respectively. These F₁ hybrids could be recommend for large scalecommercial production in Central Brazil.

Genetic parameters for yield and industrial traits in 58 processing tomato lines evaluated under highland tropical conditions in Central Brazil.

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Genetic parameters of 58 processing tomato lines for yield and industrial traits were estimated in an experiment conducted in Cristalina-GO, Brazil. The following parameters were evaluated: total fruit yield (TFY), mature fruit yield (MFY), green fruit yield (GFY), brix (°B), industrial efficiency (IE = MFY * °B), uniformity of fruit setting (UFS = MFY/TFY * 100), fruit firmness (FF) and fruit color (FC). The experiment was a randomized complete block design with three replications. All traits showed statistic difference among lines, except for FC. The broad sense heritabilities (H²) were estimated based upon average performance of the lines. The H² values varied from medium-low to high according to the trait with 64.42% for TFY, 79.90% for MFY, 51.29% for GFY, 67.18% for UFS, 39.72 to FC, 80.82% for °B, 78.49% for IE, 54.32% for FF and 39.72% for FC. These values indicated the relatively high potential for genetic gains for several traits of interest using this germplasm. A significant and negative genotypic correlation (-0.57) was observed between GFY and MFY. Therefore, selection to decrease GFY could result in significant increase in GFY with consequent increase in UFS and IE. A multivariate analysis indicated TFY, GFY, °B and FF as being the traits with highest importance to discriminate genotypes. A multitrait selection system indicated seven superior lines viz. L.99-33-1, L.99-32-1, Tx475-21, L.99-05-2, L.99-05-4, L.99-05-3 and Tx490-2. This analysis would help parental selection for combining ability experiments in order to developed improved F_1 hybrids adapted to highland tropical areas in Central Brazil.

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Behaviour of different processing tomato varities in Tunisia