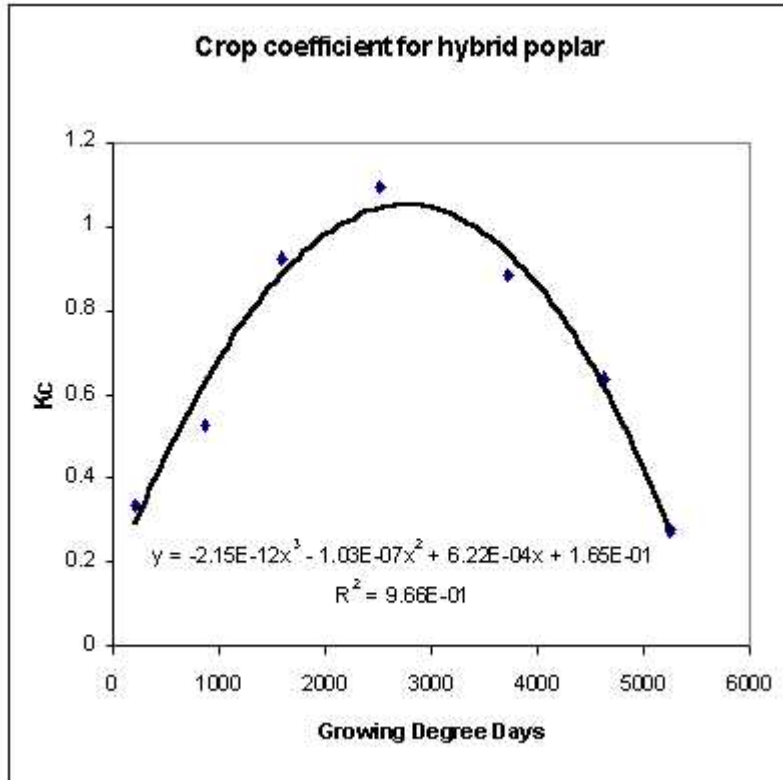# New Mexico Crop Information

Poplar 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 . 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 poplar plantation that is not under moisture stress conditions.

The reference for this work is Gochis, D. J., R. H. Cuenca. 2000. Plant water use and crop curves for hybrid poplars J. Irrigation and Drainage Engineering ASCE pp206-215

The procedure was to get the monthly Et rate in mm/month for a 3 year old crop. Next the daily 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 0.16