

# BENEFITS OF INCREASED U.S. PUBLIC INVESTMENT IN AGRICULTURAL RESEARCH



WASHINGTON, D.C. (March 25, 2021) – **A new report, commissioned jointly by Farm Journal Foundation and the American Farm Bureau Federation and authored by the IHS Markit Agribusiness Consulting Group, examines how more public spending on agricultural research is needed to meet rising global demand for food. Findings from this report include:**

- U.S. public spending on agricultural research and development (R&D) has stagnated over recent decades. For example, USDA agricultural agency budgets have been relatively flat at around \$4.2 billion in 2020 compared with \$4.1 billion in 2010. During the same period, U.S. competitors including China, Brazil and India have all been accelerating their public funding for agricultural R&D.
- Public research spending is vital to fill in gaps left by private investment. Private companies primarily focus on a select few high-value opportunities in major crop and livestock categories that can generate profits, leaving other sectors relatively under-explored. Companies also have less incentive to research areas that benefit society broadly but are more difficult to capture private returns from, such as environmental, animal health, specialty crop and food safety solutions.
- Public research is needed to feed a growing world population. The global population is expected to reach nearly 10 billion by 2050. Food production will need to increase 60%-70% to meet increased demand. Discoveries made through agricultural research can help farmers increase crop yields on existing farmland while adapting to challenges from climate change.
- In particular, farmers and other stakeholders would benefit if additional public research spending were directed toward the following six areas:
  - Crop breeding: New crop breeding technologies could enable farmers to significantly increase their yields without bringing new land into production.
  - Crop protection: Pests, diseases and weeds are becoming increasingly resistant to existing tools, but new crop protection technology could help farmers stay ahead.
  - Animal health: New technologies, including vaccines to prevent infections and replace some antibiotic treatments, would ensure safe, affordable supplies of meat and dairy products as the global population grows.
  - Animal disease and foodborne illness: Outbreaks of highly pathogenic animal diseases cost the industry billions of dollars annually. Research could help prevent or mitigate outbreaks and alleviate potential price shocks for consumers. In addition, more progress is needed in controlling foodborne pathogens to ensure continued safe food supplies.
  - Climate research: Accelerating investment in developing climate-smart technology would help protect crop yields, preserve soil fertility and enable farmers to build on their success in protecting the soil, water and air.
  - Food and agricultural supply chains: Shocks like COVID-19 expose vulnerabilities in our food systems. Research on handling of pandemics within the agricultural sector is currently very limited since they occur infrequently. More investment is needed to improve supply chain resilience.