



Food and Agriculture  
Organization of the  
United Nations



**The International Treaty**  
ON PLANT GENETIC RESOURCES  
FOR FOOD AND AGRICULTURE

**Views, Experiences and Best Practices as an example of possible options for  
the national implementation of Article 9 of the International Treaty**

*Note by the Secretary*

*At its [second meeting](#) of the Ad hoc Technical Expert Group on Farmers' Rights (AHTEG), the Expert Group agreed on a revised version of the [template](#) for collecting information on examples of national measures, best practices and lessons learned from the realization of Farmers' Rights*

*This document presents the updated information on best practices and measures of implementing Article 9 of the International Treaty submitted by the United States of America on 30 July 2019.*

*The submission is presented in the form and language in which it was received.*

## Template for submission of

### Measures, Best Practices and Lessons Learned from the Realization of Farmers' Rights as set out in Article 9 of the International Treaty

#### National Plant Germplasm System

##### Basic information

- Title of measure/practice **National Plant Germplasm System**
- Date of submission **July 30, 2019**
- Name(s) of country/countries in which the measure/practice is taking place **United States**
- Responsible institution/organization (name, address, website (if applicable), e-mail address, telephone number(s) and contact person) **U.S. Department of Agriculture Agricultural Research Service**
- Type of institution/organization (categories) **Government**
- Collaborating/supporting institutions/organizations/actors, if applicable (name, address, website (if applicable), e-mail address, telephone number(s))

##### Description of the examples

###### Mandatory information:<sup>1</sup>

- Short summary to be put in the inventory (max. 200 words) including:
  - Implementing entity and partners
  - Start year
  - Objective(s)
  - Summary of core components
  - Key outcomes
  - Lessons learned (if applicable)

The U.S. National Plant Germplasm System (NPGS) is collaborative effort to safeguard the genetic diversity of agriculturally important plants, and make them available for research, breeding, education, and production. The NPGS is managed by the Agricultural Research Service (ARS), the in-house research agency of the United States Department of Agriculture (USDA). Many NPGS genebanks are located at state land-grant university sites, which contribute lab, office, greenhouse and field space for operations, as well as staff for technical and support services. The public and private sectors are major users of the NPGS collections. The private sector is the primary means by which new and improved plants are commercialized. The mission of the NPGS is to support agricultural production by 1) acquiring crop germplasm, 2) conserving germplasm, 3) evaluating and characterizing germplasm, 4) documenting germplasm, and 5) distributing germplasm and associated information.

- Brief history (including starting year), as appropriate

The earliest components of today's NPGS date to 1898 and the USDA Plant Exploration Office and the National Small Grain Collection, with major expansions in the late 1940s with the establishment of four regional plant introduction stations and the interregional potato station, the National Seed Storage Laboratory (now the National Laboratory for Genetic Resources Preservation) in 1958, the cotton and soybean germplasm collection in the 1970s, and the mid-1980s with the addition of nine genebank sites with primarily clonally-propagated crops. Currently the NPGS comprises 20 different genebank sites, the GRIN-Global information management system, and 43 Crop Germplasm Committees.

---

<sup>1</sup> This mandatory information is required in order for the measure/practice to be included in the Inventory.

- Core components of the measure/practice (max 200 words)

Ex situ plant genetic resource management involves acquiring (exploration or exchange), maintaining (in cold storage or plantings), propagating, distributing, characterizing (genotyping), evaluating (phenotyping), and enhancing plant genetic resources. Information associated with plant genetic resources is also obtained, maintained, and distributed. The NPGS conserves and makes available, free of charge and restriction, 596,000 different germplasm accessions of more than 16,000 different species. The NPGS annually distributes an average of ca. 250,000 accessions to researchers, breeders, educators, and farmers. An average of about 2/3 of the distributions are to domestic recipients, and about 1/3 to international recipients. More than a billion data points associated with those accessions are delivered to users via the GRIN-Global information management system.

- Description of the context and the history of the measure/practice is taking place (political, legal and economic framework conditions for the measure/practice) (max 200 words)

The USDA was founded in 1862 with legislation which stipulated that the new Department would “procure, propagate, and distribute among the people new and valuable seeds and plants.” Before a US seed industry emerged in the early 20<sup>th</sup> Century, USDA provided millions of seeds directly to farmers/producers. The 1946 Research and Marketing Act enabled USDA to partner with US agricultural universities and State Agricultural Experiment Stations to establish Plant Introduction Stations. Budgetary increases in the 1980s enabled the establishment of clonal genebank sites. The NPGS emerged as a nationally-coordinated system in the 1980s. The overall legal framework for the NPGS was established as part of the US National Genetic Resources Program, authorized by the US Congress through the 1990 Farm Bill.

- To which provision(s) of Article 9 of the International Treaty does this measure relate  
Art. 9.2b

#### Other information, if applicable

- Please indicate which category of the Inventory is most relevant for the proposed measure, and which other categories are also relevant (if any):

No.	Category	Most relevant <sup>2</sup>	Also relevant <sup>3</sup>
1	Recognition of local and indigenous communities', farmers' contributions to conservation and sustainable use of PGRFA, such as awards and recognition of custodian/guardian farmers		
2	Financial contributions to support farmers conservation and sustainable use of PGRFA such as contributions to benefit-sharing funds		
3	Approaches to encourage income-generating activities to support farmers' conservation and sustainable use of PGRFA		
4	Catalogues, registries and other forms of documentation of PGRFA and protection of traditional knowledge	X	

<sup>2</sup> Please select only one category that is most relevant, under which the measure will be listed.

<sup>3</sup> Please select one or several categories that may also be relevant (if applicable).

5	In-situ/on-farm conservation and management of PGRFA, such as social and cultural measures, community biodiversity management and conservation sites		X
6	Facilitation of farmers' access to a diversity of PGRFA through community seed banks <sup>4</sup> , seed networks and other measures improving farmers' choices of a wider diversity of PGRFA.		X
7	Participatory approaches to research on PGRFA, including characterization and evaluation, participatory plant breeding and variety selection		X
8	Farmers' participation in decision-making at local, national and sub-regional, regional and international levels		X
9	Training, capacity development and public awareness creation		X
10	Legal measures for the implementation of Farmers' Rights, such as legislative measures related to PGRFA.		
11	Other measures / practices		

- In case you selected 'other measures', would you like to suggest a description of this measure, e.g. as a possible new category? \_\_\_\_\_
- Objective(s)
- Target group(s) and numbers of involved and affected farmers<sup>5</sup>
- Location(s) and geographical outreach
- Resources used for implementation of the measure/practice
- How has the measure/practice affected the conservation and sustainable use of plant genetic resources for food and agriculture?
- Please describe the achievements of the measure/ practice so far (including quantification) (max 200 words)
- Other national level instruments that are linked to the measure/practice
- Are you aware of any other international agreements or programs that are relevant for this measure/practice?
- Other issues you wish to address, that have not yet been covered, to describe the measure/practice

### Lessons learned

- Describe lessons learned which may be relevant for others who wish to do the same or similar measures/practices (max 250 words).

A national genetic resource system such as the NPGS can function effectively only through a strong partnership among multiple institutions and sectors. In the case of the NPGS, the Federal government, through the USDA, State Agriculture Experiment Stations/Land Grant Universities, and the private-sector (commodity organizations, farmers, agricultural technology and seed providers) compose that partnership. Advisory and technical groups such as the National Genetic Resources Advisory Council, the National Plant Germplasm Coordinating Committee, and the 43 Crop Germplasm Committees have provided key guidance for the NPGS throughout its history.

<sup>4</sup> Including seed houses.

<sup>5</sup> Any classification, e.g. of the types of farmer addressed, may be country-specific.

- What challenges encountered along the way (if applicable) (max 200 words)  
Coordinating a geographically-diffuse and highly diverse group of genebanks requires meeting the challenge of enabling local autonomy but also a core of uniform national procedures and practices. Maintaining financial support for the NPGS over decades requires continual effort.
- What would you consider conditions for success, if others should seek to carry out such a measure or organize such an activity? (max 100 words)  
Persistent and continual funding is critical for any national genetic resources system. Genebanks cannot be funded solely by grants that provide short-term support.

**Further information**

Link(s) to further information about the measure/practice

[www.ars-grin.gov](http://www.ars-grin.gov)