Table 1. Efficacy of Fungicide Active Ingredients Against Various Rose Diseases

	Rose diseases and their occurrence in Illinois			
	Black spot	Powdery mildew	Rust	Downy mildew
Active Ingredient	1ª	2-3	4	5
azoxystrobin	X (++++)*	X	X	X
captan	Х			X
chlorothalonil	X (++++)	X	(-)*	
copper	Χ	X		
copper sulfate	X (++++)*	X		
fenarimol		X		
Fungus Fighter Tonic <sup>b</sup>	(-)*	(++++)*		
iprodione	Х			
kresoxim-methyl	Х	X	X	X
lime-sulfur	X	X	Х	
mancozeb	Χ		Χ	X (++++)*
myclobutanil	X (++++)	X (++++)	X (++++)*	
neem oil	X (+)			
phosphorus acid	(++)			X (++++)
potassium bicarbonate	X (-)*	X		
propiconazole	X (+++)	X	Χ	
sulfur	X (+++)*	X	X (-)*	
SunSpray UF oil	(variable) <sup>c</sup>	X (++)*		
tebuconazole	X (variable) <sup>c</sup>	X	X	
thiophanate-methyl	X (+++)*	X	X (-)*	
triadimefon	· ,	X	. , ,	
trifloxystrobin	X (+++)	X	X	X (+++)*
triforine	X (+++)	X	X (++++)*	, ,

<sup>&</sup>lt;sup>a</sup>Occurrence ratings: 1 = annual, 5 = rare.

<sup>&</sup>lt;sup>b</sup>Jerry Baker's "Fungus Fighter Tonic" (1 cup powdered milk, 1 cup molasses, 1 tsp baking soda per gallon of water).

<sup>&</sup>lt;sup>c</sup>SunSpray Ultra-Fine Oil had an effect against black spot but was highly variable in the two trials reviewed. Tebuconazole was included in several trials as a foliar application and drench, but given the sometimes contradictory results between trials and the considerable variation in formulations used in the study vs. what is available on the market, it is not appropriate to make an efficacy determination at this time.

<sup>\*</sup>Rating is based on one trial; all others are based on two or more trials. X = At least one formulation of this active ingredient is labeled for this use.

<sup>- =</sup> not effective (less then 10% disease reduction compared to untreated plants).

<sup>+ =</sup> marginally effective (10-24% disease reduction).

<sup>++ =</sup> moderately effective (25-49% disease reduction).

<sup>+++ =</sup> effective (50-74% disease reduction).

<sup>++++ =</sup> very effective (75% disease reduction or greater).