

Table 1. Insecticides Registered to Manage Specific Pests of Turfgrass

Refer to the label for additional information on product application and use, and the types of turfgrass the product is registered for use on (e.g. residential lawns, golf courses, sod farms).

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate
Ants	carbaryl	1A	Sevin T&O	210 to 290 mL in 150 to 200 L spray volume per 100 m <sup>2</sup> Mow before treatment and do not irrigate for two days.
	chlorpyrifos	1B	Dursban T	22.5 mL per 100 m <sup>2</sup>
			Dursban WSP	1 packet (112 g) per 500 m <sup>2</sup>
	deltamethrin	3	Decis F or Deltagard SC	12 mL in 6 to 15 L of water per 100 m <sup>2</sup> Do not irrigate or mow for 24 hours after applying.
lambda-cyhalothrin	3	Scimitar CS	3.7 mL in 8 to 10 L water per 100 m <sup>2</sup> Delay irrigation or mowing for two days after application. Do not apply more than 4 times per year.	
Black Turfgrass Ataenius	imidacloprid	4	Merit Solupack	1 packet (45 g) per 1,200 m <sup>2</sup> For optimum control, apply prior to egg hatch.
			Merit 0.5 G	560 g/100 m <sup>2</sup> For optimum control, apply prior to egg hatch.
Chinch Bug	carbaryl	1A	Sevin T&O	210 to 290 mL in 150 to 200 L spray volume per 100 m <sup>2</sup> Mow turf before treatment and do not irrigate for two days.
	chlorpyrifos	1B	Dursban T	22.5 mL per 100 m <sup>2</sup>
			Dursban WSP	1 packet (112 g) per 500 m <sup>2</sup>
deltamethrin	3	Decis F or Deltagard SC	12 mL in 6 to 15 L of water per 100 m <sup>2</sup> Do not irrigate or mow for 24 hours after applying.	
Cutworms	carbaryl	1A	Sevin T&O	210 to 290 mL in 150 to 200 L of spray volume per 100 m <sup>2</sup> Mow before treatment and do not irrigate for two days.
	chlorantraniliprole	28	Acelepryn	1.45 to 2.9 mL in a minimum of 2 to 16 L finished spray volume per 100 m <sup>2</sup> Do not apply more than once per season.
	chlorpyrifos	1B	Dursban T	22.5 mL per 100 m <sup>2</sup>
			Dursban WSP	1 packet (112 g) per 500 m <sup>2</sup>
deltamethrin	3	Decis F or Deltagard SC	12 mL in 6 to 15 L of water per 100 m <sup>2</sup> Do not irrigate or mow for 24 hours after applying.	

<sup>a</sup>Refers to the *Resistance Management Group* for a pesticide. It is important to rotate pesticides of different groups to manage against the development of pest resistance.

Table 1. Insecticides Registered to Manage Specific Pests of Turfgrass (Cont'd)

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate
Leatherjackets (Craneflies)	carbaryl	1A	Sevin T&O	200 mL in 150 to 200 L spray volume per 100 m <sup>2</sup> Apply only once per year. Mow lawns prior to treatment and do not irrigate for two days.
	chlorpyrifos	1B	Dursban T	20 to 25 mL per 100 m <sup>2</sup>
			Dursban WSP	1 packet (112 g) per 500 m <sup>2</sup>
	imidacloprid	4	Merit Solupack	1 packet (45 g) per 1,200 m <sup>2</sup> For suppression of early fall larval stages.
Merit 0.5 G			560 g/100 m <sup>2</sup> For suppression of early fall larval stages.	
Turfgrass Weevils	chlorantraniliprole	28	Acelepryn	8.8 to 11.25 mL in a minimum of 2 to 16 L finished spray volume per 100 m <sup>2</sup> Do not apply more than once per season. Registered to control the Annual Bluegrass Weevil.
	chlorpyrifos	1B	Dursban T	22.5 mL per 100 m <sup>2</sup> Registered to manage <i>Hyperodes</i> species of weevils.
			Dursban WSP	1 packet (112 g) per 500 m <sup>2</sup> Registered to manage <i>Hyperodes</i> species of weevils.
Sod Webworm	carbaryl	1A	Sevin T&O	210 to 290 mL in 150 to 200 L water per 100 m <sup>2</sup> Mow turf prior to treatment. Do not water for two days after treatment.
	chlorpyrifos	1B	Dursban T	22.5 mL per 100 m <sup>2</sup> Do not water or mow the treated area for 12 to 24 hours after treatment.
			Dursban WSP	1 packet (112 g) per 500 m <sup>2</sup> Do not water or mow the treated area for 12 to 24 hours after treatment.
	deltamethrin	3	Decis F or Deltagard SC	12 mL in 6 to 15 L of water per 100 m <sup>2</sup> Do not irrigate or mow for 24 hours following application.
	spinosad	5	Entrust 80 W	0.3 to 0.6 g per 100 m <sup>2</sup> Up to 4 applications per year. Control improves when applied in the late afternoon or early evening. Do not irrigate or mow for 12 to 24 hours after treatment.
Success 480SC			0.5 to 1.0 mL per 100 m <sup>2</sup> Up to 4 applications per year. Control improves when applied in the late afternoon or early evening. Do not irrigate or mow for 12 to 24 hours after treatment.	

Table 1. Insecticides Registered to Manage Specific Pests of Turfgrass (Cont'd)

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate
White Grubs (European Chafer and Japanese Beetle <sup>b</sup> Larvae)	carbaryl	1A	Sevin T&O	210 to 290 mL in 150 to 200 L spray volume per 100 m <sup>2</sup> Mow turf prior to treatment. Do not water for two days after treatment. Suppression only of pest population.
	chlorantraniliprole	28	Acelepryn	5.6 to 8.8 mL in a minimum of 2 to 16 L finished spray volume per 100 m <sup>2</sup> Do not apply more than once per season.
	imidacloprid	4	Merit Solupack	1 packet (45 g) per 1,200 m <sup>2</sup> For optimum control, apply prior to egg hatch.
			Merit 0.5 G	560 g per 100 m <sup>2</sup> For optimum control, apply prior to egg hatch.
nematodes ( <i>Heterorhabditis bacteriophora</i> )	-	Nemasys G	<i>Chafer Grubs</i> : 1 tray in 35 L of water applied at 100 mL solution per m <sup>2</sup> Ensure soil is moist prior to treatment and apply 3 mm of irrigation following application.	

<sup>a</sup>Refers to the *Resistance Management Group* for a pesticide. It is important to rotate pesticides of different groups to manage against the development of pest resistance.

<sup>b</sup>Japanese Beetle was not present in BC as of summer 2009.



Table 3. Fungicides Registered to Manage Specific Diseases of Turfgrass

Refer to the label for additional information on product application and use, and the types of turfgrass the product is registered for use on (e.g. residential lawns, golf courses, sod farms).

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate	Interval (days)
Anthracnose, Foliar & Basal Rot	azoxystrobin	11	Heritage MAXX	32 to 63 mL in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
			Heritage Fungicide	6 to 12 g in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
	<i>Bacillus subtilis</i>	-	Rhapsody ASO	125 to 250 mL per 100 m <sup>2</sup>	7 to 10
	chlorothalonil	M	Daconil Ultrex	103 to 115 g per 100 m <sup>2</sup> Not recommended as a curative treatment.	7 to 10
			Daconil 2787 Flowable	<i>Preventive</i> : 170 to 190 mL per 100 m <sup>2</sup>	7 to 10
	fosetyl AL	U	Aliette Signature	120 g in 6 to 10 L water per 100 m <sup>2</sup>	14
	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	26 to 51 mL per 100 m <sup>2</sup> Do not apply more than 3 applications per season.	21
	trifloxystrobin	11	Compass 50 WG	<i>Basal Rot</i> : 4.6 g in 4.1 to 8.1 L water per 100 m <sup>2</sup>	14 to 21
				<i>Foliar</i> : 3.8 g in 4.1 to 8.1 L water per 100 m <sup>2</sup>	14
triticonazole	3	Premis 200 F or Triton Fungicide	16 to 32 mL in 6 to 8 L water per 100 m <sup>2</sup> Do not apply more than 3 times per season.	14 to 21	
Bentgrass Deadspot	fosetyl AL	U	Aliette Signature	120 g in 6 to 10 L water per 100 m <sup>2</sup> Use in spring and/or summer as a preventive treatment.	14
Brown Patch	azoxystrobin	11	Heritage MAXX	32 mL in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
			Heritage Fungicide	6 g in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
	<i>Bacillus subtilis</i>	-	Rhapsody ASO	125 to 250 mL per 100 m <sup>2</sup>	7 to 10
	captan	M	Captan 80 WDG	59.3 grams per 100 m <sup>2</sup>	7 to 14
	chlorothalonil	M	Daconil Ultrex	<i>Preventive</i> : 58 to 115 g per 100 m <sup>2</sup> <i>Curative</i> : 115 to 212 g per 100 m <sup>2</sup>	7 to 14
			Daconil 2787 Flowable	<i>Preventive</i> : 95 to 190 mL per 100 m <sup>2</sup> <i>Curative</i> : 190 to 350 mL per 100 m <sup>2</sup>	7 to 10
	iprodione	2	Rovral Green GT	125 to 250 mL per 100 m <sup>2</sup> Minimum control period is 14 days.	14 to 21
			Rovral G	<i>Preventive</i> : 2.34 to 3.52 kg per 100 m <sup>2</sup> <i>Control</i> : 3.52 kg per 100 m <sup>2</sup>	14
			Rovral WP	60 to 125 g per 100 m <sup>2</sup>	14 to 21

<sup>a</sup>Refers to the *Resistance Management Group* for a pesticide. It is important to rotate pesticides of different groups to manage against the development of pest resistance.

Table 3. Fungicides Registered to Manage Specific Diseases of Turfgrass (cont'd)

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate	Interval (days)
Brown Patch (cont'd)	myclobutanil	3	Eagle WSP Turf & Ornamental	18 g in 4 L water per 100 m <sup>2</sup> Apply a maximum of 4 times per year.	14
	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	51 to 103 mL per 100 m <sup>2</sup> Do not apply more than 6 times a season. Do not treat if disease symptoms are present.	14
	pyraclostrobin	11	Insignia EG	14 to 25 g in 4 to 12 L water per 100 m <sup>2</sup>	14 to 21
	quintozene	14	Quintozene 75WP	85 to 120 g in 15 to 25 L water per 100 m <sup>2</sup> Irrigate lightly to wash chemical into the soil.	7 to 10
			Terraclor F	135 to 185 mL in 4 to 40 L water per 100 m <sup>2</sup> Irrigate lightly to wash chemical into the soil.	7 to 10
	thiophanate-methyl	1	Senator 70WP	30 to 60 g in at least 24 L water per 100 m <sup>2</sup>	5 to 7
	trifloxystrobin	11	Compass 50 WG	<i>Low Disease Pressure:</i> 4.6 g in 4.1 to 8.1 L water per 100 m <sup>2</sup>	21
				<i>Curative - High Disease Pressure:</i> 6.1 g in 4.1 to 8.1 L water per 100 m <sup>2</sup>	14
triticonazole	3	Premis 200 F or Triton Fungicide	32 mL in 6 to 8 L water per 100 m <sup>2</sup> Do not apply more than 3 times per season.	14 to 21	
Damping Off	captan	M	Captan 80 WDG	59.3 grams per 100 m <sup>2</sup>	7 to 14
Dollar Spot	azoxystrobin	11	Heritage Fungicide or Heritage MAXX	Heritage alone does not control Dollar Spot; tank-mix with Banner MAXX at 26 to 51 mL per 100 m <sup>2</sup> , or Daconil 2787 at 190 mL per 100 m <sup>2</sup> , or Daconil Ultrex at 115 g per 100 m <sup>2</sup> .	
	<i>Bacillus subtilis</i>	-	Rhapsody ASO	125 to 250 mL per 100 m <sup>2</sup>	7 to 10
	boscalid	7	Cadence WDG	3.2 to 4.0 g in 5 to 15 L water per 100 m <sup>2</sup> Do not exceed 2 sequential applications.	14
	chlorothalonil	M	Daconil 2787 Flowable	<i>Preventive:</i> 95 to 190 mL per 100 m <sup>2</sup> <i>Curative:</i> 190 to 350 mL per 100 m <sup>2</sup>	7 to 14
			Daconil Ultrex	<i>Preventive on Fairways:</i> 29 to 58 g per 100 m <sup>2</sup>	7 to 14
			Daconil Ultrex	<i>Tees, Greens, Ornamental Turfgrass</i> <i>Preventive:</i> 58 to 115 g per 100 m <sup>2</sup> <i>Curative:</i> 115 to 212 g per 100 m <sup>2</sup>	7 to 14
	chlorothalonil + propiconazole	M 3	Daconil Ultrex + Banner MAXX	115 g Daconil Ultrex tank mixed with 30 mL Banner MAXX per 100 m <sup>2</sup>	
chlorothalonil + propiconazole	M 3	Daconil 2787 Flowable + Banner MAXX	190 mL Daconil 2787 tank mixed with 26 mL Banner MAXX per 100 m <sup>2</sup>	21 to 28	

Table 3. Fungicides Registered to Manage Specific Diseases of Turfgrass (cont'd)

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate	Interval (days)
Dollar Spot (cont'd)	iprodione	2	Rovral Green GT	62 mL per 100 m <sup>2</sup>	
			Rovral G	<i>Preventive</i> : 2.34 to 3.52 kg per 100 m <sup>2</sup>	14
			Rovral WP	30 g per 100 m <sup>2</sup>	14
				45 g per 100 m <sup>2</sup>	21
	myclobutanil	3	Eagle WSP Turf & Ornamental	15 to 20 g in 4 L water per 100 m <sup>2</sup> Do not apply more than 4 times per year.	14 to 21
	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	26 to 51 mL per 100 m <sup>2</sup> Do not apply more than 6 applications per season.	21 to 28
	thiophanate-methyl	1	Senator 70WP	25 to 30 g in at least 8 L water per 100 m <sup>2</sup>	10 to 14
triticonazole	3	Premis 200 F or Triton Fungicide	16 mL in 6 to 8 L water per 100 m <sup>2</sup> Do not apply more than 3 times per season.	14 to 21	
Fairy Ring	azoxystrobin	11	Heritage MAXX	63 mL in 8 to 16 L water per 100 m <sup>2</sup>	28
			Heritage Fungicide	12 g in 8 to 16 L water per 100 m <sup>2</sup>	28
Fusarium Patch	azoxystrobin	11	Heritage MAXX	32 mL in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
			Heritage Fungicide	6 g in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
	iprodione	2	Rovral Green GT	Use 185 mL in 8 to 10 L water per 100 m <sup>2</sup>	21 to 28
	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	51 to 103 mL per 100 m <sup>2</sup> Do not apply more than 2 times per season.	30
	trifloxystrobin	11	Compass 50 WG	3.8 g in 4.1 to 8.1 L water per 100 m <sup>2</sup>	14
	triticonazole	3	Premis 200 F or Triton Fungicide	<i>Suppression</i> : 32 mL in 6 to 8 L water per 100 m <sup>2</sup> ; tank mix with Rovral Green GT to improve control. Do not exceed 3 applications per season.	21
Grey Leafspot	pyraclostrobin	11	Insignia EG	14 g in 4 to 12 L water per 100 m <sup>2</sup>	14
				28 g in 4 to 12 L water per 100 m <sup>2</sup>	28
	trifloxystrobin	11	Compass 50 WG	3.1 to 6.1 g in 4.1 to 8.1 L water per 100 m <sup>2</sup>	14
Grey Snow Mould	azoxystrobin	11	Heritage MAXX	95 to 126 mL in 8 to 16 L water per 100 m <sup>2</sup> Apply once in late fall before snow cover.	
			Heritage Fungicide	18 to 24 g in 8 to 16 L water per 100 m <sup>2</sup> Apply once in late fall before snow cover.	
	chlorothalonil	M	Daconil Ultrex	143 to 303 g per 100 m <sup>2</sup>	
			Daconil 2787 Flowable	500 mL per 100 m <sup>2</sup>	

<sup>a</sup>Refers to the *Resistance Management Group* for a pesticide. It is important to rotate pesticides of different groups to manage against the development of pest resistance.

Table 3. Fungicides Registered to Manage Specific Diseases of Turfgrass (cont'd)

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate	Interval (days)
Grey Snow Mould (cont'd)	chlorothalonil + iprodione	M 2	Daconil 2787 F + Rovral Green GT	240 mL Daconil 2787 tank mixed with 125 to 250 mL Rovral Green GT per 100 m <sup>2</sup> Apply in the fall prior to snow cover.	
	chlorothalonil, propiconazole, and fludioxonil	M 3 12	Instrata TM	300 mL in 4 to 8 L of water per 100 m <sup>2</sup> Apply once in late fall before snow cover. Do not apply on top of snow or when the temperature is below 0°C.	
	iprodione	2	Rovral Green GT	<i>Preventive:</i> 375 mL in 8 to 10 L of water per 100 m <sup>2</sup> Apply in late fall/early winter just before the ground freezes or the first snowfall.	
			Rovral G	<i>Preventive:</i> 1.17 to 2.34 kg per 100 m <sup>2</sup> <i>Suppression:</i> 2.34 to 3.52 kg per 100 m <sup>2</sup> ; apply prior to the first snow and repeat when turf is free of snow. <i>Control:</i> 2.34 to 3.52 kg per 100 m <sup>2</sup>	14 to 21
			Rovral WP	180 g per 100 m <sup>2</sup> Use in the spring or fall to suppress the disease. Use Rovral Green for winter protection.	
	iprodione + trifloxystrobin	2 11	Rovral Green GT + Compass 50 WG	271 to 354 mL of Rovral Green GT tank mixed with 6.1 g of Compass 50 WG per 100 m <sup>2</sup> Apply in at least 500 L spray solution per ha (recommend 610 to 700 L/ha) in late fall before permanent snow cover or tarping.	
	myclobutanil	3	Eagle WSP Turf & Ornamental	30 g in 4 L water per 100 m <sup>2</sup> Do not apply more than once per year.	
	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	206 mL per 100 m <sup>2</sup> Apply in late fall before snow cover. Do not apply more than once per season.	
	pyraclostrobin	11	Insignia EG	8.5 to 17 g in 4 to 12 L water per 100 m <sup>2</sup> Apply in fall just prior to snow cover. Apply once at the high rate or twice at the low rate.	14 to 28
	quintozene	14	Quintozene 75WP	250 g in 20 to 40 L water per 100 m <sup>2</sup> Irrigate lightly post-application.	
			Terraclor F	370 mL in 4 to 40 L water per 100 m <sup>2</sup> Irrigate lightly post-application.	
	triticonazole	3	Premis 200 F or Triton Fungicide	32 mL in 6 to 8 L water per 100 m <sup>2</sup> Apply in late fall/early winter before snow. May be tank mixed with Rovral Green GT.	

Table 3. Fungicides Registered to Manage Specific Diseases of Turfgrass (cont'd)

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate	Interval (days)
Leaf Spot, Melting Out	azoxystrobin	11	Heritage MAXX	32 to 63 mL in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
			Heritage Fungicide	6 to 12 g in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
	captan	M	Captan 80 WDG	59.3 grams per 100 m <sup>2</sup>	7 to 14
	chlorothalonil	M	Daconil Ultrex	<i>Preventive:</i> 58 to 115 g per 100 m <sup>2</sup> <i>Curative:</i> 115 to 212 g per 100 m <sup>2</sup>	7 to 14
			Daconil 2787 Flowable	<i>Preventive:</i> 95 to 190 mL per 100 m <sup>2</sup> <i>Curative:</i> 190 to 350 mL per 100 m <sup>2</sup>	7 to 10
	iprodione	2	Rovral Green GT	125 mL per 100 m <sup>2</sup>	14 to 21
			Rovral G	<i>Preventive:</i> 1.17 kg per 100 m <sup>2</sup>	21 to 28
				<i>Control:</i> 2.34 to 3.52 kg per 100 m <sup>2</sup>	14
			Rovral WP	60 g per 100 m <sup>2</sup>	14 to 21
	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	51 to 103 mL per 100 m <sup>2</sup> Do not apply more than 3 applications per season.	14
pyraclostrobin	11	Insignia EG	15.4 g in 4 to 12 L water per 100 m <sup>2</sup>	14	
trifloxystrobin	11	Compass 50 WG	3.1 g in 4.1 to 8.1 L water per 100 m <sup>2</sup>	14 to 21	
Pink Snow Mould	azoxystrobin	11	Heritage MAXX	95 to 126 mL in 8 to 16 L water per 100 m <sup>2</sup> Apply once in late fall before snow cover.	
			Heritage Fungicide	18 to 24 g in 8 to 16 L water per 100 m <sup>2</sup> Apply once in late fall before snow cover.	
	chlorothalonil	M	Daconil Ultrex	143 to 303 g per 100 m <sup>2</sup> Not recommended as a curative treatment.	
			Daconil 2787 Flowable	500 mL per 100 m <sup>2</sup>	
	chlorothalonil + iprodione	M 2	Daconil 2787 F + Rovral Green GT	240 mL Daconil 2787 tank mixed with 125 to 250 mL Rovral Green GT per 100 m <sup>2</sup> Apply in the fall prior to snow cover.	
	chlorothalonil, propiconazole, and fludioxonil	M 3 12	Instrata TM	300 mL in 4 to 8 L water per 100 m <sup>2</sup> Apply once in late fall before snow cover. Do not apply on top of snow or when the temperature is below 0°C.	
iprodione	2	Rovral Green GT	250 to 375 mL in 8 to 10 L water per 100 m <sup>2</sup> Apply as a preventive treatment in late fall or early winter just before the ground freezes or the first snowfall.		

<sup>a</sup>Refers to the *Resistance Management Group* for a pesticide. It is important to rotate pesticides of different groups to manage against the development of pest resistance.

Table 3. Fungicides Registered to Manage Specific Diseases of Turfgrass (cont'd)

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate	Interval (days)
Pink Snow Mould (cont'd)	iprodione	2	Rovral G	<i>Preventive:</i> 1.17 to 2.34 kg per 100 m <sup>2</sup> <i>Suppression:</i> 2.34 to 3.52 kg per 100 m <sup>2</sup> Apply prior to the first snow and repeat when turf is free of snow. <i>Control:</i> 2.34 to 3.52 kg per 100 m <sup>2</sup>	14 to 21
			Rovral WP	180 g per 100 m <sup>2</sup> Use in spring/fall to suppress the disease.	
	iprodione + trifloxystrobin	2 11	Rovral Green GT + Compass 50 WG	<i>Suppression:</i> 127 mL of Rovral Green tank mixed with 3.8 g of Compass 50 WG per 100 m <sup>2</sup> <i>Control:</i> 271 to 354 mL of Rovral Green tank mixed with 6.1 g of Compass 50 WG per 100 m <sup>2</sup> Apply in at least 500 L spray solution per ha (recommend 610 to 700/ha) in late fall before permanent snow cover or tarping.	
	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	206 mL per 100 m <sup>2</sup> Apply in late fall before snow cover. Do not apply more than once per season.	
	pyraclostrobin	11	Insignia EG	25 g in 4 to 12 L water per 100 m <sup>2</sup>	
	quintozene	14	Quintozene 75WP	250 g in 20 to 40 L water per 100 m <sup>2</sup> Apply before snowfall.	
			Terraclor F	370 mL in 4 to 40 L water per 100 m <sup>2</sup> Apply before snowfall.	
	thiophanate-methyl	1	Senator 70WP	125 to 175 g in at least 24 L water per 100 m <sup>2</sup> Apply 2.5 cm irrigation post-application.	
	triticonazole	3	Premis 200 F or Triton Fungicide	<i>Suppression:</i> 32 mL in 6 to 8 L water per 100 m <sup>2</sup> Apply in late fall/early winter before snowfall.	21
triticonazole + iprodione	3 2	Triton (or Premis 200 F) + Rovral Green GT	<i>Curative:</i> 32 mL Triton (or Premis 200 F) + 250 mL Rovral Green GT in 6 to 8 L water per 100 m <sup>2</sup> Apply in late fall/early winter before snow. Do not apply more than 3 times per season.	21	
Powdery Mildew	thiophanate-methyl	1	Senator 70WP	125 to 250 g in at least 24 L water per 100 m <sup>2</sup> Apply 2.5 cm of irrigation to wash into root zone.	14 to 21
Pythium	azoxystrobin	11	Heritage MAXX	63 mL in 8 to 16 L water per 100 m <sup>2</sup>	10 to 14
			Heritage Fungicide	12 g in 8 to 16 L water per 100 m <sup>2</sup>	10 to 14
	fosetyl AL	U	Aliette Signature	200 g per 100 m <sup>2</sup> Apply once per season when symptoms appear.	

Table 3. Fungicides Registered to Manage Specific Diseases of Turfgrass (cont'd)

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate	Interval (days)
Pythium (cont'd)	metalaxyl	4	Subdue MAXX	<i>Pythium Blight on Established Turf:</i> 16 to 32 mL in 10 to 20 L water per 100 m <sup>2</sup> Do not exceed 3 applications per season.	10 to 21
				<i>Pythium Blight and Damping-Off on Newly Seeded Areas:</i> 16 to 32 mL in 20 to 40 L water per 100 m <sup>2</sup> Apply 1 to 2 cm of irrigation post-application.	7 to 14
				<i>Drench for Pythium Root Rot:</i> 1.6 to 3.2 L in 1,000 to 2,000 L water per ha Do not apply more than once per season.	
Pythium (cont'd)	propamocarb hydrochloride	U	Banol Aqueous Solution or Previcur N Aqueous Solution	<i>Pythium blight and damping-off:</i> 64 mL in 7.5 to 19 L per 100 m <sup>2</sup> Do not exceed 3 applications per growing season.	7 to 21
	pyraclostrobin	11	Insignia EG	22.5 g in 4 to 12 L water per 100 m <sup>2</sup>	14
Red Leaf Spot	iprodione	2	Rovral G	<i>Preventive:</i> 2.34 to 3.52 kg per 100 m <sup>2</sup> <i>Control:</i> 3.52 kg per 100 m <sup>2</sup>	14
Red Thread	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	51 mL per 100 m <sup>2</sup> Do not apply more than 3 applications per season.	14
Root Rot	captan	M	Captan 80 WDG	59.3 g per 100 m <sup>2</sup>	7 to 14
Rust	pyraclostrobin	11	Insignia EG	12.5 g in 4 to 12 L water per 100 m <sup>2</sup>	14
	myclobutanil	3	Eagle WSP Turf & Ornamental	18 g in 4 L water per 100 m <sup>2</sup> Do not apply more than 4 times per year.	28
Summer Patch	azoxystrobin	11	Heritage MAXX	32 to 63 mL in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
			Heritage Fungicide	6 to 12 g in 8 to 16 L water per 100 m <sup>2</sup>	14 to 28
	myclobutanil	3	Eagle WSP Turf & Ornamental	18 g in 4 L of water per 100 m <sup>2</sup>	30
	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	103 mL per 100 m <sup>2</sup> Do not apply more than 3 applications per season.	30
Take-All Patch	azoxystrobin	11	Heritage MAXX	<i>Suppression:</i> 63 mL in 8 to 16 L water per 100 m <sup>2</sup>	
			Heritage Fungicide	<i>Suppression:</i> 12 g in 8 to 16 L water per 100 m <sup>2</sup>	

<sup>a</sup>Refers to the *Resistance Management Group* for a pesticide. It is important to rotate pesticides of different groups to manage against the development of pest resistance.

Table 3. Fungicides Registered to Manage Specific Diseases of Turfgrass (cont'd)

Pest	Active Ingredient	Group <sup>a</sup>	Trade Name	Rate	Interval (days)
Yellow Patch	propiconazole	3	Banner MAXX or Qualipro Propiconazole 14.3 ME	77 to 103 mL per 100 m <sup>2</sup> Apply in late fall before snow cover. Do not apply more than once per season.	

<sup>a</sup>Refers to the *Resistance Management Group* for a pesticide. It is important to rotate pesticides of different groups to manage against the development of pest resistance.

Table 4. Herbicides Registered to Manage Weeds in Turfgrass

Refer to the label for additional information on product application and use.

<b>A. Pre-emergence Herbicides</b>		
<b>Trade Name (Active Ingredient)</b>	<b>Rates</b>	<b>Uses</b>
Dacthal W-75 (chlorthal dimethyl)	150 g in 5 to 10 L per 100 m <sup>2</sup> Can provide seasonal control when applied in early spring before weed seed germination.	Registered for use on new turfgrass seedlings that have been mowed for the first time. Delay spring seeding for 60 days after application. Not recommended for use on putting greens. Provides pre-emergence control of crabgrass, common lambsquarters, lovegrass, carpetweed, witchgrass, purslane, yellow foxtail, green foxtail, and common chickweed.
	<i>Annual Bluegrass and other Erratic or Late-Germinating Grasses and Weeds:</i> 225 g in 5 to 10 L per 100 m <sup>2</sup> Apply in late summer or early fall before weed seed germination.	
	<i>Creeping Speedwell:</i> 190 g in 5 to 10 L water per 100 m <sup>2</sup> Apply twice, 7 days apart in spring or early fall as long as the temperature is between 18 to 32°C and there is ample soil moisture.	

<b>B. Post-emergence Herbicides</b>		
<b>Trade Name (Active Ingredient)</b>	<b>Rates</b>	<b>Uses</b>
Acclaim Super EW Acclaim Super EC (fenoxaprop-p-ethyl)	13.5 mL per 100 m <sup>2</sup> 11.4 mL per 100 m <sup>2</sup> Apply when weeds are actively growing and in the 1-4 leaf plus 3 tiller stage. Do not cut grass for 4 days before or after application. A second application in 21 days may be required.	Use on turfgrass to control annual grasses, including smooth and hairy crabgrass, green and yellow foxtail, witch grass, and barnyard grass. Can be used on seedling and mature perennial ryegrass and fine fescue, and established Kentucky bluegrass. Do not treat bentgrass or seedling Kentucky bluegrass.
Mecoprop-P (mecoprop-P)	<i>Seedling Grasses:</i> 60 mL in 10 L per 100 m <sup>2</sup> <i>Established Turf:</i> 90 mL in 10 L per 100 m <sup>2</sup> Apply in warm weather and when plants are growing vigorously. Recommend to not mow for 3 or 4 days before or after treatment. Tank-mix with 2,4-D to manage dandelions, or MCPA Amine 500 to broaden weed spectrum.	For use on turf, golf greens, and fairways composed of red fescue, blue grass, bentgrass, and ryegrass. Controls common chickweed, mouse-ear chickweed, plantain, and clover. Buttercup, creeping Charlie, and black medick are moderately susceptible.

Table 4. Herbicides Registered to Manage Weeds in Turfgrass (Cont'd)

<b>B. Post-emergence Herbicides (Cont'd)</b>		
<b>Trade Name (Active Ingredient)</b>	<b>Rates</b>	<b>Uses</b>
Par III or Trillion Liquid (mecoprop-P, 2,4-D, dicamba)	<i>Bentgrass Turf:</i> 30 mL in 20 L water per 100 m <sup>2</sup> <b>Caution:</b> Over-application can result in turf discoloration or injury. <i>Established Turf (other than bentgrass):</i> <i>Par III:</i> 55 mL in 3 L water per 100 m <sup>2</sup> <i>Trillion:</i> 60 mL in 10 L water per 100 m <sup>2</sup>	Controls actively growing weeds, including dandelions, plantain, chickweed, clover, bedstraw, black medick, heal-all, creeping Charlie, knotweed, ragweed, shepherd's purse, English daisy, poison ivy, orange hawkweed, and buttercup.
Roundup WeatherMax or Roundup Transorb HC or R/T 540 (glyphosate)	<i>Turfgrass Renovation:</i> 1.67 to 8 L in 100 to 300 L per ha	Controls a broad range of annual and perennial weeds.
Sarritor Biological Granular Herbicide ( <i>Sclerotinia minor</i> IMI 344141)	<i>Broadcast:</i> 40 or 60 g product/m <sup>2</sup> <i>Spot Treatment:</i> 0.2 or 0.4 g product per plant Apply when daytime high temperatures are 18 to 24°C and rainfall or irrigation occurs within 12 hours of application.	Suppression of dandelion top growth in commercial lawns, golf course, municipal parks, and turf farms.
Turf-Rite 2+2 (2,4-D, mecoprop)	40 to 50 mL in 3 to 8 L water per 100 m <sup>2</sup> Do not treat newly seeded areas within 4 weeks of grass emergence and, then only use half the recommended rate. Do not use on Bentgrass.	Controls numerous actively growing broadleaf weeds. Can be tank mixed with Dycleer 24 Liquid (dicamba).
Velocity SP (thiencarbazone- methyl)	<i>Creeping Bentgrass and Perennial Ryegrass:</i> 31 g in 234 L water per ha applied on a 7-day interval, or 93 g in 234 L water per ha applied up to four times on a 14-day interval <i>Kentucky Bluegrass and Tall Fescue:</i> 31 g in 234 L water per ha applied on a 7- to 14-day interval. Do not apply before June 1 <sup>st</sup> or after September 15 <sup>th</sup> . Best results when applied under sunny conditions and at temperatures of 21 to 27°C. Do not treat greens or, heavy traffic or heavily shaded turf areas.	Selectively reduces the presence of and seedhead production by annual bluegrass in established turf, specifically creeping bentgrass, perennial ryegrass, Kentucky bluegrass, and tall fescue. Use caution when applying to Kentucky bluegrass since tolerance is known to vary by variety.
2,4-D Amine 600 (2,4-D)	1.9 to 3.8 L in 100 to 300 L water per ha Apply when grass is growing rapidly and before it is in the flag-leaf stage. Do not use on bentgrass or newly seeded areas.	For use on lawns and parks, sod farms, and golf courses (roughs and fairways) to control numerous broadleaf weeds.