

# Seasonal crop evapotranspiration in modern and older maize hybrids

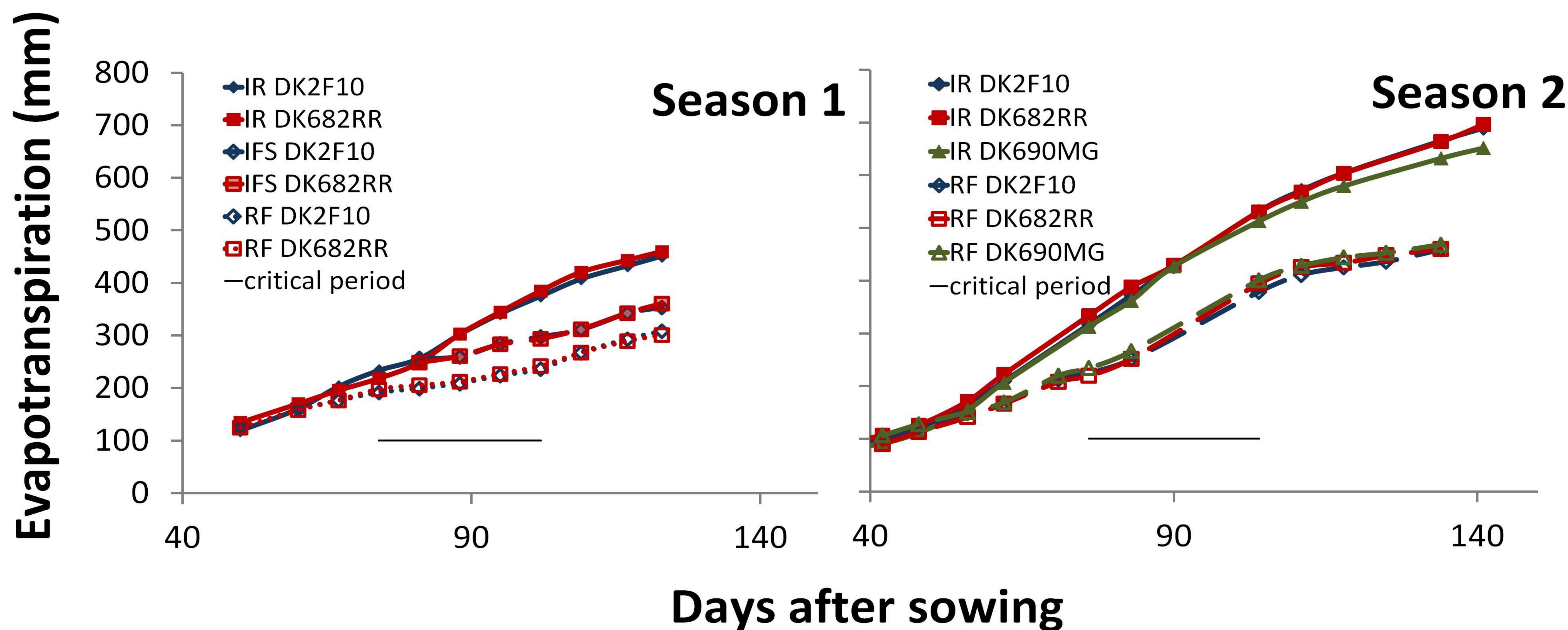
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The grain yield of modern maize (*Zea mays* L.) hybrids is greater than that of older ones under different abiotic stresses; however, there is little information on the physiological mechanisms contributing to a greater yield of the modern hybrids under water stress.

The **objective** of this research was to determine whether seasonal crop evapotranspiration (ET) in modern maize hybrids was increased or equaled that of an older maize hybrid under different soil water availabilities.



In Balcarce, Argentina, 2 field experiments were conducted: season 1 (08-09) and 2(10-11).

**Maize hybrids:**

2 modern (2000):

DK682RR

DK690MG

1 old (1980):

DK2F10.

**Water regimes:**

rain-fed (RF)

irrigated from silking (IFS)

irrigated (IR)

Season 1 was drier than Season 2 during the whole growing season; drought during season 2 was evident during the vegetative period only.

- ✓ Mean seasonal crop evapotranspiration among hybrids was greatest for the irrigated treatment during the whole season and it was lowest for the rain-fed treatments ( $p < 0.05$ ).
- ✓ Seasonal crop evapotranspiration was similar between modern and old hybrids at each water regime ( $p > 0.05$ ).

