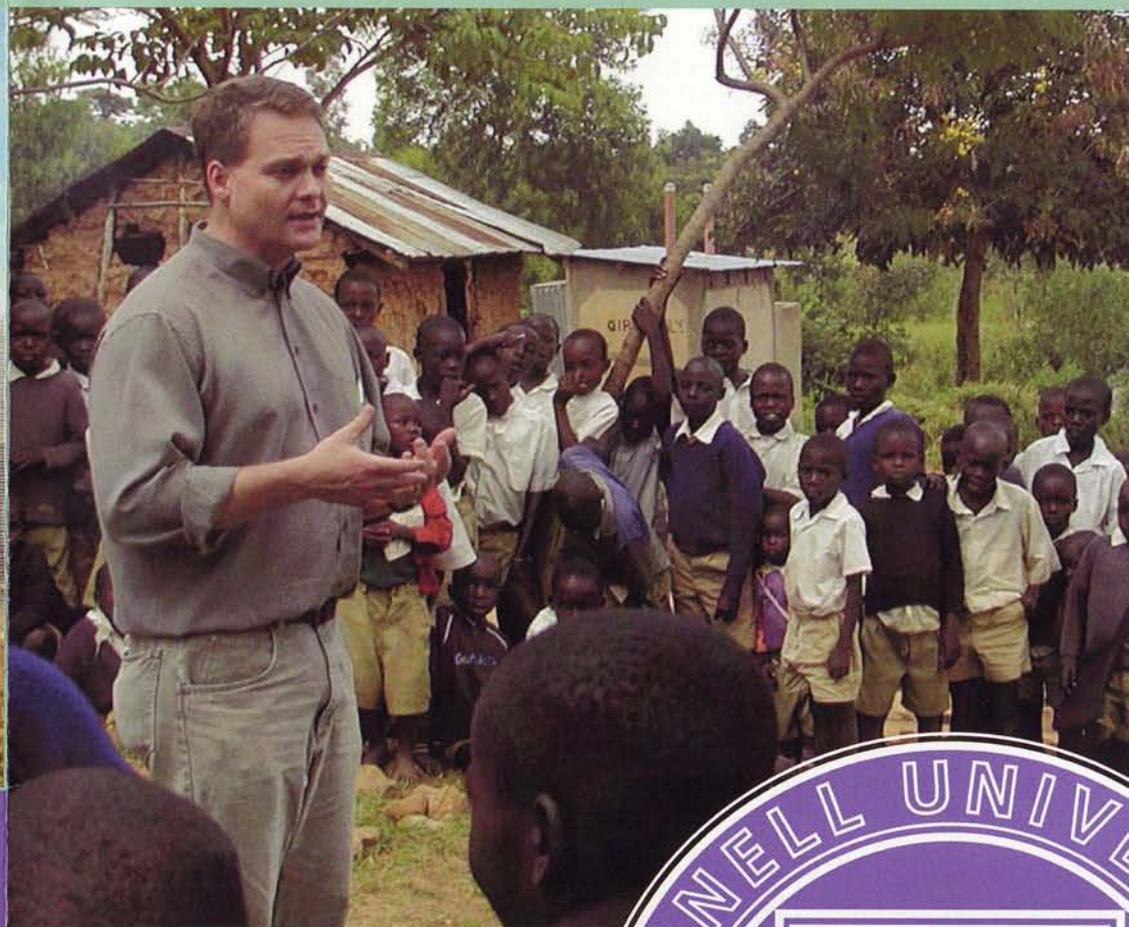
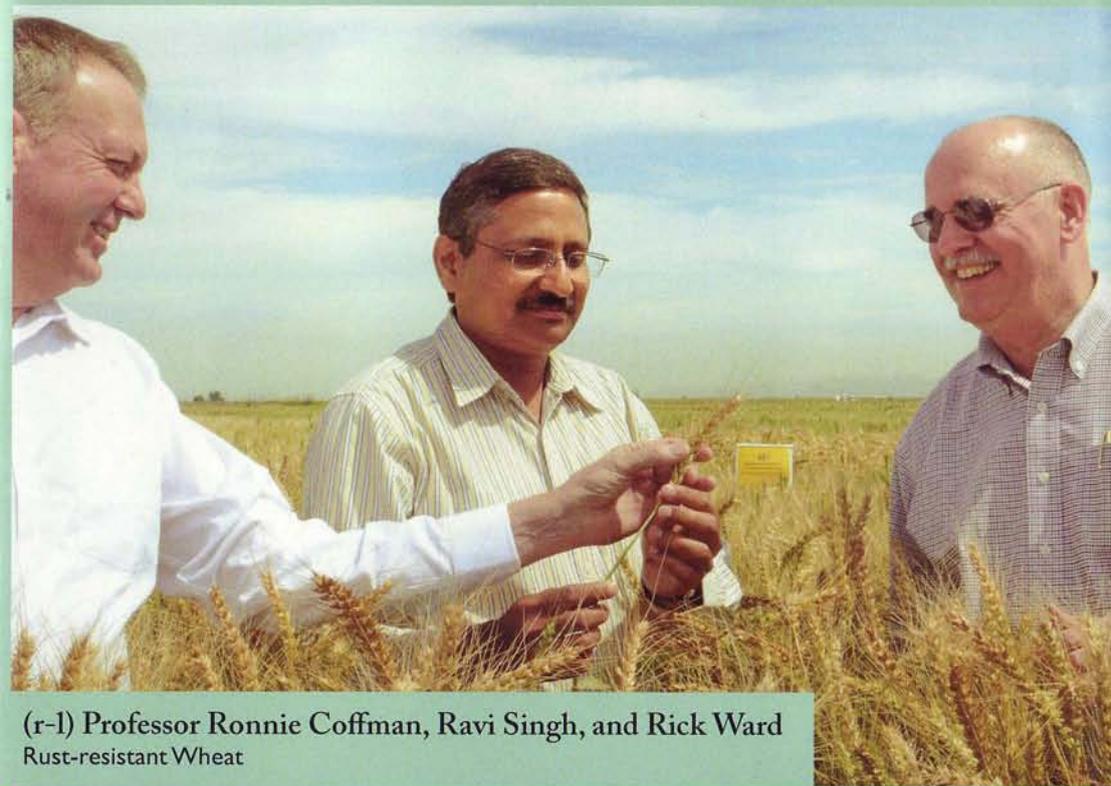


# International Agriculture, Food, Economic, and Environmental Systems

The College of Agriculture and Life Sciences



(r-l) Professor Ronnie Coffman, Ravi Singh, and Rick Ward  
Rust-resistant Wheat

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Professor Chris Barrett  
Poverty Reduction

*Developing leaders.  
Improving lives.  
Shaping the future.*

Far Above...  
THE CAMPAIGN FOR CORNELL



In addressing the most important challenges facing our local communities, our nation, and the world, the College of Agriculture and Life Sciences has the potential to transform our future. Advancing research in international agriculture, food, economic, and environmental systems will help protect the global food supply while enhancing agricultural productivity and reducing malnutrition and poverty in developing economies.

## Issues and Opportunities

- To identify strategies to address global poverty, malnutrition, and hunger, researchers are studying the agricultural and economic components of these issues.
- Widespread and increasing poverty, hunger, and malnutrition are humanitarian problems and pose serious risk of political instability.
- The food supply must be protected from looming threats such as soil depletion and emerging pests and diseases of plants and animals.
- To bring new developments in agriculture to developing countries, U.S. researchers are collaborating with breeders and researchers abroad.
- Conservation efforts must involve a cross-section of stakeholders—those concerned about conservation and those focused on economic development.
- To positively influence policies in the United States and in developing countries, institutions need to work together on high-quality research.
- Students must be prepared to compete in and contribute to a global economy and international development.

# International Agriculture, Food, Economic, and Environmental Systems



Training Students in Relevant Environments



Professor Susan McCouch  
Crop Productivity

# CALS' Impact

**Crop Productivity**—protecting the food supply in developing nations by improving rust-resistant wheat varieties, increasing yield and quality of millet and sorghum, and developing fertile rice crops using modern genomic approaches

**Poverty Reduction**—unraveling poverty traps in Africa and Afghanistan by studying education, health and nutrition, risk and poverty dynamics, and smallholder crop-livestock systems

**Disease Eradication**—reducing the incidence of mosquito-borne diseases by devising genetic strategies to control the mosquito that carries dengue fever and developing tomatoes unattractive to insects that carry viruses

**Germplasm Repository**—preserving apple and grape varieties from around the world and safeguarding them from diseases and insects

**Soil Improvement**—aiming to design farming systems with increased productivity by identifying organisms in the Amazonian Dark Earths in Brazil that enhance fertility

**Biofortified and Bioengineered Crops**—breeding more nutrient-dense crops and engineering an eggplant with a natural insecticide through international collaborations

**Invasive Species**—helping stakeholders prevent and mitigate the impacts of invasive species in the Great Lakes Basin and in North American forests

**Coral Disease**—identifying and analyzing the warming-induced incidence of fatal coral disease in the Caribbean and Australia

**Biosensors to Protect Drinking Water**—detecting pathogens in drinking water worldwide using innovative miniature, portable sensors

**Economic Well-Being and Credit Access**—increasing fairness to poor populations and alleviating poverty traps by analyzing the economics of trade disputes, agricultural import barriers, preferential tariffs, and credit flow and risk

**Training Students in Relevant Environments**—taking CALS students to the tropics to study agricultural systems, animal science, and rural development; training Africans and Indians in their own countries

**Digital Libraries for Developing Countries**—providing digital access to 137 agricultural journals to scientists and natural resource managers in developing nations

[www.cals.cornell.edu](http://www.cals.cornell.edu)



# International Agriculture, Food, Economic, and Environmental Systems Giving Opportunities

## Named Professorship Endowments (Gifts of \$2 million or more)

Named, endowed professorships in areas related to international agriculture, food, economic, and environmental systems help the college attract, retain and recognize the most exceptional scholars and teachers.

## Graduate Fellowship Endowments (Gifts of \$750,000 or more)

Named, endowed graduate fellowships help the college attract and develop the most promising new scholars in the areas of international agriculture, food, economic, and environmental systems.

## Undergraduate Scholarship Endowments (Gifts of \$100,000 or more)

Named, endowed scholarships help the college admit and retain the most qualified students, regardless of financial means.

## Endowed Program Excellence Fund Endowments (Gifts of \$100,000 or more)

Named, endowed program excellence funds provide essential support to advance the college's efforts in areas related to international agriculture, food, economic, and environmental systems. Examples of high-priority uses for named program excellence endowments include: recruitment costs for bringing outstanding new faculty to CALS as well as funding to retain excellent current faculty; support for new faculty start-up costs (including laboratory renovations, equipment purchases, etc.); and support for undergraduate and graduate instruction, including costs to develop new courses in areas related to international agriculture, food, economic, and environmental systems.

## Undergraduate Experiential Learning Fund

(Current-use gifts of \$5,000 or more; endowment gifts of \$100,000 or more)

Current-use or endowment funding provides undergraduate students with research opportunities, internships, and other hands-on experiences related to international agriculture, food, economic, and environmental systems.

## CALS Annual Fund (Gifts of any size)

Current-use gifts help fund activities related to international agriculture, food, economic, and environmental systems, as well as the college's other top academic priorities. Annual Fund gifts support important activities, such as student internships, new course development, start-up costs for faculty, and emerging opportunities and needs.

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