

## **Tomato Germplasm Conservation at the Plant Genetic Resources Unit – Geneva, NY**

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The classification of tomato in the Genetic Resources Information Network (GRIN) has been recently changed to be consistent with that of Peralta et al. (2008) Systematic Botany Monograph Volume 48 into the genus *Solanum*. Currently, there are 6,521 accessions of 11 *Solanum* section *Lycopersicon* (Solanaceae) conserved at the Northeast Regional Plant Introduction Station (98% backed up at Ft. Collins, CO) located at the PGRU, Geneva, New York. Characterization for the minimal descriptor list and digital imaging of the germplasm accessions has been incorporated as part of the regeneration process and in 2008 thirty eight accessions were characterized with digital images of fruit and foliage. In 2009 we conducted phenotypic characterization of tomato core collections (“landraces” and “geodiversity”) through field observations, collecting vine-ripened fruit, and optimizing and performing Vitamin C and lycopene assays in the lab. As part of an SCA with D. Francis, phenotypic evaluations of a replicate set, and SNP genotyping were carried out by his group. A similar study is in progress for an heirloom core set in 2009. All cultivated tomato accessions are now available for distribution. 4,157 samples were distributed in 2007 and 1,563 samples were distributed in 2008.