

SHORT COMMUNICATION

Effect of mother corm (*Crocus sativus* L. *Iridaceae*) on the productivity of daughter saffron corm in the Northern Black Sea region of Ukraine

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ABSTRACT

*The study aimed to determine the effect of mother corm size on the productivity and yield structure of daughter corms of saffron (*Crocus sativus* L.) under a three-year cultivation system in the Southern Steppe zone of Ukraine (Mykolaiv region). A field experiment was established in August 2019 using three size fractions of corms: large (25.46 ± 1.82 mm), medium (18.5 ± 0.96 mm), and small (7.40 ± 0.21 mm), and harvesting with morphometric analysis was conducted in June 2022. The results showed that the size of the initial planting material had a decisive influence on productivity. However, yield structure differed significantly among treatments: the proportion of large, potentially flowering daughter corms was highest with small mother corms (49.1% by mass) and lowest with large mother corms (18.3%). Thus, large planting material is recommended to maximize total corm yield, whereas the inclusion of small mother corms is advisable when the goal is to obtain a higher proportion of flowering corms, which is important for both saffron planting material producers and flower-oriented farms.*

Keywords: Diameter, mass, number of shoots, saffron, yield,