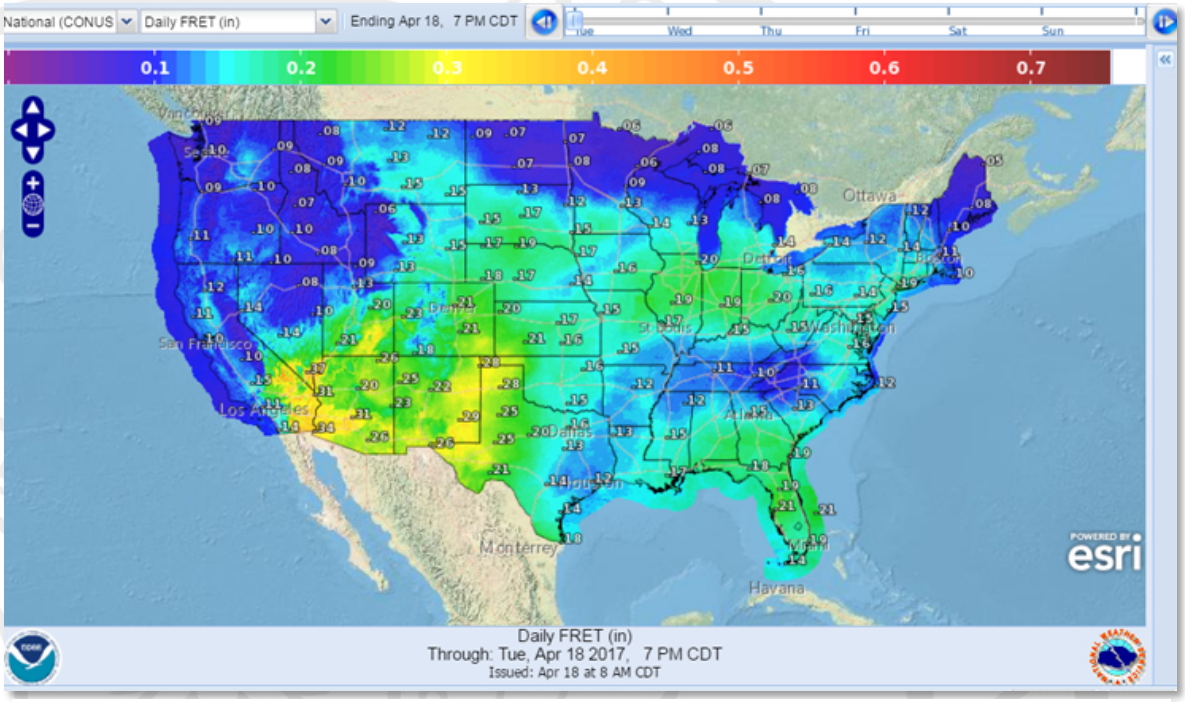
You Should FRET Over Irrigation Decisions

By John Daniels, agronomist, Central Region | April 21, 2017



Fine tuning irrigation scheduling based on ET and FRET can help golf facilities conserve water.

Turfgrasses lose water through evapotranspiration (ET). USGA-funded research indicates that healthy warm-season and cool-season turf requires daily replacement of about 70 percent and 80 percent of the water lost through ET, respectively. Daily ET values can be measured directly, but are typically estimated using weather station measurements of temperature, wind, relative humidity and cloud cover.

Using ET values to make irrigation scheduling decisions helps conserve water. In addition, sophisticated irrigation-control software can use ET values to automatically adjust watering cycles to further fine tune irrigation management.

Last year the National Weather Service began offering a forecast of reference crop evapotranspiration (FRET) that is, in essence, a prediction of future ET values. In addition to daily and weekly FRET, the difference between normal ET (based on historical data from 1980 through 2009) and FRET can be displayed. When turf managers combine information

about how much water is removed from the soil through ET with predicted future losses of water – i.e., FRET – they have far more confidence that their irrigation plan makes every drop count.

To view the data, please visit the National Weather Service forecast map and click on FRET in the drop-down menu.

Central Region Agronomists:

Bob Vavrek, regional director – bvavrek@usga.org

John Daniels, agronomist – jdaniels@usga.org

Zach Nicoludis, agronomist – znicoludis@usga.org

Information on the USGA's Course Consulting Service

Contact the Green Section Staff