This research was carried out to determine the superior walnut genotypes grown within seedling population between 2009-2012 years in the Central District of Bitlis. For this purpose, fruit samples were taken from 120 walnut genotypes.

It was found that 17 walnut genotypes were determined as promising with regard to fruit characteristics. The quantity of fruit weight, kernel weight and kernel ratio were determined as 10.42-14.25 g, 4.52-7.44 g, 42.38-54.07 % respectively for the promising genotypes. The contents of protein (12.45 - 20.04 %), fat (58.44 - 67.14%) and ash (1.44 - 2.14 %) were determined as the quantity in the selected genotypes. The quantity of K, Ca, Mg, Cu and Zn contents in kernels of the selected genotypes were analyzed. The following results were found for K contents changing from 408.37 to 569.48 mg/100g, for Ca contents 194.79 to 267.85 mg/100g, for Mg contents 241 to 426 mg/100g, for Cu contents 0.72 to 1.43 mg/100g and while Zn contents were determined as 1.93-3.47 mg/100g in kernels. In conclusion, some of these selected genotypes can be recommended for the farmers in the region.