



PLANT DISEASE AND INSECT ADVISORY

Entomology and Plant Pathology
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Downy Mildew Warning on Cucurbits John Damicone, Extension Wheat Pathologist

Downy mildew has recently been identified on watermelons and cantaloupes in Texas. As most who work on cucurbits realize, this disease (Figs 1 and 2) can rapidly defoliate fields leading to crop failure.

The Cucurbit Downy Mildew forecast program at <http://www.ces.ncsu.edu/depts/pp/cucurbit/> shows spore deposition trajectories to pass over Oklahoma from the sources in Texas for several days (Fig 3). With all the recent rain, hopefully cucurbit growers have been protecting their crop with a preventive fungicide program. Diseases such as anthracnose and gummy stem blight are also favored by the rainy weather. Fungicide programs on cucurbits should be based on the use of broad spectrum fungicides such as chlorothalonil (eg. Bravo 2 pt/A) or mancozeb (e.g. Dithane at 3 lb/A). Other more specific fungicides such as Pristine for gummy stem blight; Curzate, Gavel, Previcur Flex, and Tanos for downy mildew; and Topsin, Cabrio, and Quadris for anthracnose can be added to the spray rotation as the need arises. With all the recent rains, spray programs should be initiated immediately on watermelon and cantaloupe plantings that have reached the bloom stage. Typically rows are about 3 ft wide when blooms appear.



Fig. 1. Downy mildew on watermelon.



Fig. 2. Downy mildew on cantaloupe.

NOAA HYSPLIT MODEL
 Forward trajectories starting at 15 UTC 26 Jun 07
 06 UTC 26 Jun GFSG Forecast Initialization

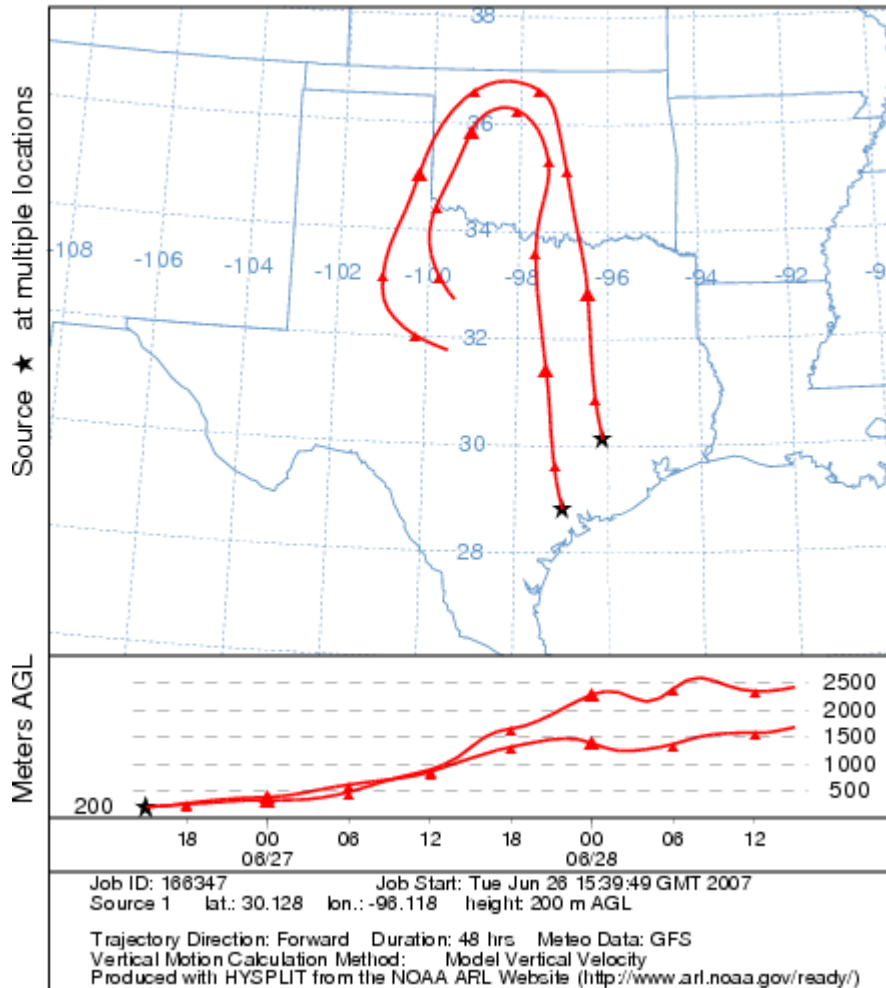


Fig. 3. Forecasted transport of downy mildew spores on June 26, 2007 from two sources in Texas.

Peanut Leaf Spot Update

John Damicone, Extension Plant Pathologist

Recent rains have favored the development of leaf spot on peanuts (Fig 4). Most peanut fields currently have leaf spot visible in the fields. According to the early leaf spot advisory program available online at <http://agweather.mesonet.org/> numerous infection hours have accumulated at all peanut growing locations. While the disease is currently at low levels, the early appearance of leaf spot should serve as a warning for a potentially serious increase in the disease as the crop progresses. I have received several calls about whether or not to treat peanuts this early in the season. Given the current and projected weather conditions, peanut growers should consider treating all fields beginning when rows are about a foot wide and in bloom. I realize that much of the crop is late and I would not currently treat peanuts that are smaller than this in size. Consult the advisory program when making spray decisions later in the season.



Fig. 4. The beginnings of a leaf spot problem on peanuts.

Soybean Rust Update

John Damicone, Extension Plant Pathologist

Given the prolonged “rainy season” in Oklahoma this year, it has been a challenge for both the farmers to plant and for us to get rust sentinel plots planted. However, the monitoring program for soybean rust (Fig 5 and 6) is underway in Oklahoma again this year. Thus far we have received samples over the last three weeks from sentinel plots in three locations in Oklahoma, and from a kuzdu patch in Choctaw County. We have not detected rust in any sample to date. Be aware that the crop in Oklahoma will mostly be late this year because of the rains that have limited the planting of early maturity groups. Rust has been identified in soybeans in both Louisiana and Texas. The southeastern U.S. has been dry and rust development there is behind that experienced during the last two years. If we can ever get an acreage planted in Oklahoma this year, it will be interesting follow possible rust development at <http://www.sbrusa.net/>.



Fig. 5. What we're looking for- rust on soybeans.



Fig. 6. What we're also looking for- soybean rust on kudzu, an important alternate host.

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