

ARKANSAS PUBLIC RESEARCH, GLOBAL IMPACTS

Feeding the World

University of Arkansas System Division of Agriculture research programs have significant impacts on food production and availability, not only within the state, but also nationally and globally. The intellectual property that grows out of Division breeding programs and animal health research also provides an income stream to support critical public research in times of thin budgetary support. Since 2005, Division has released 34 row crop cultivars and 128 fruit varieties.



More than
85 percent
of the Division's technologies are licensed.

RICE BREEDING

4.16 million more metric tons of a critical staple grain — rice — were added to the global food supply through the genetic gains made by the Division of Agriculture rice breeding program.

\$1.05 billion in revenue gains for U.S. rice producers using varieties developed by Division of Agriculture faculty.



\$20.27:1

For every dollar invested into the Division of Agriculture rice breeding program, the rice industry has seen \$20.27 in benefits.

4 In 2021-22 the Division released 4 new rice varieties: CLL18, Ozark, Taurus and ARoma 22.



FRUIT

The Division of Agriculture has released 128 fruit varieties, including licensed blackberries, blueberries, apples, grapes, peaches and muscadines from its breeding programs.

Licensing has generated
\$13.8 million

since 1985; with \$11.82 million of that being generated from 2011-2021.

POULTRY



Division of Agriculture innovations are giving Arkansas companies a competitive edge: Cobb-Vantress has licensed a method of improving ascites resistance in chickens. The Division of Agriculture has licensed probiotics to a startup company which has since been acquired by Novozymes, a leader in animal probiotics.

In terms of full-time employment among Division-related startups, Blue in Green has 18, Nanomatronix 10, Eco-Bio 4, Vistawell 4, Celludot 2, and Novozymes 1.

**New tech,
new jobs.**

MEETING THE NEEDS OF PRODUCERS + CONSUMERS



SOYBEAN VARIETIES

Serving many needs,

Division of Agriculture soybean breeders have

worked to develop conventional, herbicide-tolerant and niche soybean varieties for Arkansas producers.

The Division of Agriculture has continued development of publicly available glyphosate-tolerant soybean varieties following the release of UA5414RR in 2015. We continue working with industry leaders to gain access to new traits so our breeders can develop soybean varieties with needed technologies that are adapted to Arkansas,

As the public increasingly embraces fermented foods, natto has seen an uptick in popularity. The Division of Agriculture's natto soybean varieties are developed for and produced in Arkansas.

Wildlife needs to eat too.

During the development of conventional row crop varieties, if a line shows promise in a specialty market, we explore those options. The University of Arkansas System Division of Agriculture recently released wheat and southern pea varieties targeted to the wildlife food plot market. Addition-

ally, some researchers are making crosses with game species in mind. Researchers at the Rice Research and Extension Center in Stuttgart are in the early stages of developing and evaluating rice lines for use in waterfowl food plots.



ANIMAL HEALTH



Division of Agriculture researchers are using various avenues to improve animal health.

Bacterial cultivation methods developed here have been licensed to a company to generate probiotics that protect pig health.

Pacific GeneTech is using our patented vaccine technology. Vaccines from this platform offer an alternative to antibiotics to control salmonella, E. coli and coccidiosis. Pacific GeneTech has supported more than 250 patents issued to the Division of Agriculture.