

UC Davis Biometeorology Group

Degree Days Application Program

Richard L. Snyder

Extension Biometeorologist

University of California

Davis, CA 95616

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The DEGDAY.xls program is an Excel application that is used to calculate degree days using the single triangle method and the single sine method. To obtain the DEGDAY.xls program, click on

DEGDAY

One can input a lower threshold temperature and an optional upper threshold temperature that will be used for all calculations. Alternatively, the lower and upper threshold can be input for each calculation. Maximum and minimum temperatures are input and the application calculates the degree days using both the single sine method and the single triangle method. Instructions are below.

Instructions:

To enter threshold temperatures, enter the low threshold (T_{low}) or high threshold (T_{high}) in the two cells at the top of the input T_{low} and T_{high} columns. If values are input into the two cells, they will be used for all calculations.

To enter different thresholds for each sample number, leave the two cells blank at the top and input thresholds by sample number.

The thresholds that are actually used will appear in the Threshold “ T_{low} ” and “ T_{high} ” columns.

Enter the maximum and minimum daily temperatures under the T_{max} and T_{min} columns.

The degree days above the lower threshold (DD_{low}), upper threshold (DD_{high}) and the degree days between the thresholds (DD) are given for both the single sine and single triangle methods. Cumulative degree days between the upper and lower thresholds (CDD) and cumulative degree days above the lower threshold (CDD_{low}) and above the upper threshold (CDD_{high}) are provided for both the single triangle and single sine methods.

Calculations are based on:

Zalom, F.G., P.B. Goodell, L.T. Wilson, W.W. Barnett, and W.J. Bentley. 1983. Degree-days: The calculation and use of heat units in pest management. UC DANR Leaflet 21373.
