



Lygus bug (*Lygus hesperus*) growing degree day model

The Integrated Plant Protection Center of Oregon State University has added current **Wyoming** weather data to its database that allows the calculation of growing degree days (GDD) using a base temperature of 52 F. A model of Lygus bug development is plotted against the accumulating GDD using research by Ben C. Simko and Dani Jo Kriegh¹. Simko and Kriegh conducted trials in Malheur County, Oregon to validate a published degree-day model from the University of California. They found that the first hatch (prebloom) of *Lygus* bugs was consistently predicted using a January 1 biofix, a lower developmental threshold of 52F and the accumulation of 252 – 300 degree-days. Data over three years shows the 50 percentile for cumulative capture of first and second instar nymphs occurred at 280 degree-days.

The links below takes you to the OSU Online Phenology and Pest Model that is set up for *Lygus* bug in alfalfa seed at Powell, Riverton and Worland Wyoming. All windows are set by default. All you have to do is to **click on “Calc”** at the bottom of the web page.

A printout of daily Powell, Riverton, and or Worland temperatures will come up with GDD accumulated values. Temperature accumulates only when the daily temperature exceeds 52F. A GDD graph prints at the bottom with predicted *Lygus* bug events marked on it. Producers may be able to better time pesticide applications to match life cycle stages of *Lygus*.

Lygus Bug GDD Calculators: Hit the "Calc" button at the bottom of the page.

[Powell](#)

[Riverton](#)

[Worland](#)

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1. Ben C. Simko, OSU, Agricultural Extension Agent, and Dani Jo Kriegh, Student Assistant, Malheur County Extension Office, 710 SW 5th Ave., Ontario, OR 97914. Published in Proceedings, Lygus Summit, 28 November 2000. Visalia, CA, University of CA Division of Agriculture and Natural Resources.