



# PENN STATE *in* INDIA

## About Us

Founded as a land grant university in 1855, Penn State recently celebrated its 150th anniversary. The College of Agricultural Sciences—the first of the colleges established at Penn State—awarded the nation’s first baccalaureate degrees in agriculture in 1861. Today, the college is recognized worldwide as a premier institution for agricultural research, teaching, and extension programs. Faculty in each of our 12 academic departments are active on every continent, and every year 400 students from all corners of the world enroll to pursue graduate study and research in the college. Our programs are designed to prepare future leaders in the world’s food and natural resource systems, and we have international alumni in 80 countries.

## Penn State and Agriculture in India

We have been working with our partners in India since 1970 when we assisted in the development of Maharashtra Agricultural University as part of the U.S. effort to lay the foundation of an agricultural education and research system in India. Since then, Penn State has developed

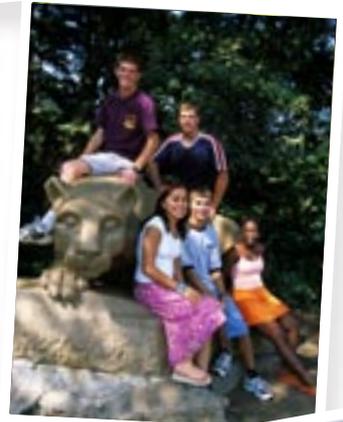
programs with Indian agricultural, educational, and research institutions, primarily in the areas of food safety and engineering, animal and plant sciences, and biotechnology.

## Our Programs

We are working toward objectives that lead to a U.S.–India partnership in agriculture characterized by mutual benefit, intelligent use of biotechnology, appropriate use of information technology, and the evolution of commercial opportunities. Our programs include the following:

- Joint workshops/trainings in the areas of food safety, diagnostics, biotechnology, plastics, genome sequencing, biomedical sciences, and forestry
- Research in the areas of biotechnology (sorghum, maize, eggplant, and other crops), food engineering, plasticulture, and integrated pest management
- Exchanges with several institutions that include faculty, students, and research

*(Continued on other side.)*



Top to bottom:

- Taj Mahal
- Penn State student (rt) with Dr. H. B. Upadhayar, director of ICRIAT genebank
- Penn State students at the Nittany Lion Shrine
- Penn State's Dr. Bill Lamont tours plasticulture research at Gujarat Agricultural University



## Our Partners

Over the years, we have partnered with the following Indian institutions:

- Bombay Veterinary College
- Gujarat Agricultural University
- Indian Institute of Technology
- Indian Council of Forestry Research & Education (ICFRE)
- International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
- M.S. Swaminathan Research Foundation (MSSRF)
- Maharashtra Animal and Fishery Sciences University (MAFSU)
- National Dairy Development Board (NDDB)
- Punjab Agricultural University
- Tamil Nadu Agricultural University
- University of Jammu
- University of Poona

## Our Faculty

**Ramaswamy Anantheswaran**, professor of food science and visiting professor of chemical engineering at the Indian Institute of Technology-Bombay

*Research interests:* microwave processing of foods; dielectric properties of food materials; ingredient interactions during microwave heating of foods; moisture and fat migration in confectionery products; modified atmosphere and modified humidity packaging of fresh produce; rapid cooling of shell eggs; and high-pressure processing

**Surinder Chopra**, assistant professor of maize genetics

*Research interests:* maize genetics; plant resistance to biotic and abiotic stresses; genetic factors involved in the biosynthesis of plant flavonoid compounds; and antifungal agents in sorghum

**Michael Jacobson**, assistant professor of forest resources

*Research interests:* extension forest management; forest economics, finance, policy, and taxes; agro forestry; and international forestry

**Bhushan Jayarao**, extension veterinarian/ associate professor

*Research interests:* food safety; public health; molecular epidemiology;

diagnostic microbiology; mastitis and milk quality; vaccines (plant-based and synthetic vaccines) and biologicals; nanotechnology; and animal health

**Ed Rajotte**, professor of entomology

*Research interests:* biology of fruit pests; pollination and apiculture; integrated pest management; technology transfer; expert systems; resistance management of agricultural pests; social and economic issues in integrated pest management; and bee management and pollination

**Koushik Seetharaman**, assistant professor of food science

*Research interests:* comprehensive cereals research program focusing on food chemistry, value-added products, and new product development; pretzel crystallization; different baking processes to enhance shelf life; grain milling properties; and nutritionally enhanced cereal products for toddlers and children

## Our Web Sites

- The Pennsylvania State University: [www.psu.edu](http://www.psu.edu)
- The College of Agricultural Sciences at Penn State: [www.cas.psu.edu](http://www.cas.psu.edu)
- The Huck Institutes of Life Sciences at Penn State: [www.lsc.psu.edu](http://www.lsc.psu.edu)

Visit Penn State's College of Agricultural Sciences on the Web: [www.cas.psu.edu](http://www.cas.psu.edu)

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Top to bottom:

- Penn State student (ctr) with ICRISAT vermicompost team
- Horticulture crops at Gujarat University
- Radio tower in Chennai to provide market/cultural information to co-op member farmers