PURDUE AGRICULTURE | INSTITUTE FOR PLANT SCIENCES

WORLD-CHANGING RESEARCH

The Purdue Plant Sciences Pipeline brings together multidisciplinary research and education to move discoveries from the bench to application and commercialization.

EXPAND PLANT BIOLOGY

Investing in people

- Hire new faculty
- Attract pre-college students into STEM
- Promote undergraduate research in plant biology
- Stimulate student and faculty collaboration
- Train students for high-tech science careers

AUTOMATE PHENOTYPING

Analyzing big data for real results

- Utilize advanced sensing and imaging to measure plants
- Develop high throughput platforms in the field and in the greenhouse
- Link greenhouse discoveries to basic biology and the field
- Develop multidisciplinary solutions

DRIVE INNOVATION

Developing Smarter Agriculture™

- Link physical & biochemical observations of plants with genetic information
- Use high performance computing to integrate data from sensors, images, maps and more
- Provide a robust analytic platform for big data

FOSTER ENTREPRENEURSHIP

Moving technology from research to application

- Develop venture capital Ag-celerator™ fund for plant science innovators
- Commercialize crop varieties, traits, plant products, and data analytic tools
- Promote academic innovation among faculty and students
- Extend profitable innovations to farmers

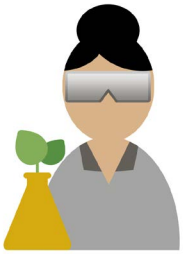
ag.purdue.edu/plantsciences

PURDUE MOVES

> PURDUE WILL LEAD THE WAY IN DELIVERING **HIGHER EDUCATION AT THE HIGHEST PROVEN VALUE** AND IN PROVING THAT STUDENTS LEARN AND GROW WHILE THEY ARE HERE.
>
> **- Mitch Daniels, President**

The **plant sciences initiative** is a component of **Purdue Moves**, a series of university initiatives announced by President Mitch Daniels in 2013 to broaden Purdue's global impact and enhance educational opportunities for its students.

More than
$20 MILLION
invested in plant sciences research since fall 2013



WORLD-CHANGING RESEARCH

Few universities can match the depth and breadth of Purdue's research capabilities and talent, especially in relation to the critical grand challenge of food security.

Feeding a growing world population will require Smarter Agriculture™. The Purdue Plant Sciences Initiative brings together multidisciplinary researchers to develop new, more functional crop varieties.

- **Indiana Corn and Soybean Innovation Center** - world-class field phenotyping laboratory at Purdue designed to yield multidisciplinary world-changing research and profitable farming practices to address the world's growing food needs.

- **Beck's Molecular Genetics Teaching Lab** - student-centered, state-of-the-art learning facility accommodates twice the number of students in genetics laboratory courses each semester.
- **Cross-disciplinary collaboration** - researchers from agriculture to engineering to computer science are collecting massive data sets to identify and select the most promising plants for future research or application.
- **Ten new faculty positions** in basic plant biology are being filled and five new field science faculty have already been filled.

04/19/2017