

# PLANT DISEASE AND INSECT ADVISORY



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Website: <http://plants.okstate.edu/Pddl/advisory.htm>

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## Gavel Fungicide Registered for Use on Cucurbits and Tomatoes

John Damicone, Extension Plant Pathologist

Gavel 75DF is a premixture of mancozeb (66.7%) and zoxamide (8.3%) being marketed by Dow. Mancozeb is a broad-spectrum, protectant fungicide labeled on many vegetable crops. Zoxamide is a newly developed, systemic fungicide that is specific for diseases caused by Phycomycetes (water molds). These include downy mildews, white rust, late blight, and other diseases caused by *Phytophthora*. The activity spectrum of zoxamide is similar to that of Ridomil (metalaxyl) and Ridomil Gold (mefanoxam), but its mode of action is different. Gavel was first registered in 2001 for use on potatoes to control early and late blights, and is effective against Ridomil-resistant strains of the late blight fungus that have become widespread.

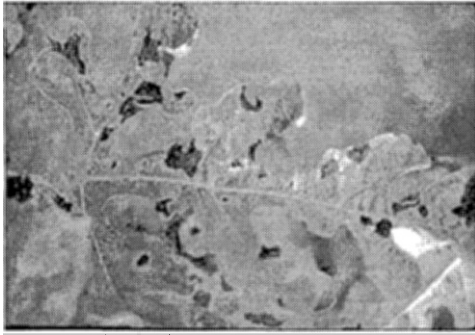
The Gavel label was recently supplemented to include cucurbits and tomatoes. While there are several labeled diseases for each of the new use sites, the main advantage of Gavel over mancozeb (Dithane, etc.) or chlorothalonil (Bravo) is for enhanced control of downy mildew on cucurbits and late blight on tomatoes. While late blight has not been much of a problem on tomatoes in Oklahoma, downy mildew can be a significant problem on watermelon and cantaloupe. Unfortunately, it has not been possible to get a good evaluation of fungicides for control of downy mildew in Oklahoma for several years. The disease was a significant problem in 2000, but research plots were not affected. A few other states have reported efficacy of fungicides for cucurbit downy mildew over the last couple of years and Gavel has provided good disease control. The recommended rate is 1.5 to 2 lb/A. Because the product is a premixture with a protectant, resistance management for zoxamide is built-in. The product would also be useful in rotation with benzimidazole (Benlate, Topsin-M) and strobilurin (Quadris, Flint) fungicides. Product price and availability are not currently known.



Downy mildew has made an early appearance on cucurbits in Georgia and South Carolina this spring. These outbreaks have arisen from diseased fields in Florida. Downy mildew epidemics in Oklahoma arise from spores produced in disease fields that progress northward from Mexico and Texas. The disease has not yet been reported in Mexico or Texas this year. Downy mildew progress can be monitored at the cucurbit downy mildew forecast site on the internet (<http://www.ces.ncsu.edu/depts/pp/cucurbit/>).

## **Weather-Based Disease Advisories Up and Running on the Mesonet**

**John Damicone, Extension Plant Pathologist**



The weather-based spray advisories for early leaf spot of peanut and watermelon anthracnose are up and running for this season on the Mesonet web page, <http://www.mesonet.ou.edu/premium/> under "Ag Models". The programs were developed to alert growers of weather conditions favoring disease outbreaks, thus increasing the efficiency of fungicide usage. Information on the diseases, model mechanics, and rules for their usage accompany the programs. The watermelon anthracnose model was down last season during revision of the MESONET web site and data operations. This model has not been extensively evaluated in Oklahoma and should be used on a trial basis or as additional information in making spray decisions. Beginning last year, various subscription rates were developed to access MESONET data. The lowest level of subscription (\$30/6 months or \$45/year) permits access to the Ag Models. OCES employees are exempt and can use model output in their programming.

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### **Time to treat for pecan nut casebearer**

**Phil Mulder – Extension Entomologist**

Pecan nut casebearer populations have increased dramatically over the last week. Damage is already evident in Burneyville (southern OK) and also in the Bristow area (actually closer to Edna, OK). The southern location was reporting 10-12% egg numbers across the Red River Farm of the Noble Foundation, just right on the Red River. In the Bristow, OK area on June 3, 2002 we recovered 7 white eggs, 2 pink eggs and 2 entries. Although the casebearer model suggests that this is too early for entries (in Bristow) it is fairly close and pecan nut casebearer never pay attention to things like models.



With stormy weather on the horizon, growers should probably wait until the weather subsides and prepare to treat immediately after the storms. Most likely this will occur around June 6-9, 2002. Provided in the table below are some representative sites across the state showing the degree days through midnight June 2. Keep in mind when you read the table and use one of these numbers for your orchard, that 1831 degree days marks the time of predicted first significant entry. Obviously, we may be a little earlier in some locations.

Growers should carefully choose their insecticides according to efficacy and whether they are allowing cattle to graze the orchards. The safest two choices for the applicator and for beneficial organisms are Confirm® (cannot be grazed) and Javelin® (can be grazed). Another interesting choice available this year is the compound Spintor®. This product is a fermentation by-product

that does an excellent job on pecan nut casebearer; however, the expense is about \$550.00 per gallon. This cost would make per acre costs about \$17-20 per acre depending on rate. Confirm and Javelin can both be purchased for considerably less and perform equally as well.

<b>Location</b>	<b>Degree day Total (6-3-02)</b>	<b>First signif. entry total</b>
<b>Burneyville</b>	2000	1831
<b>Bristow</b>	1623	1831
<b>Duncan</b>	1851	1831
<b>Guthrie</b>	1632	1831
<b>Idabell</b>	2032	1831
<b>Tulsa</b>	1716	1831

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