

# **Irrigation Regimes, Yield and Properties of Upland Cotton (*Gossypium hirsutum* L.) Grown in Southern Italy**

G. De Mastro<sup>1</sup>, G. Lucarelli<sup>2</sup>, G. Manolio<sup>1</sup>

<sup>1</sup> *Dipartimento di Scienze delle Produzioni Vegetali - Università degli Studi di Bari*

<sup>2</sup> *Dipartimento di Produzione Vegetale - Università della Basilicata*

## ***Abstract***

It is long time agreed that water restrictions and sudden variations in soil water availability delay canopy growth and determine intense shedding of squares, flowers and young bolls. Nevertheless, bolls sensitivity to shedding decreases as bolls are more than 2 cm in diameter.

In 1999 and 2000, 6 irrigation regimes, differentiated during flowering period and obtained combining 2 restoring levels of ETC (100% and 75%) with 3 phenological stages for the last irrigation (NAWF=7, cut-out and first open boll) were compared. The aim was to make clear if late season water stress can determine better crop earliness without yield losses and worsening of fiber properties.

Yields were not modified by irrigation regimes, indicating that production were determined by water applied before treatments differentiation. However, bolls location along canopy profile was modified. At both ETC restoring levels WUECY was higher when irrigations were terminated at NAWF=7. ETC restoring levels and phases for the last irrigation did not affect technological fiber properties, but, on the whole, these were very favourable for spinning.