2025 AUSTRALIAN TURF FUNGICIDE RESISTANCE CHART

Repeated use of fungicides with the same site of action can result in the development of fungicide-resistant pathogens.

This chart groups fungiicides by their sites of action 1) to maintain greater diversity in fungiicide use and 2) to rotate among herbicides with different sites of action to delay the development of fungicide resistance. The Mode of Action (MOA) Group is a classification system developed by the Fungicide Resistance Action Committee (FRAC).

FRAC Resistance Topical Active Ingredient **Product Examples** Likelihood Code Mode of Action B:Cvtoskeleton and Motor xylem-mobile High Risk Thiophanate methyl Clean Sweep Trio Proteins, B1: systemic tubulin polymerisation E:Signal Medium Risk Iprodione Locally systemic Voltar 500 Transduction E3: Osmotic signal transduction Tombstone Duo xylem-mobile Tebuconazole Medium Risk Biosynthesis in systemic Propiconazole Regiment 440 Membranes. Triticonazole <u>Impala</u> G1: C14 Triadimenol Citadel demethylase in Mefentrifluconazole sterol Maxtima biosynthesis A:Nucleic Acids xylem-mobile High Risk Mefanoxam Solitaire 240 Metabolism systemic A1: RNA Polymerase C:Respiration xylem-mobile Medium to High Boscalid Midas C2:Complex II systemic Flutalonil Monstar Fluxapyroxad Lexicon Pvdiflumetofen Posterity Fluopyram Exteris Penthiopyrad C:Respiration xylem-mobile C3 Complex Azovstrobin AzoForce 250 systemic Ш High Risk Trifloxystrobin **Tombstone** Locally Pyraclostrobin Lexicon Fungicide systemic E:Signal Low to Medium Transuction. E2: Locally Fludioxonil Medallion Osmotic signal systemic Risk transduction F: Lipid Low to Medium Shiba Tolclofos-Synthesis or 14 Contact Risk methyl Transduction.F3: Terrazole Cell Etridiazole Medium to High Locally C:Respiration 21 Cyazofamid <u>Segway</u> C4 Complex F: Lipid Synthesis or Low to Medium Locally 28 Propamocarb Shrapnel Transduction.F4: Risk systemic Cell membrane permeability. C:Respiration 29 Low Risk Contact Fluazinam Compass C5: Uncouplers of oxidative Phosphorylation P:Host Plant Phloem-mobile 33 Grenadier Low Risk Fosetyl aluminium Induction P07: Phosphonates Multi-site **M3** Contact Low Risk Thiram <u>Pistol</u> action Multi-site M4 Contact Captan Low Risk Captan action Multi-site M5 Contact Low Risk Chlorothalonil <u>Squadron</u> action

The chart below lists turf registered <u>premix fungicides</u> by their trade names so you can identify the component fungicides and their respective mode of action groups. Refer to the Mode of Action Chart on the Left for more information.

Premix Trade Name	Active Ingredients	Site of Action Group
Clean Sweep Trio	Thiophanate-methyl Fluazinam Tebuconazole	1 29 3
Tombstone Duo	Trifloxystrobin Tebuconazole	11 4
Impala	Azoxystrobin Triticonazole	11 3
Lexicon Intrinsic	Pyraclostrobin Fluxapyroxad	11 7
Exteris Stressgard	Trifloxystrobin Fluopyram	11————————————————————————————————————
Headway Maxx	Azoxystrobin Propiconazole	113
<u>Instrata</u>	Chlorothalonil Propiconazole Fludioxanil	M5 3 12
Interface	Trifloxysulfuron Iprodione	11
Enclave	Chlorothalonil Iprodione Thiophanate-methyl Trifloxysulfuron	M5 2 1 11



