Management of Soybean Seedling Diseases
Fungicide Efficacy for Control of Soybean Seedling Diseases — June 2019

Heather M. Kelly, Associate Professor and Extension Specialist
Department of Entomology and Plant Pathology

The members of the Identification and Biology of Seedling Pathogens of Soybean project funded by the North Central Soybean Research Program and plant pathologists across the United States have developed the following ratings for how well soybean fungicide seed treatments control seedling diseases. Efficacy ratings for each fungicide active ingredient were determined by field testing the materials over multiple years and locations by the members of this group and include ratings summarized from national fungicide trials published in Plant Disease Management Reports (formerly Fungicide and Nematicide Tests) by the American Phytopathological Society at apsnet.org. Each rating is based on the fungicide's level of disease control and does not necessarily reflect efficacy of fungicide active ingredient combinations and/or yield increases obtained from applying the active ingredient. The list includes many of the most widely marketed products available, but is not intended to be a list of all labeled active ingredients and products. Additional active ingredients may be available, but may not have been evaluated in a manner allowing a rating. Some products may contain additional active ingredients for insect and nematode control; however, only active ingredients for pathogen control are listed and rated.

Many active ingredients and their 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 and user'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 members of the group or by the North Central Soybean Research Program. Individuals using such products assume responsibility for their use in accordance with current directions of the manufacturer. Efficacy categories: E = Excellent; VG = Very Good; G = Good; F = Fair; P = Poor; NR = Not Recommended; NS = Not Specified on product label; U = Unknown efficacy or insufficient data to rank product. Please note: Efficacy ratings may be dependent on the rate of the fungicide product on seed. Contact your local Extension plant pathologist for recommended fungicide product rate information for your area.

Fungicide active ingredient	FRAC Code	*Pythium* sp.[1.]	Phytophthora root rot	*Rhizoctonia* sp.	*Fusarium* sp.[1,3]	Sudden death syndrome (SDS) (*Fusarium virguliforme*)	*Phomopsis* sp.
Azoxystrobin	11	P-G	NS	VG	F-G	NR	P
Carboxin	7	U	U	G	U	NR	U
Chloroneb	14	U	P	E	P	NR	P
Ethaboxam	22	E	E	NR	NR	NR	NR
Fludioxonil	12	NR	NR	G	F-VG	NR	G
Fluopyram	7	NR	NR	NR	NR	VG	NR
Fluxapyroxad	7	U	U	E	G	NR	G
Ipconazole	3	P	NR	F-G	F-E	NR	G
Mefenoxam	4	E[2]	E	NR	NR	NR	NR
Metalaxyl	4	E[2]	E	NR	NR	NR	NR
Oxathiapiprolin	49	P-G	E	NR	NR	NR	NR
PCNB	14	NR	NR	G	U	NR	G
Penflufen	7	NR	NR	G	G	NR	G
Prothioconazole	3	NR	NR	G	G	NR	G
Pyraclostrobin	11	P-G	NR	F-G	F	NR	G
Sedaxane	7	NR	NR	E	NS	NR	G
Thiabendazole	1	NR	NR	NS	NS	P	G
Trifloxystrobin	11	P	P	F-E	F-G	NR	P-F

[1.] Products may vary in efficacy against different *Fusarium* and *Pythium* species.
[2.] Areas with mefenoxam or metalaxyl insensitive populations may see less efficacy with these products.
[3.] Listed seed treatments do not have efficacy against Fusarium virguliforme, causal agent of sudden death syndrome.

Fungicide(s)

Product/Trade name	Company[1]	Active ingredient
Acceleron	Monsanto Company	Fluxapyroxad (DX-612) Metalaxyl (DX-309) Pyraclostrobin (DX-109)
Allegiance FL	Bayer CropScience	Metalaxyl
Allegiance LS	Bayer CropScience	Metalaxyl
Apron XL LS	Syngenta Crop Protection	Mefenoxam
ApronMaxx RFC	Syngenta Crop Protection	Fludioxonil Mefenoxam
ApronMaxx RTA	Syngenta Crop Protection	Fludioxonil Mefenoxam
Catapult XL	Agriliance	Chloroneb Mefenoxam
CruiserMaxx	Syngenta Crop Protection	Fludioxonil Mefenoxam
CruiserMaxx Advanced or Cruiser Maxx Plus	Syngenta Crop Protection	Fludioxonil Mefenoxam
CruiserMaxx Advanced Vibrance	Syngenta Crop Protection	Fludioxonil Mefenoxam Sedaxane
Dynasty	Syngenta Crop Protection	Azoxystrobin
EverGol Energy SB	Bayer CropScience	Metalaxyl Penflufen Prothioconazole
ILeVO	Bayer CropScience	Fluopyram
Inovate Pro	Valent U.S.A. Corporation	Ipconazole Metalaxyl
Intego	Valent U.S.A. Corporation	Ethaboxam
Lumisena	DuPont Crop Protection	Oxathiopiprolin Metalaxyl
Maxim 4FS	Syngenta Crop Protection	Fludioxonil
Mertect 340 F	Syngenta Crop Protection	Thiabendazole
Prevail	Chemtura Corporation	Carboxin Metalaxyl PCNB
Trilex 2000	Bayer CropScience	Metalaxyl Trifloxystrobin
Vibrance	Syngenta Crop Protection	Sedaxane
Warden CX	Winfield Solutions	Fludioxonil Mefenoxam Sedaxane
Warden RTA	Winfield Solutions	Fludioxonil Mefenoxam

[1.] Other companies may offer same or similar products/options. This is not an endorsement for any company or product

W 367 08/19 Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.