

REPORT TO THE W-6 TECHNICAL COMMITTEE

from

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June, 2015

- The National Small Grains Collection (NSGC) presently holds 142,069 accessions of the small grains (wheat, barley, oat, rye, triticale, rice, and related wild species).
- NSGC distributed more than 50,000 accession samples in 831 separate requests in the past 12 months. Thirty percent of the distributions were to foreign scientists.
- We have an ongoing effort to identify ploidy levels of tens-of-thousands of the wheat, barley, and oat accessions using the Partec Cyflow™ which counts chromosomes by flow cytometry. To date we have completed analyses on most all of the more than 28,000 landrace wheat accessions.
- We are continuing our efforts to capture voucher images of spikes, panicles, and seeds. The images and characterization data provides valuable information to both the germplasm user and for NSGC curation. During the past year kernel images of the cultivated oat collection (more than 10,000 accessions) were added to GRIN. Work is now proceeding on kernel images in the cultivated barleys.
- Evaluations of NSGC wheat landrace accessions are continuing for reaction to the Ug99 stem rust race in Kenya. We continue to coordinate the assembly of the Stem Rust Nursery in Kenya in cooperation with the Kenya Agricultural Research Institute, CIMMYT, and wheat and barley breeders in public and private programs throughout the U.S. The latest shipment in April included 3100 entries from U.S. public and private breeders and researchers.