

## Soybean rust fungicide decision guidelines.

<b>SOYBEAN RUST STATUS</b>						
(Risk determined by national, regional and local activity and disease forecasts)						
<b>Crop Stage</b>	<b>RUST ABSENT</b>			<b>RUST PRESENT</b>		
	<i>Soybean Rust Risk<sup>1</sup></i>			<i>Barely detectable in lower canopy<sup>2</sup></i>		<i>Easy to detect in mid to upper canopy</i>
	<i>Low</i>	<i>Moderate</i>	<i>High</i>	<i>1<sup>st</sup> Application</i>	<i>2<sup>nd</sup> Application (if needed)</i>	
Vegetative (stages before flowering)	FUNGICIDE APPLICATION NOT RECOMMENDED FOR SOYBEAN RUST CONTROL			Premix, Tank-mix, Co-pack	Triazole	Yield benefit from fungicide application is uncertain. <sup>4</sup>
R1 (beginning of flowering) through R5 (beginning seed)	Do not spray	Strobilurin Triazole Premix, Tank-mix, Co-pack	Premix, Tank-mix, Co-pack Triazole	or Triazole	or Premix <sup>3</sup> , Tank-mix, Co-pack	Check with local extension specialists for specific guidelines.
R6 (full seed) to R8 (full maturity)	<b>Generally, fungicide application not recommended.</b> Yield responses beyond R6 are uncertain and many fungicide labels specify that applications be made prior to R6. Check with local extension specialists for specific state recommendations.					

<sup>1</sup> Determine risk by staying current with information from Extension specialists, trusted industry, and/or crop consultants for the region and state.

<sup>2</sup> Soybean rust incidence less than 10%.

<sup>3</sup> Premix, tank-mix, or co-pack fungicide should contain the full rate of the triazole fungicide component.

<sup>4</sup> Application of a fungicide at this level of disease may protect newly emerging leaves, but may not result in a yield benefit

### Soybean Rust Fungicide Decision Guidelines

These guidelines were developed by the NCERA 208 Soybean Rust Committee with the help of Land Grant University soybean pathologists. The guidelines have been modified slightly for relevance in New York.

For many of the soybean production regions in North America, the decision to make fungicide applications for management of soybean rust is based on risk. Several factors are involved in the risk of soybean rust moving into an area: incidence and severity of rust in areas to the south, wind patterns that can move the spores of the soybean rust fungus over long distances, regional and local weather, and growth stage of the soybean crop. To determine the risk level in different areas of New York, check with local extension educators and *websites* such as [www.fieldcrops.org](http://www.fieldcrops.org) for updates. An example of a **low risk** situation is the 2006 soybean rust situation, in which dry conditions in the Gulf Coast states prevented build-up of soybean rust spores early enough to impact the crop in the northern U.S. and Canada. An example of a **moderate risk** situation is a scenario in which soybean rust has been found on soybean in a neighboring state or region, but has not yet been detected in your area. Another example of a **moderate risk** situation is if soybean rust has built up to significant levels in one or more southern states and the long range forecast is for storm fronts to pass through those areas in the next two weeks, and weather is predicted to be suitable for soybean rust in your area. An example of a **high risk** situation is when soybean rust has been identified in a sentinel plot, commercial soybean field, or kudzu patch in your state or province, and weather conditions are predicted to favor rust development.

Fungicides available for management of soybean rust have different properties that allow them to protect against and control soybean rust. Although all fungicides work best if applied prior to disease onset, some fungicides may also have some “post-infection” properties (a.k.a. “curative” or “kick-back” properties). The most effective fungicide classes currently available for soybean rust management are the strobilurin (QoI – quinone outside inhibiting, a.k.a Group 11) and the triazole (DMI – demethylation inhibiting, a.k.a Group 3) fungicides. In general, the triazole fungicides have better movement within the soybean plant and have better “post-infection” properties than the strobilurin fungicides.

Strobilurin fungicides tend to have longer residual activity than triazole fungicides, and may provide better control of other foliar and stem diseases of soybean. Some pre-mix and co-pack products are available that contain both a strobilurin and a triazole fungicide, and strobilurin and triazole fungicides can be tank-mixed as well.

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