

DISEASES OF SOYBEANS

Fungicide Efficacy for Control of Soybean Seedling Diseases

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The members of the Identification and Biology of Seedling Pathogens of Soybean project (funded by the North Central Soybean Research Program and United Soybean Board) and plant pathologists across the United States developed this information about how well fungicide seed treatments control soybean seedling diseases in the United States.

The efficacy rating for each fungicide was determined by field-testing the materials over multiple years and locations by the members of the group and include ratings summarized from national fungicide trials published in *Plant Disease Management Reports* (and formerly *Fungicide and Nematicide Tests*) by the American Phytopathological Society at www.apsnet.org. Efficacy ratings are based on the level of disease control achieved by the active ingredient. Ratings do not necessarily reflect yield increases from applying the active ingredient.

The table includes the most widely marketed products available and is not intended list all labeled active ingredients and products. Additional active ingredients may be

available, but have not been evaluated in a manner allowing a rating. The products listed here are the most common available as of the release date of the table. Not all available products may be listed.

Some products may contain additional active ingredients for insect and nematode control; however, only the active ingredients for pathogen control are listed and rated here. Many products have specific use restrictions. Read and follow all use restrictions before applying any fungicide to seed or before handling any fungicide-treated seed.

This information is provided only as a guide. It is the applicator's legal responsibility to read and follow all current label directions. Reference in this publication to any specific commercial product, process, or service, or the use of any trade, firm, or corporation name is for general informational purposes only and does not constitute an endorsement, recommendation, or certification of any kind by Purdue Extension or the North Central Soybean Research Program. Individuals using such products assume responsibility for their use in accordance with current directions of the manufacturer.

Find Out More

For control of foliar diseases, see *Diseases of Soybean: Fungicide Efficacy for Control of Soybean Foliar Diseases* (Purdue Extension publication BP-161-W). This and other publications in the *Diseases of Soybean* series are available from the Purdue Extension Education Store:

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BP-163-W

Fungicide Active Ingredient	<i>Pythium</i> sp. ²	Phytophthora Root Rot	<i>Rhizoctonia</i> sp.	<i>Fusarium</i> sp. ^{2,3}	Sudden Death Syndrome (SDS) (<i>Fusarium virguliforme</i>)	<i>Phomopsis</i> sp.
azoxystrobin	P-G	NS	VG	F-G	NR	P
carboxin	U	U	G	U	NR	U
chloroneb	U	P	E	P	NR	P
ethaboxam	E	E	U	U	U	U
fludioxonil	NR	NR	G	F-VG	NR	G
fluopyram	NR	NR	NR	NR	VG	NR
fluxapyroxad	U	U	E	G	NR	G
ipconazole	P	NR	F-G	F-E	NR	G
mefenoxam	E ⁴	E	NR	NR	NR	NR
metalaxyl	E ⁴	E	NR	NR	NR	NR
PCNB	NR	NR	G	U	NR	G
penflufen	NR	NR	G	G	NR	G
prothioconazole	NR	NR	G	G	NR	G
pyraclostrobin	P-G	NR	F	F	NR	G
sedaxane	NR	NR	E	NS	NR	G
thiabendazole	NR	NR	NS	NS	P	U
trifloxystrobin	P	P	F-E	F-G	NR	P-F

¹ Efficacy ratings: P=poor. F=fair. G=good. VG=very good. E=excellent. NR=not recommended. NS=not specified. U=unknown efficacy or insufficient data to rank product.

² Products may vary in efficacy against different *Fusarium* and *Pythium* species.

³ Listed seed treatments do not have efficacy against *Fusarium virguliforme*, causal agent of sudden death syndrome.

⁴ Areas with *Pythium* populations that are insensitive to mefenoxam or metalaxyl may see less efficacy with these products.

Common Fungicide Trade Names and Active Ingredients

Fungicide(s)	
Product/Trade Name	Active Ingredient
Acceleron®	DX-612 fluxapyroxad DX-309 metalaxyl DX-109 pyraclostrobin
Allegiance FL®	metalaxyl
Allegiance LS®	metalaxyl
Apron XL LS®	mefenoxam
ApronMaxx RFC®	fludioxonil mefenoxam
ApronMaxx RTA®	fludioxonil mefenoxam
Catapult XL®	chloroneb mefenoxam
CruiserMaxx®	fludioxonil mefenoxam
CruiserMaxx Advanced® or Cruiser Maxx Plus®	fludioxonil mefenoxam
CruiserMaxx Advanced Vibrance®	fludioxonil mefenoxam sedaxane
Dynasty®	azoxystrobin
EverGol Energy SB®	metalaxyl penflufen prothioconazole
ILeVO®	fluopyram
Inovate Pro®	ipconazole metalaxyl
Intego®	ethaboxam
Maxim 4FS®	fludioxonil
Mertect 340F®	thiabendazole
Prevail®	carboxin metalaxyl PCNB
Trilex 2000®	metalaxyl trifloxystrobin
Vibrance®	sedaxane
Warden CX®	fludioxonil mefenoxam sedaxane
Warden RTA®	fludioxonil mefenoxam