

**USDA-ARS**

**NATIONAL CENTER FOR GENETIC  
RESOURCES PRESERVATION**

**FORT COLLINS, COLORADO**



**2006 ANNUAL REPORT**

The National Center for Genetic Resources Preservation is located on the campus of Colorado State University in Fort Collins, Colorado

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## ABOUT NCGRP

**Our Vision:** Excellence in preservation and security of genetic resources for use by current and future generations.

**Mission Statement:** To acquire, assess, preserve, and provide a collection of genetic resources to secure the biological diversity that underpins economic and environmental sustainability of agriculture through research, stewardship, and communication.

**Our Guiding Principle:** The National Center for Genetic Resources Preservation pursues its strategic objectives by strengthening coordination with public and private sectors. The Center recognizes that genetic resources are global assets and will develop communication, outreach, training, and technology transfer activities accordingly.

**Strategic Objectives:**

- Preservation
- Research
- Information Management
- Partnerships

## 2006 IN BRIEF REVIEW FOR NCGRP

**Remodeling NCGRP:** The contract that was let to expand the second floor cold vault with the addition of rolling shelves has been delayed because of contractor/subcontractor problems. Work started in January 2006, but the delay could extend to the end of 2007. We are doing retrofit lighting where we can improve lighting quality, receive power company rebates, and reduce lighting energy consumption about 30-35 percent.

**Retirements:** Dr. Leigh Towill, long-time ARS scientist conducting cryopreservation research in the Plant Genetic Resources Research Unit (PGRPU), retired in early January 2006. Dr. Towill's research has enabled many vegetatively-propagated species to be cryopreserved.

**New Scientist for Tissue Culture and Cryopreservation:** Dr. Maria Jenderek has joined the Plant Genetic Resources Preservation Program (PGRPP) to lead the preservation work on vegetatively-propagated crops. Dr. Jenderek comes to us from the ARS station at Parlier, CA where she led the germplasm program.

**Unit Project Plans:** The new cycle of the Five-year Project Plans for the Animal and Plant National Programs for NCGRP has begun. We are working with the National Program Staff to identify the cutting edge science and the goals and objectives for the next cycle.

## **PROGRAM-RELATED WEB LINKS**

**USDA's National Genetic Resources Program (NGRP)**

<http://www.ars-grin.gov>

**USDA's Germplasm Resources Information Network (GRIN) Database**

<http://www.ars-grin.gov>

**National Plant Germplasm Program (NPGS)(NP 301)**

<http://www.nps.ars.usda.gov/programs/programs.htm?NPNUMBER=301>

<http://www.ars-grin.gov/npgs>

**National Animal Germplasm Program (NAGP)(NP101)**

<http://www.nps.ars.usda.gov/programs/programs.htm?npnumber=101&docid=406#gi>

<http://www.ars-grin.gov/animal>

**National Center for Genetic Resources Preservation (NCGRP)**

<http://www.ars.usda.gov/npa/ftcollins/ncgrp>

**Links to other US and International Program Websites**

<http://www.ars-grin.gov/npgs/ngo.html>

## **CURRENT RESEARCH INFORMATION SERVICE (CRIS) PROJECTS AT NCGRP**

### **National Animal Germplasm Program (NAGP)**

5402-31000-002-00D	National Animal Germplasm Program
5402-31000-002-08S	The Effect of Holding Time on Ram Semen Fertility
5402-31000-002-09S	Sheep and Goat Embryo Cryopreservation for Conservation of Genetic Resources
5402-31000-002-10G	Economic Evaluation of the Exchange of Animal Genetic Resources
5402-31000-002-11S	Preservation of Swine Germplasm

### **Plant Germplasm Preservation Research Unit (PGPRU)**

5402-21000-011-00D	Research to Develop Strategies and Technologies for Preserving Plant Genetic Diversity in Ex-Situ Genebanks
5402-21000-011-02S	Population Genetic Analysis to Preserve Genetic Resources of Crops
5402-21000-011-03S	Mechanisms of Genetic Change During Ex-Situ Conservation of Rye Germplasm
5402-21000-011-04S	Ultrastructural Changes in Plant Tissues Induced by Cryoprotective Treatments
5402-21000-011-05R	Genetic Diversity of Wild Apple Accessions in the National Plant Germplasm System
5402-21000-011-06R	Increased Profits for Sustainably Produced Garlic

### **Plant Genetic Resources Preservation Program (PGRPP)**

5402-21000-006-00D	Preservation and Quality Assessment of Plant Genetic Resources
5402-21000-006-06N	Establish a General Framework for Cooperation and Coordination for the Conservation of Plant Genetic Resources
5402-21000-006-08N	Cooperation with the International Rice Research Institute (IRRI)
5402-21000-006-09N	Cooperation with the Colegio de Postgraduados en Ciencias Agrícolas (COLEGIO)
5402-21000-006-10S	Evaluation of Seed Longevity of Germplasm Placed in Long-term Storage
5402-21000-006-13N	Primary and Backup Storage of National Tree Seed Laboratory Material at National Center for Genetic Resources Preservation
5402-21000-006-14N	Storage of Black Ash from Indian Tribal Land in the Lake States