

**Table 1. Site characteristics and field activities.**

Parameter/ activity by site (S)	2022-23			2023-24			
	S1	S2	S3	S4	S5	S6	S7
<b>Location</b>	Palmyra	Palmyra	East Troy	Palmyra	Palmyra	Palmyra	East Troy
Lat.	42.90577	42.91444	42.81188	42.90967	42.90993	42.90129	42.81432
Long.	-88.57837	-88.57296	-88.48787	-88.56787	-88.57358	-88.58812	-88.47981
<b>Soil</b>	KeB	KeB	FsA	WmA	FsB	SoC2	FsA
pH	7.0	7.2	6.1	6.7	7.3	7.4	6.2
OM (%)	1.3	2.1	2.3	1.6	1.4	2.0	2.0
P (ppm)	78	75	41	42	149	35	35
K (ppm)	100	159	108	75	158	115	88
S (ppm)	3.2	3.0	3.1				
<b>Previous Corn</b>							
Hybrid	G. Harvest G02K39-5122	Pioneer P0075AM	Renk RK710DGV2P	Pioneer P0075Q	Pioneer P0075AM	Pioneer P0306Q	Renk RK710DGV2P
RM	102	102	106	100	102	103	106
Planting date	5/10/22	5/8/22	5/9/22	5/7/2023	5/6/23	5/6/23	5/7/25
Harvest date	10/27/22	10/27/22	11/30/22	10/29/23	10/25/23	10/22/23	10/18/23
Total N (lb./a)	157	160	147	142	150	173	142
Yield (bu./a)	165	172	183	170	182	220	177
<b>Cereal rye</b>							
Planting	10/29/22	10/29/22	12/3/22	11/2/23	11/2/23	11/2/23	11/25/23
Row width (in)	10	7.5	7.5	10	7.5	7.5	7.5
Termination							
Preplant <sup>(1)</sup>	5/4	5/4	5/5	4/30	4/30	4/30	5/2
VE (soybean emergence)	5/22	5/22	5/23	5/13	5/13	5/13	5/20
VE+7	5/29	5/29	5/30	5/20	5/20	5/20	5/29
VE+14	6/5	6/5	6/6	5/29	5/29	5/29	6/5
VE+21 (anthesis)	6/13	6/13	6/13	6/5	6/5	6/5	
<b>Soybean</b>							
Variety	G. Harvest GH2292E3	Pioneer P18A73E	Renk G2270E	G. Harvest GH2292E3	G. Harvest GH2292E3	G. Harvest GH2292E3	Renk G2480E
Planting date	5/10	5/10	5/12	5/1	5/1	5/1	5/6
Seeding rate (seeds/a, x1000)	130	146	148	130	148	148	148
Row width (in)	30	30	30	30	30	30	30
PRE herbicide application	5/4	5/4	5/4	5/4	5/4	5/4	5/7
Weed density 1 (preapplication)	6/28	6/28	6/29	6/26	6/19	6/19	6/26
Postemergence application	6/30	6/29	6/29	7/1	6/20	6/20	6/26
Weed density 2 (preharvest)	10/10	10/2	10/5	9/26	9/18	9/16	9/29
Harvest	10/11	10/3	10/5	9/30	9/19	9/17	9/29

(1) Includes residual herbicide application to all treatments in 2023.