

# Pecan Weevil Alert



Photo courtesy of  
[Clemson Extension/USDA slide series,](#)  
[Bugwood.org](#)

Pecan weevil management decision-making is upon us. Note that many pecan growing areas are facing drought conditions. This may result in drought-delayed emergence well beyond the normal emergence time for this pest, particularly in orchards and groves with clay soils.

*NOTE that pecan weevil was recently declared eradicated from New Mexico and that pecan weevil has not been detected in the "island" shown in south Texas since the 1979 map was produced.*

Nuts are at risk of infestation by adult weevils emerging from soil cells at and after pecan nuts reach the gel stage until harvest (see [Pecan Weevil Management publications](#) and consult with your local expert for details).

The "normal" time for pecan weevil emergence from the soil in Texas is August 10 to September 20, with the highest risk period occurring from Aug. 20 to Sept. 10 (peak emergence is typically Sept. 1; consult with your local expert for details in your area). However, drought-hardened clay soils may prevent many weevils from emerging at this time, although a few will come out through soil cracks or root channels. These drought-delayed weevils will emerge en masse within 4-5 days when hardened soils are loosened by rain or irrigation to a depth of approximately 6 inches or more.

How can one check whether or not the soil hardness in their orchard/grove will result in drought-delayed emergence of pecan weevil?

The pecan weevil is drought-delayed when the soil column above the soil cell is harder than approximately 60 kilogram/cm<sup>2</sup> in mechanical impedance. This is simple to test as shown in the illustration where metric units have been converted to the more familiar avoirdupois system of measurement (i.e., 60 kg = 132 lbs and 1 cm = 1/2-inch).

One can buy a sophisticated soil penetrometer for about \$200 that will provide accurate measurements of the actual soil hardness being tested. Or, since the pecan weevil manager is

primarily interested in just whether the weevil will be delayed in emergence or not, a device specifically designed to detect this soil hardness threshold can be constructed for a few dollars. Your choice.

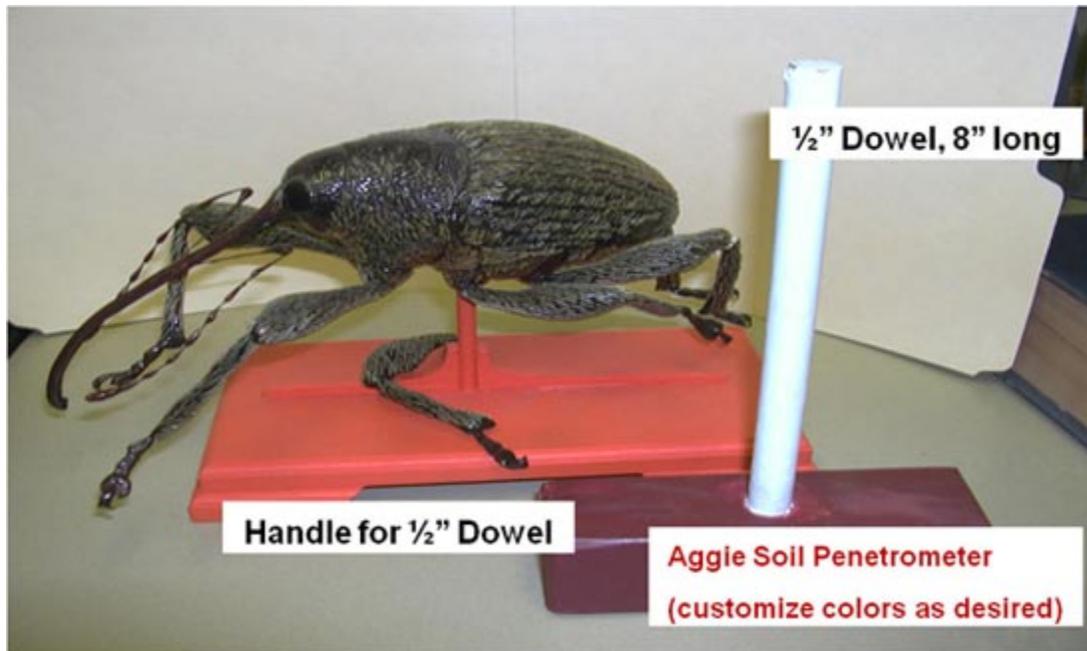
## Soil Penetrometer

The "soil penetrometer" shown is a standard 1/2-inch dowel, 8 inches long embedded in a 2" x 2" x 4" handle.

The flat tip of the dowel is placed on the soil surface and 132 lbs of pressure is applied by pressing straight down (do not rock or drill) on the handle. If the dowel penetrates to the handle, no drought delay is expected and pecan weevil emergence from the soil is expected to occur in the "normal" pattern for your area.

Be sure to test numerous areas in your orchard/grove for hardness as soil types can differ widely even over short distances (higher clay content usually means harder soils under dry conditions).

Replace dowel tips as needed to ensure 1/2-inch flat surface.



Pecan weevil is an insidious pest that will sneak up on the unwary. Emerging adults can be detected using traps and inspection, nut development can be monitored by inspecting for onset of gel stage, and risk of drought delay can now be determined as well. Protect your harvestable crops from pecan weevil.

## **Related Publications**

- [Pecan Weevil Distribution Across the Pecan Belt](#)
- [Pecan Weevil Management in Texas](#)
- [Pecan Weevil Management Considerations](#)