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Biegel, Constance M., West Lafayette, IN  
Bolton, Kimberley A., Scarborough, Ontario, Canada  
Breuer, Joern M., Stuttgart, Germany  
Canto, Marcos W., Santa Maria, RS, Brazil  
Cary, Troy R., Cisco, IL  
Ceron Marti, Felipe A., Santa Tecla, El Salvador  
Diaz-Zorita, Martin, Gral. Villegas, BA, Argentina  
Driscoll, Kevin G., Prince George, British Columbia, Canada

Elnaka, Elsayed A., College Station, TX  
Ferreira, Arnaldo R., Summerville, SC  
Filgueira, Roberta R., La Plata, Argentina  
Finlay-Moore, Orla R., Athens, GA  
Flower, Kenneth C., Harare, Zimbabwe  
Goodwin, William H., Milford, IL  
Grandy, Andrew S., Orono, ME  
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Hauf, Darrin C., Fargo, ND

#### MEET A COLLEAGUE—LUIS F. GARCÍA DEL MORAL

Luis F. García del Moral is a professor of environmental plant physiology and crop sciences at the University of Granada in southern Spain. His research focuses on physiology, nutrition, and development in cereals, including barley, wheat, and triticale—triticale for the dual use of forage and grain.



Dr. García del Moral was born in the south of Spain, in the region of Andalusia, predominantly agrarian throughout history with a general climate called Mediterranean, though varied enough to embrace littoral deserts, subtropical valleys, marshlands, and high-mountain tundra. This, combined with the equally varied topography, gives Spain, and particularly Andalusia, a rich diversity of crops, from the native olive to the recently introduced *chirimoya*. In this way, Spain is loosely comparable in microcosm to North America, and Andalusia is frequently compared with California, with which it shares historical ties and where climate is also generally regarded as Mediterranean. Also, the highest mountain (11,420 ft.) in mainland Spain, rising majestically over the city of Granada, is called the Sierra Nevada (Snowy Massif), namesake of its Californian counterpart.

Granada and its territory constituted the last kingdom held by the Moors, whose sumptuous palace complex, the Alhambra, still overlooks the city. Spain was united when the Moors were conquered in Granada, and, in the same year in the same city, Columbus gained his charter from Queen Isabel for his first voyage to the New World. The University of Granada was built about a half a century after the death of Columbus and currently has around 55,000 students (including many international students) in a city of less than 350,000 inhabitants.

In this setting, Dr. García del Moral began his studies at the University of Granada, earning his Ph.D. in plant biology there in 1982 after attending international courses in soil science and plant physiology sponsored by UNESCO and the OAS. His doctoral work focused on the ecophysiological aspects of grain yield in barley. At present, as a professor in the Plant Physiology Department, he has directed the theses of six doctoral candidates including one from Morocco, and six masters students. He has been author or co-author of over 100 publications, including a book on practices in plant physiology, several chapters of scientific textbooks, and various technical as well as public reports.

From 1989 to 1994, Dr. García del Moral has acted as coordinator of the physiology program for barley, in relation to the beer industry (financed by the company Cruz del Campo of Seville). He has participated on the Commission directing masters studies in biological sciences at the university. He also belongs to a number of international scientific organizations, including the ASA, CSSA, European Society of Plant Physiology, Society for Experimental Botany, European Society of Agronomy, and International Triticale Association.

In addition, Dr. García del Moral serves as a consultant for the Descartes Association of Paris on Research and Environmental Issues: Priorities and Emerging Topics, a survey conducted on behalf of the General European Commission of the Environment.

Since 1989, Dr. García del Moral has worked directing the departmental research team focusing on crop physiology and technology, funded by the Andalusian regional government. This work has contributed to the more prudent use of fertilizers and to efficient practices in growing cereal crops in southern Spain.

These efforts reflect the history of the region. Andalusia, a focus of invasions over the centuries—from the Phoenicians to the Romans to the Vandals (Vandalusia) to the Moors— inherited something from each culture. For example, until the 1960s, Andalusian farmers predominantly used the Roman plow with draught animals and even now maintain ancient Moorish water systems. The natural isolation of the Iberian Peninsula, being surrounded on three sides by water and divided from continental Europe by the imposing Pyrenees, encouraged Spain to develop its own forms agriculture, with crop selection and timing governed locally by the often harsh seasons and by the natural resources available in each zone. However, the dramatic demographic shifts from rural to urban Spain, most momentous in the 1960s, and the increasing pressures of international trade (including the eventual expansion of the Common Market), forced the country to modernize rapidly through the 1970s. In effect, the Spanish colonization of America some five centuries before had reversed, as the New World invaded the Old with technology, concepts of efficiency, and marketing techniques. Tradition gave way to new cultivars, new chemical fertilizers, pesticides, and fertilizers; tractors replaced animals and machines took over many tasks formerly done by hand. On the home front, reservoirs were constructed for irrigation and even nuclear power plants were built for new sources of energy. Seasons and topography in many ways became incidental in the decisions on what and how much to grow. There are still a few areas of Spain that are partially impenetrable to modern ways, but, in general, Spain is no longer isolated, and has become part of the international fabric. More recently, with the rise of the European Union, a once lost village in the south of Spain is apt to be swayed in its crop selection by the international marketing strategies decided in Brussels. The even more far-reaching concerns of global climatic change, desertification, groundwater depletion, and chemical pollution have made the agronomist's job more complex than ever. In Andalusia, the last rainy season was the wettest of the century, following a seven-year drought that had been the most severe in 100 years. The challenge that has involved the stewardship of agriculture in the wildly shifting fortunes toward the end of the 20th Century now includes, from a broader perspective, guiding growth while protecting the environment in the 21st Century.

In this sense, in the opinion of Dr. García del Moral, organizations such as ASA provide a vital forum for international cooperation in a shrinking world. He believes that cooperation represents hope for the future, and therefore supports ASA.

# Agronomy News

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American Society of Agronomy

Crop Science Society of America

Soil Science Society of America

## CCA workshops scheduled during annual meetings

The first two of a series of Certified Crop Adviser (CCA) training workshops will be held during the ASA-CSSA-SSSA annual meetings in Indianapolis. These workshops will be distinct from the meetings and limited to those who have registered in advance and paid the separate fee.

The basic workshop, for those who want to become certified, will be held on Thursday, 7 November. Attendance will be limited to the first 130 who register and pay the \$99 fee.

The advanced workshop, for those who are already CCAs, will be held Friday, 8 November. The fee for this session will also be \$99, and attendance will be limited to 72. An application form is included in the September 1996 (this month's) issue of *Agronomy News*.

"The basic workshop will review the competency areas covered by the CCA National Exam," says Thomas Hall, ASA-CSSA-SSSA Vice President for Professional Services. "We will stress the areas that have given past examinees the greatest difficulty in order to help participants gain the competence required to be a CCA. The advanced program the next day will deal with those selected subject areas in much greater depth."

James J. Vorst and Andy Seibert, both of Purdue University, who are developing the educational program for these workshops, stress that the latest hands-on adult education techniques will be used. "These programs will not simply be a person talking and pointing to slides." Instructors will be drawn from universities and industry in Illinois, Indiana, and Ohio.

Organizers have applied for 7 national CCA CEUs for persons who complete each of these workshops.

"We see Indianapolis as an ideal place to begin offering these workshops," says William Luellen, managing editor of three Tri-Society journals and coordinator of ASA's new Educational Initiative. "We will advertise this program to candidates within 300 miles of Indianapolis and hope to draw participants from at least three states; Illinois, Indiana, and Ohio."

Instructors at the basic program will be David Mengel, Purdue University, soil fertility; F. William Simmons Jr., University of Illinois, soil and water management; and David Mason, Pioneer Hi-Bred International, Ohio, crop production and crop growth and development.

Instructors at the advanced program will be Robert Hoef, University of Illinois, soil fertility; Peter Hill, Purdue University, soil and water management; and Robert Nielsen, Purdue University, crop production and crop growth and development.

Preregistration is essential, because materials will be mailed to help participants prepare for the sessions. The deadline for preregistration is 4 Oct. 1996.

For sign-up information, see the advertisement on page 8 of this issue.

## Membership options to be reviewed

The ASA Executive Committee, at its summer meeting, initiated a study to evaluate separating ASA membership from the requirement to subscribe to an ASA journal. ASA President C. Jerry Nelson has directed the Headquarters staff to determine the financial impact on both the journals and the overall society if members are no longer required to subscribe to one of its four journals. Both the ASA Membership and Budget and Finance Committees had recommended studying new membership options that are independent of journal subscriptions. Scenarios involving changes in both membership and journal production runs will be evaluated.

The Executive Committee will review the options and implications and strive to bring a report to the full ASA Board at its first meeting in Indianapolis. After the issue is discussed at the divisional business meetings, action could be taken by the Board. Any new membership options would eventually require a bylaws change, therefore the Executive Committee and ASA Board are very interested in comments and reactions from members. Send comments to Cleo Tindall, ASA Membership Registrar, at 677 S. Segoe Rd., Madison WI 53711-1086, ctindall@agronomy.org.

## More than 2200 papers scheduled for Indianapolis

More than 2200 papers are scheduled for presentation at the ASA-CSSA-SSSA annual meetings, 3 to 8 Nov. 1996 in Indianapolis. Over 1100 of these titles will be presented in SSSA divisions, with about 750 papers in CSSA divisions and 400 papers in ASA divisions.

The 1996 meetings already have broken one record—the percentage of poster papers. Just over 61% of all papers will be presented as posters, continuing an upward trend.

In arranging your travel schedule, please remember that this is a four-day meeting. Poster and oral sessions start at 8 a.m. on Monday, 4 November, and continue through 5 p.m. on Thursday, 7 November. Please plan to take in the full meeting.

## Think 'absentee ballot' in preparations for Indy

Election day 1996 is scheduled smack in the middle of the ASA-CSSA-SSSA annual meetings. Don't forget to arrange for your absentee ballot.