

Estimating Water Use of Young Pecan in the Dona Ana County, New Mexico

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ABSTRACT

Pecan farming is one of the most important facets of the agricultural economy in New Mexico. Pecans (*Carya Illinoensis*) cover approximately 25% of the irrigated acreage in the Dona Ana County, New Mexico. The pecan acreage in the county has increased from about 9,000 acres in 1978 to 20,000 acres in 1999 an increase of about 122%. Acreage of young pecan has increased recently but no official statistics are available. In addition there are no data on how much water is consumed by the young pecan trees so that proper management could be implemented. This study measures evapotranspiration of young pecan trees using energy budget method as well as using measured canopy temperature and percentage cover. The estimate of young pecan orchard water use was compared to that of a mature pecan orchard located in the vicinity of the study site.