

June 5, 2012

On behalf of more than 100 agricultural businesses, organizations, and scientists, we respectfully ask for your support of Senator Tester's amendment to the Senate Farm Bill. This amendment aims to enhance farmer access to improved crop cultivars and livestock breeds adapted to diverse and regional farming needs. Directing more public dollars toward classical breeding projects that result in finished seeds and breeds increases the competitiveness of agriculture across the U.S. Classical breeding projects also improve food security for our growing population.

### **Classical breeding is a proven approach to meeting our food and fiber needs**

Classical plant and livestock breeding is a proven science. It is our most successful and benign approach to crop improvement, accounting for about half of our dramatic food and fiber crop yield increases throughout the 20<sup>th</sup> and early 21<sup>st</sup> centuries.

Classical breeding, using field-based selection, complements newer forms of breeding and fills important roles that lab-based approaches, such as genomics, are not well suited to. Lab-based breeding has value, and may become more important as these technologies improve, but cannot be relied upon currently or in the foreseeable future to fulfill many breeding needs. Classical breeding, in particular, is highly cost-effective.

### **Senator Tester's amendment reinforces and builds on a 2008 Farm Bill mandate**

The need to better support classical breeding becomes more pressing each year. The 2008 Farm Bill included a congressional mandate that classical plant breeding be a priority within the Agriculture and Food Research Initiative (AFRI). There have been other requests by congressional agriculture and appropriations committees for USDA to make classical plant and animal breeding a priority.

To date, USDA has not fulfilled the 2008 congressional mandate. Instead, the agency has funded molecular breeding approaches to the near exclusion of classical breeding. This is because USDA includes lab-based approaches in its definition of classical breeding. USDA also prioritizes projects that demand large research budgets and typically focus on a few major traits in major crops using lab-based breeding approaches, leaving out many smaller acreage crops and good traits in major crops that are collectively very important to U.S. agriculture. While these projects may improve traits that are of broad interest, they are not addressing the demand for new cultivars that meet the diverse needs of farmers, especially cultivars adapted to regional conditions – a critical requirement for developing highly productive crop cultivars and diverse cropping systems that are resilient.

Senator Tester's amendment corrects problems in AFRI breeding grants that have become apparent since the last Farm Bill by requiring that 5 percent of annual funding for USDA's AFRI program prioritize public cultivar and breed development through classical breeding. It also removes hurdles that hinder USDA's progress toward this goal. Genomics methods would continue to receive substantial funding.

## **U.S. farmers face diminished seed choices to meet specific farming needs**

Farmers constantly face changing insect, weed, and disease pressures that vary by region and that rapidly change. Crops must continuously be adapted to meet these changes. Similarly, climate, growing season length, soils, and water availability all greatly affect crop growth and vary across the U.S. The most productive approach is to have seeds that are adapted to the same environment as their intended use.

The large investments currently made in molecular breeding programs do not adequately support the development of complex traits necessary for adapting seed to regional needs. It is not cost-effective to use these approaches to develop crop cultivars or livestock breeds adapted to the diverse needs of farmers. The lack of seed options is especially apparent for farmers seeking a range of cultivars in major crops. Options are even less for farmers seeking cultivars that are held in the public domain.

## **Meeting food security needs**

Beyond farmer choice, the lack of seed availability and the narrowing of genetic resources are making our food system less secure. Classical breeding can provide the genetic tools farmers need to manage evolving pest, disease, and weather challenges, creating a source of seeds and breeds adapted to changing needs and opportunities. Of course, one of these needs includes feeding our growing population. The maintenance and improvement of genetic diversity through classical breeding is essential for the success of productive food systems and the greater global food supply, both now and into the future. This is a national issue and should be addressed, at least in part, through national programs such as AFRI.

## **Summary**

Farmer access to regionally adapted seeds and breeds is paramount to fostering the competitiveness of agriculture in all regions of the U.S. As agricultural research has shifted toward an emphasis on lab-based and molecular breeding, seed choice has not kept up with demand, and the diversity of our plant genetic resources has narrowed. Farmers need access to seeds that are bred specifically for their regions and cropping systems. In particular, farmers lament limited cultivar options in major crops, especially publicly held cultivars released by land grant universities that are adapted to regional farming needs to satisfy the national market. By improving agricultural productivity and resilience, classical breeding also improves food security for our growing population.

Senator Tester's amendment seeks to reinvigorate classical plant breeding in the public sector to better ensure farmers have the seeds and breeds they need to be successful.

Sincerely,

Arkansas Rice Growers Association (Arkansas)

ARMPPA

California Farmers Union (California)

Carolina Farm Stewardship Association (North and South Carolina)

Center for a Livable Future Johns Hopkins Bloomberg School of Public Health (Maryland)  
Center for Rural Affairs (Nebraska)  
Dakota Resource Council (North Dakota)  
Dakota Rural Action (South Dakota)  
Delta Land & Community (Arkansas)  
Draper Family Farm (Iowa)  
Family Farm Defenders (Wisconsin)  
Farm and Ranch Freedom Alliance (Texas)  
Food For Maine's Future (Maine)  
Friends of Family Farmers (Oregon)  
Grain Millers, Inc. (Indiana, Iowa, Minnesota, Oregon)  
Hawai'i Public Seed Initiative (Hawaii)  
Idaho Rural Council (Idaho)  
Kansas Farmers Union (Kansas)  
Kansas Rural Center (Kansas)  
Land Stewardship Project (Minnesota)  
Mississippi Association of Cooperatives (Mississippi)  
Missouri Farmers Union (Missouri)  
Missouri Rural Crisis Center (Missouri)  
Montana Farmers Union (Montana)  
National Family Farm Coalition (National)  
National Farmers Union (National)  
National Hmong American Farmers (National)  
National Organic Coalition (National)  
National Sustainable Agriculture Coalition  
Nebraska Farmers Union (Nebraska)  
New England Farmers Union (New England)  
Northwest Atlantic Marine Alliance  
Oregon Rural Action (Oregon)  
Organic Farming Research Foundation  
Organic Seed Growers and Trade Association (National)  
Organic Trade Association  
Organic Valley (Wisconsin)  
Organization for Competitive Markets (Nebraska)  
Prairie Quest Farm (Iowa)  
Progressive Agriculture Organization (Pennsylvania)  
R-CALF (National)  
Ranch Foods Direct (Colorado)  
Rural Advancement Foundation International – USA (National)  
Rural Vermont (Vermont)  
Seed Matters (California)  
South Agassiz Resource Council (North Dakota)  
Steve's Seed Conditioning (Illinois)  
Stonebridge Ltd. (Iowa)  
The Land Institute (Kansas)  
The National Young Farmers' Coalition (National)  
Union of Concerned Scientists (National)  
United Natural Foods, Inc. (National)

Virginia Association for Biological Farming (Virginia)  
Western Colorado Congress (Colorado)  
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