

ABSTRACT

THE DETERMINATION OF SOME AGRICULTURAL PROPERTIES, OIL AND MORPHINE CONTENT IN POPPY (*Papaver somniferum* L.)

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This research has been carried out in Denizli province in 2012-2013 production year with the aim of determination of poppy's (*Papaver somniferum* L.) significant agricultural properties and ratio of oil and morphine in it. In this study seven poppy varieties (Ofis 3, Ofis 8, TMO 1, Ofis 96, Afyon 95, TMO 3 and Landrace) have been used as material. The experiment was performed in compliance with randomize complete block design with four replications. In this research among the varieties, the important varieties have been found in terms of number of days for flowering, number of days for ripening physiological, the ratio of morphine, seed yield, oil yield, capsule yield and morphine yield, while it has been detected that differences are not important has not been detected in terms of height of plants, width of capsules, height of capsules, the index of capsules, the number of capsules, 1000-grain-weight, ratio of raw oil amount among the varieties. According to result of experiment flowering periods took place between 197 to 205 days and physiological ripening days have changed between 225 to 235 days. The plant height was 93.23-107.55 cm, the capsule width was 34.38-39.30 mm, the capsule height was 40.15-46.78 mm, capsule index was 1.03-1.26%, number of capsule per plant was 1.93-2.90, 1000-grain-weight was 0.52-0.59 gr, raw oil was 49.05-51.32%, morphine ratio was 0.56-0.92%, yield of seeds was 30.39-48.67 kg/da, yield of capsule was 30.92-56.22 kg/da, yield of oil was 14.96-24.40 kg/da, yield of morphine was 0.21-0.36 kg/da with respect to the experiment. The research has been concluded by the fact that "Afyon 95", "TMO 3", "Ofis 3" and "Landrace" varieties are suitable for Denizli province.

Keywords: Poppy, agricultural properties, amounts of oil and morphine.

