INTRODUCTION

1 Introduction Soil erosion does not only cause loss of plant nutrient elements but also affects living conditions of microfungi and other organisms living in the soil. The objective of the present study has been to search microfungal diversity of soils with high susceptibility to erosion (K factor). For this purpose, the object of the present study has been to determine microfungi flora of 43 soil samples, extracted from a depth of 0-15 cm, from 43 agricultural localities taking place in Yavuzeli, Araban, Karkamış, Nizip and Oğuzeli counties of Gaziantep with high susceptibility to erosion through the soil dilution method at the level of species. In these soils, which have quite high K-factor ranging between 0.3 and 0.79, quite poor in organic matter and have slightly alkaline nature, 2 divisions, 3 subphyla, 4 classes, 4 subclasses, 5 orders and 7 genera from microfungi flora were determined. The microfungi species, has been Rhizopus sp., Mucor sp., Penicillium sp. and Aspergillus sp. respectively. Cladosporium sp., Acremonium sp. and Candida sp. species have also been encountered in a couple of localities. The results suggest that microfungal diversity of these soils under study is low due to high susceptibility to erosion and insufficient organic content.
border of the eastern region extends to the Euphrates. The peaks of the adjacent mountains are from south to north:

**CONCLUSION**

A significant fungal diversification was not observed in the fields under study due to low organic content, high temperature averages, low precipitation, low soil humidity and fungicide use in the fields. Furthermore, alkalinity of soils and the fact that lime cannot be washed out from soil due to low precipitation also affect significantly living conditions of fungi. It was frequently observed during the researches that soils of the fields under study had been fallowed in certain intervals because they were used for agricultural purposes and their straw was then burnt. Therefore, biodiversity has been significantly affected in these fields. To increase biological activity in these soils, unnecessary chemical fertilization should be prevented and mycorrhizal applications should be conducted to increase organic content of soil (Dorioz et al. 1993) because organic content increases aggregate stability and thus, it makes soil more resistant to water and wind erosion and it ensures better ventilation and water uptake for soil. Furthermore, microorganisms prepare a good environment for growth of plant roots in addition to the increase in aggregate stability (Tisdale et al. 1982, Miller and Jastrow 1990). Mycorrhizal fungi applications to soil may result in an increase in aggregate stability and may provide good protection against erosion. In fact, Bearden and Petersen (2000) evidenced in their study on semi-arid vertisol soils in India that arbuscular mycorrhizal (AM) fungi application to soil has a significant positive effect on aggregate stability and geometrically soil aggregate size and also increases fertility of soil. These plants, which are important in terms of preventing erosion, are distributed in Gaziantep region and can all be recommended to prevent erosion. Convolvulus arvensis L. species, belonging to Convolvulaceae family, which is commonly known as field bindweed, has a deep root system. The roots can reach 3 m, and lateral roots can reach 2 m. Furthermore, new plants can grow on rhizomes which have a length of more than 1 m. These plants are perennial ones and widely distributed in meadows, pastures, rocky, stony, pebble, arid slopes, fields and cultivated lands. Especially sloped areas should be vegetated with horizontally developing and creeping plants with different root depths. Intensification and widespread use of these pioneer plants in the region will significantly eradicate erosion problem in the region (Tunc et al. 2013).

**REFERENCES**
