

# asta Supports Innovation



The seed industry is fueled by innovation and funding the U.S. Department of Agriculture's research is critical. A strong federal investment in research is vital to ensuring the success of U.S. farmers and a sustainable and secure global food production system.

## Agricultural Research Service

The Agricultural Research Service (ARS) conducts research that requires a long-term investment leading to high-impact payoff. Management and utilization of vast collections of genetic resources are the type of research that can't be done by an individual university or company.

ASTA is encouraged by Congress's continued support for agricultural research funding. However, additional funding is necessary to address the broad range of long and short-term research needs of the entire agricultural sector.

### Recommended Action

Increase funding of ARS to \$1.82 billion.

## National Plant Germplasm System

The National Plant Germplasm System (NPGS) is a network of 20 labs that preserve the genetic diversity of crop plants. The NPGS collects unique plant germplasm from around the world and provides access for plant breeders in the U.S. and globally. Scientists must have access to these plant materials to help bring forth new varieties that can resist pests, diseases and environmental stresses.

Language in the 2018 Farm Bill mandated USDA to develop, publish, and implement a national strategic germplasm and cultivar collections assessment and utilization plan of the National Plant Germplasm System. This critical study will highlight the strengths and needs of the NPGS that can be bolstered through additional appropriations.

### Recommended Action

Congress should encourage the Farm Bill-mandated assessment of NPGS to be completed in a timely fashion.

## Germplasm Enhancement of Maize

The Germplasm Enhancement of Maize (GEM) project focuses on adapting exotic corn germplasm for use in the U.S. and identifying useful genetics in exotic landraces to develop new hybrids. These resources are then made available to breeders by request. To date, 329 lines have been released by GEM.

The continued success of American agriculture is intimately linked to corn production, with USDA estimating 14.6 billion bushels were harvested in 2018. However, U.S. corn production is based on predominantly two races of maize from more than 250 New World races. This limited genetic diversity renders the U.S. corn crop, and therefore, the global food supply, more vulnerable to attack by new diseases.

GEM is a unique public-private partnership between the federal government, universities and companies of all sizes. The current funding for GEM is approximately \$1.8 million. Private industry provides over \$625,000 of direct in-kind support annually, and industry germplasm contributions are currently valued at over \$3 billion. However, demand for maize germplasm continues to increase and GEM has already distributed more than 21,000 seed samples. GEM also facilitates development of future researchers, training 21 Ph.D. and 15 M.S. students.

ASTA recommends an increase in GEM funding due both to increased research and operations costs, and the need to establish consistent winter nurseries for seed increases and regeneration.

### Recommended Action

ASTA recommends increasing funding of the GEM to \$2.8 million.

# GEM Private Cooperators

3rd Millennium Genetics  
AgReliant Genetics, LLC,  
BASF Plant Science Breeding, L.L.C.  
Bayer  
Beck's Superior Hybrids, Inc.  
Brandy Wine Seed Farms, LLC  
Brownseed Genetics  
Corteva  
CRD Advisors, LLC  
DKD Genetics, Inc.  
Forage Genetics  
G and S Crop Services  
Genetic Enterprises Int'l  
Global Investors, LP  
Illinois Foundation Seeds, Inc.  
Ingredion Inc.  
JFS and Associates, LTD  
KMR Inc.  
Longping USA  
Master's Choice  
MBS Genetics, LLC.  
Professional Seed Research, Inc.  
SEEDirect  
Syngenta Seeds, Inc.  
Terrell Seed Research  
Trimble Genetics International, LLC  
Wyffels Hybrids

Santa Isabel, Puerto Rico  
Lebanon, IN  
Research Triangle Park, NC  
St. Louis, MO  
Atlanta, IN  
Guthrie, KY  
Bay City, WI  
Johnston, IA  
Kelley, IA  
Vincennes, IN  
Nampa, ID  
Altoona, IA  
Luther, IA  
Des Moines, IA  
Tolono, IL  
Indianapolis, IN  
Harlan, IA  
Carroll, IA  
Capron, IL  
Anna, IL  
Story City, IA  
Sugar Grove, IL  
Woodstock, IL  
Minnetonka, MN  
Wabash, IN  
Johnstown, IA  
Geneseo, IL



# National GEM Public Cooperators

Cornell University

Iowa State University

Louisiana State University

North Carolina State University

North Dakota State University

Ohio State University

Texas A&M University

The University of Delaware

The University of Illinois

The University of Nebraska

The University of Tennessee

The University of Wisconsin

Truman State University

GEM Project Locations: Ames, Iowa and Raleigh, North Carolina



american  
seed trade  
association

1701 Duke Street, Suite 275, Alexandria, VA 22314

P (703) 837-8140 • F (703) 837-9365

[betterseed.org](http://betterseed.org)