**Table2:** Site data

* All fields were cropped with [durum wheat](https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/durum-wheat) variety (Karim).
* The values of field capacity (Fc), [permanent wilting point](https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/permanent-wilting-point) (PWP), saturation (Sat) and [hydraulic conductivity](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/hydraulic-conductivity) (Ksat) were 0.32, 0.17, 0.45 m3/m3 and 100 mm/day, respectively.
* The groundwater table in the region is facing enormous pressure with an over-exploitation (about 0.5–1.5 m decrease level by year) ([Abourida, 2007](https://www.sciencedirect.com/science/article/pii/S0378377415300998" \l "bib0005)). This results in very deep ground water (more than 50 m), and so no interaction between surface water and ground water is considered in the AquaCrop simulations.
* The fields were periodically irrigated by applying 30 mm during 2002/2003 and 60 mm during 2003/2004 growing seasons in each irrigation event.
* the initial value of soil moisture was set to 0.245 cm3/cm3.
* The soil is homogeneous characterized by the clay loamy texture (47% of clay, 33% of [loam](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/loam) and 20% of sandy) with the same soil pre-plowing for all fields.