

REPORT TO THE W-6 TECHNICAL COMMITTEE

From

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The National Small Grains Collection (NSGC) presently holds 133,796 accessions of the small grains (wheat, barley, oat, rye, triticale, rice, and related wild species). NSGC now includes the barley (GSHO) and wheat (GSTR) genetic stock collections. Recent additions to NSGC include rice cultivars from Japan, weedy red rice from Arkansas, synthetic wheats from CIMMYT, breeding lines from the late U. of Idaho wheat breeder Warren Pope, landrace barleys and wheats from Tajikistan, and wild wheats from Turkey. Mapping populations developed in the Wheat Coordinated Agricultural Project (CAP) are being added to GSTR.

NSGC distributed more than 30,000 accession samples in 658 separate requests in the past 12 months. More than one-third of the distributions were to foreign scientists.

NSGC contributed more than 5,000 wheat accessions in the first seed shipment to the Svalbard Global Seed Vault. Dr. Mike Bonman appeared in the 60-minutes segment on the opening of the vault. Local television and radio media also ran stories on Svalbard and NSGC.

We have been using the Foss GrainCheck 2312 instrument to more quickly and accurately measure seed weights and colors in the wheat collection. The instrument counts and weighs seeds to quickly determine 1000-kernel weight. Most importantly it utilizes a sensitive RGB camera to accurately determine seed color, which removes the subjective nature of color classification by the human eye.