Supplementary Figure S1. Geographic distribution of *C. berlandieri* ssp. *nuttaliae* accessions included in this study. Labels refer to accession indicators: ‘H’ are landraces from the ININ; ‘PI’ are accessions from the USDA-NPGS. Label colors are coded as follows: blue, Non-*waxy*; green, heterogeneous population or low-amylose; yellow, *waxy*.

Supplementary Figure S2. Staining of starch granules with Lugol’s solution (I2-KI) in perisperm from seed of eight accessions or cultigens of *C. berlandieri* ssp. *nuttaliae*. H3, H7 opaque, H9 black, and H18 stained purple-blue. H5 translucent, H9 translucent, and H17 stained brown – indicative of lack of amylose (*waxy*). H35-08 had an intermediate degree of brown-to-purple staining, which may be indicative of low amylose.

Supplementary Figure S3. Alignment of amino acids of the coding sequence of gene *GBSSI* in eight accessions or cultigens of *Chenopodium* and two species of amaranth: *Amaranthus hypochondriacus* PI 490755 and *Amaranhus caudatus* PI 511753 (<http://blast.ncbi.nlm.nih.gov>).