

## Comparison of Vegetative and Floral Indicators, Yield and Qualitative Characteristics of Barhi and Deglet Barhi Date Palm Cultivars

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### Abstract

Palm trees are economic trees in the world, and the similarity in fruit characteristics may be since they are strains that belong to the same original variety. The current study was conducted during the growing season 2022-2023 on date palm tree cultivars "Barhi and Deglet Barhi", which were grown in one of the orchards in Balad location, north of Baghdad. The trees were subjected to the same agricultural practices and pollinated using pollen grains of the "Ghannami Ahmer" male cultivar. Fruit clusters per palm were adjusted to eight. A factorial experiment was designed using a randomized complete block design (RCBD) with two factors and the results showed that there were significant differences in the vegetative growth and floral indicators between the two cultivars, as Barhi was significantly superior to Deglet Barhi in circumference of trunk, leaf length and width, length of the pinnae zone, length of the spine zone and length and weight of spadix. As for changes in the physical and chemical characteristics of fruits, Deglet Barhi cultivar was superior to Barhi one in the fresh weight of the fruit, the fresh weight of the fruit flesh, the volume of the fruit, and water content of fruits, while the Barhi cultivar was the best in total soluble solids and total and reduced sugars. Regarding the yield and its components, the Barhi cultivar outperformed the Deglet Barhi cultivar in the number of spikes per cluster and the number of fruits per spike, cluster weight, and date palm yield. The current study aims to compare the vegetative and floral indicators, yield, and qualitative characteristics of date palm fruits of Barhi and Deglet Barhi cultivars.

### Keywords

*Phoenix dactylifera*; Number of spikes; Fresh weight; Total soluble solids; Yield