

عنوان مقاله:

Natural enemies of *Ostrinia nubilalis* (Hubner) and papulation density of pest and its dominant natural enemy on four corn hybrids in Moghan region

محل انتشار:

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خلاصه مقاله:

The European corn borer, *Ostrinia nubilalis* (Hübner), is an important insect pest of corn, *Zea mays* L., crop in Moghan region. In field experiments, the density of eggs and larvae of *O. nubilalis* and percentage of eggs and larvae parasitisms were studied on four corn hybrids NS704 (commercial cultivar), NS770, NS640 and MV524 (cultivars with high yield). Furthermore, in this study, the predators and parasitoids of the European corn borer were collected and identified on four corn hybrids in an experimental field. The seeds of corn hybrids were planted in an experimental field, approximately 700 m². This experiment was conducted in a completely randomized block design with four replications. Samplings were conducted from the V6 (six leaf collar) until the R3 (milk) growth stages of corn. On each sample date, five plants/hybrid from each of the four replication were selected randomly and number of eggs (parasitized and non- parasitized) of *O. nubilalis* per plant was recorded using a 20X hand lens, then the stalk of these plants were dissected and number of larvae, larval mines and parasitized larvae per plant were recorded. The results showed that, the lowest density of eggs, larvae and larval mines were observed on NS704. While, the percentage of eggs and larvae of this month on NS704 were higher than on the other three tested hybrids. Therefore, it was concluded that the NS704 hybrid was less suitable to the European corn borer among the tested corn hybrids and has the potential to be used in the integrated management of *O. nubilalis*. Furthermore, in this study 12 predators' species and 2 parasitoid species were collected and identified from experimental field. The predator bug, *Orius niger* Wolff, and parasitoid wasps, *Trichogramma brassicae* Bezd and *Habrobracon hebetor* (Say), had higher abundance rate on four tested hybrids.

کلمات کلیدی:

Corn hybrids, natural enemies and *Ostrinia nubilalis*

