ABSTRACT

Six pumpkin genotypes (G1, G2, G3, G4, G5 and G6) were evaluated for their morphological, agronomical and physico-chemical properties under ecological conditions of Sicily (Italy). Considering the agronomical, morphological and physicochemical data including fiber, humidity, pH, total acidity, soluble solids, carotenoids, phenolic and ascorbic acid content, it was possible to differentiate among genotypes. The morphological analysis showed that the pumpkin genotypes did not have a homogenous morphology and present a large physico-chemical characteristic variability. Furthermore, high contents of carotenoids and dietary fiber, soluble solids, phenolic and ascorbic acid were observed with the maximum values in G1 and G5 landraces. The correlation between the thirty four parameters and the genotypes showed a wide range of variability in both positive and negative direction. The variability was statistically accumulated with the considered parameters following a significant characterization. In conclusion, we found a wide range of genotype variability among Sicilian winter pumpkin populations. This germplasm may represent a valuable genetic source for future breeding studies.