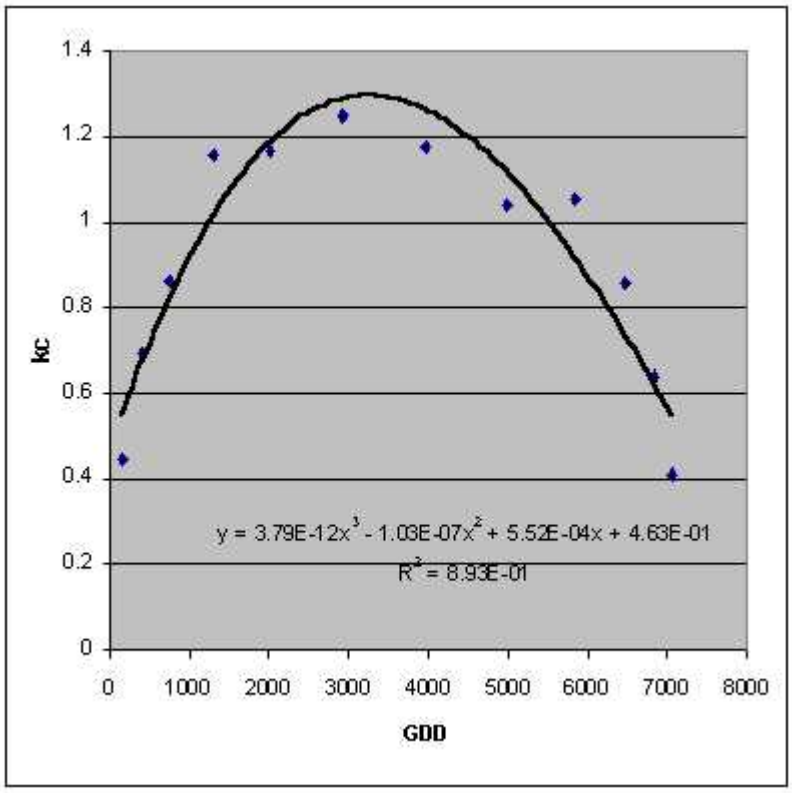
New Mexico Crop Information

Eucalyptus (E. grandis) coefficient(k) to calculate evapotranspiration(ET) where Et=k*Eto

Eto = reference evapotranspiration or potential evapotranspiration referenced to grass.



Crop Coefficient uses growing degree days (GDD) accumulated from January 1 based on the averaging method of calculating GDD with a maximum temperature cutoff of 95 F and a minimum cutoff temperature of 40 F. The Base Temperature is 40 F.

The equation for the crop coefficient (k) is presented in the figure

Crop Coefficient =Etact/Etpot for a closed canopy eucalyptus plantation that is not under moisture stress conditions.

The reference for this work is Myers, B.J. , W. J. Bond, R. G. Benyon, R. A. Falkiner, P.J. Polglase, C. J. Smith, V.O. Snow and S. Theiveyanathan. 1999. Sustainable effuent-irrigated plantations an Australian guideline. CSIRO Forestry and Forest Products CSIRO and Land and Water Canberra, Australia p 1- 286

The procedure was to get the monthly average Et rate in mm/day from Wagga Wagga, NSW . Next the average monthly temperature data was acquired from the internet and Samani's Pet calculator was used to calculate the Et and GDD using a kt factor of 0.18 Because the climate is reversed in the southern hemisphere the GDD were calculate for the Northern Hemisphere