

THE NORTH CAROLINA PLANT SCIENCES INITIATIVE

A proposal to establish North Carolina as the world leader in plant sciences research and innovation.

NC STATE
UNIVERSITY

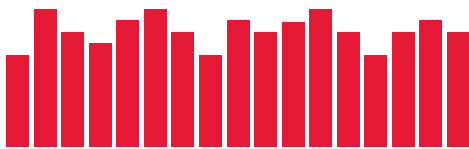
College of Agriculture
and Life Sciences

2x

The world must double food production in 35 years to feed a population estimated at nine billion. Sustainable plant production is the key to achieving this challenge.

#1

Agribusiness is the number one sector in the state's economy and is projected to exceed \$100 billion before 2020.



North Carolina is the nation's third most diverse agricultural state, with nearly all climatic and soil conditions represented.

\$1 = \$19.90

Every \$1 spent on agricultural research in North Carolina returns \$19.90 in economic benefits to the state.

Over the
next 25 years

84%

of U.S. agricultural jobs are projected to be in the plant sciences disciplines.

A growing population. A reduction in farm acreage. Shifts in climates and water sources. The grand challenges facing agriculture require the best minds from academia and industry — as well as those from traditionally non-agricultural disciplines such as physics, engineering, mathematics, modeling and economics.

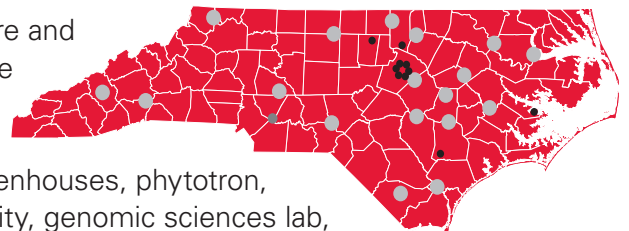
The Plant Sciences Initiative is based on an interdisciplinary systems approach. North Carolina's agriculture and biosciences assets, concentrated in a new world-class interdisciplinary research complex, will lead to increased crop yields, nutrition diversification, sustainability and an extended growing season.

North Carolina is an enviable location to host such an initiative. It is the nation's third most diverse agricultural state, offering nearly all climatic and soil conditions, and a strong agricultural economy. Leading global biotechnology companies have headquarters or major facilities in Research Triangle Park. NC State University has the largest plant breeding program in the world.

The College of Agriculture and Life Sciences at NC State has 10 field laboratories in addition to its core

research facilities — greenhouses, phytotron, biological resources facility, genomic sciences lab, feed mill, and poultry and animal waste research center.

It also oversees 18 off-campus research stations in partnership with the N.C. Department of Agriculture and Consumer Services.



Additionally, CALS is a partner in the Center for Environmental Farming Systems (CEFS) near Goldsboro, and runs the Plants for Human Health Institute at the N.C. Research Campus in Kannapolis.

Collectively, our existing assets and unparalleled research enterprise create a truly unique opportunity for North Carolina to establish itself as the world leader in plant sciences. Your community and those across the globe will benefit from enhancements in food security, production practices, water resources, nutrition and environmental sustainability.

The Plant Sciences Research Complex at NC State University will be the engine to transform these assets into economic impact for our state. Join us in the quest to secure \$180 million to establish North Carolina as the world leader in plant sciences research and innovation.



1. Plant Sciences Research Complex
2. BTEC (Golden LEAF Biomanufacturing Training and Education Center)
3. Partners II building and greenhouse
4. Engineering I, II, III buildings
5. James B. Hunt Jr. Library

■ Completed structures
■ Planned structures



Plant Science Research Complex

Located at the heart of NC State's world renowned Centennial Campus, the complex incorporates key features to make it the premier interdisciplinary plant sciences research center in the nation:

- Leasable corporate lab suites
- Leasable startup suites
- Atrium collaborative space
- Faculty labs and offices
Accommodates Plant Sciences research faculty plus incubator and startup project faculty
- 30,000 sq. ft. rooftop greenhouse
10,000 sq. ft. biosafety level 3 compliant
- Partners II greenhouse access
- Plant processing laboratory for integration with BTEC facility
Biosafety level 2 compliant
- Seminar/classroom space
- Administrative suite

For more information, please contact

Steven Lommel
Associate Dean for Research

slommel@ncsu.edu 919.515.2717