

IRRIGATION TERMINATION DATES
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Abstract

This five year study investigated the effect of cultural practices of alternate row irrigation, irrigation termination date and irrigation amount on cotton yield on the High Plains of Texas. A surface drip irrigation system was used to simulate LEPA center pivot application. Irrigation treatments corresponding to replenishment of .1, .2 and .3" per day were used to represent the range of well pumping capacities of the area. Water was applied to either every furrow or alternate furrows. Irrigation was terminated at 1600, 1800 and 2000 cumulative heat units (Base 60) from emergence. Irrigation application in excess of .2" replenishment per day did not result in greater lint yield. Delay of irrigation termination until 1800 and 2000 heat units resulted in lint yield increases of 140 and 180 lbs /a lint, respectively, more than the 1600 termination date across years. Application of irrigation water to alternate furrows resulted in lint yield enhancement of 50 lbs/a across other treatments and years. The data collected from this study will be used in economic models.