

Mesonet Alfalfa Weevil Advisor Description

The Oklahoma Mesonet Alfalfa Weevil Heat Units is a simple degree-day heat unit monitor.

Like other insects, the alfalfa weevil requires a minimum, or threshold, temperature for growth and development to occur. For the alfalfa weevil, the threshold is 48°F. An accumulation of 48°F base degree-day heat units, since January 1st, estimates weevil development.

Once 150 degree-day heat units have accumulated, fields should be scouted for weevil larvae.

The 150 degree-day heat unit level does not represent a treatment threshold. Ideally, a treatment decision should be based on weevil larval population, alfalfa height, and weevil development, which are not always directly linked to degree days. In some years, many weevil eggs are deposited in October or November of the previous year and may result in threshold populations earlier than anticipated. Likewise, colder conditions (below 20°F for larvae and below 10°F for eggs) may result in weevil mortality and later threshold populations.

To scout, collect a 30-stem sample (ideally from 30 evenly spaced intervals across the dry interior portions of the field). After 30 stems have been collected, place in a 2-3 gallon container, then beat vigorously against the inside of the container for 10-20 seconds. Count and record the number of larvae that fall out. Additionally, select 10 stems and record their average length to the nearest inch.

These numbers will be used to determine if and when to spray. Please consult with your local OSU Cooperative Extension Service Agriculture Educator to determine the larvae number threshold that should be used for your field situation.

Product Display Options:

- Statewide Map
 - This map displays the seasonal degree-day heat units since January 1st.
- Local Mesonet Site
 - Season-long Heat Units – graph and table that show daily accumulation of degree-day heat units since January 1st.

References:

Scouting for the Alfalfa Weevil in Oklahoma – OSU Extension Current Report, CR-7177.

Alfalfa Weevil and Its Management in Oklahoma – OSU Extension Fact Sheet, EPP-2097.

Edited March 17, 2023.

