successful Technical Service Provider*

Melissa Hammond, Technical Service Provider Coordinator, NRCS

*Implementation at the Local Level—Opportunities and Obstacles*

Tony Bailey, Indiana NRCS State Office

Moderator:  
Gregg Carlson

#### Auto-Steer Systems—Fortune Square C-D

*Trimble Autopilot*

Clay Mitchell, The Mitchell Farm, Iowa

*Raven TrueLine System*

Gary Wagner, Farmer, Minnesota

*StarFire User*

Jeff Moody, Moody Farms, Illinois

*New Guidance Tools for Midwest Farmers*

Matthew Rossow, Field Marketing/Product Specialist, AutoFarm Division of IntegriNautics

*Hands-Free Steering Assist—From Sub-meter to Centimeter Guidance*

Shannon Pickering, Business Development Manager, BEELINE Technologies, Inc.

#### Workshop: Analyzing On-Farm Research—Fortune Square A-B

*Using Microsoft Excel<sup>®</sup> to Analyze Research Data*

Scott Murrell, Northcentral Director, PPI

Lance Murrell, Consultant, Lance Murrell Consulting

9:50–10:30 a.m. Break and View Exhibits  
Refreshments sponsored by Resource21



### 10:30 a.m.–12:20 p.m. Concurrent Sessions

Moderator:  
Fernando García

#### Growing Higher Yields—Golden Ballroom 1

*Research Challenges from High Yield Growers*

Paul Fixen, Senior Vice President, North American Program Coordinator, and Director of Research, PPI

*Managing to Meet Yield Potential: The Nebraska Ecological Intensification Project*

Dan Walters, Professor, University of Nebraska

*Keeping Farmers Competitive in the 21st Century*

Dan Frieberg, Premier Crop Systems, LLC

*Systems Approach to Site-Specific Production Research*

Mark Alley, Professor, Crop & Soil Environmental Science, Virginia Tech

**Friday  
continued**

Moderator:  
Phil Rasmussen

**PDA Software Showcase—Fortune Square C-D**

*Customizing ArcPad for Precision Agriculture*

Ben Koostra, Engineer Associate, University of Kentucky

*Pocket Crops*

Tim Taylor, Director of Corporate Solutions, MapShots, Inc.

*SST Summit and SST Stratus*

Matt Waits, Operations Manager, SST Development Group, Inc.

*Farm Trac Mate/Farm Site Mate*

Scott Nusbaum, Vice President, Farm Works Software, CTN Data Service, Inc.

Anthony Bowers, Senior Software Engineer, Farm Works Software, CTN Data Service, Inc.

*AgCode's Seed Suite using Symbol PDAs*

Dion Harste, President, AgCode, Inc.

**Workshop: Estimating Nutrient Budgets—Fortune Square A-B**

*PKalc Spreadsheet for Estimating Nutrient Balance in Field*

Ron Olson, Worldwide Research and Development Manager, Cargill Crop Nutrition

Dan Froehlich, U.S. Country Agronomist, Cargill Crop Nutrition

12:20 p.m.

**Adjourn**

12:20–1:15 p.m.

**Lunch and Closing Plenary Session**

Lunch sponsored by FAR

Moderator:  
Harold Reetz

*Maintaining a Competitive Edge through Technology*

Harold Reetz, Midwest Director, PPI

*What's Ahead in Technology for Agriculture*

Marc Vanacht, Metz-Vanacht Company

*The Fuzzy Agriculture Crystal Ball*

Don Villwock, President, Indiana Farm Bureau, Inc.

1:15 p.m.

**Adjourn**

**InfoAg  
2003  
Exhibitors**

- AGCO Global Technologies for Agriculture
- Ag Leader Technology
- AgNavigation
- Agri ImaGIS
- AutoFarm
- Brandt Consolidated
- Conservation Technology Information Center
- CropLife Media Group
- DigitalGlobe
- Doane Agricultural Services
- ESRI
- Farm Works Software
- Geonics Limited
- GEOSYS
- IMC Global
- John Deere Ag Management Solutions
- MapShots
- Micro-Trak Systems
- NTech Industries
- OmniSTAR
- PPI/PPIC/FAR
- PAQ Interactive, Inc.
- Precision Partners
- Raven Industries
- Rawson Control Systems
- Red Hen Systems
- Resource21
- SST Development Group
- Trimble Navigation
- United Soybean Board
- Veris Technologies

# InfoAg 2003

## Conference Organizers and Sponsors

### Organizers:



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Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the USDA.

For further details about the Information Agriculture Conference, contact: Potash & Phosphate Institute, 772 22nd. Avenue South, Brookings, SD 57006: (605) 692-6280. [www.ppi-far.org/infoag](http://www.ppi-far.org/infoag)