

If all weather data (daily air temperature, humidity, solar radiation and wind speed) are available at the site of interest, follow steps below 'A'. If only daily temperatures are available, proceed to steps below 'B'. Note: you can determine if all weather data are available for your site by following step 1 'A' and then examining the displayed map.

**A. All weather data available:**

1. Click on 'View Weather Data from Various NM Climate Networks'
2. Click on 'A) Map based graphing and data retrieval system'

**On Data Retrieval System Page**

3. Enter start and end dates for period of interest or click 'Autodate'.

(Note: For ET to be accurate, start date must be green-up date or January 1 or alternatively, cumulative growing degree days (GDD) up to the entered start date can be entered in the offset box)

4. Enter your site (or closest site) number by referring to the index in left window.
5. Click on 'Generate Crop Coefficient and ET'

(Note: if at a location where climate is much different than Farmington, enter a 'Ratio' value other than 1. Compare GDD between sites and adjust accordingly: ie. If seasonal GDD is 20% more than Farmington, enter 0.83, if 20% less, enter 1.25.

6. Select the turfgrass of interest.

(Note: for cool season grass, choose HQ for optimum growth and MQ during water deficits; for warm season grass choose MQ for optimum growth and LQ during water deficits).

7. Click on 'Retrieve Data' (this will bring up another page)
8. Scan down page and click on 'View Data Here'
9. Verify that all input data is correct.
10. Estimated ET for each day will appear in column 17.

**B. Daily minimum and maximum temperature data available only:**

(Note: this can be obtained from local newspaper, radio, TV, etc.)

1. Click on 'Water Management of New Mexico Crops'
2. Click on 'grasses'.
3. Click on 'ET calculator for warm season (or 'cool season') grasses.
4. Enter the dates and latitude of site as instructed.
5. Enter the maximum and minimum temperatures for each day. (Note: For ET to be accurate, all temperature data from green-up or January 1 to the current date must be entered).
6. Follow instructions.

**Notes:**

1. The irrigation requirement (IR) can be computed as follows:

$$\text{IR} = \frac{\text{ET} - \text{Rainfall}}{\text{IE}/100}$$

Where: IE = estimated irrigation efficiency (percent)

**2. The ET estimates shown provide an index only! They apply to full sunlight, full wind conditions. Adjustments must be made for the microclimatic conditions at your site (ie. shading, wind blockage, orientation to structures, etc.). Use a soil sampling probe to check your soil moisture at differing sites and make the necessary adjustments.**

**3. Make sure that you change the ratio value on the internet calculator to be appropriate for your area. The crop coefficients were developed for the grasses in Farmington NM and are adjusted for your area by changing the ratio value from the default of 1. The ratio represent the growing degree days at Farmington for the growing season from the first of the year to the end of the year divided by the growing degree days at your site. For Las Cruces NM the ratio needs to be changed to 0.65**