

2005 Soybean Fungicide Use Guide for Wisconsin

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References to pesticide products in this publication are for your convenience and are not an endorsement or criticism of one product over other similar products. You are responsible for using pesticides according to the manufacturer's current label directions. Follow directions exactly to protect the environment and people from pesticide exposure. Failure to do so violates the law. Current federal pesticide labels are available online at www.cdms.net/manuf/manuf.asp, Wisconsin section 18 labels are available at <http://www.datcp.state.wi.us/arm/environment/insects/soybean-rust/index.html>

Fungicide Activity Definition (taken from Using Foliar Fungicides to Manage Soybean Rust, 2005, Dorance, Draper, Hershman);

Protectant (Preventive). Protectant fungicides prevent fungi from successfully infecting and/or penetrating host tissue. Of the available soybean rust fungicides, chlorothalonil is an example of a product that is only active against spore germination. If this fungicide is applied after spores have germinated and the fungus has grown into the plant tissue, it will be totally ineffective in controlling the disease. The Strobilurin class of fungicides (azoxystrobin, pyraclostrobin, trifloxystrobin, etc) stops both spore germination and host penetration but has little or no effect once the fungus has successfully penetrated or colonized host plant tissue.

Curative. Curative fungicides have the ability to inhibit or stop the development of infections that are already established. With some fungicides, this includes a degree of anti-sporulant activity which helps to slow disease development by limiting the reproductive potential of the fungus. Of the available soybean rust fungicides, only triazoles (myclobutanil, propiconazole, tebuconazole, tetraconazole, etc.) have curative activity. It is this “**post infection activity**” that makes triazoles the fungicide of choice if soybean rust is established at low levels in a field. If either chlorothalonil or one of the strobilurin fungicides are applied post-infection, existing infections will continue to develop.

It is very important to remember that triazoles **do not have unlimited curative activity**. Triazole-based fungicides have reduced effectiveness once infections begin to produce spores. This is the main reason why fungicides are of little use once rust has become even moderately established in a field.

Fungicides Registered (Section 3) for Soybean Rust on Soybean in Wisconsin

Trade Name	Active Ingredient	Manufacturer	Chemical Group	Activity	Manufacturer's suggested Use Rate	Preharvest Interval (grain)	Remarks
Bravo Weather Stik	Chlorothalonil	Syngenta	Chloronitrile	Protectant (preventive)	1 to 2 ¼ pints/A	6 weeks	Labeled for suppression of rust. Minimum re-treatment period is 14 days and do not exceed a total of 3 applications per season. Do not apply more than 6 pints per acre. Do not feed soybean hay or threshing to livestock.
Echo 720 Echo 90 DF Echo Zn	Chlorothalonil	Sipcam Agro USA	Chloronitrile	Protectant (preventive)	1-2 ½ pints/A 7/8 – 2 lbs/A 2-3 ½ pints/A	42 days	Do not feed soybean hay or threshing from treated fields to livestock.
Headline	Pyraclostrobin	BASF	Strobilurin	Protectant (preventive)	6-12 fl. oz/A	21 days	Do not apply more than 2 applications per season. Do not apply more than 24 fl. oz. per acre each season.
Quadris	Azoxystrobin	Syngenta	Strobilurin	Protectant (preventive)	6.2 -15.4 fl. oz./A	14 days	Do not apply more than 2.88 quarts of product/crop/acre/season.
Quadris + Triazole (which has a section 18 approval) [The Quadris 2 (ee) label allows for Quadris use at a reduced rate in combination with a Triazole]	Azoxystrobin + Triazole	Syngenta + (various manufacturers)	Strobilurin + Triazole	Protectant (preventive) + Curative	Quadris @ 4 fl oz/A + full label rate of triazole	30 days	Do not apply more than 2.88 quarts of product/crop/acre/season. The user must refer to the federally approved labels and read and follow all directions for use, restriction, and precautions.

Fungicides with Section 18 approval for soybean rust in Wisconsin. For current registration status consult the Wisconsin Department of Agriculture, Trade and Consumer Protection, <http://www.datcp.state.wi.us/arm/agriculture/pest-fert/pesticides/special.html>

Trade Name	Active Ingredient	Manufacturer	Chemical Group	Activity	Manufacturer's Suggested Use Rate	Preharvest Interval (grain)	Remarks
Bumper 41.8 EC	Propiconazole	Makhteshim Agan of North America	Triazole	Curative	4-8 fl. oz./A	Do not apply later than growth stage R5	Do not make more than 2 applications of propiconazole-containing products or apply more than 0.339 lb ai per acre of the active ingredient propiconazole per year. Do not graze or feed soybean forage or hay.
Domark 230 ME	Tetraconazole	Isagro S.p.A	Triazole	Protectant (preventive) and Curative	5 fl. oz./A	Do not apply after growth stage R5	Do not make more than one application/season. Do not graze or feed soybean forage or hay to livestock.
Folicur 3.6 F	Tebuconazole	Bayer Crop Science	Triazole	Curative and Protectant (preventive)	3-4 fl. oz./A	30 days	Do not apply more than 8 fl. oz./acre/season. Do not make more than 2 applications of tebuconazole-containing products to soybeans per season. Do not apply more than 0.225 pounds of the active ingredient tebuconazole per acre per year. Do not feed forage and hay to livestock.

Headline SBR	Pyraclostrobin, Tebuconazole	BASF	Strobilurin and Triazole	Curative and Protectant (preventive)	7.8 fl oz/A	30 days	Do not make more than 2 applications of pyraclostrobin-containing products to soybeans per season. Do not apply more than 0.40 lbs of the active ingredient pyraclostrobin to soybean/season. Do not make more than 2 applications of tebuconazole-containing products/season. Do not apply more than 0.225 pounds of tebuconazole-containing products per season. Do not feed soybean forage or hay to livestock.
Laredo EC	Myclobutanil	Dow AgroSciences	Triazole	Protectant (preventive) and Curative	4-8 fl. oz./A (0.0625- 0.125 lb ai)	28 days	Do not make more than 2 applications of myclobutanil-containing products to soybeans per season. Do not apply more than 0.25 lb ai myclobutanil to soybeans per acre per year. Do not feed soybean forage and hay to livestock.

PropiMax	Propiconazole	Dow AgroSciences	Triazole	Curative	4-8 fl. oz./A (0.113-0.225 lb ai)	Do not apply after growth stage R5	Do not make more than 2 applications of propiconazole-containing products or apply more than 12 ounces of Propimax EC (0.339 lb ai) per acre per year. Do not use hay, forage or fodder from the soybean crop as any component of animal feed or bedding
Quilt	Azoxystrobin, Propiconazole	Syngenta	Strobilurin and Triazole	Protectant (preventive) and Curative	Protectant application rate; 14 oz./A Curative application rate; 20 fl. oz./A	Do not apply after growth stage R5	Do not make more than 2 applications or apply more than 40 fl. oz. of Quilt/acre/year. Do not apply more than 0.339 lbs ai/A of propiconazole to soybeans per year. Do not apply more than 1.5 lb ai/A of azoxystrobin to soybeans per year.

Stratego	Propiconazole, Trifloxystrobin	Bayer Crop Science	Triazole and Strobilurin	Protectant (preventive)	5.5 – 10 fl. oz/A	Do not apply after growth stage R5	Do not apply more than 2 applications of propiconazole-containing products to soybeans per season. Do not make more than 2 applications of trifloxystrobin-containing products to soybeans per season. Do not apply more than 0.339 pounds of the active ingredient propiconazole to soybeans per acre per season. Do not apply more than 0.162 pounds of the active ingredient trifloxystrobin to soybeans per acre per season.
Tilt	Propiconazole	Syngenta	Triazole	Curative and Protectant (preventive)	Protectant application rate; 4 fl oz/A Curative application rate; 6 fl. oz/A	Do not apply after growth stage R5	Do not make more than 2 applications or apply more than 12 fl. oz. of Tilt per acre per year. Do not apply more than 0.339 lbs ai/A of propiconazole to soybeans per year.

Notes for Section 18 Fungicides:

- Section 18's are granted for a limited time only.
- Once these section 18 fungicides are cleared for use in Wisconsin, the applicator must have the section 18 supplemental label in their possession while applying and may be required to report the number of acres sprayed for each product.
- This fungicide guide was based on information available as of May 24, 2005
- The number of applications/crop of section 18 fungicides is regulated by each label.

