OAK (*Quercus alba*)
Anthracnose; *Apiognomonia quercina*

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Comparison of fungicides for management of oak anthracnose, 2014.
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Fungicide treatments were arranged in a randomized compete block design in a block of white oak trees (*Quercus alba*) planted in 2011 on 10 x 20 ft spacing. Each treatment consisted of 4 single tree replicates. Fungicide treatments were applied using a hydraulic handgun sprayer at approximately 100 psi at a rate of 1 gal of a spray suspension per 4 trees. Fungicide was applied to trees at red tip to bud break on 16 Apr and again on 2 May. No fertilizer or insecticides were applied to trees. Goaltender (1 qt/A) plus Makaze (1 qt/A) was applied on 13 March, Casoron (125 lb/A) was applied on 28 March and Reckon (2 qt/A) was applied 22 May for management of weeds. The incidence of anthracnose was evaluated on 28 May by examining all leaves on 10 actively growing shoots (average 88 leaves with a range of 52 to 118), arbitrarily selected from each tree.

Spring growing conditions had normal precipitation but warmer temperatures overall. Anthracnose was first observed on 21 April as subtle water soaking of leaves with some vein necrosis. The disease was more apparent by 5 May. Bud break was highly variable between trees and replicates. Disease pressure was highest for trees that broke bud earliest. Many trees treated with the first fungicide application, especially in the second replicate, had not completely started to grow. Analysis of the entire data set showed no significant difference among any of the treatments including the nontreated control. Analysis of only trees treated at bud break or beyond and excluding the entire second replicate resulted in an acceptable evaluation of only 3 fungicide treatments. Each of these fungicide treated trees had significantly lower incidence of oak anthracnose. Phytotoxicity or chemical residues were not observed on any plants or treatments during the course of the experiment.

Treatment & Rate/100 gal water	PR #	Leaves with Anthracnose (%)	
		28 May*	28 May**
Nontreated ……	------	28.2	36.8 a
Concert SC (propiconazole plus chlorothalonil) at 17 fl oz……..	------	4.8	
Merivon (fluxaproxad plus pyraclostrobin) at 8 fl oz……	31921	2.7	3.6 b
F9110 (*Lupinus* extract)at 24 oz……	31922	13.3	2.3 b
Proud 3 SC (Tyme Oil) at 128 fl oz……..	31923	2.2	
S 2200 4 SC (mandestrobin) at 7.5 fl oz…	31924	3.4	
SP 2700 (10%) at 2.67 lb……..		30.8	
Torque 3.6 SC (tebuconazole) at 8 fl oz…	31927	2.0	0.3 b

* Means without letters did not differ significantly based on LSD (*P=0.05*).

** Analysis based on 3 replicates and trees treated at bud break or beyond. Means followed by the same letter do not differ significantly based on Fisher's protected LSD (*P=0.05*).