

ExtraRad, Annual Cycles of Extraterrestrial Incoming Solar Radiation

This document shortly describes ExtraRad, a software to provide annual cycles of extraterrestrial incoming solar radiation for any location on Earth or for a list of locations read from an input file.

ExtraRad is programmed by Jürgen Grieser, FAO/NRC (agromet@fao.org) February, 2007.

Purpose:

The annual cycle of incoming solar radiation is an important input variable for many applications in meteorology and climatology. ExtraRad provides this annual cycle in different resolutions/aggregations and a wide range of common units.

Output:

a) Single-Point Mode

The user has to provide only the latitude of the desired location. ExtraRad produces a file with the extraterrestrial radiation in daily, weekly, dekadal or monthly resolution and the desired unit.

b) Multiple-Point (Batch) Mode

ExtraRad can provide the annual cycle of extraterrestrial radiation for more than one location at a time. In this case the locations have to be provided as a list of latitudes in an input file.

Units:

The different units of the energy flux per unit area per time interval are self explaining. mm/day and mm/dekad, however, are no units of radiation flux. Nevertheless they are provided here. They describe the equivalent evaporation (i.e. the amount of water that could be evaporated by the energy flux). These units are of particular interest for the estimation of local reference evaporation. For further details see the FAO irrigation and drainage paper 56, Crop evapotranspiration, <http://www.fao.org/docrep/X0490E/x0490e00.htm>

Setup:

ExtraRad comes as a zipped file containing the executable ExtraRad.exe plus the MS Windows common dialogue as an activeX component, necessary to run it on some configurations.

In order to run ExtraRad just extract the zipped file into a directory and run ExtraRad.exe.

Warranty and Disclaimer:

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