

**Isolation and identification of fungi associated with datepalms  
offshoot decline and death phenomina in Basrah /Iraq**

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**Abstract**

This study was conducted in the Agi college /Uni of Basrah for the period of 2007-2008 in order to isolate and identify the fungi associated with the phenomena of date palms offshoot deterioration and death in Basrah. The results of the survey study indicate that highest percentage of deterioration and death of the date palms offshoots were recorded in the Shatt-Al-Arab area 18.13% and 71.38% respectively followed by Hartha area 15.25% and 66.51% respectively, while the lowest percentage of deterioration and death were recorded in Abu-Al-Khasseb area 4.7% and 19.05% respectively. The results showed that the death percentage of offshoots increased as the salinity and pH value increased in soil and irrigation water. On the other hand highest deterioration and death percentage of offshoots were recorded with Hillawi cultivar 17.41% and 62.59% respectively followed by Sayer cultivar 16.19% and 62.59% respectively, while the percentage of the death of offshoot for the other cultivar such as Zahdi, Breim Kadrawi and Byarm was 57.57, 57.53, 56.98, 51.78% respectively. Isolation study from different parts of death and deterioration offshoots revealed isolation of many fungi like *Fusarium solani*, *F. moniliforme*, *Chalaropsis radicola*, *Alternaria alternata*, *Rhizoctonia solani*, *Cladosporium sp*, *Stemphylium sp* and other fungi. Among these fungi *C. radicola* recorded the highest percentage occurrence which were 91.1, 97.99, 39.99% in Shatt-Al Arab, Al-hartha and Abu- Al- Kasseb area respectively. All isolates of *C. radicola* exhibited high pathogenicity on Hillawi seedling. Results of field experiment revealed that best treatment in reduction of date palm offshoots death was the *T. harzianum* + Bayfidan and *T. harzianum* + Benomyl as infection rate was 11.11 compared to 55.55% for control treatment.