

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Endura: boscalid (FRAC 7)								COMBINED ANALYSIS
year	2023	2024	2024	2024	2024	2024	2024	
location	Carrington	Carrington	Carrington	Carrington	Carrington	Carrington	Carrington	
funding	BASF	BASF	BASF	BASF	Corteva	BASF	BASF	
variety	21Xf07	XO0602E	P064T04E	AG07XF2	P08A44E	PFS 23XF09	PFS 23XF09	
brand, maturity	Peterson Farms, 0.7	Kitavo, 0.6	Pioneer, 0.6	Asgrow, 0.7	Pioneer, 0.8	Peterson Farms, 0.9	Peterson Farms, 0.9	
row spacing	14 inches	14 inches	14 inches	14 inches	15 inches	14 inches	14 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	140,000 pls/ac	140,000 pls/ac	140,000 pls/ac	
previous crop	chickpeas	dry edible beans	dry edible beans	dry edible beans	sunflowers	fabo beans	field peas	
planting date	May 24	May 15	May 15	May 15	May 16	May 10	May 11	
disease assessment date	Oct. 12	Oct. 1	Oct. 1-2	Oct. 2	Oct. 9	Oct. 17	Oct. 21	7 studies
rows assessed for disease	1	1	1	1	2	1	1	
harvest date	Oct. 17	Oct. 4	Oct. 4	Oct. 4	Oct. 14	Oct. 17	Oct. 23	
dates, applications 1 and 2	July 22, Aug. 2	July 23, July 30	July 23, July 30	July 23, July 30	July 24, July 31	July 24, Aug. 2	July 24, Aug. 2	
interval between applications	11 days	7 days	7 days	7 days	7 days	9 days	9 days	
growth stage, 1st applic.	100% R2	100% R2	100% R2	100% R2	100% R2	100% R2	100% R2	
canopy closure, 1st applic	98-100%	90-95%	90-95%	90-95%	75-90%	85-95%	85-95%	
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	
droplet size, 1st applic.	medium-coarse	medium	medium	medium	medium	medium	medium	
canopy closure, 2nd applic.	100%	99-100%	99-100%	99-100%	90-98%	99-100%	99-100%	
nozzles, pressure, 2nd applic.	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	Two sequential applications of the same fungicide
droplet size, 2nd applic.	coarse	coarse	coarse	coarse	coarse	coarse	coarse	
adjuvant	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Induce, 0.25% v/v	none	none	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	
White mold incidence (% of plants)								White mold (% plants)
Non-treated control	54 b	86 b	83 b	92 b	46 b	39 b	20 b	60 b
Endura 6 oz/ac	33 ab	67 a	44 a	69 a	16 a	8 a	3 a	34 a
Endura 8 oz/ac	28 a	60 a	44 a	71 a	9 a	7 a	1 a	31 a
CV:	35.6	9.3	16.1	8.5	14.9	29.6	44	11
White mold severity index (% of canopy)								White mold (% canopy)
Non-treated control	31 b	70 b	68 b	83 b	20 b	20 b	10 b	43 b
Endura 6 oz/ac	18 ab	48 a	32 a	54 a	5 a	4 a	1 a	23 a
Endura 8 oz/ac	11 a	43 a	31 a	57 a	3 a	4 a	0 a	21 a
CV:	47.4	13.9	18.2	10.7	22.6	34.9	72	19.1
Soybean yield (bu/ac; 13% moisture)								Yield (bu/ac)
Non-treated control	50 a	28 b	28 b	16 b	53 a	63 a	64 a	43 b
Endura 6 oz/ac	50 a	46 a	42 a	34 a	58 a	65 a	66 a	52 a
Endura 8 oz/ac	62 a	49 a	46 a	34 a	62 a	66 a	67 a	55 a
CV:	15	10.2	7.2	13.7	7.9	5	7	9.3

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Endura: boscalid (FRAC 7) **Delaro Complete:** fluopyram (FRAC 7), prothioconazole (FRAC 3), trifloxystrobin (FRAC 11)

year	2021	2021	2022	2023	2024	2024	COMBINED ANALYSIS 6 studies Endura 6 oz/ac versus Delaro Complete 8 fl oz/ac Two sequential applications of the same fungicide
location	Carrington	Carrington	Carrington	Carrington	Carrington	Carrington	
funding	BASF	Gowan	BASF	BASF	Corteva	BASF	
variety	DSR-0807	DSR-0807	AG09Xf0	21Xf07	P08A44E	PFS 23XF09	
brand, maturity	Dairyland, 0.8	Dairyland, 0.8	Asgrow, 0.9	Peterson Farms, 0.7	Pioneer, 0.8	Peterson Farms, 0.9	
row spacing	21 inches	21 inches	14 inches	14 inches	15 inches	14 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	140,000 pls/ac	140,000 pls/ac	
previous crop	spring wheat	spring wheat	dry bean	chickpeas	sunflowers	fab beans	
planting date	May 12	May 12	May 27	May 24	May 16	May 10	
disease assessment date	Oct. 4	Oct. 4	Oct. 19	Oct. 12	Oct. 9	Oct. 17	
rows assessed for disease	1	1	1	1	2	1	
harvest date	Oct. 6	Oct. 7	Oct. 21	Oct. 17	Oct. 14	Oct. 17	
dates, applications 1 and 2	July 26, Aug. 6	July 26, Aug. 6	July 23, Aug. 1	July 22, Aug. 2	July 24, July 31	July 24, Aug. 2	
interval between applications	11 days	11 days	9 days	11 days	7 days	9 days	
growth stage, 1st applic.	R3	R3	100% R2	100% R2	100% R2	100% R2	
canopy closure, 1st applic	100%	100%	99-100%	98-100%	75-90%	85-95%	
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	
droplet size, 1st applic.	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium	medium	
canopy closure, 2nd applic.	100%	100%	100%	100%	90-98%	99-100%	
nozzles, pressure, 2nd applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	
droplet size, 2nd applic.	medium-coarse	medium-coarse	medium-coarse	coarse	coarse	coarse	
adjuvant	Masterlock 6.4 fl oz/ac	Induce 0.25%, some trea	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Induce, 0.25% v/v	none	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	

Endura applied at 6.12 oz/ac

White mold incidence (% of plants) White mold (% plants)

Non-treated control	42 a	35 a	82 b	54 a	46 b	39 b	50 b
Endura 6 oz/ac	36 a	20 a	53 a	33 a	16 a	8 a	28 a
Delaro Complete 8 fl oz/ac	21 a	20 a	41 a	38 a	24 ab	6 a	25 a
CV:	38.8	20.3	14.4	35.6	14.9	29.6	20.6

White mold severity index (% of canopy) White mold (% canopy)

Non-treated control	27 a	23 a	70 b	31 a	20 b	20 b	32 b
Endura 6 oz/ac	19 a	12 a	40 a	18 a	5 a	4 a	16 a
Delaro Complete 8 fl oz/ac	9 a	12 a	31 a	20 a	8 ab	4 a	14 a
CV:	25	26.9	17.5	47.4	22.6	34.9	29.2

Soybean yield (bu/ac; 13% moisture) Yield (bu/ac)

Non-treated control	51 a	56 a	25 b	50 a	53 a	63 a	50 b
Endura 6 oz/ac	55 a	62 a	42 a	50 a	58 a	65 a	55 ab
Delaro Complete 8 fl oz/ac	60 a	61 a	47 a	53 a	61 a	67 a	58 a
CV:	13	9	10.7	15	7.9	5	6.8

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Endura: boscalid (FRAC 7) **Delaro Complete:** fluopyram (FRAC 7), prothioconazole (FRAC 3), trifloxystrobin (FRAC 11)

year	2023	2023	2024	2024	2024	COMBINED ANALYSIS 5 studies Endura 8 oz/ac versus Delaro Complete 8 fl oz/ac Two sequential applications of the same fungicide
location	Carrington	Carrington	Carrington	Carrington	Carrington	
funding	Corteva	BASF	Corteva	Corteva	BASF	
variety	P06T04E	21XF07	P08A44E	P08A44E	PFS 23XF09	
brand, maturity	Pioneer, 0.6	Peterson Farms, 0.7	Pioneer, 0.8	Pioneer, 0.8	Peterson Farms, 0.9	
row spacing	14 inches	14 inches	15 inches	15 inches	14 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	140,000 pls/ac	140,000 pls/ac	140,000 pls/ac	
previous crop	chickpeas	chickpeas	sunflowers	sunflowers	fab beans	
planting date	May 24	May 24	May 16	May 16	May 10	
disease assessment date	Oct. 12	Oct. 12	Oct. 8-9	Oct. 9	Oct. 17	
rows assessed for disease	1	1	2	2	1	
harvest date	Oct. 17	Oct. 17	Oct. 14	Oct. 14	Oct. 17	
dates, applications 1 and 2	July 22, Aug. 2	July 22, Aug. 2	July 24, July 31	July 24, July 31	July 24, Aug. 2	
interval between applications	11 days	11 days	7 days	7 days	9 days	
growth stage, 1st applic.	100% R2	100% R2	100% R2	100% R2	100% R2	
canopy closure, 1st applic	95-100%	98-100%	75-90%	75-90%	85-95%	
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	
droplet size, 1st applic.	medium-coarse	medium-coarse	medium	medium	medium	
canopy closure, 2nd applic.	100%	100%	90-98%	90-98%	99-100%	
nozzles, pressure, 2nd applic.	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	
droplet size, 2nd applic.	coarse	coarse	coarse	coarse	coarse	
adjuvant	Induce, 0.125% v/v	Masterlock, 6.4 fl oz/ac	Induce, 0.25% v/v	Induce, 0.25% v/v	none	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	

White mold incidence (% of plants) White mold (% plants)

Non-treated control	50 b	54 b	85 b	46 b	39 b	55 c
Delaro Complete 8 fl oz/ac	25 a	38 ab	52 a	24 ab	6 a	29 b
Endura 8 oz/ac	17 a	28 a	43 a	9 a	7 a	21 a
CV:	33.7	35.6	14.4	14.9	29.6	13.1

White mold severity index (% of canopy) White mold (% canopy)

Non-treated control	31 b	31 b	47 b	20 b	20 b	30 b
Delaro Complete 8 fl oz/ac	14 a	20 ab	26 a	8 ab	4 a	14 a
Endura 8 oz/ac	7 a	11 a	17 a	3 a	4 a	9 a
CV:	49.2	47.4	27.3	22.6	34.9	

Soybean yield (bu/ac; 13% moisture) Yield (bu/ac)

Non-treated control	56 b	50 a	39 b	53 a	63 a	52 b
Delaro Complete 8 fl oz/ac	59 ab	53 a	55 a	61 a	67 a	59 a
Endura 8 oz/ac	63 a	62 a	56 a	62 a	66 a	62 a
CV:	6.8	15	10.6	7.9	5	6.1

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Endura: boscalid (FRAC 7) ProPulse: fluopyram (FRAC 7) + prothioconazole (FRAC 3)							COMBINED ANALYSIS
year	2022	2023	2024	2024	2024	2024	
location	Carrington	Carrington	Carrington	Carrington	Carrington	Carrington	6 studies
funding	BASF	BASF	BASF	BASF	BASF	Corteva	
variety	AG09Xf0	21Xf07	XO0602E	P064T04E	AG07XF2	P08A44E	
brand, maturity	Asgrow, 0.9	Peterson Farms, 0.7	Xitavo, 0.6	Pioneer, 0.6	Asgrow, 0.7	Pioneer, 0.8	
row spacing	14 inches	14 inches	14 inches	14 inches	14 inches	15 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	140,000 pls/ac	
previous crop	dry bean	chickpeas	dry edible beans	dry edible beans	dry edible beans	sunflowers	
planting date	May 27	May 24	May 15	May 15	May 15	May 16	
disease assessment date	Oct. 19	Oct. 12	Oct. 1	Oct. 1-2	Oct. 2	Oct. 9	
rows assessed for disease	1	1	1	1	1	2	
harvest date	Oct. 21	Oct. 17	Oct. 4	Oct. 4	Oct. 4	Oct. 14	Two sequential applications of the same fungicide
dates, applications 1 and 2	July 23, Aug. 1	July 22, Aug. 2	July 23, July 30	July 23, July 30	July 23, July 30	July 24, July 31	
interval between applications	9 days	11 days	7 days	7 days	7 days	7 days	
growth stage, 1st applic.	100% R2	100% R2	100% R2	100% R2	100% R2	100% R2	
canopy closure, 1st applic	99-100%	98-100%	90-95%	90-95%	90-95%	75-90%	
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	
droplet size, 1st applic.	medium-coarse	medium-coarse	medium	medium	medium	medium	
canopy closure, 2nd applic.	100%	100%	99-100%	99-100%	99-100%	90-98%	
nozzles, pressure, 2nd applic.	AIXR110015, 50 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	
droplet size, 2nd applic.	medium-coarse	coarse	coarse	coarse	coarse	coarse	
adjuvant	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Induce, 0.25% v/v	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	
White mold incidence (% of plants)							White mold (% plants)
Non-treated control	82 b	54 a	86 b	83 c	92 b	46 b	74 b
Endura 6 oz/ac	53 a	33 a	67 a	44 a	69 a	16 a	47 a
ProPulse 6 fl oz/ac	49 a	35 a	70 a	59 b	75 a	27 ab	52 a
CV:	14.4	35.6	9.3	16.1	8.5	14.9	8.4
White mold severity index (% of canopy)							White mold (% canopy)
Non-treated control	70 b	31 a	70 b	68 c	83 b	20 b	57 b
Endura 6 oz/ac	40 a	18 a	48 a	32 a	54 a	5 a	33 a
ProPulse 6 fl oz/ac	35 a	18 a	52 a	46 b	63 a	12 ab	38 a
CV:	17.5	47.4	13.9	18.2	10.7	22.6	13.9
Soybean yield (bu/ac; 13% moisture)							Yield (bu/ac)
Non-treated control	25 b	50 a	28 b	28 b	16 b	53 a	33 b
Endura 6 oz/ac	42 a	50 a	46 a	42 a	34 a	58 a	45 a
ProPulse 6 fl oz/ac	43 a	56 a	43 a	40 a	29 a	55 a	44 a
CV:	10.7	15	10.2	7.2	13.7	7.9	10.3

Comparative fungicide efficacy: Management of white mold in soybeans
North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Endura: boscalid (FRAC 7) Topsin/T-methyl: thiophanate-methyl (FRAC 1)										
year	2021	2021	2021	2021	2021	2022	2022	2022	2022	HIGH DISEASE PRESSURE COMBINED ANALYSIS 9 studies
location	Oakes	Oakes	Oakes	Carrington	Carrington	Carrington	Carrington	Carrington	Carrington	
funding	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	
variety	AG06X8	AG09XF0	AG11X8	AG06X8	AG09XF0	AG06X8	XO0602E	XO0731E	AG09XF0	
brand, maturity	Asgrow, 0.6	Asgrow, 0.9	Asgrow, 1.1	Asgrow, 0.6	Asgrow, 0.9	Asgrow, 0.6	Xitavo, 0.6	Xitavo, 0.7	Asgrow, 0.9	
row spacing	21 inches	21 inches	21 inches	14 inches	14 inches	14 inches	14 inches	14 inches	14 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	
previous crop	various crops	various crops	various crops	sunflowers	sunflowers	dry bean	dry bean	dry bean	dry bean	
planting date	May 4	May 4	May 4	May 17	May 17	May 27	May 27	May 27	May 27	
disease assessment date	Sept. 30	Sept. 30	Sept. 30	Oct. 4-5	Oct. 4-5	Oct. 14-19	Oct. 14-19	Oct. 14-19	Oct. 14-19	
rows assessed for disease	1	1	1	1	1	1	1	1	1	Endura 5.5 oz/ac applied twice sequentially versus Topsin/T-methyl 40 fl oz/ac followed by Endura 5.5 oz/ac
harvest date	Oct. 7-8	Oct. 7-8	Oct. 7-8	Oct. 15-16	Oct. 15-16	Oct. 21	Oct. 20	Oct. 20	Oct. 20	
dates, applications 1 and 2	July 5, 12	July 5, 12	July 5, 19	July 23, 30	July 23, 30	July 21, 28	July 21, 28	July 21, 28	July 21, 28	
interval between applications	7 days	7 days	14 days	7 days	7 days	7 days	7 days	7 days	7 days	
growth stage, 1st applic.	81% R2 100% bloom	66% R2 100% bloom	70% R2 100% bloom	100% R2	100% R2	100% R2	100% R2	98% R2 100% bloom	100%R2	
canopy closure, 1st applic	90-100%	95-100%	95-100%	95-100%	95-100%	99-100%	95%	98-100%	97-100%	
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	
droplet size, 1st applic.	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	
canopy closure, 2nd applic.	100%	100%	100%	100%	100%	100%	100%	100%	100%	
nozzles, pressure, 2nd applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	
droplet size, 2nd applic.	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	
adjuvant	none	none	none	none	none	none	none	none	none	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	
White mold incidence (% of plants)										White mold (% plants)
Non-treated control	55 a	43 b	51 b	77 b	62 b	92 b	80 b	91 b	79 b	70 b
Endura 5.5 oz f.b. Endura 5.5 oz/ac	38 a	12 a	17 a	34 a	19 a	67 a	55 a	71 a	71 a	43 a
Topsin 40 fl oz f.b. Endura 5.5 oz/ac	38 a	24 a	29 a	62 b	36 a	65 a	54 a	66 a	59 a	48 a
CV:	29.9	38.4	37.4	27.9	32	13	13.2	11.3	12.9	13.8
White mold severity index (% of canopy)										White mold (% canopy)
Non-treated control	38 a	29 b	34 b	49 b	37 b	86 b	72 b	84 b	70 b	55 b
Endura 5.5 oz f.b. Endura 5.5 oz/ac	27 a	8 a	10 a	17 a	6 a	55 a	44 a	58 a	58 a	31 a
Topsin 40 fl oz f.b. Endura 5.5 oz/ac	29 a	16 a	16 a	37 b	15 a	54 a	44 a	54 a	43 a	34 a
CV:	36.2	52.1	17.1	39.4	49	15.3	16.5	13	15.5	15.5
Soybean yield (bu/ac; 13% moisture)										Yield (bu/ac)
Non-treated control	60 a	67 a	68 b	42 b	41 a	25 b	29 b	21 b	25 b	42 b
Endura 5.5 oz f.b. Endura 5.5 oz/ac	67 a	76 a	85 a	59 a	58 a	47 a	47 a	38 a	38 a	57 a
Topsin 40 fl oz f.b. Endura 5.5 oz/ac	65 a	73 a	82 a	48 b	53 a	43 a	44 a	40 a	42 a	54 a
CV:	14.7	8	11.5	9.1	9	12.1	10.6	13.3	10.6	6.8

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Endura: boscalid (FRAC 7) **Topsin/T-methyl:** thiophanate-methyl (FRAC 1)

year	2021	2022	2022	2022	LOW DISEASE PRESSURE
location	Carrington	Oakes	Oakes	Oakes	
funding	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	
variety	AG009X8	DSR1120	AG11X8	AG09Xf0	
brand, maturity	Asgrow, 0.09	Dairyland, 1.1	Asgrow, 1.1	Asgrow, 0.9	COMBINED ANALYSIS
row spacing	14 inches	14 inches	14 inches	14 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	
previous crop	sunflowers	various	various	various	
planting date	May 17	June 2	June 2	June 2	4 studies
disease assessment date	Oct. 4-5	Oct. 21	Oct. 21	Oct. 21	
rows assessed for disease	1	1	1	1	
harvest date	Oct. 15-16	Oct. 21-22	Oct. 21-22	Oct. 21-22	
dates, applications 1 and 2	July 23, 30	July 24, Aug. 5	July 24, Aug. 5	July 24, Aug. 3	Endura 5.5 oz/ac applied twice sequentially versus Topsin/T-methyl 5.5 40 fl oz/ac followed by Endura 5.5 oz/ac
interval between applications	7 days	12 days	12 days	10 days	
growth stage, 1st applic.	100% R2	100% R2	100% R2	100% R2	
canopy closure, 1st applic	90-95%	95-100%	95-100%	95-100%	
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	Endura 5.5 oz/ac applied twice sequentially versus Topsin/T-methyl 5.5 40 fl oz/ac followed by Endura 5.5 oz/ac
droplet size, 1st applic.	medium-coarse	medium-coarse	medium-coarse	medium-coarse	
canopy closure, 2nd applic.	100%	100%	100%	100%	
nozzles, pressure, 2nd applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	
droplet size, 2nd applic.	medium-coarse	medium-coarse	medium-coarse	medium-coarse	Endura 5.5 oz/ac applied twice sequentially versus Topsin/T-methyl 5.5 40 fl oz/ac followed by Endura 5.5 oz/ac
adjuvant	none	none	none	none	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	

White mold incidence (% of plants) White mold (% plants)

Non-treated control	8 b	3 a	12 a	8 a	8 b
Endura 5.5 oz f.b.	2 a	2 a	4 a	3 a	3 a
Endura 5.5 oz/ac					
Topsin 40 fl oz f.b.	3 a	1 a	3 a	2 a	2 a
Endura 5.5 oz/ac					
CV:	91.7	105.9	78.5	73.2	40.5

White mold severity index (% of canopy) White mold (% canopy)

Non-treated control	4 b	1 a	5 a	3 a	3 b
Endura 5.5 oz f.b.	1 a	1 a	1 a	1 a	1 a
Endura 5.5 oz/ac					
Topsin 40 fl oz f.b.	1 a	0 a	1 a	1 a	1 a
Endura 5.5 oz/ac					
CV:	117.1	133.6	98.2	84.8	24.5

Soybean yield (bu/ac; 13% moisture) Yield (bu/ac)

Non-treated control	58 a	67 a	73 a	71 a	67 b
Endura 5.5 oz f.b.	58 a	68 a	76 a	70 a	68 a
Endura 5.5 oz/ac					
Topsin 40 fl oz f.b.	58 a	68 a	79 a	69 a	68 a
Endura 5.5 oz/ac					
CV:	6.1	4.8	5.8	4.8	2.4

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Endura: boscalid (FRAC 7) **Topsin/T-methyl:** thiophanate-methyl (FRAC 1)

year	2020	2020	2020	2024	COMBINED ANALYSIS 4 studies Endura 5.5 or 6.0 oz/ac versus Topsin / T-methyl 20 fl oz/ac Two sequential applications of the same fungicide	2023
location	Oakes	Oakes	Carrington	Carrington		Carrington
funding	ND Soybean Council	ND Soybean Council	ND Soybean Council	Corteva		ND Soybean Council
variety	GH0543X	14R09N	14R09N	P08A44E		21Xf07
brand, maturity	Golden Harvest, 0.5	Peterson Farms, 0.9	Peterson Farms, 0.9	Pioneer, 0.8		Peterson Farms, 0.7
row spacing	22.5 inches	22.5 inches	21 inches	15 inches		14 inches
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	140,000 pls/ac		165,000 pls/ac
previous crop	sunflowers	sunflowers	dry bean	sunflowers		chickpeas
planting date	May 12	May 12	May 18	May 16		May 24-25
disease assessment date	Aug. 26. 28	Sept. 25	Oct. 12-15	Oct. 9		Oct. 12-13
rows assessed for disease	1	1	1	2		1
harvest date	Oct. 8-9	Oct. 8-9	Oct. 15-16	Oct. 14		Oct. 17
dates, applications 1 and 2	July 8, 15	July 8, 15	July 10, 20	July 24, July 31		July 22, Aug. 2
interval between applications	7 days	7 days	10 days	7 days		11 days
growth stage, 1st applic.	65% R2, 35% R3	79% R2, 21% R3	89% R2, 100% bloom	100% R2		100% R2
canopy closure, 1st applic	91% average	87% average	87% average	75-90%		98-100%
nozzles, pressure, 1st applic.	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi		AIXR110015, 50 psi
droplet size, 1st applic.	medium	medium	medium	medium		medium-coarse
canopy closure, 2nd applic.	95% average	94% average	98% average	90-98%		100%
nozzles, pressure, 2nd applic.	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi		AIXR110015, 40 psi
droplet size, 2nd applic.	coarse	coarse	coarse	coarse		coarse
adjuvant	none	none	none	Induce, 0.25% v/v		none
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac		15 gal/ac
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom		hand-held boom
	Endura 5.5 oz/ac	Endura 5.5 oz/ac	Endura 5.5 oz/ac	Endura 6.0 oz/ac		

White mold incidence (% of plants)					White mold (% plants)	
Non-treated control	4 b	2 b	18 b	46 b	18 b	79 b
Endura 5.5 or 6.0 oz/ac	1 a	0 a	6 a	16 a	6 a	NOT TESTED
Topsin/T-methyl 20 fl oz/ac	3 ab	3 b	11 ab	31 ab	12 b	68 a
CV:	55.1	45.6	43.5	14.9	9.1	12.6

White mold severity index (% of canopy)					White mold (% canopy)	
Non-treated control	2 b	1 b	11 b	20 b	19 b	60 b
Endura 5.5 or 6.0 oz/ac	0 a	0 a	3 a	5 a	2 a	NOT TESTED
Topsin/T-methyl 20 fl oz/ac	1 ab	1 b	7 ab	12 ab	14 b	47 a
CV:	45.9	48.8	53.0	22.6	14.5	15.4

Soybean yield (bu/ac; 13% moisture)					Yield (bu/ac)	
Non-treated control	77 a	76 a	53 a	53 a	58 b	32 a
Endura 5.5 or 6.0 oz/ac	77 a	79 a	57 a	58 a	68 a	NOT TESTED
Topsin/T-methyl 20 fl oz/ac	79 a	76 a	55 a	57 a	62 b	40 a
CV:	3.5	3.8	6.8	7.9	2.2	17

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Miravis Neo: pydiflumetofen (FRAC 7), azoxystrobin (FRAC 11), propiconazole (FRAC 3) **Headline:** pyraclostrobin (FRAC 11) **Endura:** boscalid (FRAC 7)

Delaro Complete: fluopyram (FRAC 7), trifloxystrobin (FRAC 11), prothioconazole (FRAC 3) **Revytek:** mefentrifluconazole (FRAC 3)

year	2021	2022	2024	COMBINED ANALYSIS 3 studies Miravis Neo 13.7 fl oz vs. other products Two sequential applications of the same fungicide
location	Carrington	Carrington	Carrington	
funding	Gowan	BASF	Corteva	
variety	DSR-0807	AG09Xf0	P08A44E	
brand, maturity	Dairyland, 0.8	Asgrow, 0.9	Pioneer, 0.8	
row spacing	21 inches	14 inches	15 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	140,000 pls/ac	
previous crop	spring wheat	dry bean	sunflowers	
planting date	May 12	May 27	May 16	
disease assessment date	Oct. 4	Oct. 19	Oct. 9	
rows assessed for disease	1	1	2	
harvest date	Oct. 7	Oct. 21	Oct. 14	
dates, applications 1 and 2	July 26, Aug. 6	July 23, Aug. 1	July 24, July 31	
interval between applications	11 days	9 days	7 days	
growth stage, 1st applic.	R3	100% R2	100% R2	
canopy closure, 1st applic	100%	99-100%	75-90%	
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 60 psi	
droplet size, 1st applic.	medium-coarse	medium-coarse	medium	
canopy closure, 2nd applic.	100%	100%	90-98%	
nozzles, pressure, 2nd applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 40 psi	
droplet size, 2nd applic.	medium-coarse	medium-coarse	coarse	
adjuvant	Induce 0.25%, some tre:	Masterlock, 6.4 fl oz/ac	Induce, 0.25% v/v	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	
White mold incidence (% of plants)				White mold (% plants)
Non-treated control	35 a	82 c	46 b	54 c
Revytek 8 fl oz/ac	33 a	67 b	51 b	50 bc
Miravis Neo 13.7 fl oz/ac	23 a	68 bc	50 b	47 abc
Endura 6 oz/ac	20 a	53 ab	16 a	30 ab
Delaro Complete 8 fl oz/ac	20 a	41 a	24 ab	28 a
CV:	20.3	14.4	14.9	19
White mold severity index (% of canopy)				White mold (% canopy)
Non-treated control	23 a	70 c	20 b	38 b
Revytek 8 fl oz/ac	21 a	51 b	26 b	33 ab
Miravis Neo 13.7 fl oz/ac	14 a	56 bc	20 b	30 ab
Endura 6 oz/ac	12 a	40 ab	5 a	19 a
Delaro Complete 8 fl oz/ac	12 a	31 a	8 ab	17 a
CV:	26.9	17.5	22.6	23.9
Soybean yield (bu/ac; 13% moisture)				Yield (bu/ac)
Non-treated control	56 a	25 c	53 a	45 b
Revytek 8 fl oz/ac	57 a	33 c	55 a	48 ab
Miravis Neo 13.7 fl oz/ac	64 a	34 bc	55 a	51 ab
Endura 6 oz/ac	62 a	42 ab	58 a	54 ab
Delaro Complete 8 fl oz/ac	61 a	47 a	61 a	56 a
CV:	9	10.7	7.9	6.6

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Viatude: picoxystrobin (FRAC 11) + prothioconazole (FRAC 3) **Endura:** boscalid (FRAC 7)

year	2024	2024	2024	2024	COMBINED ANALYSIS 4 studies Viatude 16 fl oz/ac vs. Endura 6 or 8 oz/ac Two sequential applications of the same fungicide
location	Carrington	Carrington	Carrington	Carrington	
funding	BASF	BASF	BASF	BASF	
variety	XO0602E	P064T04E	AG07XF2	PFS 23XF09	
brand, maturity	XiTavo, 0.6	Pioneer, 0.6	Asgrow, 0.7	Peterson Farms, 0.9	
row spacing	14 inches	14 inches	14 inches	14 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	140,000 pls/ac	
previous crop	dry edible beans	dry edible beans	dry edible beans	field peas	
planting date	May 15	May 15	May 15	May 11	
disease assessment date	Oct. 1	Oct. 1-2	Oct. 2	Oct. 21	
rows assessed for disease	1	1	1	1	
harvest date	Oct. 4	Oct. 4	Oct. 4	Oct. 23	
dates, applications 1 and 2	July 23, July 30	July 23, July 30	July 23, July 30	July 24, Aug. 2	
interval between applications	7 days	7 days	7 days	9 days	
growth stage, 1st applic.	100% R2	100% R2	100% R2	100% R2	
canopy closure, 1st applic	90-95%	90-95%	90-95%	85-95%	
nozzles, pressure, 1st applic.	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	
droplet size, 1st applic.	medium	medium	medium	medium	
canopy closure, 2nd applic.	99-100%	99-100%	99-100%	99-100%	
nozzles, pressure, 2nd applic.	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	
droplet size, 2nd applic.	coarse	coarse	coarse	coarse	
adjuvant	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	none	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	

White mold **incidence** (% of plants) White mold (% plants)

Non-treated control	86 b	83 b	92 b	20 b	70 b
Endura 6 oz/ac	67 a	44 a	69 a	3 a	46 a
Endura 8 oz/ac	60 a	44 a	71 a	1 a	44 a
Viatude 16 fl oz/ac	69 a	46 a	72 a	3 a	48 a
CV:	9.3	16.1	8.5	44	9.4

White mold **severity index** (% of canopy) White mold (% canopy)

Non-treated control	70 b	68 b	83 b	10 b	58 b
Endura 6 oz/ac	48 a	32 a	54 a	1 a	34 a
Endura 8 oz/ac	43 a	31 a	57 a	0 a	33 a
Viatude 16 fl oz/ac	52 a	31 a	56 a	1 a	35 a
CV:	13.9	18.2	10.7	72	15.2

Soybean **yield** (bu/ac; 13% moisture) Yield (bu/ac)

Non-treated control	28 b	28 b	16 b	64 a	34 b
Endura 6 oz/ac	46 a	42 a	34 a	66 a	47 a
Endura 8 oz/ac	49 a	46 a	34 a	67 a	49 a
Viatude 16 fl oz/ac	42 a	42 a	33 a	67 a	46 a
CV:	10.2	7.2	13.7	7	8.5

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Approach: picoxystrobin (FRAC 11) **Endura:** boscalid (FRAC 7) **Delaro Complete:** fluopyram (FRAC 7), prothioconazole (FRAC 3), trifloxystrobin (FRAC 11)

year	2023	2024	COMBINED ANALYSIS	2023	2024	COMBINED ANALYSIS		
location	Carrington	Carrington		Carrington	Carrington			
funding	Corteva	Corteva		BASF	BASF			
variety	P06T04E	P08A44E		21Xf07	XO0602E			
brand, maturity	Pioneer, 0.6	Pioneer, 0.8		Peterson Farms, 0.7	Xitavo, 0.6			
row spacing	14 inches	15 inches		14 inches	14 inches			
seeding rate	165,000 pls/ac	140,000 pls/ac		165,000 pls/ac	165,000 pls/ac			
previous crop	chickpeas	sunflowers		chickpeas	dry edible beans			
planting date	May 24	May 16		May 24	May 15			
disease assessment date	Oct. 12	Oct. 8-9		Oct. 12	Oct. 1			
rows assessed for disease	1	2		1	1			
harvest date	Oct. 17	Oct. 14		Oct. 17	Oct. 4			
dates, applications 1 and 2	July 22, Aug. 2	July 24, July 31		July 22, Aug. 2	July 23, July 30			
interval between applications	11 days	7 days		11 days	7 days			
growth stage, 1st applic.	100% R2	100% R2		100% R2	100% R2			
canopy closure, 1st applic.	95-100%	75-90%		98-100%	90-95%			
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 60 psi		AIXR110015, 50 psi	AIXR110015, 60 psi			
droplet size, 1st applic.	medium-coarse	medium		medium-coarse	medium			
canopy closure, 2nd applic.	100%	90-98%		100%	99-100%			
nozzles, pressure, 2nd applic.	AIXR110015, 40 psi	AIXR110015, 40 psi		AIXR110015, 40 psi	AIXR110015, 40 psi			
droplet size, 2nd applic.	coarse	coarse		coarse	coarse			
adjuvant	Induce, 0.125% v/v	Induce, 0.25% v/v		Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac			
fungicide spray volume	15 gal/ac	15 gal/ac		15 gal/ac	15 gal/ac			
application method	hand-held boom	hand-held boom		hand-held boom	hand-held boom			
White mold incidence (% of plants)			White mold (% plants)		White mold (% plants)			
Non-treated control	50 c	85 c	68 b	54 b	86 b	70 c		
Delaro Complete 8 fl oz/ac	25 ab	52 ab	39 a	38 ab				
Approach 8.5 fl oz/ac	39 bc	69 bc	54 b					
Approach 12 or 13.7 fl oz/ac				Approach 12 fl oz	Approach 13.7 fl oz	50 b		
				34 ab	66 a			
Endura 6 oz/ac	17 a	43 a	30 a	28 a	60 a	44 a		
CV:			33.7	14.4	6.6	35.6	9.3	0.6
White mold severity index (% of canopy)			White mold (% canopy)		White mold (% canopy)			
Non-treated control	31 b	47 b	39 c	31 b	70 b	51 b		
Delaro Complete 8 fl oz/ac	14 a	26 a	20 ab	20 ab				
Approach 8.5 fl oz/ac	21 ab	33 ab	27 b					
Approach 12 or 13.7 fl oz/ac				Approach 12 fl oz	Approach 13.7 fl oz	34 ab		
				19 ab	49 a			
Endura 6 oz/ac	7 a	17 a	12 a	11 a	43 a	27 a		
CV:			49.2	27.3	7.8	47.4	13.9	9.5
Soybean yield (bu/ac; 13% moisture)			Yield (bu/ac)		Yield (bu/ac)			
Non-treated control	56 b	39 b	47 a	50 a	28 b	39 a		
Delaro Complete 8 fl oz/ac	59 ab	55 a	57 a	53 a				
Approach 8.5 fl oz/ac	56 b	49 a	53 a					
Approach 12 or 13.7 fl oz/ac				Approach 12 fl oz	Approach 13.7 fl oz	48 a		
				53 a	43 a			
Endura 6 oz/ac	63 a	56 a	60 a	62 a	49 a	55 a		
CV:			6.8	10.6	7.6	15	10.2	9.8

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Revytek: mefentrifluconazole (FRAC 3), pyraclostrobin (FRAC 11), fluxapyroxad (FRAC 7) Endura: boscalid (FRAC 7)								COMBINED ANALYSIS 6 studies Revytek, 8 fl oz versus Endura, 6 oz Two sequential applications of the same fungicide
year	2021	2021	2022	2023	2024	2024	2024	
location	Carrington	Carrington	Carrington	Carrington	Carrington	Carrington	Carrington	
funding	BASF	Gowan	BASF	BASF	BASF	BASF	Corteva	
variety	DSR-0807	DSR-0807	AG09XF0	21XF07	P064T04E	AG07XF2	P08A44E	
brand, maturity	Dairyland, 0.8	Dairyland, 0.8	Asgrow, 0.9	Peterson Farms, 0.7	Pioneer, 0.6	Asgrow, 0.7	Pioneer, 0.8	
row spacing	21 inches	21 inches	14 inches	14 inches	14 inches	14 inches	15 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	140,000 pls/ac	
previous crop	spring wheat	spring wheat	dry bean	chickpeas	dry edible beans	dry edible beans	sunflowers	
planting date	May 12	May 12	May 27	May 24	May 15	May 15	May 16	
disease assessment date	Oct. 4	Oct. 4	Oct. 19	Oct. 12	Oct. 1-2	Oct. 2	Oct. 9	
rows assessed for disease	1	1	1	1	1	1	2	
harvest date	Oct. 6	Oct. 7	Oct. 21	Oct. 17	Oct. 4	Oct. 4	Oct. 14	
dates, applications 1 and 2	July 26, Aug. 6	July 26, Aug. 6	July 23, Aug. 1	July 22, Aug. 2	July 23, July 30	July 23, July 30	July 24, July 31	
interval between applications	11 days	11 days	9 days	11 days	7 days	7 days	7 days	
growth stage, 1st applic.	R3	R3	100% R2	100% R2	100% R2	100% R2	100% R2	
canopy closure, 1st applic	100%	100%	99-100%	98-100%	90-95%	90-95%	75-90%	
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	
droplet size, 1st applic.	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium	medium	medium	
canopy closure, 2nd applic.	100%	100%	100%	100%	99-100%	99-100%	90-98%	
nozzles, pressure, 2nd applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	
droplet size, 2nd applic.	medium-coarse	medium-coarse	medium-coarse	coarse	coarse	coarse	coarse	
adjuvant	Masterlock 6.4 fl oz/ac	Induce 0.25%	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Induce, 0.25% v/v	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	
Endura applied at 6.12 oz/ac								
White mold incidence (% of plants)								White mold (% plants)
Non-treated control	42 a	35 a	82 b	54 a	83 b	92 b	46 b	63 b
REVYTEK 8 fl oz/a	43 a	33 a	67 a		72 b	91 b	51 b	59 b
REVYTEK 10 fl oz/a				45 a				
ENDURA 6 oz/a	36 a	20 a	53 a	33 a	44 a	69 a	16 a	40 a
CV:	38.8	20.3	14.4	35.6	16.1	8.5	14.9	13.5
White mold severity index (% of canopy)								White mold (% canopy)
Non-treated control	27 a	23 a	70 b	31 a	68 b	83 b	20 b	49 b
REVYTEK 8 fl oz/a	26 a	21 a	51 a		57 b	82 b	26 b	44 b
REVYTEK 10 fl oz/a				27 a				
ENDURA 6 oz/a	19 a	12 a	40 a	18 a	32 a	54 a	5 a	27 a
CV:	25	26.9	17.5	47.4	18.2	10.7	22.6	17.7
Soybean yield (bu/ac; 13% moisture)								Yield (bu/ac)
Non-treated control	51 a	56 a	25 b	50 a	28 b	16 b	53 a	38 b
REVYTEK 8 fl oz/a	51 a	57 a	33 b		30 b	17 b	55 a	40 b
REVYTEK 10 fl oz/a				49 a				
ENDURA 6 oz/a	55 a	62 a	42 a	50 a	42 a	34 a	58 a	49 a
CV:	13	9	10.7	15	7.2	13.7	7.9	17.7

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Headline: pyraclostrobin (FRAC 11) **Endura:** boscalid (FRAC 7)

year	2021	2022	2024	2024	COMBINED ANALYSIS
location	Carrington	Carrington	Carrington	Carrington	
funding	Gowan	BASF	BASF	Corteva	
variety	DSR-0807	AG09Xf0	XO0602E	P08A44E	
brand, maturity	Dairyland, 0.8	Asgrow, 0.9	Xitavo, 0.6	Pioneer, 0.8	
row spacing	21 inches	14 inches	14 inches	15 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	140,000 pls/ac	
previous crop	spring wheat	dry bean	dry edible beans	sunflowers	
planting date	May 12	May 27	May 15	May 16	
disease assessment date	Oct. 4	Oct. 19	Oct. 1	Oct. 9	
rows assessed for disease	1	1	1	2	4 studies
harvest date	Oct. 7	Oct. 21	Oct. 4	Oct. 14	
dates, applications 1 and 2	July 26, Aug. 6	July 23, Aug. 1	July 23, July 30	July 24, July 31	
interval between applications	11 days	9 days	7 days	7 days	
growth stage, 1st applic.	R3	100% R2	100% R2	100% R2	
canopy closure, 1st applic	100%	99-100%	90-95%	75-90%	
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	
droplet size, 1st applic.	medium-coarse	medium-coarse	medium	medium	
canopy closure, 2nd applic.	100%	100%	99-100%	90-98%	
nozzles, pressure, 2nd applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 40 psi	AIXR110015, 40 psi	Two sequential applications of the same fungicide
droplet size, 2nd applic.	medium-coarse	medium-coarse	coarse	coarse	
adjuvant	Induce 0.25%, some tre:	Masterlock, 6.4 fl oz/ac	Masterlock, 6.4 fl oz/ac	Induce, 0.25% v/v	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	

White mold incidence (% of plants) White mold (% plants)

Non-treated control	35 a	82 b	86 b	46 b	62 b
Endura 6 oz + Headline 6 fl oz/ac	22 a	57 a	69 a	21 ab	42 a
Endura 6 oz/ac	20 a	53 a	67 a	16 a	39 a
CV:	20.3	14.4	9.3	14.9	8.8

White mold severity index (% of canopy) White mold (% canopy)

Non-treated control	23 a	70 b	70 b	20 b	46 b
Endura 6 oz + Headline 6 fl oz/ac	13 a	43 a	48 a	8 ab	28 a
Endura 6 oz/ac	12 a	40 a	48 a	5 a	26 a
CV:	26.9	17.5	13.9	22.6	14.8

Soybean yield (bu/ac; 13% moisture) Yield (bu/ac)

Non-treated control	56 a	25 b	28 b	53 a	41 b
Endura 6 oz + Headline 6 fl oz/ac	65 a	41 a	42 a	61 a	52 a
Endura 6 oz/ac	62 a	42 a	46 a	58 a	52 a
CV:	9	10.7	10.2	7.9	7.3

Comparative fungicide efficacy: Management of white mold in soybeans

NDSU Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Delaro Complete: fluopyram (FRAC 7), trifloxystrobin (FRAC 11), prothioconazole (FRAC 3)

Endura: boscalid (FRAC 7)

year	2022	2023	2024	COMBINED ANALYSIS 3 studies Delaro Complete 8 fl oz/ac versus Endura 5.5 oz/ac Single fungicide application
location	Carrington	Carrington	Carrington	
funding	Bayer	Bayer	Bayer	
variety	AG09Xf0	P06T04E	AG07XF2	
brand, maturity	Asgrow, 0.9	Pioneer, 0.6	Asgrow, 0.7	
row spacing	14 inches	14 inches	14 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	
previous crop	dry bean	chickpeas	dry edible beans	
planting date	May 27	May 24	May 15	
disease assessment date	Oct. 19	Oct. 12	Oct. 2	
rows assessed for disease	1	1	1	
harvest date	Oct. 21	Oct. 17	Oct. 4	
date fungicide was applied	July 23	July 22	July 23	
growth stage when fungicide was applied	100% R2	100% R2	100% R2	
canopy closure when fungicide was applied	99-100%	95-100%	90-95%	
nozzles, application pressure	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 60 psi	
spray droplet size	medium-coarse	medium-coarse	medium	
adjuvant	Induce 0.125% v/v	Induce, 0.125% v/v	Induce, 0.125% v/v	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	

White mold incidence (% of plants) White mold (% plants)

Non-treated control	74 b	63 b	88 a	75 b
Delaro Complete 8 fl oz/ac	49 a	50 ab	70 a	56 a
Endura 5.5 oz/ac	60 ab	42 a	80 a	61 ab
CV:	18.2	22.2	15.1	9

White mold severity index (% of canopy) White mold (% canopy)

Non-treated control	63 b	43 b	78 a	61 b
Delaro Complete 8 fl oz/ac	34 a	30 ab	54 a	39 a
Endura 5.5 oz/ac	41 a	24 a	63 a	43 a
CV:	24.6	31.2	22.5	9.8

Soybean yield (bu/ac; 13% moisture) Yield (bu/ac)

Non-treated control	30 b	47 b	21 b	32 b
Delaro Complete 8 fl oz/ac	43 a	54 a	36 a	44 a
Endura 5.5 oz/ac	38 a	56 a	32 ab	42 a
CV:	8.2	6.5	23.7	6.1

Comparative fungicide efficacy: Management of white mold in soybeans

NDSU Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

ProPulse: fluopyram (FRAC 7), prothioconazole (FRAC 3) **Endura:** boscalid (FRAC 7)

year	2022	2023	2024	COMBINED ANALYSIS 3 studies Propulse 6 or 8 fl oz/ac versus Endura 5.5 oz/ac Single fungicide application
location	Carrington	Carrington	Carrington	
funding	Bayer	Bayer	Bayer	
variety	AG09Xf0	P06T04E	AG07XF2	
brand, maturity	Asgrow, 0.9	Pioneer, 0.6	Asgrow, 0.7	
row spacing	14 inches	14 inches	14 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	
previous crop	dry bean	chickpeas	dry edible beans	
planting date	May 27	May 24	May 15	
disease assessment date	Oct. 19	Oct. 12	Oct. 2	
rows assessed for disease	1	1	1	
harvest date	Oct. 21	Oct. 17	Oct. 4	
date fungicide was applied	July 23	July 22	July 23	
growth stage when fungicide applied	100% R2	100% R2	100% R2	
canopy closure when fungicide applied	99-100%	95-100%	90-95%	
nozzles, application pressure	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 60 psi	
spray droplet size	medium-coarse	medium-coarse	medium	
adjuvant	Induce 0.125% v/v	Induce, 0.125% v/v	Induce, 0.125% v/v	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	

White mold incidence (% of plants) White mold (% plants)

Non-treated control	74 b	63 b	88 b	75 b
ProPulse 6 fl oz/ac	53 a	57 ab	79 ab	63 ab
ProPulse 8 fl oz/ac	48 a	51 ab	67 a	55 a
Endura 5.5 oz/ac	60 ab	42 a	80 ab	61 ab
CV:	18.2	22.2	15.1	9.5

White mold severity index (% of canopy) White mold (% canopy)

Non-treated control	63 b	43 b	78 b	61 b
ProPulse 6 fl oz/ac	36 a	37 ab	65 ab	46 ab
ProPulse 8 fl oz/ac	33 a	32 ab	53 a	39 a
Endura 5.5 oz/ac	41 a	24 a	63 ab	43 a
CV:	24.6	31.2	22.5	12.5

Soybean yield (bu/ac; 13% moisture) Yield (bu/ac)

Non-treated control	30 b	47 b	21 b	32 b
ProPulse 6 fl oz/ac	39 a	51 ab	30 ab	40 a
ProPulse 8 fl oz/ac	42 a	52 ab	36 a	43 a
Endura 5.5 oz/ac	38 a	56 a	32 ab	42 a
CV:	8.2	6.5	23.7	6.3

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Endura: boscalid (FRAC 7) **Topsin/T-methyl:** thiophanate-methyl (FRAC 1)

year	2021	2021	2021	2021	2021	2022	2022	2022	2022
location	Oakes	Oakes	Oakes	Carrington	Carrington	Carrington	Carrington	Carrington	Carrington
funding	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council
variety	AG06X8	AG09XF0	AG11X8	AG06X8	AG09XF0	AG06X8	XO0602E	XO0731E	AG09XF0
brand, maturity	Asgrow, 0.6	Asgrow, 0.9	Asgrow, 1.1	Asgrow, 0.6	Asgrow, 0.9	Asgrow, 0.6	Xitavo, 0.6	Xitavo, 0.7	Asgrow, 0.9
row spacing	21 inches	21 inches	21 inches	14 inches	14 inches	14 inches	14 inches	14 inches	14 inches
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac
previous crop	various crops	various crops	various crops	sunflowers	sunflowers	dry bean	dry bean	dry bean	dry bean
planting date	May 4	May 4	May 4	May 17	May 17	May 27	May 27	May 27	May 27
disease assessment date	Sept. 30	Sept. 30	Sept. 30	Oct. 4-5	Oct. 4-5	Oct. 14-19	Oct. 14-19	Oct. 14-19	Oct. 14-19
rows assessed for disease	1	1	1	1	1	1	1	1	1
harvest date	Oct. 7-8	Oct. 7-8	Oct. 7-8	Oct. 15-16	Oct. 15-16	Oct. 20	Oct. 20	Oct. 20	Oct. 20
date fungicide was applied	July 5	July 5	July 5	July 23	July 23	July 21	July 21	July 21	July 21
growth stage, 1st applic.	81% R2 100% bloom	66% R2 100% bloom	70% R2 100% bloom	100% R2	100% R2	100% R2	100% R2	98% R2 100% bloom	100% R2
canopy closure, 1st applic	90-100%	95-100%	95-100%	95-100%	95-100%	99-100%	0.95	98-100%	97-100%
nozzles, pressure, 1st applic.	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi
droplet size, 1st applic.	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse	medium-coarse
adjuvant	none	none	none	none	none	none	none	none	none
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom

**HIGH
DISEASE
PRESSURE**

**COMBINED
ANALYSIS**

9 studies

Topsin / T-methyl
40 fl oz/ac
versus
Endura
5.5 oz/ac

Single fungicide
application

White mold incidence (% of plants)

White mold (% plants)

Non-treated control	55 a	43 b	51 a	77 b	62 a	92 a	80 b	91 b	79 b	70 b
Endura 5.5 oz/ac	54 a	27 a	44 a	51 a	42 a	81 a	63 a	79 ab	65 a	56 a
Topsin/T-methyl 40 fl oz/ac	61 a	37 ab	52 a	62 a	55 a	83 a	65 a	74 a	65 a	62 a
CV:	29.9	38.4	37.4	27.9	32	13	13.2	11.3	12.9	7.9

White mold severity index (% of canopy)

White mold (% canopy)

Non-treated control	38 a	29 a	34 a	49 b	37 b	86 a	72 b	84 b	70 b	55 b
Endura 5.5 oz/ac	40 a	18 a	30 a	30 a	19 a	71 a	53 a	68 a	55 a	42 a
Topsin/T-methyl 40 fl oz/ac	42 a	26 a	36 a	37 ab	31 ab	73 a	55 a	64 a	53 a	46 a
CV:	36.2	52.1	17.1	39.4	49	15.3	16.5	13	15.5	10.3

Soybean yield (bu/ac; 13% moisture)

Yield (bu/ac)

Non-treated control	60 a	67 a	68 a	42 b	41 a	25 b	29 b	21 b	25 b	42 b
Endura 5.5 oz/ac	64 a	72 a	68 a	55 a	53 a	37 a	37 a	31 a	40 a	51 a
Topsin/T-methyl 40 fl oz/ac	58 a	66 a	68 a	48 ab	43 a	34 a	40 a	32 a	34 a	47 a
CV:	14.7	8	11.5	9.1	9	12.1	10.6	13.3	10.6	7.4

Comparative fungicide efficacy: Management of white mold in soybeans

NDSU Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Endura: boscalid (FRAC 7) **Topsin/T-methyl:** thiophanate-methyl (FRAC 1)

year	2021	2022	2022	2022
location	Carrington	Oakes	Oakes	Oakes
funding	ND Soybean Council	ND Soybean Council	ND Soybean Council	ND Soybean Council
variety	AG009X8	DSR1120	AG11X8	AG09Xf0
brand, maturity	Asgrow, 0.09	Dairyland, 1.1	Asgrow, 1.1	Asgrow, 0.9
row spacing	14 inches	14 inches	14 inches	14 inches
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac
previous crop	sunflowers	various	various	various
planting date	May 17	June 2	June 2	June 2
disease assessment date	Oct. 4-5	Oct. 21	Oct. 21	Oct. 21
rows assessed for disease	1	1	1	1
harvest date	Oct. 15-16	Oct. 21-22	Oct. 21-22	Oct. 21-22
date fungicide was applied	July 23	July 24	July 24	July 24
growth stage when fungicide applied	100% R2	100%R2	100%R2	100%R2
canopy closure when fungicide applied	90-95%	95-100%	95-100%	95-100%
nozzles, application pressure	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi	AIXR110015, 50 psi
spray droplet size	medium-coarse	medium-coarse	medium-coarse	medium-coarse
adjuvant	none	none	none	none
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom

**LOW
DISEASE
PRESSURE**

**COMBINED
ANALYSIS**

4 studies

Topsin / T-methyl
40 fl oz/ac
versus
Endura
5.5 oz/ac

Single fungicide
application

White mold incidence (% of plants) White mold (% plants)

Non-treated control	8 b	3 a	12 a	8 a	8 b
Endura 5.5 oz/ac	3 a	2 a	4 a	3 a	3 a
Topsin/T-methyl 40 fl oz/ac	2 a	2 a	4 a	5 a	3 a
CV:	91.7	105.9	78.5	73.2	18.7

White mold severity index (% of canopy) White mold (% canopy)

Non-treated control	4 b	1 a	5 a	3 a	3 b
Endura 5.5 oz/ac	2 ab	1 a	1 a	1 a	1 a
Topsin/T-methyl 40 fl oz/ac	1 a	1 a	2 a	1 a	1 a
CV:	117.1	133.6	98.2	84.8	23

Soybean yield (bu/ac; 13% moisture) Yield (bu/ac)

Non-treated control	58 a	67 a	73 a	71 a	67 b
Endura 5.5 oz/ac	59 a	70 a	75 a	72 a	69 a
Topsin/T-methyl 40 fl oz/ac	60 a	67 a	75 a	71 a	68 a
CV:	6.1	4.8	5.8	4.8	1.3

Comparative fungicide efficacy: Management of white mold in soybeans

North Dakota State University Carrington Research Extension Center; Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Fauss, Thomas Miorino

Topsin / T-methyl: thiophanate-methyl (FRAC 1)

year	2020	2020	2020	2020	2020	2023	COMBINED ANALYSIS
location	Oakes	Oakes	Carrington	Carrington	Carrington	Carrington	
funding	ND Soybean Council	ND Soybean Council	ND Soybean Council	Gowan	BASF	ND Soybean Council	
variety	GH0543X	14R09N	14R09N	DSR-0418	DSR-0418	21XF07	
brand, maturity	Golden Harvest, 0.5	Peterson Farms, 0.9	Peterson Farms, 0.9	Dairyland, 0.4	Dairyland, 0.4	Peterson Farms, 0.7	
row spacing	22.5 inches	22.5 inches	21 inches	21 inches	21 inches	14 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	165,000 pls/ac	
previous crop	sunflowers	sunflowers	dry bean	spring wheat	spring wheat	chickpeas	
planting date	May 12	May 12	May 18	May 18	May 18	May 24-25	
disease assessment date	Aug. 26. 28	Sept. 25	Oct. 12-15	Oct. 16	Oct. 15	Oct. 12-13	
rows assessed for disease	1	1	1	1	1	1	Topsin / T-methyl 20 fl oz/ac versus Non-treated
harvest date	Oct. 8-9	Oct. 8-9	Oct. 15-16	Oct. 19	Oct. 16	Oct. 17	
date fungicide was applied	July 8	July 8	July 10	July 16	July 14	July 22	
growth stage when fungicide applied	65% R2, 35% R3	79% R2, 21% R3	89% R2, 100% bloom	100% R2	100% R2	100% R2	
canopy closure when fungicide applied	91% average	87% average	87% average	75-85%	65-95%	98-100%	
nozzles, application pressure	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 60 psi	AIXR110015, 50 psi	
spray droplet size	medium	medium	medium	medium	medium	medium-coarse	
adjuvant	none	none	none	none	none	none	
fungicide spray volume	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	hand-held boom	

White mold incidence (% of plants)

	White mold (% plants)						
Non-treated control	4 a	2 a	18 a	25 a	26 a	79 a	26 a
Topsin/T-methyl 20 fl oz/ac	4 a	4 a	25 a	26 a	16 a	69 a	24 a
CV:	55.1	45.6	43.5	52.5	30.7	12.6	20.2

White mold severity index (% of canopy)

	White mold (% canopy)						
Non-treated control	2 a	1 a	11 a	8 a	10 a	60 b	15 a
Topsin/T-methyl 20 fl oz/ac	2 a	2 a	17 a	8 a	5 a	48 a	13 a
CV:	45.9	48.8	53.0	68.4	39.5	15.4	13.2

Soybean yield (bu/ac; 13% moisture)

	Yield (bu/ac)						
Non-treated control	77 a	76 a	53 a	46 a	45 a	32 a	55 a
Topsin/T-methyl 20 fl oz/ac	79 a	76 a	50 a	45 a	46 a	38 a	56 a
CV:	3.5	3.8	6.8	8.2	15.1	17	3.1

Comparative fungicide efficacy: Management of white mold in soybeans

NDSU Carrington Research Extension Ctr. Michael Wunsch, Jesse Hafner, Suanne Kallis, Aaron Faus, Thomas Miorino

Revytek: mefentrifluconazole (FRAC 3), pyraclostrobin (FRAC 11), fluxapyroxad (FRAC 7)

Endura: boscalid (FRAC 7)

year	2020	2021	COMBINED ANALYSIS
location	Carrington	Carrington	
funding	BASF	Gowan	
variety	DSR-0418	DSR-0807	
brand, maturity	Dairyland, 0.4	Dairyland, 0.8	
row spacing	21 inches	21 inches	
seeding rate	165,000 pls/ac	165,000 pls/ac	
previous crop	spring wheat	spring wheat	
planting date	May 18	May 12	
disease assessment date	Oct. 15	Oct. 4	
rows assessed for disease	1	1	2 studies Revytek 8 fl oz/ac versus Endura 6 oz/ac
harvest date	Oct. 16	Oct. 7	
date fungicide was applied	July 14	July 26	
growth stage when fungicide applied	100% R2	R3	
canopy closure when fungicide applied	65-95%	1	
nozzles, application pressure	AIXR110015, 60 psi	AIXR110015, 50 psi	
spray droplet size	medium	medium-coarse	
adjuvant	none	Induce 0.25%	
fungicide spray volume	15 gal/ac	15 gal/ac	
application method	hand-held boom	hand-held boom	
White mold incidence (% of plants)			
Non-treated control	26 b	35 a	30 a
Endura 6 oz/ac	3 a	20 a	12 a
Revytek 8 fl oz/ac	30 b	33 a	31 a
CV:	30.7	20.3	20.9
White mold severity index (% of canopy)			
Non-treated control	10 b	23 a	17 b
Endura 6 oz/ac	1 a	12 a	7 a
Revytek 8 fl oz/ac	13 b	21 a	17 b
CV:	39.5	26.9	11.3
Soybean yield (bu/ac; 13% moisture)			
Non-treated control	45 a	56 a	51 b
Endura 6 oz/ac	49 a	62 a	55 a
Revytek 8 fl oz/ac	47 a	57 a	52 b
CV:	15.1	9	2.3