

Strengthening the Future of Plant Breeding

Since the advent of agriculture, human societies have bred plants. Breeding is responsible for plant varieties with stronger resistance to pests, diseases, and environmental stressors, higher yields, better flavor, more nutrients, greater ornamental impact, and greater economic value. Plant breeding is essential to supplying a growing global population with food, fiber, fuel, medicine, landscaping, and ecosystem services.

Future advances in plant breeding require continued investment in capacity—the people, education, infrastructure, resources, and programmatic support.

The Plant Breeding Coordinating Committee brings together plant breeders at land-grant institutions and the USDA to address plant breeding issues and strengthen public plant breeding programs.

Highly trained plant breeders with access to robust infrastructure and the latest technology will support resilient agriculture, healthy communities, and thriving environments and economies.

Strong public plant breeding programs are key to the success and sustainability of public and commercial efforts. They provide foundational knowledge, broadly beneficial innovations, and a long-term safety net for agricultural production and national security.



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What does the Plant Breeding Coordinating Committee do?

Provide leadership on priorities

The committee alerts decision makers and stakeholders about strengths, weaknesses, and threats to agricultural security that can be addressed with plant breeding.

Increase awareness and support

The committee facilitates communication among plant breeders, government agencies, university administrators, and the industry.

Public speaking guidelines for plant scientists improve communication between plant breeders and non-technical audiences.

Videos, podcast episodes, white papers, popular press articles, comic book-style stories, and other materials have raised awareness of the practice and impacts of plant breeding.

Assess capacity in the U.S.

The committee collects, analyzes, and shares data about plant breeding capacity and critical gaps. Federal agencies use this information to develop policies, grants, and programs.

Address education and training needs

Recently developed core concepts for graduate-level plant breeding education help ensure students receive the knowledge and skills they need to succeed in plant breeding careers.

Committee members host and update an online library of e-books, webinars, articles, videos, and other materials about plant breeding so users can train themselves on various topics.

Sustain plant breeding programs

The committee has raised awareness about the importance of succession planning for plant breeding programs and developed best practices for hiring and onboarding new plant breeders, documenting methods and operational knowledge, and managing data and intellectual property.

Enhance access to plant genetic resources

The committee reviews methods for conserving, characterizing, sharing, and using plant genetic resources. Committee members also contribute to a database of high-quality genomics, genetics, and breeding data for a wide variety of crops.

Why is the multistate committee structure important?

With support from federal capacity grants, the committee brings together plant breeders from land-grant institutions in almost every state. This structure helps the committee:

Share data, tools, and genetic resources, improving **efficiency** and **productivity**

Spur innovation by sharing **expertise** from different crops and environments and experience with various technologies

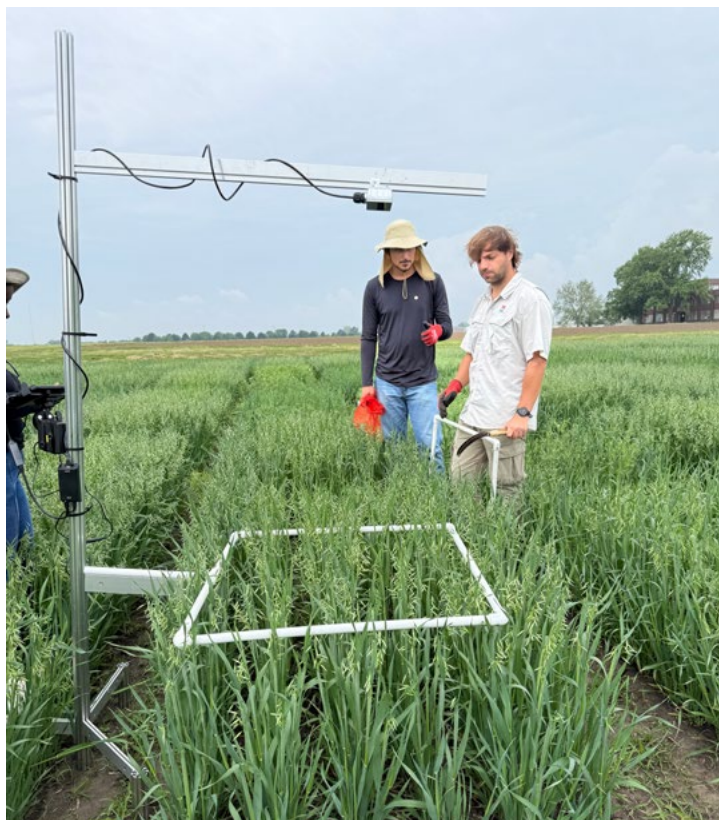
Test new tools, methods, and varieties at multiple locations and scales, generating **consensus** and **unbiased perspectives**

Coordinate breeding efforts no one state or institution has the capacity to perform

Support long-term continuity needed for plant breeding

Develop **shared goals** to guide policy

Use **teaching and Extension** roles to provide plant breeding outreach, training, and education nationwide



Committee Funding & Participation

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