# How to Use Agweather's Pecan Scab Advisor

article revised October 2009 photo by Todd Johnson

# Introduction:

Pecans are the staple of many American traditions; pies during the holidays, ice cream in the summer and delectable chocolates year round. It's no wonder more than 134 million pounds of pecans are consumed each year. However, pecans are under attack from pecan scab infection and if left unchecked, this disease can cause damage to a crop resulting in reduced yield, quality and revenue.

Agweather features a Pecan Scab Advisor that allows pecan growers and industry professionals to track current, seasonal and past pecan scab hour data. The Pecan Scab Advisor is a decision support tool that has been developed to aid growers in proper timing of fungicide applications for pecan scab.

Using weather data from the Oklahoma Mesonet, the pecan scab advisor tracks hours when pecan scab risk is high. Using these hours and knowing the susceptibility of the pecan variety, the grower can decide whether to apply a fungicide spray or not. The threshold for highly susceptible pecan varieties is 10 hours, for moderately susceptible varieties 20 scab hours, and for natives and low susceptibility varieties 30 scab hours.

Based on research from Oklahoma pecan orchard sites, the total scab hours during the last 14 days were the critical hours in calculating disease development. The advisor assumes an applied fungicide will protect the crop for approximately 14 days following the application.

# Scab Hour:

A scab hour is defined as one hour with relative humidity of 90 percent or higher and an air temperature of 70 degrees Fahrenheit or higher. **Pecan Scab Season:** 

The Pecan Scab Advisor is operational from March 1 through August 31 and is updated hourly. The forecast data is updated four times a day and is based on forecasts from the National Weather Service.

# Scab Hour Thresholds:

Highly Susceptible 10 Scab Hours	Moderately Susceptible 20 Scab Hours	Low Susceptibility (resistant) 30 Scab Hours
Burkett	Caddo	* Native Trees *
Squirrel's Delight	Colby	Barton
Western	Creek	Choctaw
Wichita	Giles	Graking
	Kiowa	Kanza
	Maramec	Lakota
	Mohawk	Mount
	Oconee	Nacono
	Shawnee	Osage
	Pawnee	Peruque
		Stuart







# Where to Find Pecan Scab Advisor Products:

#### Start at http://agweather.mesonet.org.

-Select "Horticulture" on the horizontal menu,

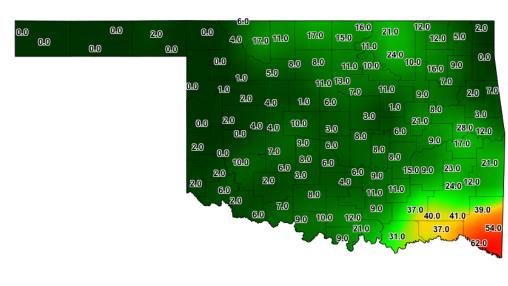
-Select "Pecan" from the left vertical menu.

-Click "**Pecan Scab**"

AGWEATHER Statewide Maps V Local Mesonet Site Vears Vears Learn More

## Horizontal Selection Bar

Pecan Scab Advisor Statewide Maps – Last 14-day Pecan Scab Hours Map



## Statewide Maps:

• Under the "Statewide Maps" tab on the horizontal selection bar on the advisory, you will be able to view the "Last 14 days Scab Hours Map", as well as a "Season-long Scab Hours Map."

## Local Mesonet Site:

**Scab Spray Advisor** 

• To see site-specific information, select "Local Mesonet Site" from the horizontal selection bar. Select "Scab Spray Advisor" from the drop down menu.

• Choose the nearest "**Mesonet site**", choose your pecan variety's susceptibility, as well as the "**date of the last fungicide application**" (if one has occurred). Using this information the advisor will generate a "spray" or "no spray" recommendation, as well as display the number of scab hours that have occurred in the last 14 days.

• Under the" Local Mesonet Site" tab you can also view site-specific 14-day and forecast scab hours graph and tables.

## Past Years:

The "Past Years" tab gives you access to scab hour comparison graphs and tables for last year, two years ago and the 15-year average.

## Learn More:

Explore the "Learn More" tab where you will find resources on how to use the pecan scab advisor, advisor specifications, pecan crop and pecan scab disease overviews, as well as additional reference data.

**Our story** 

In 1982, Oklahoma scientists recognized the need for a statewide weather network.

At OSU, agricultural scientists wanted to upgrade weather instruments at their research sites. Their goal was to expand the use of weather data in agricultural applications.

Meanwhile, scientists from OU and the Oklahoma Climatological Survey were helping to plan and implement a flood-warning system for Tulsa. OSU and OU joined forces in 1987 when they realized that one statewide weather network would help both universities achieve their missions.

No other state or nation is known to have a network that boasts the capabilities of the Oklahoma Mesonet.

Agweather is one Web site that features data from the Oklahoma Mesonet. Agweather provides weather-related products for agriculture and natural resources. Agweather can be found at http://agweather.mesonet.org/.



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