

## In Support of Moldova's Agriculture: North Carolina State University

### Institutional Capabilities of North Carolina State University.

**F**ounded as a land grant college in 1887, North Carolina State University is the largest research university in the 16-campus University of North Carolina system. Some 31,000 students are enrolled in more than 100 programs in the university's ten colleges: Agriculture and Life Sciences, Engineering, Physical and Mathematical Sciences, Management, Textiles, Design, Veterinary Medicine, Natural Resources, Humanities and Social Sciences, and Education. NC State faculty include members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. Nationally recognized as a leader in science and technology, NC State has been honored by the Carnegie Foundation as a Community Engagement university. The university's strategic plan seeks to "integrate global perspectives into our programs and functions" and recognizes that "global and multicultural awareness is critical for partnerships in knowledge-based economic and social development and is necessary to keep pace with worldwide change."

The College of Agriculture and Life Sciences (CAL S) advances knowledge through innovative research, provides solutions for the public with community-based extension programs, and develops leaders to guide society—all in an effort to improve the economic, environmental, and social well-being of our state and the world. CAL S is the largest NC State University college, with more than 1,600 on-campus and 1,000 off-campus faculty and staff.



### The CAL S/Moldova Connection

**T**he North Carolina Moldova Bilateral Partnership agreement, created in 2003, includes a variety of educational programs that support Moldova's agricultural sector. CAL S was an early leader in supporting and strengthening the academic program at the State Agrarian University of Moldova (SAUM). Faculty exchanges, new technology, and scientific publications offer continuing support. The North Carolina Cooperative Extension Service supports Moldova's National Agency for Rural Development (ACSA) with site visits to Moldova.

North Carolina, via the Community Connections and Cochran Fellowship programs, has hosted more than 250 Moldovan agriculturists with interests in production technology, business management, cooperatives, marketing, and policy. Many activities involved other organizations such as the North Carolina Department of Agriculture and Consumer Services and the Farm Credit Administration. Both active and retired CAL S faculty helped plan and implement the programs.

CAL S faculty have been active participants in the United States Agency for International Development (USAID) and the Citizen's Network for Foreign Affairs (CNFA) in Ukraine, Moldova, and Georgia. Faculty have also planned and implemented five USDA Foreign Agriculture Service Cochran Fellowships for Moldovans, four since 2008.

CAL S faculty, active and retired, have extensive international experience in Central and South America, Africa, Asia, the Middle East, Russia, and Eastern Europe, and have maintained many contacts with foreign counterparts over the years. The CAL S International Program Office has supported a variety of faculty and student activities in Moldova as part of the college's commitment to the international community. The current emphasis in Moldova on high-value agriculture, ranging from farm to market, requires a wide array of expertise, for which CAL S is highly qualified.



**Dr. Tamara Gavrilas, Head of Post Harvest Technologies at SAUM, in new laboratory funded by NCSU grant.**

## Moldova, State of North Carolina, 1998–2010, and NC State University

*A summary compiled by John M. Riddle, Alumni Distinguished Professor Emeritus, Department of History*

From September 2003 through August 2006, the Universitatea Agricultur de Stat di Moldova (SAUM) and North Carolina State University (NCSU) were partners in a multifaceted project to enhance postharvest quality and production for the Republic of Moldova through a FY 2003 Freedom Support Educational Partnerships Program sponsored by the United States Department of State. A curriculum for a postharvest undergraduate major was established and operational with a master's degree. New courses have been introduced into the curricula at Master and License diploma levels at SAUM. All undergraduate and graduate level courses were adapted and made compatible with the transference educational credit system, called ECTS [=European Transferable Credits]. Educational and professional standards for the License Diploma and Master level for the specialization Postharvest Technologies have been established at the Faculty of Horticulture, SAUM, in the format already approved by the Ministry of Education of Moldova. At the Master level, six courses have been designed, modified, and implemented with a total of 1,080 academic hours. Twelve faculty members from SAUM visited NCSU on two extensive seminars, each tailored to the faculty's research and teaching needs. Through the sponsorship of the grant, SAUM designed and equipped a postharvest laboratory that serves students in learning, faculty in research, and Moldovan farmers, who can submit fruits and vegetables for analysis. Through cooperation with private corporations and community services, we collected, packed, and shipped computers to SAUM and increased the total computing capacity of the University by 40%, and this included student-access computer laboratories. The Jefferson Scholars at N. C. State University (NCSU) collected, catalogued, packed, and shipped thirteen tons of scientific journals and books, thereby greatly enhancing the research and learning holdings of the library. Duplicate journals and books were distributed to other Moldovan universities and schools.



**Computers being unloaded in Moldova.**

### Examples of Other Related Projects between the Republic of Moldova and North Carolina

- Irrigation, Agricultural Extension: NC State Professor of Extension Robert Wells has made nine trips to Moldova, working with the National Organization of Rural Development and the Citizens Network for Foreign Affairs.
- Agriculture and Business: From 1997 to 2005, South-eastern Community College (SCC, Whiteville, NC) hosted approximately 230 participants from Moldova and provided internships in business, agriculture, public health, and non-governmental organizations.
- Improved Water, Sanitation, and Health Education for Moldovan Schools: North Carolina experts teamed with Engineers Without Borders and Peace Corps volunteers to work on water and sanitation issues.
- Inoculations and Dental Clinics: North Carolina National Guard physicians and dentists regularly go to Moldova to assist with inoculations and dental clinics.
- Medical Cooperation and Assistance: The Brodie School of Medicine (Greenville, NC) and the Moldova Medical University offer regular video-conferencing as part of an international lectures exchange program.
- Presidential Visit: In December 2001, President Vladimir Voronin visited North Carolina for three days. He and his entourage met medical personnel and attended statewide presentations about Moldovan projects conducted by universities, community colleges, civic clubs, and municipalities.
- Renewal of Bilateral Committee's International Agreement between North Carolina and Moldova: Moldovan Prime Minister Vladimir Filat met with Lt. Gov. Walter Dalton, NC Secretary of State Elaine F. Marshall, Senate President Pro Tempore Marc Basnight, Speaker of the House Joe Hackney, and other state officials in Raleigh on January 20, 2010, to sign a bilateral agreement renewing the North Carolina-Moldova Partnership.



**Moldovan Cochran Fellows studying water management and small-farm irrigation systems visit Coastal Plain Tobacco Research Station (May 2009).**



**Delegation of Moldovan professors of agriculture examining laboratory equipment at NCSU.**



**Moldovan Cochran Fellows studying the marketing of fruits and vegetables visit Mountain Horticultural Extension and Research Center (May 2008).**



**NCSU faculty observe arrival of computers in Moldova.**

## Some Examples of CALS Departments and Program Areas

### AGRICULTURAL EDUCATION and EXTENSION

- Leadership development
- Project planning and evaluation

### AGRICULTURAL and RESOURCE ECONOMICS

- Agribusiness and financial management
- Fruit and vegetable marketing
- International marketing with N.C. Dept. of Agriculture (NCDA)
- Agricultural law

### ANIMAL SCIENCE

- Animal and poultry waste management

### BIOLOGICAL and AGRICULTURAL ENGINEERING

- Irrigation systems engineering
- Drainage systems engineering
- Watershed management
- NCSU water quality group
- Crop science
- Plant breeding
- Agroecology
- Crop production
- Organic grains

### ENTOMOLOGY and PLANT PATHOLOGY

- Disease and insect control for open field and greenhouse production

### FOOD, BIOPROCESSING, and NUTRITION SCIENCE

- Food processing
- Food safety and quality

### HORTICULTURAL SCIENCE

- Small and tree fruits
- Vegetable crops
- Greenhouse production
- Organic production
- Specialty crops, herbs, and medicinal plants
- Post-harvest technology and handling

### SOIL SCIENCE

- Erosion control
- Nutrient management
- Soil physical properties and transport processes
- Geographical information sciences
- On-site waste management

Visit the college's website, <http://harvest.cals.ncsu.edu/indexmain.cfm>, for a listing of faculty, programs, and publications.

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