

INSIDE GRUNDY COUNTY
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If you have ever heard the weatherman, an agronomist, or an entomologist talk about degree days, growing degree days, heat units or thermal units, you may have wondered what they were talking about. Each of these terms refers to the same basic concept. Degree days will be the focus of this column. Degree days are a means of predicting insect and crop development.

Degree days help predict when a potential insect problem may occur. Degree day calculations accurately predict when significant biological events, such as the appearance of a damaging insect population, will occur. This allows farmers, gardeners and others to scout fields or gardens at the appropriate time. For example, accumulation of three hundred degree days after the first significant black cutworm moths' flight in the spring would alert farmers to scout fields for damaging larval populations.

Two of the most important factors that determine the growth of any organism are time and temperature. Because an insect's body temperature follows the environmental temperature, it is more difficult to predict growth for an insect than for mammals, whose body temperature remains fairly constant. Degree days combine time and temperature and make it possible to predict insect and plant development.

Degree days represent the number of degrees above some minimum temperature necessary for growth, multiplied by time in days. Ten degrees above the minimum for five days represents fifty degree days just as two degrees above the minimum for twenty five days equals fifty degree days.

Degree days are not used for all insects because there is not research available for many insects. Although degree days are useful in predicting development of many insect species, these predictions are only an estimate. By using degree days as a guide, fields and gardens can be scouted at the appropriate time and better management decisions can be made.

If you would like to learn how to calculate degree days or would like more information on degree days, contact the Grundy office of ISU Extension at 319-824-6979 and ask for publication PM-1296.