



## **USDA-ARS Corn Breeding Program Update**

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The USDA-ARS corn breeding efforts have a long history working with the Iowa State University farm system, dating back to the early 20th century. Research goals and focuses have changed throughout this time; however, current goals concentrate on the development of exotic derived corn cultivars and the understanding of corn genetics within environments. The two USDA-ARS research units consist of a full-time staff of plant geneticists and technicians and include various graduate research associates and undergraduate research students, conducting the research and experiments to achieve their missions' goals.

### **Germplasm Enhancement of Maize Mission and Goals**

The mission of the Germplasm Enhancement of Maize Project is to effectively increase the diversity of U.S. maize germplasm utilized by producers, global end-users, and consumers. The mission will be achieved through a collaborative effort between USDA-ARS, and both public and private research scientists by utilizing exotic, public, and proprietary maize germplasm. The resulting germplasm and associated knowledge, derived via the identification and incorporation of favorable alleles for prioritized traits from exotic sources, is utilized in private and public breeding programs and ultimately contributes to increased genetic diversity of maize grown by producers and improved product performance. In addition, the Germplasm Enhancement of Maize Project provides opportunities for training scientists in the enhancement and utilization of un-adapted germplasm. This contributes to the global sustainability of agricultural production, economic stability, and the nutrition and well-being of society.

### **Corn Insects and Crop Genetics Research Unit Mission and Goals**

2021 Update: The USDA-ARS research units utilized the Iowa State University farms in Ames, Iowa (Worle Farm #121 and Agricultural Engineering/Agronomy Research Farm #210) and Crawfordsville, Iowa (Southeast Research and Demonstration Farm) for conducting nursery and yield trial activities. Over 3,000 nursery rows were planted in Ames and nearly 11,000 yield trials plots were maintained in Ames and Crawfordsville. The trials at these sites support the overall missions by allowing locations across the state of Iowa for the extensive yield testing, and valuable resources for graduate research associate projects.

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