WinPET IRRIGATION SOFTWARE

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Abstract

WinPET is a user friendly software package developed in visual BASIC 6.0 for Windows 95, 98, and NT 4. WinPET was developed as an aid for estimating water use for irrigated crop production on the Texas High Plains. User inputs include farming system inputs and daily inputs. Farming system inputs include soil type, planting or emergence date, soil moisture status at time of planting, and crop grown. Farming system files or created once for every field under cultivation. Although, cotton is the primary crop of interest the software model also includes corn, grain sorghum and peanuts. Daily inputs are heat units, potential evapotranspiration (PET), rain, and irrigation amounts applied. Daily heat units and PET or published daily on the worldwide web or faxed directly to the producer via the South Plains PET Network. The model estimates crop transpiration (ET) by multiplying the PET by a crop coefficient. Crop coefficients are derived from models that predict crop development and leaf area expansion as a function of cumulative heat units. The software generates reports that include crop water use, soil water depletion and other components of the crop water balance. The output information can also be viewed in a graphical format.

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