

## **Dry periods influence upon morphological characters of Turda 248 mayze hybrid cobs**

N. Ionescu <sup>(1)\*</sup>, O.D. Badea <sup>(1)</sup>, D.M. Popescu <sup>(1)</sup>, M.C. Nicolae <sup>(1)</sup>

<sup>(1)</sup> *Agriculture Research and Development Station Pitești, 5 Pitești-Slatina Road, Pitești 117030, Romania*

\* *Corresponding author e-mail: [nicolaeionescu50@gmail.com](mailto:nicolaeionescu50@gmail.com)*

### **Abstract**

The current characteristics of maize plant are evolving by new breeding tolerance for dry season during vegetation period. The habit of the plant in general, but also the cobs prove true productive performances. However, the expression of the specific characteristics of the cobs is closely related to the natural provision of water. Being a moisture-loving plant, it is not uncommon to encounter periods of deficiency, especially during the deposition of dry matter in the grain. The intensity of these periods of drought causes some depressions in the morphology of the cobs and grains. The present study compares the cobs of the hybrid Turda 248 obtained in three different years, namely a relatively normal one and two years with obvious drought accents. From the data obtained, the cobs affected by the drought were 3 cm shorter and 0.2 cm thicker. The weight of the cobs decreased by 40-60 g, the number of grains on a cob decreased by 150, and the mass of the grains also decreased by 40-60 g. Grain percent of the cobs was reduced by 1-3 %. The grains formed were 0.5-1 mm shorter, the width remained at the same level, and the grain thickness was smaller by 0.6-0.8 mm. The mass of a thousand grains decreased by 20-40 g.

**Keywords:** cobs, grains, maize, morphological characters, variability