

Table 1. Southern Illinois regional wheat variety trial results, 2025

Company	Variety	ST ¹	Regional Average (Excludes Elkhville)				Addieville		Elkhville		Yield	Test wt.	Maturity date ² days after earliest variety	Jointing time ³ category: E, ME, M or L	Fusarium Head Blight ⁴	
			Yield	Yield Rank	Test wt.	Height	Yield	Test wt.	Yield	Test wt.					Score	Category
			bu/ac	1 to 63	lb/bu	in.	bu/ac	lb/bu	bu/ac	lb/bu					1 to 9	MR, M, MS, or S
AgriMAXX	503	G	105	46	58.8	35.4	98.7	57.3	.*	.*	113.5	60.4	7	M	5.5	M
AgriMAXX	505	G	104.2	49	60.7	34.3	98.5	58.9	122.1	59.9	110.3	62.4	7	M	5.6	M
AgriMAXX	513	G	104.4	47	59.1	34.4	98.8	57.5	110.7	57.9	110.5	60.8	7	L	5.8	M
AgriMAXX	525	G	112	21	58.4	33.7	107.7	57.6	114.6	56.7	113.4	59.9	8	M	5.6	M
AgriMAXX	531	G	108.3	34	58.8	34.8	104.8	58.3	.*	.*	105.7	60.2	6	L	2.2	MR
AgriMAXX	545	G	115.3	8	56.8	33.8	108.5	55.2	114.1	56.4	126.2	58.4	7	L	8.2	S
AgriMAXX	553	G	109.1	33	57.9	32	103.4	55.8	109.4	55.9	115.4	59.7	7	M	5.2	M
AgriMAXX	555	G	105.2	45	57.9	35.1	99.2	55.6	120.9	57.3	112.4	59.7	9	M	4.9	M
AgriMAXX	556	G	122.4	1	57.7	35.6	117	56.9	109.1	57.4	127.5	59.2	8	M	4.4	M
AgriMAXX	561	G	113.1	16	57.6	33.1	110.3	56.3	128.9	55.9	107.8	59.2	1	M	3.4	MR
AgriPro	GP 543	C	103.6	52	56	35.4	95.3	53.9	.*	.*	120.3	57.7	7	M	5.8	M
AgriPro	GP 944	C	111.4	25	56.6	35.2	107.1	56.6	.*	.*	111.7	57.8	9	M	5.7	M
Baird Seed Co	3375	G	112.7	17	56.6	35.3	107.4	55.8	.*	.*	117.5	58.1	6	E	4.9	M
Baird Seed Co	3318	G	110.9	29	59.5	33.7	106.4	58.8	.*	.*	111.8	60.8	5	M	4	MR
Bio Town Seeds	D423W	C	113.6	15	57.7	35.2	107	55.5	120.4	54.5	120.6	59.5	7	L	4.7	M
Bio Town Seeds	DXW2421	C	115.8	7	57.6	32.5	109.3	56.6	.*	.*	125.2	59.1	8	M	4.3	MR
Bio Town Seeds	D506W		101.4	58	55.9	33.8	94.9	52.5	111.9	56.1	110.9	58	10	M	7.2	MS
Bio Town Seeds	DXW2423	C	118.4	3	57.7	35.9	112.8	56.9	118.8	54.6	124.2	59.2	9	M	4.6	M
Dyna-Gro	9172	G	102.5	54	58.3	33.8	97.7	55.6	101.9	56.2	105.8	60.2	8	M	5	M
Dyna-Gro	9151	G	112.2	20	60.8	35.7	107.4	59.2	123	60.2	114.8	62.5	8	M	7.4	MS
Dyna-Gro	9231	G	120.1	2	58.6	36.2	122.6	57.6	107.2	56.2	111.5	60.2	8	M	5.7	M
Dyna-Gro	9422	G	111.5	24	57.4	34.2	104.8	55.3	115.3	56.5	118.8	59.1	7	M	6.8	MS
Dyna-Gro	9533	G	106.4	40	56.5	31.9	100.1	54.6	.*	.*	115.4	58.2	7	M	5.4	M
Dyna-Gro	9570	G	106.5	39	57.6	34.8	100	55.2	117.2	55.4	115.1	59.5	8	M	5.5	M
Dyna-Gro	9593	G	111.2	26	58.1	34.2	105.5	56.5	111.5	56.6	117	59.7	6	M	4.9	M
Dyna-Gro	9612	G	113.6	13	58.2	31.8	109.1	57.2	110.1	54.5	114.9	59.7	7	M	3.5	MR
Dyna-Gro	9632	G	114.1	10	58.8	35.2	110.6	57.3	122	56.1	111.3	60.4	9	M	5.6	M
Dyna-Gro	9393	G	100.3	60	57.4	32.4	93.2	53.9	119.9	57.1	112.8	59.7	8	M	8.2	S
FS InSPIRE	FS 597	G	107	36	58	34.9	101.3	55.4	122.1	56.4	113	59.8	7	M	6	M
FS InSPIRE	FS 600	G	111.6	23	61.1	35.4	106.9	59.5	128.6	59.4	113.9	62.8	8	M	6.8	MS
FS InSPIRE	FS 606	G	104.1	51	60.2	33.9	98.1	59.5	.*	.*	111.8	61.5	5	M	2.8	MR
FS InSPIRE	FS 617	G	104.1	50	58	34.3	98.8	56.6	125.8	58.5	109	59.5	8	L	6	M
FS InSPIRE	FS 624	G	97.1	61	58.1	36.2	91.1	55.6	.*	.*	104.6	59.9	8	M	8.7	S
FS InSPIRE	FS 743	G	112.6	18	58.7	35.5	107.8	57.1	104.7	56.6	115.2	60.3	8	M	3.2	MR
FS InSPIRE	FS 745	G	100.7	59	58.4	33.7	95.1	55.6	117	56.1	106.8	60.3	9	M	5.1	M
FS InSPIRE	FS 749	G	113.9	12	58.6	33.3	108.2	56.4	118.4	57.1	120.2	60.4	8	M	5.2	M
FS InSPIRE	WX25A	G	107.2	35	58	34.2	100	56.6	.*	.*	119.4	59.6	9	L	8.3	S
FS InSPIRE	WX25B	G	104.2	48	56.3	34.6	97.3	53.9	.*	.*	115.5	58.1	7	M	5.7	M
FS InSPIRE	WX25C	G	106.8	38	57.8	34.2	102.4	56.6	124.5	57.3	109.1	59.4	8	L	4.4	M
Hoffman Seed House	H7W21	C	105.4	44	56	34.5	97.4	51.6	117.3	53.1	120.7	58.4	8	M	7.1	MS
Hoffman Seed House	H7W30	C	101.4	57	57.8	33.8	93.9	55.4	.*	.*	115.4	59.7	8	M	6.4	MS
Hoffman Seed House	H7W25	C	106.1	41	58.2	33.4	99.8	55.6	104.9	56.6	114.7	60.1	4	M	8.9	S
Kitchen Seed Company	KSC 423 W	F	106.9	37	60.2	34.7	100.3	59.9	.*	.*	116.1	61.5	6	M	3.4	MR
Kitchen Seed Company	KSC 425	F	109.4	30	60.1	38.7	105.4	59.2	.*	.*	108.5	61.6	5	M	5.8	M
KWS Cereals US	KWS579	C	117.8	5	57.1	33.2	113.2	55.1	118.2	57	120	58.8	10	M	5.3	M
KWS Cereals US	KWS591	C	113.6	14	57.7	35.4	108.4	55.8	125	57.2	117.7	59.4	7	M	5.4	M
KWS Cereals US	KWS623	C	116.4	6	56.9	35.8	111.4	55.7	108.6	54.8	119.7	58.4	8	M	4.2	MR
Merschman Seeds	Peyton 2	G	105.9	42	54.3	33.4	101.1	54.6	.*	.*	109.3	55.6	0	E	3.4	MR
Merschman Seeds	Millie 8	G	96.7	62	59.8	33.5	92.4	59.4	.*	.*	98.7	61.2	3	M	2.6	MR
Merschman Seeds	Maddie 3	G	110.9	28	58.3	34.6	104.6	56.6	112.4	56.2	119.6	60	7	L	5.1	M
Merschman Seeds	Julie 12	C	118.2	4	57.7	36	113.4	56.6	101.9	57.5	120.3	59.2	8	M	5.4	M
Merschman Seeds	M2601	C	111.8	22	57.9	31.5	105.8	56	97.3	53.5	118	59.6	8	M	4	MR
Merschman Seeds	M2602	C	111.1	27	58.4	33.9	106.9	56.8	119.4	54.8	111.2	60	8	L	5.3	M
Merschman Seeds	M2603	C	112.3	19	57.7	34.4	106.2	55.1	125.1	55.5	120.5	59.6	6	M	6.9	MS
Merschman Seeds	M2604	C	101.7	56	57.6	32.2	94.6	57.1	.*	.*	113.4	59	3	M	4.4	M
Merschman Seeds	Blintee 12	C	102.3	55	58.1	33.7	99.4	56.8	.*	.*	96.6	59.7	4	M	3.7	MR
Pioneer	25R65	C	113.9	11	57.6	34.3	108.5	56.4	111.7	56.2	119.1	59.2	7	M	6.5	MS
Pioneer	25R76	C	114.4	9	58.1	34.5	108.4	56.6	119.5	55.7	121.8	59.7	8	M	5	M
Pioneer	P25R800	C	105.5	43	57.1	33.8	100.9	53.9	111.6	53.6	107.6	59.2	6	M	4.5	M
Virginia Tech	19VDH-FHB-MAS05-27	F	109.3	31	56.3	36	103.1	54.1	.*	.*	117.3	58.1	7	M	7.5	MS
Virginia Tech	17VDH-SRW02-125	F	91.1	63	58.6	35.1	83.3	56	104.6	58	105.5	60.5	8	M	6.6	MS
Virginia Tech	VA20FHB-18	F	103.2	53	59.3	36.7	95.2	56.3	123.6	57.9	120.1	61.5	10	E	6.2	MS
Virginia Tech	19VTK7-66	F	109.3	32	58.2	37.2	105.7	57	112.1	57.3	106.8	59.8	9	E	6.7	MS
Trial Mean			108.7		58	34.4	103.2	56.3	115.4	56.5	114.3	59.7	7		5.4	
LSD			6.5		0.6	1.5	6.4	1	11.8	0.8	7	0.6	0.9		2.5	
CV			6.3		3.3	5.2	4.9	1.6	7.1	1.4	8.8	0.7	0.3		36	

Note: Elkhville was excluded from the regional average due to deer feeding on more than 30% of the varieties in the trial. For results including Elkhville in the regional average see the next tab in this spreadsheet.

.*- Varieties missing due to deer feeding

¹ST- Seed Treatment: C= Cruiser+Fungicide, F= Fungicide, G= Gaucho+Fungicide.

²Varieties were evaluated for the date when they reached maturity. The maturity date relative to the earliest variety, "Peyton 2", is reported. Higher values mean later maturity and lower values mean earlier maturity. A value of zero indicates that the variety matured at the same time as Peyton 2.

³Varieties were evaluated for the timing of jointing and classified in to categories: E= early, ME= Medium early, M=medium, L=Late. Jointing begins at Feekes growth stage 6 and marks the beginning of more rapid growth and increased vulnerability freeze damage. Varieties that are classified as E, jointed at a time when hard freezes are probable. Varieties that are classified as M, jointed at a time when hard freezes are possible, but unlikely. Varieties classified as L, jointed at a time when hard freezes are highly unlikely.

⁴Varieties were evaluated for resistance to FHB at the University of Illinois South Farm at Urbana, IL. To promote disease symptoms, we spread scabby corn kernels on the soil surface 3 weeks before heading and mist irrigated three times per day for 30 minutes. Ratings for each variety are based on expected vomitoxin levels under FHB epidemic conditions. Ratings are expressed on a 1 to 9 scale with 1 being the best (lowest vomitoxin) and 9 being the worst (highest vomitoxin). Varieties with ratings 4.3 or lower are considered at least moderately resistant to FHB. MR= Moderately Resistant, which is the highest level of resistance available, M= Intermediate level of resistance, MS= Moderately susceptible, S= Susceptible. Higher levels of resistance provide greater control of the disease. The best control is obtained when moderate resistance is combined with a fungicide at flowering.

Table 2. Southern Illinois regional wheat variety trial results, 2025. The regional averages include Elkhvil but excludes the missing varieties due to deer damage

Company	Variety	ST ¹	Regional Average (Excludes missing varieties)				Addieville		Elkhvil		St. Peter		Maturity date ² days after earliest variety	Jointing time ³ category: E, ME, M or L	Fusarium Head Blight ⁴	
			Yield	Yield Rank	Test wt.	Height	Yield	Test wt.	Yield	Test wt.	Yield	Test wt.			Score	Category
			bu/ac	1 to 43	lb/bu	in.	bu/ac	lb/bu	bu/ac	lb/bu	bu/ac	lb/bu			1 to 9	MR, M, MS, or S
AgriMAXX	503	G	.*	.*	.*	.*	98.7	57.3	.*	.*	113.5	60.4	7	M	5.5	M
AgriMAXX	505	G	108.1	33	60.3	34.1	98.5	58.9	122.1	59.9	110.3	62.4	7	M	5.6	M
AgriMAXX	513	G	106.4	38	58.7	34.7	98.8	57.5	110.7	57.9	110.5	60.8	7	L	5.8	M
AgriMAXX	525	G	113.2	20	57.8	34	107.7	57.6	114.6	56.7	113.4	59.9	8	M	5.6	M
AgriMAXX	531	G	.*	.*	.*	.*	104.8	58.3	.*	.*	105.7	60.2	6	L	2.2	MR
AgriMAXX	545	G	115.8	11	56.4	34.2	108.5	55.2	114.1	56.4	126.2	58.4	7	L	8.2	S
AgriMAXX	553	G	110.1	28	57.3	32.4	103.4	55.8	109.4	55.9	115.4	59.7	7	M	5.2	M
AgriMAXX	555	G	109	30	57.5	35.4	99.2	55.6	120.9	57.3	112.4	59.7	9	M	4.9	M
AgriMAXX	556	G	120.7	1	57.4	35.1	117	56.9	109.1	57.4	127.5	59.2	8	M	4.4	M
AgriMAXX	561	G	116.5	4	57	33.8	110.3	56.3	128.9	55.9	107.8	59.2	1	M	3.4	MR
AgriPro	GP 543	C	.*	.*	.*	.*	95.3	53.9	.*	.*	120.3	57.7	7	M	5.8	M
AgriPro	GP 944	C	.*	.*	.*	.*	107.1	56.6	.*	.*	111.7	57.8	9	M	5.7	M
Baird Seed Co	3375	G	.*	.*	.*	.*	107.4	55.8	.*	.*	117.5	58.1	6	E	4.9	M
Baird Seed Co	3318	G	.*	.*	.*	.*	106.4	58.8	.*	.*	111.8	60.8	5	M	4	MR
Bio Town Seeds	D423W	C	115.8	12	56.9	35.2	107	55.5	120.4	54.5	120.6	59.5	7	L	4.7	M
Bio Town Seeds	DXW2421	C	.*	.*	.*	.*	109.3	56.6	.*	.*	125.2	59.1	8	M	4.3	MR
Bio Town Seeds	D506W	C	104.1	41	55.7	33.9	94.9	52.5	111.9	56.1	110.9	58	10	M	7.2	MS
Bio Town Seeds	DXW2423	C	119.2	2	56.9	35.8	112.8	56.9	118.8	54.6	124.2	59.2	9	M	4.6	M
Dyna-Gro	9172	G	102.9	42	57.7	33.8	97.7	55.6	101.9	56.2	105.8	60.2	8	M	5	M
Dyna-Gro	9151	G	115	16	60.5	35.4	107.4	59.2	123	60.2	114.8	62.5	8	M	7.4	MS
Dyna-Gro	9231	G	116.3	8	57.9	36	122.6	57.6	107.2	56.2	111.5	60.2	8	M	5.7	M
Dyna-Gro	9422	G	112.8	21	57	34.5	104.8	55.3	115.3	56.5	118.8	59.1	7	M	6.8	MS
Dyna-Gro	9533	G	.*	.*	.*	.*	100.1	54.6	.*	.*	115.4	58.2	7	M	5.4	M
Dyna-Gro	9570	G	109.5	29	57	34.5	100	55.2	117.2	55.4	115.1	59.5	8	M	5.5	M
Dyna-Gro	9593	G	111.8	24	57.5	34.7	105.5	56.5	111.5	56.6	117	59.7	6	M	4.9	M
Dyna-Gro	9612	G	113.8	18	57.3	32.2	109.1	57.2	110.1	54.5	114.9	59.7	7	M	3.5	MR
Dyna-Gro	9632	G	116.3	7	58	35.5	110.6	57.3	122	56.1	111.3	60.4	9	M	5.6	M
Dyna-Gro	9393	G	104.6	39	57.2	33	93.2	53.9	119.9	57.1	112.8	59.7	8	M	8.2	S
FS InSPIRE	FS 597	G	110.7	26	57.4	35.5	101.3	55.4	122.1	56.4	113	59.8	7	M	6	M
FS InSPIRE	FS 600	G	115.7	13	60.6	35.6	106.9	59.5	128.6	59.4	113.9	62.8	8	M	6.8	MS
FS InSPIRE	FS 606	G	.*	.*	.*	.*	98.1	59.5	.*	.*	111.8	61.5	5	M	2.8	MR
FS InSPIRE	FS 617	G	109	31	58	34.6	98.8	56.6	125.8	58.5	109	59.5	8	L	6	M
FS InSPIRE	FS 624	G	.*	.*	.*	.*	91.1	55.6	.*	.*	104.6	59.9	8	M	8.7	S
FS InSPIRE	FS 743	G	112	23	58.1	35.5	107.8	57.1	104.7	56.6	115.2	60.3	8	M	3.2	MR
FS InSPIRE	FS 745	G	104.4	40	57.7	33.7	95.1	55.6	117	56.1	106.8	60.3	9	M	5.1	M
FS InSPIRE	FS 749	G	115.5	14	58	32.9	108.2	56.4	118.4	57.1	120.2	60.4	8	M	5.2	M
FS InSPIRE	WX25A	G	.*	.*	.*	.*	100	56.6	.*	.*	119.4	59.6	9	L	8.3	S
FS InSPIRE	WX25B	G	.*	.*	.*	.*	97.3	53.9	.*	.*	115.5	58.1	7	M	5.7	M
FS InSPIRE	WX25C	G	111.2	25	57.5	34.3	102.4	56.6	124.5	57.3	109.1	59.4	8	L	4.4	M
Hoffman Seed House	H7W21	C	108.5	32	55.2	34.7	97.4	51.6	117.3	53.1	120.7	58.4	8	M	7.1	MS
Hoffman Seed House	H7W30	C	.*	.*	.*	.*	93.9	55.4	.*	.*	115.4	59.7	8	M	6.4	MS
Hoffman Seed House	H7W25	C	106.6	37	57.7	33.7	99.8	55.6	104.9	56.6	114.7	60.1	4	M	8.9	S
Kitchen Seed Company	KSC 423W	F	.*	.*	.*	.*	100.3	59.9	.*	.*	116.1	61.5	6	M	3.4	MR
Kitchen Seed Company	KSC 425	F	.*	.*	.*	.*	105.4	59.2	.*	.*	108.5	61.6	5	M	5.8	M
KWS Cereals US	KWS579	C	118.5	3	56.9	33.5	113.2	55.1	118.2	57	120	58.8	10	M	5.3	M
KWS Cereals US	KWS591	C	116.5	5	57.3	34.7	108.4	55.8	125	57.2	117.7	59.4	7	M	5.4	M
KWS Cereals US	KWS623	C	116	10	56.2	36	111.4	55.7	108.6	54.8	119.7	58.4	8	M	4.2	MR
Merschman Seeds	Peyton 2	G	.*	.*	.*	.*	101.1	54.6	.*	.*	109.3	55.6	0	E	3.4	MR
Merschman Seeds	Millie 8	G	.*	.*	.*	.*	92.4	59.4	.*	.*	98.7	61.2	3	M	2.6	MR
Merschman Seeds	Maddie 3	G	112	22	57.7	35.2	104.6	56.6	112.4	56.2	119.6	60	7	L	5.1	M
Merschman Seeds	Julie 12	C	116.4	6	57.3	35.6	113.4	56.6	101.9	57.5	120.3	59.2	8	M	5.4	M
Merschman Seeds	M2601	C	107.6	35	56.8	31.6	105.8	56	97.3	53.5	118	59.6	8	M	4	MR
Merschman Seeds	M2602	C	113.4	19	57.5	34.2	106.9	56.8	119.4	54.8	111.2	60	8	L	5.3	M
Merschman Seeds	M2603	C	115.5	15	57	35.2	106.2	55.1	125.1	55.5	120.5	59.6	6	M	6.9	MS
Merschman Seeds	M2604	C	.*	.*	.*	.*	94.6	57.1	.*	.*	113.4	59	3	M	4.4	M
Merschman Seeds	Bintee 12	C	.*	.*	.*	.*	99.4	56.8	.*	.*	96.6	59.7	4	M	3.7	MR
Pioneer	25R65	C	114.3	17	57.1	34.4	108.5	56.4	111.7	56.2	119.1	59.2	7	M	6.5	MS
Pioneer	25R76	C	116.2	9	57.4	35	108.4	56.6	119.5	55.7	121.8	59.7	8	M	5	M
Pioneer	P25R800	C	107.5	36	56.2	33.6	100.9	53.9	111.6	53.6	107.6	59.2	6	M	4.5	M
Virginia Tech	19VDH-FHB-1 F	F	.*	.*	.*	.*	103.1	54.1	.*	.*	117.3	58.1	7	M	7.5	MS
Virginia Tech	17VDH-SRW0 F	F	94.4	43	58.2	35.4	83.3	56	104.6	58	105.5	60.5	8	M	6.6	MS
Virginia Tech	VA20FHB-18 F	F	107.6	34	58.8	36.8	95.2	56.3	123.6	57.9	120.1	61.5	10	E	6.2	MS
Virginia Tech	19VTK7-66 F	F	110.6	27	57.8	36.7	105.7	57	112.1	57.3	106.8	59.8	9	E	6.7	MS
Trial Mean			111.7		57.5	34.6	103.2	56.3	115.4	56.5	114.3	59.7			5.4	
LSD			6		0.5	1.3	6.4	1	11.8	0.8	7	0.6	0.9		2.5	
CV			5.2		2.6	3.8	4.9	1.6	7.1	1.4	8.8	0.7	0.3		36	

Note: Here Elkhvil is included in the regional averages, but varieties missing in Elkhvil due to deer feeding are excluded from the regional averages.

.: Varieties missing due to deer feeding

¹ST: Seed Treatment: C= Cruiser+Fungicide, F= Fungicide, G= Gauch+Fungicide.

²Varities were evaluated for the date when they reached maturity. The maturity date relative to the earliest variety, "Peyton 2", is reported. Higer values mean later maturity and lower values mean earlier maturity. A value of zero indicates that the variety matured at the same time as Peyton 2.

³Varities were evaluated for the timing of jointing and classified in to categories: E= early, ME= Medium early, M=medium, L=Late. Jointing begins at Feekes growth stage 6 and marks the beginning of more rapid growth and increased vulnerability freeze damage. Varieties that are classified as E, jointed at a time when hard freezes are probable. Varieties that are classified as M, jointed at a time when hard freezes are possible, but unlikely. Varieties classified as L, jointed at a time when hard freezes are highly unlikely.

⁴Varities were evaluated for resistance to FHB at the University of Illinois South Farm at Urbana, IL. To promote disease symptoms, we spread scabby corn kernels on the soil surface 3 weeks before heading and mist irrigated three times per day for 30 minutes. Ratings for each variety are based on expected vomitoxin levels under FHB epidemic conditions. Ratings are expressed on a 1 to 9 scale with 1 being the best (lowest vomitoxin) and 9 being the worst (highest vomitoxin). Varieties with ratings 4.3 or lower are considered at least moderately resistant to FHB. MR= Moderately Resistant, which is the highest level of resistance available, M= Intermediate level or resistance, MS= Moderately susceptible, S= Susceptible. Higher levels of resistance provide greater control of the disease. The best control is obtained when moderate resistance is combined with a fungicide at flowering.

Location	Elkville	St Peter	Addieville
County	Jackson	Fayette	Washington
Site Location	Click to see map	Click to see map	Click to see map
Host	John and Trent Funk	Russ Schwarm	David Meyer
Soil type	Hurst silt loam	Hoyleton silt loam	
Planting date	October 18, 2024	October 11, 2023	October 15, 2024
Harvest date	June 21, 2025	June 22, 2025	June 20, 2025

Nitrogen applied	Pounds N/ A		
Fall	30	0	30
Spring	110	120	100
Latitude	37°55'03.4"N	38°52'06.9"N	38°24'56.3"N
Longitude	89°09'55.4"W	88°53'01.3"W	89°27'50.0"W