

North Carolina: transforming ag with 21st century technology

100+

ag biotech
companies in
North Carolina



9,000+

North Carolinians
work in
ag biotech
companies



48

ag biotech companies
founded or relocated
to North Carolina
since 2010



NCSU/Roger Winstead

R&D at universities and 100+ ag tech companies boost North Carolina's \$87 billion ag sector with innovations in plant and animal production.

North Carolina is a place where agricultural tradition and 21st century science meet to create unmatched research and business opportunities. Here, virtually any ag tech company, researcher, investor or holder of intellectual property will find unique opportunities for transforming ideas into products. NCBiotech has led this transformation with a variety of activities, including the awarding of 407 ag-related grants and 44 loans totaling nearly \$25 million.

We have more than 100 ag biotech companies across North Carolina, and hundreds of world-class ag scientists, including global thought leaders working in our colleges and universities.

Agriculture contributes some \$87 billion a year to North Carolina's economy—about 17 percent of the state's income. About 17 percent of N.C.'s workforce is involved in some aspect of agriculture—more than 9,000 in our ag biotech companies. North Carolina offers wide-ranging research and field trials at 18 research stations statewide. It's also home to a 58-campus community college system and two land-grant universities: **North Carolina State University** in Raleigh and **North Carolina Agricultural and Technical State University** in

Greensboro. NCSU houses the **College of Agriculture and Life Sciences**, one of the largest of its kind in the nation. The **NCSU College of Veterinary Medicine**, the state's only vet school, is ranked among the top three in the nation by U.S. News & World Report.

- NCBiotech established an initiative in 2010, now called the **Ag Sector Development** unit, to stimulate the growth of agricultural technology statewide. Since then, the sector has had a 20 percent growth in employment.
- Every \$1 we've invested in ag-related grants yields \$57.30 in additional funding, and every \$1 invested in ag-related loans yields \$287 in additional funding.
- **30 percent** of our ag biotech companies have been founded or relocated to the state since 2010.

The sector includes the North American headquarters of international giants **BASF Plant Science**, **Novozymes** and **Syngenta**. And awesome ideas keep cropping up as emerging companies, such as those outlined on the next page of this flier.

North Carolina is a global leader in transformative agricultural technology



North Carolina is home to some **creative new approaches** to bootstrap agricultural technology startups:

A group of investors joined forces in 2016 to create the **AgTech Accelerator** corporation in Research Triangle Park. Patterned on similar ventures targeting biopharmaceutical companies, the AgTech Accelerator is designed to help establish, house, finance and mentor innovative ag tech companies.

Ag TechInventures (AgTI) is another Triangle agricultural technology accelerator. AgTI scouts and identifies promising agricultural technologies from university research labs, small companies and individuals. It then shares with its industry partners to select the best ones to spin out into start-up companies and supports them with leadership, administration, business development services and financial consulting.

Examples of North Carolina's ag tech start-ups include:

Advanced Animal Diagnostics, which develops and commercializes diagnostics to detect and manage disease states and the reproductive, nutritional and overall health status of production animals.

AgBiome, a 2013 spinout from the University of North Carolina at Chapel Hill, has raised over \$100 million from numerous investors, including the Bill and Melinda Gates Foundation. The RTP company uses the plant microbiome to identify and develop genetic traits that provide resistance to pests. Its Genesis platform screens trillions of microbes, millions of gene sequences and thousands of strains.

Elo Life Systems is the ag subsidiary of Precision BioSciences, using Precision's proprietary genome-editing platform for applications in crop improvement, animal genetics, industrial biotechnology and sustainable agriculture. It has an ongoing partnership with agricultural giant Cargill to reduce saturated fat in canola oil. Precision is a Duke University spinout.

Pairwise, a fast-growing young gene editing and plant technology company, has established its headquarters in the Research Triangle area to take advantage of North Carolina's historic strengths in agriculture, burgeoning expertise in gene editing, and its talented labor pool. Pairwise is leveraging the natural diversity in agricultural crops in new ways to address global food and health challenges.

*North Carolina's agricultural history and diversity are incorporating 21st century science.
Ask NCBiotech how we can help you transform your agricultural technology into a globally successful asset.*

North Carolina Biotechnology Center

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