Background

There is a need to improve the understanding and integration of processes that comprise the biological systems that underpin our economy and environment. There have been many studies of bioprocesses ranging from nutrient uptake to energy capture in greenhouse, field, and forest crops, particularly relative to understanding the impacts of climatic, edaphic, and biotic stresses on these processes. While research has discovered and identified many key physiological and biological processes involved, there is an increasing need to integrate the resulting knowledge into management tools. How can we synthesize existing knowledge and information to develop viable technology? Can dynamic systems simulation models serve a role in such knowledge integration, and in the delivery of management technology? What are the most efficient ways of delivering and maintaining the resulting technology, and adapting it to different bio-economic environments and conditions? Can we project with confidence the possible consequences of global climate change, weather variability, genetic improvement, or shifts in crop management strategies? How can we overcome the gaps and build long-lasting bridges between research, technology, and implementation?

History

The BSSG is in its 34th year, and is comprised of an international group of scientists interested in using integrated systems approaches to study agricultural and natural systems. This includes topics as diverse as basic physiological and biological systems, ecosystem simulations of field-level flows of water, carbon, energy, and nutrients, and region-level analysis of the impacts of climatic variability and climate change. In all this, there is a strong focus on the study and dynamic simulation of climatic and biotic stresses on crop performance.

Invitation

You are invited to attend the Biological Systems Simulation Conference. The conference will serve as a forum for the exchange of scientific knowledge on different facets of plant/crop systems, from experimental results addressing fundamental questions, to the development and use of dynamic simulation models, to the delivery of integrated systems technology. Participation will be broad-based and include a wide-range of disciplines.

Proposed Conference Sessions

- Simulating Plant-Level Biological Processes
- Simulating Soil Water, Nutrient, and Energy Balance in the Field
- Simulating Terrestrial Carbon Sequestration
- Assessing Impacts of Biotic Pests on Crop Performance
- Management and Decision Support Systems
- Modeling Effects of Climatic Variability on Crop Performance
- Modeling Climate Change Effects on Crops: Improving the Mechanisms

How to Participate

Interested participants should register on the website, submit their abstracts, and make hotel reservations by the stated deadlines. The conference will include oral presentations, posters, and software demonstrations. While paper submissions in the above categories are encouraged, all submissions that are broadly under biological systems simulation will be accepted. If a submitted paper does not fit well in the oral sessions or if there are too many paper submissions, the conference organizers reserve the right to request the paper be presented as a poster. Software demonstration will be on participant’s own portable computers. Fast internet link is available. Abstracts must be submitted as camera-ready hard-copy (or PDF files) up to 2-pages in length, following the formatting guidelines.
**Registration Information**

The early REDUCED registration fee is $225 if payment is received on or before January 9, 2004. After that date the REGULAR registration fee of $275 will apply. Students are offered a reduced registration fee of $150. The registration fee provides each attendee with a copy of the abstract book, morning & afternoon refreshment breaks, lunches, and tour.

**To register for the conference:**

1. Print registration form from the PDF file on the conference web site and return with payment via mail or FAX.
2. Register with a credit card on-line at the conference web site: [www.conference.ifas.ufl.edu/bssg](http://www.conference.ifas.ufl.edu/bssg)

You will be sent a written confirmation within three weeks of receipt of your registration.

**Refund Policy:** Requests for registration refunds will be honored if written notice of cancellation is received by the Office of Conferences and Institutes on or before February 2, 2004. A $50.00 processing fee will be deducted from all refunds. No refunds will be honored for cancellations after February 2, 2004.

**Special Needs:** Participants with special needs can be reasonably accommodated by contacting the Office of Conferences & Institutes at least 10 working days prior to the conference. We can be reached by phone at 1-352-392-5930, by FAX at 1-352-392-9734, or by calling 1-800-955-8771 (TDD). The TDD number can only be accessed from within the State of Florida.

**Conference Organizers**

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Univ. of Florida
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Dept. of Agric and Biol. Engineering
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*Ted Wilson*
Agroecosystems Research Group
Texas A & M Univ. System, AREC
Beaumont, TX 77713

**Hotel Information**

The conference will be held at The University of Florida Hotel and Conference Center (1714 Southwest 34th Street, Gainesville, Florida 32607). Facilities include a complete business service center and all hotel rooms have a large desk with lamp for working after-hours, WebTV, ethernet ports, dual-line telephones and analog ports for modem access. A block of rooms has been reserved at a special per night rate of $99 single or double occupancy plus 10% tax (Federal and State employees will be tax exempt with proper documentation presented at check-in). Rooms may not be available after Monday, *February 2, 2004*. The group rate will be honored 3 days prior and 3 days following the conference. Call the hotel directly at (352) 371-3600 to make a reservation and identify yourself as a participant of BSSG.

Air service is provided through the Gainesville Regional Airport, just north of Gainesville, and The University of Florida Hotel provides daytime shuttle service. Additional airports within a 2 - 3 hour drive of the University of Florida are located in Jacksonville (85 miles), Orlando (110 miles), and Tampa (130 miles). A map and hotel information will be mailed to you with your registration confirmation.

**Conference Highlights**

- Oral Presentations
- Software Demonstrations
- Poster Session
- Web and Hard Copy Abstracts
- Lunches
- Beautiful University of Florida ambiance