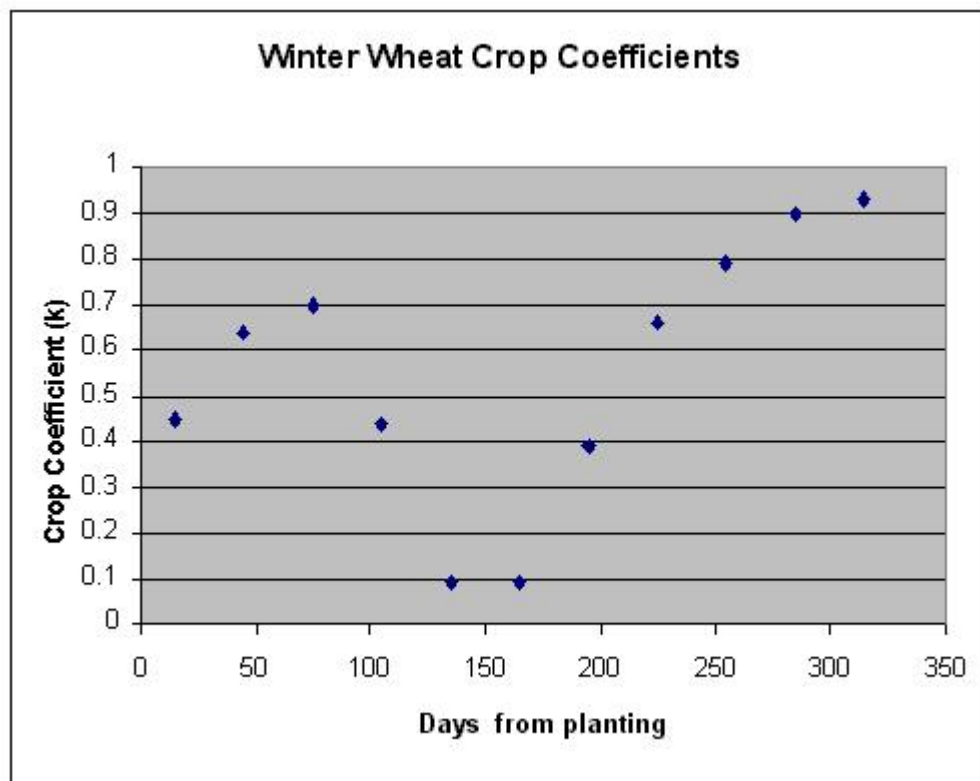


# New Mexico Crop Information

## Winter Wheat coefficient(k) to calculate evapotranspiration(ET) where $Et=k*Eto$

Eto = reference evapotranspiration or potential evapotranspiration referenced to grass.



The reference for this work is Sammis, T.W., E.G. Hanson, C.E. Barnes, H.D. Fuehring, E.J. Gregory, R.F. Hooks, T.A. Howell, and M.D. Finkner. 1979. Consumptive use and yield of crops in New Mexico. New Mexico State University, Las Cruces. WRRRI Report No. 115.

Crop Coefficient uses growing degree days (GDD) accumulated from planting based on the averaging method of calculating [GDD](#) with a maximum temperature cutoff of 81 F and a minimum cutoff temperature of 40 F. The Base Temperature is 40 F. Data fits two 3 order polynomials. Use the first polynomial up to 1300 GDD and then use the second polynomial.

intercept	x	x^2	x^3
-1.74E-02	8.94E-04	-5.10E-07	0.00E+00
-			
1.93E+00	2.28E-03	-4.47E-07	0.00E+00

The data can be fit to one polynomial which is  $kc=2.70E-1 -4.8E-4 Gdd +6.27E-7 GDD^2-1.3E-10 GDD^3$  When the data is expressed in heat units the drop in the crop coefficient during the winter months is small because little heat units are generated during December and January.