

COOL SEASON

Singular Fungicide Active Ingredient, Plant Mobility, and Fungicide Resistance Action

Committee Codes Distributed by WSC

Fungicide	Product Names*	Mobility ¹	FRAC
Acibenzolar-S-Methyl	Daconil Action, Heritage Action, Secure Action	PMS	P1
Azoxystrobin	Heritage WDG, Heritage Action, Heritage TL, Strobe 2L, Azoxy 2SC Select, Strobe 50 WG	XMS	11
Boscalid	Emerald, Boscalid	XMS	7
Chlorothalonil	Daconil Ultrex, Daconil Weatherstik, Daconil ZN, Daconil Action, Echo Ultimate, Echo Dyad ETQ, Chlorothalonil 720, Chlorothalonil DF	C	M5
Cyazofamid	Segway, Gateway	L	21
Etridiazole	Terrazole 35WP	C	14
Fluazinam	Secure, Secure Action, Flex Guard, Fluazinam 40SC, Downforce ETQ,	C	29
Fludioxonil	Medallion SC, Pendant SC	C	12
Fluoxastrobin	Fame SC, Castlon, Floxcor	XMS	11
Flutolanil	Pedigree	XMS	7
Flutriafol	Rayora	XMS	3
Fluxapyroxad	Xzempler	XMS	7
Fosetyl-Al	Chipco Signature, Signature XTRA Stressgard, Fosetyl-Al 80 WDG	PMS	33
Iprodione	Chipco 26019, Chipco 26GT, Ipro 2, Eclipse ETQ	LS	2
Isofetamid	Kabuto	XMS	7
Mancozeb	Fore Rainshield, Protect DF, Manzate Max	C	M3
Mandestrobin	Pinpoint	XMS	11
Mefenoxam	Subdue Maxx, Mefenoxam 2AQ	XMS	4
Mefentrifluconazole	Maxtima	XMS	3
Metconazole	Tourney EZ	XMS	3
Myclobutanil	Eagle, Myclobutanil 20EW T&O	XMS	3
PCNB	Turfcide 400	C	14
Penthiopyrad	Velista	XMS	7
Phosphite	Appear II, Fiata Stressgard	PMS	33
Picarbutrazox	Serata	XMS	U17
Polyoxin-D	Affirm	LS	19
Propamocarb	Banol, Karma, Propam Select, Proplant	LS	28
Propiconazole	Banner Maxx II, Propiconazole 14.3, PPZ41.8 Select	XMS	3
Prothioconazole	Densicor, Prothioconazole 4L Select	XMS	3
Pydiflumetofen	Posterity	XMS	7
Pyraclostrobin	Insignia Intrinsic	LS	11
Tebuconazole	Mirage Stressgard, Tebuconazole 3.6F, Clearscape ETQ, Tourque	XMS	3
Thiophanate-methyl	3336 F, TM 4.5 Flowable	XMS	1
Thiram	Spotrete F	C	M3
Triadimefon	Bayleton, Triadimefon 43SC	XMS	3
Trifloxystrobin	Compass	LS	11

¹C = Contact; LS = Local systemic; XMS = Xylem-mobile systemic; PMS = Phloem-mobile systemic; SC = Surface contact (no residual left on leaf)

COOL SEASON

Fungicide Efficacy Against Common Cool-Season Amenity Turfgrass Diseases

Fungicide	Disease	Algae	Anthraxnose	Brown Patch	Brown Ring Patch	Dollar Spot	Fairy Ring	Gray Leaf Spot	Gray Snow Mold	Leaf Spot/Melting Out	Pink Snow Mold	Pythium Blight	Pythium Root Rot	Summer Patch	Take-all Patch	Yellow Patch
Azoxystrobin			2	4	3		3	2	2	3.5	2	2.5	2	4	3.5	3.5
Boscalid						3.5										
Chlorothalonil		3.5	3	3		3		3	2	3	2					2.5
Cyazofamid												4	4			
Etridazole												1	2			
Fluazinam		2	1.5	3		4			2	3.5	3					
Fludioxonil			3	3	3			L	2	3.5	4			L		2.5
Fluxastrobin			2	4	L	2.5	3	2	2	3.5	3.5	2.5	3	3.5	L	3.5
Flutolanil				4	3		3.5		3							3
Flutriafol			3	3		3		3						3		
Fluxapyroxad		1.5		3.5		4	3		2	3	2			2.5	3	
Fosetyl-Al			NA									3	3			
Iprodione			NA	3		3.5			2	3.5	3					
Isofetamid						3.5	3									
Mancozeb		3		2.5		1		2.5	L	3.5	2	2				
Mandestrobin				1.5		3.5	L								L	
Mefenoxam												3	1.5			
Mefentrifluconazole			4		3.5	4	4			3.5				3	L	
Metconazole			3.5	2.5			3.5	2	2		3.5			3	L	3
Myclobutanil			2	1.5		3		2	L	1	2			3		
PCNB			3	2		2			3	2	3.5					
Penthiopyrad			3.5	3	L	3	3.5		2	3.5				2.5		
Phosphite			2.5									2.5	3			
Picarbutrazox												3	4			
Polyoxin-D			3	3.5	3		2	1	1	3	3.5					L
Propamocarb												3	1.5			
Propiconazole			2.5	2.5	3	3.5		2	2	1.5	3.5			3	2.5	2
Prothioconazole			3.5	3.5	3	3.5	3.5	3	2	L	4			3	3	
Pydiflumetofen						4	3				2				L	
Pyraclostrobin			2	4	L	2.5	3	2	2	3.5	3	2	2	3.5	3	
Tebuconazole			3	3	3	3.5	3.5	2	3		2.5			3	3.5	2
Thiophanate-methyl			1.5	2.5		2		4		1	3			2.5	1.5	L
Thiram				2		1			L		L	L				
Triadimefon			2	2		3.5		2	2		2			3	2.5	
Trifloxystrobin			2	3.5				2	2	2.5	3.5			2.5		

Rating system for efficacy is as follows: 4 = consistently excellent results; 3 = good to excellent results; 2 = fair to good control; 1 = inconsistent control; L = limited data available; NA = label requires tank mix for control; darkened cell = not recommended or not labeled for that disease; lime green cell = labeled for that disease; dark green cell = best control for that disease

-Based on University of Kentucky Extension publication by P. Vincelli, et. al., NC State TurfFiles and other published university data

COOL SEASON

Combo-Fungicide Active Ingredients, Plant Mobility, and Fungicide Resistance Action

Committee Codes Distributed by WSC

Fungicide Combo	Product Names	Mobility ¹	FRAC
Azoxystrobin + Chlorothalonil	Renown	XMS+C	11+M5
Azoxystrobin + Cyazofamid	Union	XMS+L	11+21
Azoxystrobin + Difeniconazole	Briskway, Azoxy D Select	XMS+XMS	11+3
Azoxystrobin + Propiconazole	Headway, Compendium, Strobe Pro, AzProp Select	XMS+XMS	11+3
Azoxystrobin + Tebuconazole	AzTeb Select,	XMS+XMS	11+3
Benzovindiflupyr + Difeniconazole	Ascenity	XMS+XMS	7+3
Boscalid + Chlorothalonil	Encartis	XMS	7+M5
Chlorothalonil + Fludioxonil + Propiconazole	Instrata	C+C+XMS	M5+12+3
Chlorothalonil + Iprodione	E-Pro ETQ	C+L	M5+2
Chlorothalonil + Iprodione + Thiophanate Methyl + Tebuconazole	Enclave	C+L+XMS+XMS	M5+2+1+3
Chlorothalonil + Propiconazole	Concert II	C+XMS	M5+3
Chlorothalonil + Tebuconazole	E-Scape ETQ	C+XMS	M5+3
Copper hydroxide + Mancozeb	Junction	C	M3
Fluazinam + Tebuconazole	Traction, Fairview Select	C+XMS	29+3
Fludioxonil + Benzovindiflupyr	Tuque exoGem	C+XMS	12+7
Fluindapyr + Fluriafol	Kalida	XMS+XMS	7+3
Fluopyram + Prothioconazole + Propamocarb	Resilia	XMS+XMS+L	7+3+28
Fluopyram + Trifloxystrobin	Exteris Stressgard	XMS+L	7+11
Fluoxastrobin + Chlorothalonil	Fame C	XMS+C	11+M5
Fluoxastrobin + Flutriafol	Tarveta	XMS+XMS	11+3
Iprodione + Thiophanate Methyl	26/36	LS+XMS	2+1
Iprodione + Trifloxystrobin	Interface Stressgard	LS+LS	2+11
Isofetamid + Tebuconazole	Tekken	XMS+XMS	7+11
Pydiflumetofen + Azoxystrobin + Propiconazole	Posterity Forte, Posterity Forte	XMS+XMS+XMS	7+11+3
Pyraclostrobin + Boscalid	Honor Intrinsic	XMS+XMS	11+7
Pyraclostrobin + Fluxapyroxad	Lexicon Intrinsic	XMS+XMS	11+7
Pyraclostrobin + Mefentrifluconazole	Navicon Intrinsic	XMS+XMS	11+3
Pyraclostrobin + Triticonazole	Aramax Intrinsic, Pillar G Intrinsic, Pillar SC Intrinsic	XMS+XMS	11+3
Trifloxystrobin + Triadimefon	Armada, Tartan	XMS+XMS	11+3

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Combo-Fungicide Efficacy Against Common Cool-Season Amenity Turfgrass Diseases

Fungicide Combo	Disease														
	Algae	Anthraxnose	Brown Patch	Brown Ring Patch	Dollar Spot	Fairy Ring	Gray Leaf Spot	Gray Snow Mold	Leaf Spot/ Melting Out	Pink Snow Mold	Pythium Blight	Pythium Root Rot	Summer Patch	Take-all Patch	Yellow Patch
Azoxystrobin + Chlorothalonil	4	3	4		3		3.5		4	2.5					4
Azoxystrobin + Cyazofamid		2	4			3	2		4		4	4	3.5	L	4
Azoxystrobin + Difeniconazole		3.5	4	L	3	3.5	3		4	2.5			3.5	L	4
Azoxystrobin + Propiconazole		3	4	L	3.5	3	3.5	3	3.5	3.5	2	2	3.5	3.5	4
Azoxystrobin + Tebuconazole		3.5	4		3.5	4	3	L	4	3.5	2	2	L	L	4
Benzo.+Difen.		4	4	L	3.5	4	3	2	4	3			4		4
Boscalid + Chlorathalonil	4	3	3.5		4		3		4	3					
Chloro.+Fludio.+Prop.		4	3		4		3	4	4	3.5			3		3
Chlorothalonil + Iprodione		L	L		L		L	3	L	3.5			L		
Chloro.+Ipro+T. Meth. +Teb.		3.5	4		3.5		3.5	4		4			2.5		
Chlorothalonil + Propiconazole	4	3	3	L	4		3.5		4	3.5			L	L	
Chlorothalonil + Tebuconazole		L	L	L	L		L			L			L	L	
Copper hydroxide + Mancozeb	4		L		L		2		L	2	L				
Fluazinam + Tebuconazole	2	3	3.5	L	4		L	3	4	3.5			L		
Fludioxonil + Benzovindiflupyr		3.5	4	L	3	L	L	3	L	4			L	L	L
Fluidapyr + Fluriafol		2.5	4	L	3.5	3	L	L	3	L		L	3		L
Fluop.+Prothio+Propam.						4						2	3.5	3.5	
Fluopyram + Trifloxystrobin		23	3		4		L	2		3					
Fluoxastrobin + Chlorothalonil	4	3	4	L	3	3	3	2	L	4	L	2	3	L	4
Fluoxastrobin + Flutriafol		L	L	L	L	L	L	L	L	L			L	L	L
Iprodione + Thiophanate Methyl		L	2.5		3.5			2	3	4	2				
Iprodione + Trifloxystrobin		2	3.5		3.5			2	4	4					
Isofetamid + Tebuconazole		3	3.5	L	3.5	4	L	2		2			3.5	L	L
Pydiflum.+Azoxy.+Prop.			4	L	4	4	3	3	4	3.5	2	2	4	L	4
Pyraclostrobin + Boscalid		2	4	L	3.5	3	3	2	2	3.5	2	2	3		
Pyraclostrobin + Fluxapyroxad		2	4	L	3.5	3	3	2	4	3	2	2	3.5	L	
Pyrac.+ Mefentrifluconazole		4	4	3.5	4	4	3	2	4	2.5	2	2	3.5	L	
Pyraclostrobin + Triticonazole		3.5	4	L	3.5	L	3	2	3.5	3.5	L	L	3	L	
Trifloxystrobin + Triadimefon		2	3		3.5	4	3	2	3	3.5			3	L	

Rating system for efficacy is as follows: 4 = consistently excellent results; 3 = good to excellent results; 2 = fair to good control; 1 = inconsistent control; L = limited data available; NA = label requires tank mix for control; **darkened cell** = not recommended or not labeled for that disease; **lime green cell** = labeled for that disease; **dark green cell** = best control for that disease

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