



Pest e-alerts



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Leaf Blight in Grain Sorghum

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There has been considerable interest in grain sorghum this year, acreage appears to be up, and conditions have been generally favorable for a good crop. I recently visited a grain sorghum



field in north central Oklahoma and observed a conspicuous foliar disease caused leaf blight. Large (2 to 4 inches long) elliptical leaf lesions were present on middle and upper leaves. The lesions had tan centers and reddish brown borders. The centers of the spots killed by the disease were covered with sooty colored sporulation of the fungus that causes leaf blight, *Exserohilum turcicum*. This is the same fungus that causes northern corn leaf blight. Apparently this disease can reduce yields when it becomes established before flowering. However this field was in grain filling stages so that it is unlikely that the crop will be affected. In corn, the disease is best controlled with resistance, but leaf blight resistance is not reported for grain sorghum hybrids.

Powdery Mildew in Cucurbits

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Powdery mildew is a common late-season disease of pumpkins and watermelons in Oklahoma. The disease is favored by moderate temperatures, cloudy weather, and high humidity. We have certainly had those conditions recently! Hot (>95°F) and sunny weather inhibits powdery mildew development. Powdery mildew is easy to diagnose on most cucurbits because it causes a conspicuous white powdery growth on upper and lower leaf surfaces (Fig. 1) that can completely engulf leaves, eventually causing them to turn brown and die. On watermelon, it can be trickier to diagnose because the powdery growth is cryptic early on and tends to blend in with the blue-green foliage (Fig. 2). Powdery mildew often begins on the lower leaves and causes a yellow blotch on the upper leaf surface (Fig. 2). The disease is best controlled by planting resistant varieties. Excellent resistance is available in cantaloupe and cucumber varieties. Resistance has more recently been developed for squash and pumpkin. Fungicide programs are beneficial on susceptible cucurbits to maintain productive foliage and good handle quality on pumpkins. On watermelon, fungicide programs for other diseases generally provide adequate powdery mildew control. On pumpkins, consider a fungicide program consisting of 2 to 3 applications on 14-day intervals beginning when mildew first appears or in early August. There are several fungicides recommended for powdery mildew control (Table 1). Because powdery mildew can readily develop fungicide resistance it is a good idea to rotate fungicide groups, particularly when using group 3 fungicides. For gardeners, chlorothalonil and sulfur are available in small quantities. Consult the OSE Extension Agent's Handbook for Insect, Disease, and Weed Control (Circular E-832) more information on cucurbit disease control.



Fig. 1. Powdery mildew on pumpkin.



Fig. 2. Powdery mildew on watermelon. Yellow blotch on upper leaf surface is from powdery mildew on lower leaf surface.

Table 1. Fungicides recommended for control of powdery mildew on cucurbit vegetable crops.

Common name	Trade name	MOA group ¹	PM control ²
chlorothalonil	Bravo, various generics	M	F
difconazole	Inspire Super	3	G
myclobutanil	Rally	3	G
quinoxifen	Quintec	13	E
sulfur	Microthiol Special, other formulations	M	G
tebuconazole	Folicur, various generics	3	F
triflumizole	Procure	3	G

¹ Mode of action group.

² Disease control rated as fair (F), good (G), or excellent (E).

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