

## Barley-Oat-Rye-Wheat Seed Treatment

Chemical	Appl.	Dosage <sup>1</sup>	Disease Control <sup>2</sup>				Remarks
			Covered Smut	Loose Smut	Seedling <sup>3</sup> Blight	Common Root Rot	
<b>Azoxystrobin (11)</b> Dynasty, 9.6%	Slurry	0.153-0.382 fl oz/cwt			X		For wheat and barley. Also controls dwarf bunt and common bunt. Always use with Dividend Extreme or Dividend XL RTA.
<b>Carboxin (7) + PCNB (14)</b> Vitavax-PCNB, 17%:17%	Slurry or mist	3-4 fl oz/cwt wheat, oats, barley	X	X	X		Not registered for rye.
<b>Clothianidin + Metalaxyl (4) + Metconazole (3)</b> NipsIt SUITE 2.93% : 0.88% : 0.44%	Ready to apply	5-7.5 fl oz/cwt	X	X	X	X	For control of seed and soil-borne fungi and insects.  Can be used with chemical, slurry, or mist-type seed treating equipment
<b>Difenoconazole (3) + Mefenoxam (4)</b> Dividend XL RTA 3.21% : 0.27%	Ready to apply	2.5 fl oz/cwt common bunt, loose smut, <i>Fusarium</i> seed scab	X(bunt)	X	X	X	<b>For spring and winter wheat.</b> Do not graze until 55 days after planting. Do not plant any crop other than wheat within 30 days to fields in which treated seeds were planted. For commercial or on-farm use.
		5 fl oz/cwt common bunt, loose smut, seed-borne <i>Septoria</i> , general seed rots, seed-borne <i>Fusarium</i> , <i>Pythium</i> damping off, partial control of common root rot	X(bunt)	X	X		
		10 fl oz/cwt above diseases plus partial control of take-all, common root rot and <i>Rhizoctonia</i> root rot	X(bunt)	X	X	X	

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<sup>3</sup>Seedling blights due to fungal infections of the seed such as black point and scab.

## Barley-Oat-Rye-Wheat (continued) Seed Treatment

Chemical	Appl.	Dosage <sup>1</sup>	Disease Control <sup>2</sup>				Remarks
			Covered Smut	Loose Smut	Seedling <sup>3</sup> Blight	Common Root Rot	
<b>Difenoconazole (3) + Mefenoxam (4) cont</b> Dividend Extreme 7.73%: 1.87%	Slurry	1 fl oz/cwt common bunt, loose smut, <i>Fusarium</i> seed scab	X(bunt)	X	X		For spring wheat and barley. See label for winter wheat recommendations.
		2 fl oz/cwt as above, plus seed-borne <i>Septoria</i> , <i>Penicillium</i> and <i>Aspergillus</i> seed rots, <i>Pythium</i> damping off, early season common root rot ( <i>Cochliobolus</i> ) and <i>Rhizoctonia</i> root rot	X(bunt)	X	X	X	<b>Registered on barley</b> to suppress root rots and covered smut, and control seedling blight, at a rate of 2-4 fl oz/cwt.
		4 fl oz/cwt as above, plus flag smut, early season take-all root rot	X (bunt)	X	X	X	
<b>Ethaboxam (22)</b> Intego Solo, 34.2%	Slurry or mist	0.20-0.26 fl oz/cwt			X		For control of <i>Pythium</i> .
<b>Fludioxonil (12)</b> Maxim 4FS, 40.3%	Slurry	0.08-0.16 fl oz/cwt			X		For control of seed-borne and soil-borne fungi that cause seed decay, damping off and seedling blight. Cereal forage may be grazed 30 days after planting.
	Spirato 480 FS	0.08-0.16 fl oz/cwt			X		
<b>Ipconazole (3)</b> Rancona 3.8 FS, 40.7%	Mist or slurry	0.051-0.085 fl oz/cwt	X	X	X	X	Does not control <i>Pythium</i> .
	Rancona Apex, 0.44%	Mist or slurry	5.0-8.73 fl oz/cwt	X	X	X	
	Rancona 3.8 FS, 40.7%	Slurry or mist	0.085 fl oz/cwt	X	X	X	
<b>Ipconazole (3) + Metalaxyl (4)</b> Rancona Pinnacle, 0.434%:0.57%	Mist or slurry	5.0-8.33 fl oz/cwt	X	X	X	X	Contains metalaxyl for <i>Pythium</i> control.

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## Barley-Oat-Rye-Wheat (continued) Seed Treatment

Chemical	Appl.	Dosage <sup>1</sup>	Disease Control <sup>2</sup>				Remarks
			Covered Smut	Loose Smut	Seedling <sup>3</sup> Blight	Common Root Rot	
<b>Ipconazole (3) + Metalaxyl (4) + Imidicloprid</b> Warden Cereals HR, 0.421% : 0.562% : 14.1%  Warden Cereals WR, 0.439%, 0.585%, 2.95%  Rancona Crest WR, 0.439%: 0.585%: 2.95%  Rancona Crest, 0.421%: 0.562%: 14.1%	Mist or Slurry	5.0 – 8.33 fl oz/cwt	X	X	X	X	For protection against seedling diseases and seed rot fungi, smuts, bunts, and some insects
	Mist or slurry	5.0-8.33 fl oz/cwt	X	X	X	X	
	Mist or slurry	5.0 – 8.33 fl oz/cwt	X	X	X	X	
	Mist or slurry	5.0 – 8.33 fl oz/cwt	X	X	X	X	
<b>Mefenoxam (4)</b> Apron XL, 33.3%	Mist or slurry	0.32-0.64 fl oz/cwt			X		For <i>Pythium</i> damping off control. See label for Dividend-Apron XL-LS combination.
<b>Mefenoxam (4) + Difenoconazole (3) + Thiamethoxam</b> Cruiser Maxx Cereals 0.56%:3.36%: 2.80%	Slurry	5.0 fl oz/cwt	X	X	X	X	Not registered for rye or oats. Also contains 2.80% thiamethoxam for insect control.
<b>Metalaxyl (4)</b> Allegiance FL, 28.35% Sebring 318 FS, 28.35%  Dyna-Shield, 28.35%  Belmont 2.7 FS, 28.98%	Mist or slurry	0.375-0.75 fl oz/cwt			X		For control of <i>Pythium</i> damping off only.
	Slurry	0.75 fl oz/cwt			X		
	Slurry or mist	0.75 fl oz/cwt			X		
<b>Metalaxyl (4) + Metconazole (3)</b> Metlock CT, 4.51%: 2.25%	Mist or slurry	1.0-1.5 fl oz/cwt	X	X	X	X	For control of seed-borne and soil-borne diseases.

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## Barley-Oat-Rye-Wheat (continued) Seed Treatment

Chemical	Appl.	Dosage <sup>1</sup>	Disease Control <sup>2</sup>				Remarks
			Covered Smut	Loose Smut	Seedling <sup>3</sup> Blight	Common Root Rot	
<b>Metconazole (3)</b> Metlock 40%	Mist or Slurry	0.045 – 0.09 fl oz/cwt	X	X	X	X	For control of seed-borne and soil-borne diseases.
<b>PCNB (Terraclor) (14)</b> PCNB Seed Coat, 24%	Slurry	2-4 oz/bu barley, oats 2 oz/bu wheat	X		X		Not registered for rye.
<b>Pyraclostrobin (11)</b> Stamina, 18.4%	Slurry or mist	0.4-0.8 fl oz/cwt			X		Registered for wheat, barley and rye.
<b>Pyraclostrobin (11) + Triticonazole (3) +Metalaxyl (4)</b> Stamina F <sup>3</sup> Cereals 1.59%:1.59%:0.93%	Liquid or Slurry	4.6 oz/cwt	X	X	X	X	For commercial and on-farm use. Registered for barey, oats, rye, tritcale, and wheat.
<b>Sedaxane (7)</b> Vibrance 43.7%%	Slurry	0.08-0.16 fl oz/cwt	X	X	X	X	For certain seed and seedling blight or damping off caused by certain seed and soil-borne pathogens, and certain smut diseases.
<b>Thiram (M3)</b> 42-S Thiram, 42% Signet 480 FS, 42%		2 fl oz/bu			X		Not registered for oats.
<b>Prothioconazole (3) + Penflufen (7) + Metalaxyl (4)</b> EverGol Energy 7.18% : 3.59% : 5.74%	Slurry or mist	1 fl oz/cwt	X	X	X	X	Not registered for oats or rye.

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## Barley-Oat-Rye-Wheat (continued) Seed Treatment

Chemical	Appl.	Dosage <sup>1</sup>	Disease Control <sup>2</sup>				Remarks
			Covered Smut	Loose Smut	Seedling <sup>3</sup> Blight	Common Root Rot	
<b>Tebuconazole (3) + Metalaxyl (4)</b> Sativa M RTU, 0.48%:0.64%  Sativa IM RTU 0.46%:0.615%  Sativa IM Max 0.46%:0.615%  Sativa IMF Max, 0.45%, 0.6%, 0.36%  Foothold 0.499%:0.668%  Foothold Extra 0.455%:0.67%	Slurry or mist	3.4–5 fl oz/cwt	X	X	X	X	Not registered for rye. Do not graze barley, wheat or oat green forage for 31, 31 and 51 days, respectively.
	Slurry or mist	5-6.5 fl oz/cwt	X	X	X	X	Sativa IM Max also contains 11.4% imidacloprid for insect control.
	Slurry or mist	5.0-6.5 fl oz/cwt oz/cwt	X	X	X	X	Not registered for rye.
	Slurry or mist	3.4-5.0 fl oz/cwt	X	X	X	X	Not registered for oat and rye. Do not graze for 45 days. Sativa IMF Max also contains 11.2% imidacloprid for insect control
	Slurry or mist	5.0-6.5 fl oz/cwt	X	X	X	X	Not registered for rye. Foothold Extra also contains 11.4% imidacloprid for insect control.
<b>Sedaxane (7) + Difenconazole (3) +Mefenoxam (4) + Thiamethoxam</b> Cruiser Maxx Vibrance Cereals 0.72%: 3.34% : 0.86%: 2.78%	Slurry	5 – 10 fl oz	X	X	X	X	For control of seed-borne and seed diseases of cereals and insects.

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<sup>3</sup>Seedling blights due to fungal infections of the seed such as black point and scab

## Barley-Oat-Rye-Wheat (continued) Seed Treatment

Chemical	Appl.	Dosage <sup>1</sup>	Disease Control <sup>2</sup>				Remarks
			Covered Smut	Loose Smut	Seedling <sup>3</sup> Blight	Common Root Rot	
<b>Sedaxane (7) + Difenconazole (3)+ Mefenoxam (4)</b> Vibrance Extreme 1.22%: 5.86% : 1.46%	Slurry	2.8 – 5.6 fl oz/cwt	X	X	X	X	For control of seed-borne, soil borne, and early season diseases
<b>Sedaxane (7) + Difenoconazole (3) + Mefenoxam (4) + Fludioxonil (12)</b> Vibrance Quattro, 1.45%; 3.47%; 0.87%; 0.72%	Slurry	5.0 fl oz/cwt	X	X	X	X	Ready to apply formulation for commercial or on-farm applications. For control of seed and soil-borne diseases of cereals.
<b>Sedaxane (7) + Difenoconazole (3) + Mefenoxam (4) + Fludioxonil (12) + Thiamethoxam</b> Cruiser Vibrance Quattro, 1.45%; 3.47%; 0.87%; 0.72%; 5.75%	Slurry	5.0 fl oz/cwt	X	X	X	X	Ready to apply formulation for commercial or on-farm applications. For control of seed and soil-borne diseases of cereals. Insecticide thiamethoxam for wireworm control.
<b>Tebuconazole (3) + Metalaxyl (4) + Imazalil</b> Raxil MD Extra, 0.34%:0.58%: 1.0%	Slurry or mist	5 fl oz/cwt	X	X	X	X	Not registered for rye or oats.

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## Barley-Oat-Rye-Wheat (continued) Seed Treatment

Chemical	Appl.	Dosage <sup>1</sup>	Disease Control <sup>2</sup>				Remarks
			Covered Smut	Loose Smut	Seedling <sup>3</sup> Blight	Common Root Rot	
<b>Prothioconazole (3) + Tebuconazole (3) + Metalaxyl (4)</b> Raxil Pro MD, 1.47%; 0.29%; 0.59%	Slurry or mist	5-7.5 fl oz/cwt	X	X	X	X	Registered for use on wehat, barley and triticales.
<b>Tebuconazole (3) + Metalaxyl (4) + Fludioxonil (12) + Imidacloprid</b> Foothold Virock, 0.45%; 0.60%; 0.36%; 11.16%	Slurry	3.4-5 fl oz/cwt	X	X	X	X	Not registered for rye or oats.
<b>Thiabendazole (1)</b> Mertect 340-F, 42.3%	Slurry	1.3 fl oz/cwt for seed-borne common bunt, 2.6 fl oz/cwt for soil-borne common bunt  0.17 fl oz/cwt for Fusarium seed scab	X (bunt)				For spring wheat and winter wheat. Also, controls dwarf bunt in winter wheat.
<b>Triticonazole (3)</b> Charter, 2.4%	Concentrated product	3.1 fl oz/cwt	X	X	X	X	Apply with water in a 2:1 ratio of water: Charter. Registered for wheat and barley.  Suppression of root rot.
<b>Triticonazole (3) + Metalaxyl (4)</b> Charter F2 1.32%:0.79%	RTA	5.4 fl oz/cwt	X	X	X	X	Registered for wheat and barley.
<b>Triticonazole (3) + Thiram (M3)</b> Charter PB 1:25%:12.5%	Ready to apply	5.5 fl oz/cwt	X	X	X	X	Charter PB can be used as a ready-to-apply product or in a slurry with water. Registered for wheat and barley only.

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## Barley-Oat-Rye-Wheat Foliar Sprays

Chemical (Fungicide Group)	Application <sup>1</sup>	Dosage <sup>2</sup>	Disease Control <sup>3</sup>					Remarks
			Leaf <sup>4</sup> Spot	Leaf Rust	Stem Rust	Powdery Mildew	Fusarium Head Blight	
<b>Bacillus pumilus strain QST 2808</b> BalladPLUS	Aerial sprays or fungigation	1-4 qt/A	X	X		X		Begin applications when environmental conditions and plant stage are conducive to disease development.
<b>Copper (M1)</b> Champ DP, 57.6%	Spray or fungigation	1-1.33 lb/A	X					None registered for rye.
Champ WG 77%	Spray or fungigation	1.5-2 lb/A	X					Make first application at early heading and follow with second spray 10 days later.
Champ Formula 2, Flowable, 37.5%	Spray or fungigation	1-1.33 pt/A	X					
Cuprofix Ultra 40 Disperss 71.1%	Spray or fungigation	1-1.25 lb/A	X					
Kocide 2000, DF 53.8%	Spray or fungigation	1.25-1.5 lb/A	X					Kocide 3000 can be applied as a foliar application for early season disease control and again at early heading and followed with another application 10 days later.
Kocide 3000, DF 46.1%	Spray or fungigation	0.5-0.75 lb	X					
Kocide 4.5 LF, 37.5%	Spray or fungigation	1-1.33 pt/A	X					
MasterCop, 21.46%	Spray or fungigation	0.5-1.5 pt/A	X					Make a foliar application for early season disease control and again at early heading and followed with another application 10 days later.

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<sup>4</sup>Leaf spot includes fungal leaf diseases such as tan spot, Septoria blotch and spot blotch on wheat, and spot blotch and net blot on barley.



## Barley-Oat-Rye-Wheat (continued) Foliar Sprays

Chemical (Fungicide Group)	Application <sup>1</sup>	Dosage <sup>2</sup>	Disease Control <sup>3</sup>					Remarks <sup>5</sup>
			Leaf Spot <sup>4</sup>	Leaf Rust	Stem Rust	Powdery Mildew	Fusarium Head Blight	
<b>Mancozeb (M3)</b> Dithane DF Rainshield NT, 75%	Spray or fungigation	2.1 lb/A	X	X				Do not make more than 3 applications of mancozeb. Do not apply mancozeb within 26 days of harvest. Do not graze livestock in treated areas prior to harvest. Addition of spreader/sticker will improve performance.  0.75 to 1 quart rate of Dithane F-45 or 1 lb rate Dithane DF Rainshield NT is for application at the tillering stage to barley and wheat in North Dakota, South Dakota and Minnesota; this is covered by a Section 2 (ee) label.  Penncozeb labels state control of <i>Fusarium</i> head blight as well.
Dithane F-45, 37%	Spray or fungigation	1.6 qt/A	X	X				
Dithane M-45, 80%	Spray or fungigation	2 lb/A	X	X				
Dithane WSP, 80%	Spray or fungigation	2 lb/A	X	X				
Koverall, 75%	Spray or fungigation	2 lb/A	X	X				
Manzate Flowable, 37%	Spray or fungigation	1.6 qt/A	X	X				
Manzate ProStick, 75%	Spray or fungigation	2 lb/A	X	X				
Penncozeb, 80 WP, 80%	Spray or fungigation	1-2 lb/A	X	X				
Penncozeb 75 DF, 75%	Spray or fungigation	1-2 lb/A	X	X				
Roper DF Rainshield, 75%	Spray or fungigation	2.0-lb/A	X	X				
<b>Mancozeb (M3) + Copper (M1)</b> ManKocide, 15% + 46.1%	Spray or fungigation	2-2.5 lbs/A	X					Not registered for rye. Apply at early heading and follow with second spray 10 days later. Do not apply within 26 days of harvest. Use higher rates when conditions favor disease. Do not graze livestock in treated areas prior to harvest.
<b>Penthiopyrad (7)</b> Vertisan, 20.6%	Spray or fungigation	10-24 fl oz/A	X	X	X	X (suppres sion)		Apply prior to disease development. Optimal timing is to apply at Feekes 9 (flag leaf). Do not apply more than 48 fl oz/A per season. Do not apply after Feekes 10.51 (flowering).

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<sup>4</sup>Leaf spot includes fungal leaf diseases such as tan spot, Septoria blotch and spot blotch on wheat, and spot blotch and net blot on barley.

<sup>5</sup>See fungicide resistance management statements on Pages 7-8.

## Barley-Oat-Rye-Wheat (continued) Foliar Sprays

Chemical (Fungicide Group)	Application <sup>1</sup>	Dosage <sup>2</sup>	Disease Control <sup>3</sup>					Remarks <sup>5</sup>
			Leaf Spot <sup>4</sup>	Leaf Rust	Stem Rust	Powdery Mildew	Fusarium Head Blight	
<b>Triazoles</b> <b>Cyproconazole</b> <b>(3)</b> Alto, 8.9%	Spray or fungigation	1.5-5.5 fl oz/A	X	X	X	X		For wheat and Trtitticale only. Low rate for early season leaf spot suppression. For 3.0 or 5.5 fl. oz rate, apply between Feekes 8 and 10.51. PHI = 30 day.
<b>Metconazole</b> <b>(3)</b> Caramba, 8.6%	Spray or fungigation	10-17 fl oz/A	X	X	X	X	X	Maximum of 2 applications per season. Apply 13.5-17 fl oz at early flowering for Fusarium head blight in wheat. Apply to barley for Fusarium head blight when plants are fully headed. Maximum rate per season 34 fl oz; 30-day preharvest interval.
<b>Propiconazole</b> <b>(3)</b> Tilt 3.6EC, 41.8%	Spray or fungigation	2-4 fl oz/A	X	X	X	X	X	A 2-4 fl oz/A application for early season leaf disease control. May be applied to wheat until Feekes 10.5. Do not apply more than 8 fl oz per season. The preharvest interval is 40 days in wheat. The PHI for barley, oat and rye is 45 days. The PHI for hay or forage is 7 days.
Fitness, 41.8%	Spray or fungigation	2.4 fl oz/A	X	X	X	X	X	
PropiMax EC, 41.8%	Spray or fungigation	2-4 fl oz/A	X	X	X	X	X	
Topaz 41.8%	Spray or fungigation	2-4 fl oz/A	X	X	X	X	X	
Bumper 41.8 EC 41.8%	Spray or fungigation	2-4 fl oz/A	X	X	X	X	X	
Bumper ES, 40.85%	Spray	2-4 fl oz/A	X	X	X	X	X	
Propiconazole E-AG, 41.8%								

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<sup>4</sup>Leaf spot includes fungal leaf diseases such as tan spot, Septoria blotch and spot blotch on wheat, and spot blotch and net blot on barley.

<sup>5</sup>See fungicide resistance management statements on Pages 7-8.

## Barley-Oat-Rye-Wheat (continued) Foliar Sprays

Chemical (Fungicide Group)	Application <sup>1</sup>	Dosage <sup>2</sup>	Disease Control <sup>3</sup>					Remarks <sup>5</sup>
			Leaf Spot	Leaf Rust	Stem Rust	Powdery Mildew	Fusarium Head Blight	
<b>Prothioconazole (3)</b> Proline 480 SC, 41%	Spray	4.3-5.7 fl oz/A	X	X	X	X	X	Registered for use in wheat (including durum), barley, oat and rye. Apply for <i>Fusarium</i> head blight (scab) when the main stems of barley plants are fully headed or when 15% of the main-stem plants of wheat have started flowering. Do not make more than 2 applications of Proline per year. For maximum disease control, tank mix with the lowest rate of a nonionic surfactant and then apply in 15-20 gpa by ground or 5 gpa by air. Do not apply within 32 days of barley harvest or 30 days of wheat harvest.
<b>Tebuconazole (3), 38.7%</b> Monsoon, Muscle, Onset, Orius 3.6F, Tebucon, Tebustar, Tebuzol, and Toledo	Spray	4 fl oz/A		X	X		X	For wheat and barley for suppression of <i>Fusarium</i> head blight (scab) and rust control. Do not apply more than 4 fl oz per year. Do not apply within 30 days of harvest.
<b>Prothioconazole + Tebuconazole (3)</b> Prosaro 421 SC, 19.0%:19.0%	Spray	6.5-8.2 fl oz/A	X	X	X	X	X	Registered for wheat (including durum) and barley. Prosaro has a 30-day PHI. Apply Prosaro for <i>Fusarium</i> head blight (scab) when the main stems of barley plants are fully headed or when 15% of the main stem plants of wheat have started flowering. Do not apply more than 8.2 oz of Prosaro per year.
<b>Qols Azoxystrobin (11)</b> Quadris, 22.9% Satori, 22.9% Equation, 22.9%	Spray or fungigation	6.0-12.0 fl oz/A (12.0 fl oz/A, powdery mildew)	X	X	X	X		Resistance statement 5 <sup>5</sup> Wheat and barley. Application may be made up to late head emergence (Feekes 10.5). PHI = 45 days for wheat.
<b>Pyraclostrobin (11)</b> Headline EC, 23.6%  Headline SC, 23.3%	Spray or fungigation	6-9 fl oz/A	X	X	X	X		Not registered for oats. Apply no later than 50% head emergence for barley and rye. A sec. 2 (ee) allows early application at 3 fl oz/A on wheat and barley. Registered for up to full head emergence (Feekes 10.5) for wheat. No more than 2 applications per season. Apply prior to disease onset.

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<sup>4</sup>Leaf spot includes fungal leaf diseases such as tan spot, Septoria blotch and spot blotch on wheat, and spot blotch and net blot on barley.

<sup>5</sup>See fungicide resistance management statements on Pages 7-8.

## Barley-Oat-Rye-Wheat (continued) Foliar Sprays

Chemical (Fungicide Group)	Applica- tion <sup>1</sup>	Dosage <sup>2</sup>	Disease Control <sup>3</sup>					Remarks
			Leaf Spot <sup>4</sup>	Leaf Rust	Stem Rust	Powdery Mildew	Fusarium Head Blight	
<b>Fluoxastrobin (11)</b> Evito 480SC, 40.3%	Spray or fungigation	2.0-4 fl oz/A	X	X	X	X		Do not apply more than 11.4 fl oz/yr. Begin applications preventively and continue as needed on a 14- to 21-day interval. Apply from Feekes 5 up to late head emergence (Feekes 10.5).
<b>Picoxystrobin (11)</b> Aproach, 22.5%	Spray or fungigation	3.0-6.0 fl oz/A	X	X	X	X		Early season application at 3-4 fl oz/A can be made for early season leaf disease control. Apply no later than Feekes 10.5. Do not apply more than 36 fl oz/A per season. PHI = 45 days for wheat, 7 days for forage, and 14 days for hay.
<b>QoI + SDHI</b>  <b>Fluxapyroxad (7) + Pyraclostrobin (11)</b> Priaxor 14.33% : 28.58%	Spray or fungigation	4-8 fl oz/A	X	X	X	X		Resistant statement 5 <sup>5</sup> & 6 <sup>5</sup> For barley and oats. Apply later than 50% head emergence (Feekes 10.3). For wheat, rye and triticale, apply no later than beginning of flowering
<b>QoIs + Triazoles</b>  <b>Trifloxystrobin (11) + Propiconazole (3)</b> Stratego 11.4%:11.4%	Spray or fungigation	10 fl oz/A (wheat)  7 fl oz/A (barley, oat)	X	X	X	X		Resistance statement 5 <sup>5</sup> & 3 <sup>5</sup> . Stratego not registered for rye. Apply Stratego at 4-7 fl oz/A in barley and 4-10 fl oz/A in wheat for early season diseases. Do not apply Stratego after Feekes stage 8 (emergence of flag leaf ligule) in barley or 10.5 (full head emergence) in wheat. Do not exceed 2 applications of Stratego or 20 fl oz/season. PHI = 32 days in wheat, 40 days in barley.
<b>Pyraclostrobin (11) + Metconazole (3)</b> Twinline 12.0%:7.4%	Spray or fungigation	7-9 fl oz/A	X	X	X	X		Apply Twinline immediately after flag leaf emergence and before flowering. Apply prior to disease development to ensure maximum disease protection PHI = 30 days.

<sup>1</sup>Spray = ground or aerial; Fungigation = application through sprinkler irrigation system.

<sup>2</sup>Dosage = amount of formulated product to apply.

<sup>3</sup>X = product labeled for crop and disease; Blank = product not labeled for specific disease.

<sup>4</sup>Leaf spot includes fungal leaf diseases such as tan spot, Septoria blotch and spot blotch on wheat, and spot blotch and net blot on barley.

<sup>5</sup>See fungicide resistance management statements on Pages 7-8.

## Barley-Oat-Rye-Wheat (continued) Foliar Sprays

Chemical (Fungicide Group)	Applica- tion <sup>1</sup>	Dosage <sup>2</sup>	Disease Control <sup>3</sup>					Remarks <sup>5</sup>
			Leaf Spot <sup>4</sup>	Leaf Rust	Stem Rust	Powdery Mildew	Fusarium Head Blight	
<b>Picoxystrobin (11) + Cyproconazole (3)</b> Approach Prima, 17.94%: 7.17%	Spray or fungigation	3.4-6.8 fl oz/A	X	X	X	X		Apply at 3.4 fl oz/A for early season disease suppression. For optimal results, apply at Feekes 9 (flag leaf). Do not exceed 6.8 fl oz/A per season and no more than 2 sequential applications of a picoxystrobin containing product. PHI = 45 days for cereals, 21 days for forage or hay.
<b>Azoxystrobin (11) + Propiconazole (3)</b> Quilt 7.0%: 11.7%	Spray or fungigation	7-14 fl oz/A	X	X	X	X		For wheat, barley and triticale. May be tank mixed with Axial and Discover herbicides. Quilt or Quilt Xcel also can be applied at 7 fl oz/A for early season disease control. Both may be applied through full head emergence (Feekes 10.5) for wheat; 45 days PHI for barley and triticale and 7 day PHI for forage or hay.
Quilt Xcel 13.5%:11.7%	Spray or fungigation	7-14 fl oz/A	X	X	X	X		
<b>Azoxystrobin (11) + Tebuconazole (3)</b> Custodia, 11.0%; 18.35%	Spray or fungigation	6.4-8.6 fl oz/A	X	X	X	X		For wheat and barley. Apply prior to disease development up to late head emergence. Do not exceed 8.6 fl oz/A per season. PHI = 45 days for wheat and barley, 14 days for forage or hay.
<b>Sulfur (M)</b> Sulfur DF, 80%	Spray	6-15lb/A				X		Do not apply when temperatures are high (above 90 F). For powdery mildew only.

<sup>1</sup>Spray = ground or aerial; Fungigation = application through sprinkler irrigation system.

<sup>2</sup>Dosage = amount of formulated product to apply.

<sup>3</sup>X = product labeled for crop and disease; Blank = product not labeled for specific disease.

<sup>4</sup>Leaf spot includes fungal leaf diseases such as tan spot, Septoria blotch and spot blotch on wheat, and spot blotch and net blot on barley.

<sup>5</sup>See fungicide resistance management statements on Pages 7-8.