

REPORT TO THE W-6 TECHNICAL COMMITTEE

from

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- The National Small Grains Collection (NSGC) presently holds 141,898 accessions of the small grains (wheat, barley, oat, rye, triticale, rice, and related wild species).
- NSGC distributed more than 61,000 accession samples in 809 separate requests in the past 12 months. Approximately one-fourth 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 more than 20,000 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 entire rice collection (more than 18,000 accessions) were added to GRIN. Also, kernel images for the barley genetic stock collection (more than 3,500 accessions) were completed and added to GRIN.
- 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 6000 entries from more than 50 public and private breeders and researchers.