



Intro to Agriscience

Precision Ag - Lesson 3 - Growing Degree Days Assignment



Using <https://www.clemson.edu/extension/publications/files/agronomic-crops/ac09-introduction-to-growing-degree-days.pdf> find the base temperatures used in determining Growing Degree Days (GDD) of each of the crops listed below. Enter the base temperature in the column provided. Then using the appropriate formula and the temperatures given, determine GDD Calculation #1, #2 and #3 in the space provided in the table. You must show your work to get credit.

<u>Crop</u>	<u>Base Temp</u>	<u>GDD Calculation #1</u>	<u>GDD Calculation #2</u>	<u>GDD Calculation #3</u>
<i>Barley</i>	32	$T_{\max} = 64\text{ F}, T_{\min} = 52\text{ F}$ $(64 + 52)/2 = 58$ $58 - 32 = 26\text{ GDD}$	$T_{\max} = 92\text{ F}, T_{\min} = 68\text{ F}$	$T_{\max} = 80\text{ F}, T_{\min} = 71\text{ F}$
<i>Corn</i>		$T_{\max} = 64\text{ F}, T_{\min} = 52\text{ F}$	$T_{\max} = 85\text{ F}, T_{\min} = 63\text{ F}$	$T_{\max} = 101\text{ F}, T_{\min} = 73\text{ F}$
<i>Cotton</i>		$T_{\max} = 64\text{ F}, T_{\min} = 52\text{ F}$	$T_{\max} = 84\text{ F}, T_{\min} = 76\text{ F}$	$T_{\max} = 98\text{ F}, T_{\min} = 77\text{ F}$
<i>Peanuts</i>		$T_{\max} = 64\text{ F}, T_{\min} = 52\text{ F}$	$T_{\max} = 71\text{ F}, T_{\min} = 46\text{ F}$	$T_{\max} = 86\text{ F}, T_{\min} = 65\text{ F}$



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<u>Crop</u>	<u>Base Temp</u>	<u>GDD Calculation #1</u>	<u>GDD Calculation #2</u>	<u>GDD Calculation #3</u>
<i>Soybeans</i>		$T_{\max} = 64\text{ F}, T_{\min} = 52\text{ F}$	$T_{\max} = 89\text{ F}, T_{\min} = 73\text{ F}$	$T_{\max} = 97\text{ F}, T_{\min} = 59\text{ F}$
<i>Wheat</i>		$T_{\max} = 64\text{ F}, T_{\min} = 52\text{ F}$	$T_{\max} = 71\text{ F}, T_{\min} = 58\text{ F}$	$T_{\max} = 85\text{ F}, T_{\min} = 75\text{ F}$