

Table S1. Location, soil fertility and classification, cropping and tillage history, and planting and harvest dates during 2012-2014.

Location†	Year	Coordinates	Soil Series‡	Previous Crop	Tillage System§	Soil Fertility					Row Spacing	Planting Date	Harvest Date	
						pH¶	P#	K#	OM††	SCN				
							— mg kg ⁻¹ —	g kg ⁻¹	Eggs 100 ⁻¹ cm ³ soil	cm				
ARcol‡‡	2012	35°7'51" N, 90°48'41" W	D	Rice	CT	7.1	23	118	-	0	38	23 May	22 Oct.	
	2013			Soybean		7.4	46	94	-	500		15 May	5 Oct.	
	2014					7.2	43	94	-	0		24 May	18 Oct.	
ARnew‡‡	2012	35°36'43" N, 91°15'44" W	CA	Fallow	CT	6.5	126	252	-	0	38	17 May	22 Oct.	
	2013			Soybean		6.4	121	144	-	0		10 June	23 Oct.	
	2014			Rice		6.0	54	112	-	0		27 May	22 Oct. 27	
IAfar	2012	42°15'56" N, 91°1'28" W	KCF	Corn	CT	6.9	15	116	26	4	38	9 May	Sept.	
	2013						6.7	60	180	31		0	16 May	25 Oct.
	2014						7.0	16	169	26		75	7 May	7 Oct. 25
IAhum	2012	42°43'25" N, 94°13'17" W	CNW	Corn	CT	-	55	183	-	-	76	17 May	Sept.	
	2013						6.0	44	142	44		-	8 June	9 Oct.
	2014						6.8	55	183	56		8,132	20 May	-
ILmon	2012	40°55'12" N, 90°43'12" W	M	Corn	CT	6.6	9	125	-	0	76	11 May	8 Oct.	
	2013						6.2	29	189	55		300	24 May	7 Oct.
	2014						6.2	20	152	51		0	22 May	7 Oct.
ILurb	2012	40°4'48" N, 88°13'12" W	DR	Corn	CT	5.9	21	116	-	0	76	9 May	12 Oct.	
	2013						5.3	53	172	33		500	19 May	12 Oct.
	2014						6.3	53	165	38		4	19 May	21 Oct.
INwan	2012	41°25'47" N, 86°53'55" W	S	Corn	CT	6.3	53	178	40	0	38	15 May	9 Oct.	
	2013						6.2	31	116	26		-	8 May	1 Oct.
	2014						6.5	49	129	31		30	26 May	29 Oct.
INwla	2012	40°26'31" N, 86°54'45" W	CL	CT	CT	6.2	24	147	35	90	38	17 May	17 Oct.	
	2013						6.7	16	117	31		-	14 May	8 Oct.
	2014						6.5	17	89	38		0	27 May	24 Oct.
KSman	2012	39°11'25" N, 96°35'13" W	K	Sorghum	NT	7.3	19	211	26	0	76	7 May	11 Oct.	
	2013				MT	7.5	33	286	35	0		13 June	21 Oct.	

	2014			Soybean	NT	6.8	26	170	30	0		14 May	30 Oct.
KSros†††	2012		B			6.2	21	180	17	130	25	4 May	8 Oct.
	2013	39°8'12" N, 95°57'5" W	E	Corn	MT	7.4	13	204	14	100	38	22 May	7 Oct.
KSsca†††	2014		KI			7.0	44	312	19	40		15 May	7 Oct.
	2012					6.9	8	295	15	0	25	9 May	10 Oct.
	2013	39°47'44" N, 97°47'2" W	C	Corn	MT	6.4	5	387	19	0	38	3 June	18 Oct.
KYhod	2014					6.6	14	444	31	0		13 May	16 Oct.
	2012					6.7	345	594	22	0		11 May	16 Oct.
	2013	37°34'16" N, 85°44'19" W	NL	Corn	CT	6.9	315	638	21	0	38	29 May	11 Nov. 14
KYlex	2014					6.7	321	603	22	0		4 June	Nov.
	2012†††					6.6	305	261	24	0		10 May	19 Oct.
	2013	38°1'47" N, 84°29'41" W	L	Corn	NT	6.6	335	441	25	0	38	16 May	21 Oct.
MIbre	2014					6.6	356	241	24	0		28 May	27 Oct.
	2012			Corn		6.0	51	141	-	0		21 May	3 Nov.
	2013	43°24'30" N, 84°28'35" W	P		CT	6.2	55	220	-	0	38	9 May	25 Oct.
MIela	2014			Soybean		6.1	49	193	-	0		25 May	23 Oct.
	2012					6.7	52	178	-	0		21 May	6 Nov.
	2013	42°44'25" N, 84°28'54" W	A	Corn	CT	6.6	126	385	-	-	38	9 May	30 Oct.
MNstp	2014					7.2	20	91	-	0		22 May	7 Nov.
	2012					5.7	112	124	39	25		10 May	5 Oct.
	2013	44°57'16" N, 93°6'51" W	W	Corn	CT	6.1	124	191	38	0	76	7 May	26 Oct.
MNwas	2014					6.0	67	90	39	25		6 May	20 Oct.
	2012					6.2	68	259	46	13		11 May	2 Oct.
	2013	44°4'44" N, 93°30'23" W	N	Corn	CT	6.2	16	107	65	0	76	16 May	24 Oct.
WIarl	2014					6.0	44	163	59	13		29 May	-
	2012					6.4	27	135	29	200		11 May	12 Oct.
	2013	43°12'6" N, 89°12'19" W	PL	Corn	CT	6.9	51	153	33	11,850	38	7 May	3 Oct.
WIjan	2014					6.4	33	159	33	525		6 May	27 Oct.
	2012					7.0	41	107	35	147		10 May	2 Oct.
	2013	42°26'0" N, 89°0'41" W	PL	Corn	CT	6.3	44	109	33	0	38	16 May	14 Oct.
WIetr	2014	42°45'58" N, 88°28'55" W	M	Corn	CT	6.1	88	207	39	250	38	19 May	21 Oct.

† ARcol, Colt, AR; ARnew, Newport, AR; IAfar, Farley, IA; IAhum, Humboldt, IA; ILmon, Monmouth, IL; ILurb, Urbana, IL; INwan, Wanatah, IN; INwla, West Lafayette, IN; KSman, Manhattan, KS; KSros, Rossville, KS; KSsca, Scandia, KS; KYhod, Hodgenville, KY; KYlex, Lexington,

KY; MIbre, Breckenridge, MI; MIela, East Lansing, MI; MNstp, St. Paul, MN; MNwas, Waseca, MN; WIarl, Arlington, WI; WIjan, Janesville, WI; WIetr, East Troy, WI.

‡ Source: USDA web soil survey. Dexter silt loam (D): fine-silty, mixed, active, thermic Ultic Hapludalfs; Calloway silt loam (CA): fine-silty, mixed, active, thermic Aquic Fraglossudalfs; Kenyon Loam/Clyde-Floyd Loam (KCF): fine-loamy, mixed, superactive, mesic Typic Hapludolls, fine-loamy, mixed, superactive, mesic Typic Endoaquolls, fine-loamy, mixed, superactive, mesic Aquic Pachic Hapludolls; Clarion loam/Nicollet loam/Webster clay loam (CNW): fine-loamy, mixed, superactive, mesic Typic Hapludolls, fine-loamy, mixed, superactive, mesic Aquic Hapludolls, fine-loamy, mixed, superactive, mesic Typic Endoaquolls; Muscatine silty clay loam (M): fine-silty, mixed, superactive, mesic Aquic Hapludolls; Drummer silty clay loam (DR): fine-silty, mixed, superactive, mesic Typic Endoaquolls; Sebewa loam (S): fine-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Argiaquolls; Chalmer silty clay loam (CL): fine-silty, mixed, superactive, mesic Typic Endoaquolls; Kahola silt loam (K): fine-silty, mixed, mesic Cumulic Hapludolls; Bismarckgrove-Kimo complex (B): fine-silty, mixed, superactive, mesic Fluventic Hapludolls; Eudora silt loam (E): coarse-silty, mixed, superactive, mesic Fluventic Hapludolls; Kimo silty clay loam (KI): clayey over loamy, smectitic, mesic Fluvaquentic Hapludolls; Crete silt loam (C): fine, smectic, mesic Pachic Udertic Arguistolls; Nolin silt loam (NL): fine-silty, mixed, active, mesic Dystric Fluventic Eutrudepts; Loradale silt loam (L): fine, mixed, active, mesic Typic Argiudolls; Parkhill loam (P): fine-loamy, mixed, semiactive, nonacid, mesic Mollic Epiaquepts; Aubbeenaubbee-Capac sandy loam (A): fine-loamy, mixed, active, mesic Aeric Epiaqualfs, fine-loamy, mixed active, mesic Aquic Glossudalfs; Waukegan silt loam (W): fine-silty over sandy or sandy-skeletal, mixed, superactive, mesic Typic Hapludolls; Nicollet clay loam (N): fine-loamy, mixed, superactive, mesic Aquic Hapludolls; Plano silt loam (PL): fine-silty, mixed, superactive, mesic Typic Argiudolls; Matherton sandy loam (M): fine-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Udollic Endoaqualfs.

§ CT, conventional tillage; MT, mulch tillage; NT, no-tillage.

¶ Sikora buffer method.

Mehlich-3 extraction.

†† Loss of ignition test.

‡‡ Irrigated location.

Table S2. Cultivar information for each location and year, 2012-2014.

Location†	2012			2013			2014		
	Brand‡	Cultivar	Maturity Group	Brand‡	Cultivar	Maturity Group	Brand‡	Cultivar	Maturity Group
ARcol	Asgrow	AG4730	4.7	Asgrow	AG4730	4.7	Asgrow	AG4730	4.7
	Channel	CH4305R2	4.3	Channel	CH4405R2	4.4	Channel	CH4405R2	4.4
	Channel	CH4505R2	4.5	Pioneer	P94Y40	4.4	Pioneer	P94Y40	4.4
	Pioneer	P94Y40	4.4	Pioneer	P94Y70	4.7	Pioneer	P94Y70	4.7
	Pioneer	P94Y70	4.7	Pioneer	P95Y10	5.1	Pioneer	P95Y10	5.1
	Pioneer	P95Y10	5.1	Stewart	Stwt4512R2	4.5	Stewart	Stwt4512R2	4.5
ARnew	Asgrow	AG4730	4.7	Asgrow	AG4730	4.7	Asgrow	AG4730	4.7
	Channel	CH4305R2	4.3	Channel	CH4405R2	4.4	Channel	CH4405R2	4.4
	Channel	CH4505R2	4.5	Pioneer	P94Y40	4.4	Pioneer	P94Y40	4.4
	Pioneer	P94Y40	4.4	Pioneer	P94Y70	4.7	Pioneer	P94Y70	4.7
	Pioneer	P94Y70	4.7	Pioneer	P95Y10	5.1	Pioneer	P95Y10	5.1
	Pioneer	P95Y10	5.1	Stewart	Stwt4512R2	4.5	Stewart	Stwt4512R2	4.5
IAfar	Asgrow	AG2632	2.6	Asgrow	AG2433	2.4	Asgrow	AG2433	2.4
	Asgrow	AG2731	2.7	Asgrow	AG2632	2.6	Asgrow	AG2632	2.6
	Pioneer	P92Y12	2.1	Asgrow	AG2731	2.7	Asgrow	AG2731	2.7
	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3
	Pioneer	P92Y51	2.5	Pioneer	P92Y51	2.5	Pioneer	P92Y51	2.5
	Pioneer	P92Y53	2.5	Pioneer	P92Y53	2.5	Pioneer	P92Y53	2.5
IAhum	Asgrow	AG2430	2.4	Asgrow	AG2232	2.2	Asgrow	AG2232	2.2
	Asgrow	AG2431	2.4	Asgrow	AG2431	2.4	Asgrow	AG2431	2.4
	Channel	CH2105R2	2.1	Channel	CH2105R2	2.1	Channel	CH2105R2	2.1
	Gold			Gold			Gold		
	Country	RB2201R2N	2.2	Country	GC2142	2.1	Country	GC2142	2.1
	Pioneer	P92Y22	2.2	Pioneer	P92Y22	2.2	Pioneer	P92Y22	2.2
	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3
ILmon	Asgrow	AG3131	3.1	Channel	2903R2	2.9	Channel	2903R2	2.9
	Asgrow	AG3231	3.2	Asgrow	AG3030	3.0	Asgrow	AG3030	3.0

ILurb	Channel	CH2800R2	2.8	Asgrow	AG3231	3.2	Asgrow	AG3231	3.2
	Channel	CR2902N	2.9	Kruger	K2-2904	2.9	Kruger	K2-2904	2.9
	Pioneer	P92Y80	2.8	Pioneer	P92Y80	2.8	Pioneer	P92Y80	2.8
	Pioneer	P93Y15	3.1	Pioneer	P93Y15	3.1	Pioneer	P93Y15	3.1
	Asgrow	AG3231	3.2	Channel	3402R2	3.4	Channel	3402R2	3.4
	Asgrow	AG3431	3.4	Asgrow	AG3231	3.2	Asgrow	AG3231	3.2
	Channel	CH3303R2	3.3	Asgrow	AG3431	3.4	Asgrow	AG3431	3.4
	Channel	CR23422N	2.3	Channel	CH3303R2	3.3	Channel	CH3303R2	3.3
	Pioneer	P93Y40	3.4	Pioneer	P93Y40	3.4	Pioneer	P93Y40	3.4
	Pioneer	P93Y60	3.6	Pioneer	P93Y60	3.6	Pioneer	P93Y60	3.6
INwan	Asgrow	AG3131	3.1	Channel	2903R2	2.9	Channel	2903R2	2.9
	Asgrow	AG3231	3.2	Asgrow	AG3030	3.0	Asgrow	AG3030	3.0
	Channel	CH2800R2	2.8	Asgrow	AG3231	3.2	Asgrow	AG3231	3.2
	Channel	CR2902N	2.9	Kruger	K2-2904	2.9	Kruger	K2-2904	2.9
INwla	Pioneer	P92Y80	2.8	Pioneer	P92Y80	2.8	Pioneer	P92Y80	2.8
	Pioneer	P93Y15	3.1	Pioneer	P93Y15	3.1	Pioneer	P93Y60	3.6
	Asgrow	AG3231	3.2	Channel	3402R2	3.4	Channel	3303R2	3.3
	Asgrow	AG3431	3.4	Asgrow	AG3231	3.2	Channel	3402R2	3.4
	Channel	CH3303R2	3.3	Asgrow	AG3431	3.4	Asgrow	AG3231	3.2
	Channel	CR23422N	2.3	Channel	CH3303R2	3.3	Asgrow	AG3431	3.4
	Pioneer	P93Y40	3.4	Pioneer	P93Y40	3.4	Pioneer	P93Y40	3.4
	Pioneer	P93Y60	3.6	Pioneer	P93Y60	3.6	Pioneer	P93Y60	3.6
KSman	Asgrow	AG3431	3.4	Asgrow	AG3431	3.4	Asgrow	AG3431	3.4
	Asgrow	AG4130	4.1	Asgrow	AG4130	4.1	Asgrow	AG4033	4.0
	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2
	Channel	CH3303R2	3.3	Channel	CH3303R2	3.3	Channel	CH3303R2	4.2
	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9
	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2
	Asgrow	AG3431	3.4	Asgrow	AG3431	3.4	Asgrow	AG3431	3.4
KSros	Asgrow	AG4130	4.1	Asgrow	AG4130	4.1	Asgrow	AG4033	4.0
	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2

KSsca	Channel	CH3303R2	3.3	Channel	CH3303R2	3.3	Channel	CH3303R2	4.2
	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9
	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2
	Asgrow	AG3431	3.4	Asgrow	AG3431	3.4	Asgrow	AG3431	3.4
	Asgrow	AG4130	4.1	Asgrow	AG4130	4.1	Asgrow	AG4033	4.0
	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2
KYlex	Channel	CH3303R2	3.3	Channel	CH3303R2	3.3	Channel	CH3303R2	3.3
	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9
	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2
	Asgrow	AG4130	4.1	Asgrow	AG4130	4.1	Asgrow	AG4033	4.0
	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2
	Channel	CH4305R2	4.3	Channel	CH4405R2	4.4	Channel	CH4405R2	4.4
KYhod	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9
	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2
	Pioneer	P94Y70	4.7	Pioneer	P94Y70	4.7	Pioneer	P94Y70	4.7
	Asgrow	AG4130	4.1	Asgrow	AG4130	4.1	Asgrow	AG4033	4.0
	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2	Asgrow	AG4232	4.2
	Channel	CH4305R2	4.3	Channel	CH4405R2	4.4	Channel	CH4405R2	4.4
MIbre	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9	Pioneer	P93Y92	3.9
	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2	Pioneer	P94Y23	4.2
	Pioneer	P94Y70	4.7	Pioneer	P94Y70	4.7	Pioneer	P94Y70	4.7
	Asgrow	AG2430	2.4	Asgrow	AG2232	2.2	Asgrow	AG2232	2.2
	Asgrow	AG2431	2.4	Asgrow	AG2431	2.4	Asgrow	AG2431	2.4
	Pioneer	P92Y12	2.1	Pioneer	P92Y12	2.1	Asgrow	AG2433	2.4
MIela	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3	Pioneer	P92Y12	2.1
	Pioneer	P92Y51	2.5	Pioneer	P92Y51	2.5	Pioneer	P92Y32	2.3
	Pioneer	P92Y53	2.5	Pioneer	P92Y53	2.5	Pioneer	P92Y51	2.5
	Asgrow	AG2632	2.6	Asgrow	AG2632	2.6	Asgrow	AG2432	2.4
	Asgrow	AG2731	2.7	Asgrow	AG2731	2.7	Asgrow	AG2632	2.6
	Pioneer	P92Y12	2.1	Pioneer	P92Y12	2.1	Asgrow	AG2731	2.7
	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3

MNstp	Pioneer	P92Y51	2.5	Pioneer	P92Y51	2.5	Pioneer	P92Y51	2.5
	Pioneer	P92Y53	2.5	Pioneer	P92Y53	2.5	Pioneer	P92Y53	2.5
	Asgrow	AG2430	2.4	Asgrow	AG2232	2.2	Asgrow	AG2232	2.2
	Asgrow	AG2431	2.4	Asgrow	AG2431	2.4	Asgrow	AG2431	2.4
	Channel	CH2105R2	2.1	Channel	CH2105R2	2.1	Channel	CH2105R2	2.1
	Gold			Gold			Gold		
	Country	RB2201R2N	2.2	Country	GC2142	2.1	Country	GC2142	2.1
MNwas	Pioneer	P92Y22	2.2	Pioneer	P92Y22	2.2	Pioneer	P92Y22	2.2
	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3
	Asgrow	AG2430	2.4	Asgrow	AG2232	2.2	Asgrow	AG2232	2.2
	Asgrow	AG2431	2.4	Asgrow	AG2431	2.4	Asgrow	AG2431	2.4
	Channel	CH2105R2	2.1	Channel	CH2105R2	2.1	Channel	CH2105R2	2.1
	Gold			Gold			Gold		
	Country	RB2201R2N	2.2	Country	GC2142	2.1	Country	GC2142	2.1
WIarl	Pioneer	P92Y22	2.2	Pioneer	P92Y22	2.2	Pioneer	P92Y22	2.2
	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3
	Asgrow	AG2632	2.6	Asgrow	AG2433	2.4	Asgrow	AG2433	2.4
	Asgrow	AG2731	2.7	Asgrow	AG2632	2.6	Asgrow	AG2632	2.6
	Pioneer	P92Y12	2.1	Asgrow	AG2731	2.7	Asgrow	AG2731	2.7
	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3
	Pioneer	P92Y51	2.5	Pioneer	P92Y51	2.5	Pioneer	P92Y51	2.5
WIjan	Pioneer	P92Y53	2.5	Pioneer	P92Y53	2.5	Pioneer	P92Y53	2.5
	Asgrow	AG2632	2.6	Asgrow	AG2433	2.4	-	-	-
	Asgrow	AG2731	2.7	Asgrow	AG2632	2.6	-	-	-
	Pioneer	P92Y12	2.1	Asgrow	AG2731	2.7	-	-	-
	Pioneer	P92Y32	2.3	Pioneer	P92Y32	2.3	-	-	-
	Pioneer	P92Y51	2.5	Pioneer	P92Y51	2.5	-	-	-
	Pioneer	P92Y53	2.5	Pioneer	P92Y53	2.5	-	-	-
WIetr	-	-	-	-	-	-	Asgrow	AG2433	2.4
	-	-	-	-	-	-	Asgrow	AG2632	2.6
	-	-	-	-	-	-	Asgrow	AG2731	2.7

-	-	-	-	-	-	Pioneer	P92Y32	2.3
-	-	-	-	-	-	Pioneer	P92Y51	2.5
-	-	-	-	-	-	Pioneer	P92Y53	2.5

† ARcol, Colt, AR; ARnew, Newport, AR; IAfar, Farley, IA; IAhum, Humboldt, IA; ILmon, Monmouth, IL; ILurb, Urbana, IL; INwan, Wanatah, IN; INwla, West Lafayette, IN; KSman, Manhattan, KS; KSros, Rossville, KS; KSSca, Scandia, KS; KYhod, Hodgenville, KY; KYlex, Lexington, KY; MIbre, Breckenridge, MI; MIela, East Lansing, MI; MNstp, St. Paul, MN; MNwas, Waseca, MN; WIarl, Arlington, WI; WIjan, Janesville, WI; WIetr, East Troy, WI.

‡ Asgrow (Monsanto Co., St. Louis, MO); Channel (Monsanto Co., St. Louis, MO); Pioneer (Pioneer Hi-Bred International, Inc., Johnston, IA); Stewart (Stewart Seeds, Greensburg, IN); Gold Country (Gold Country Seed, Hutchinson, MN); Kruger (Kruger Seeds, Cedar Falls, IA).

Table S3. Average monthly air temperature (°C) and accumulated precipitation (mm) from 1 May to 30 September for all study locations from 2012 to 2014. Values in parentheses represent the deviation from the 30 yr average.

Location†	Year	Month									
		May		June		July		Aug.		Sept.	
		Air temp. °C	Precip. mm	Air temp. °C	Precip. mm	Air temp. °C	Precip. mm	Air temp. °C	Precip. mm	Air temp. °C	Precip. mm
ARcol	2012‡	24.3 (+3.1)	51 (-91)	26.1 (+0.3)	55 (-20)	30.1 (+3.0)	39 (-52)	27.6 (+1.2)	56 (-18)	23.7 (+1.3)	128 (+65)
	2013	20.6 (-0.6)	209 (+67)	25.9 (+0.1)	50 (-25)	25.6 (-1.5)	118 (+27)	25.9 (-0.5)	74 (+0)	24.5 (+2.1)	74 (+11)
	2014	21.7 (+0.5)	188 (+46)	24.6 (-2.5)	431 (+356)	24.6 (-2.5)	54 (-37)	26.8 (+0.4)	30 (-44)	23.6 (+1.2)	20 (-43)
ARnew	2012‡	24.4 (+3.3)	86 (-45)	24.8 (-0.9)	41 (-45)	28.7 (+1.1)	56 (-41)	25.8 (-1.3)	56 (-12)	21.9 (-0.8)	175 (+96)
	2013	19.2 (-1.9)	242 (+111)	25.2 (-0.5)	57 (-29)	25.0 (-2.6)	86 (-11)	24.8 (-2.3)	115 (+47)	23.4 (+0.7)	40 (-39)
	2014	19.9 (-1.2)	128 (-3)	24.4 (-1.3)	204 (+118)	24.0 (-3.6)	100 (+3)	26.3 (-0.8)	21 (-47)	21.9 (-0.8)	22 (-57)
IAfar	2012	17.3 (+2.5)	83 (-24)	21.2 (+1.0)	36 (-74)	25.7 (+3.4)	12 (-109)	20.9 (-0.3)	102 (-5)	15.6 (-1.0)	30 (-56)
	2013	15.0 (+0.2)	179 (+72)	19.8 (-0.4)	92 (-18)	21.3 (-1.0)	64 (-57)	21.3 (+0.1)	76 (-31)	18.0 (+1.4)	60 (-26)
	2014	15.2 (+0.4)	70 (-37)	20.9 (+0.7)	319 (+209)	19.6 (-2.7)	53 (-68)	21.2 (+0.0)	79 (-28)	15.8 (-0.8)	54 (-32)
IAhum	2012	18.2 (+2.5)	71 (-41)	22.2 (+1.4)	66 (-74)	26.2 (+3.3)	28 (-93)	21.6 (+0.2)	22 (-79)	17.1 (+0.4)	77 (+3)
	2013	14.5 (-1.2)	191 (+79)	20.3 (-0.5)	134 (-6)	22.9 (+0.0)	26 (-95)	20.9 (-0.5)	33 (-68)	19.1 (+2.4)	20 (-54)
	2014	15.6 (-0.1)	89 (-23)	21.3 (+0.5)	263 (+123)	20.3 (-2.6)	61 (-60)	21.6 (+0.2)	92 (-9)	16.5 (-0.2)	124 (+50)
ILmon	2012	18.8 (+1.7)	85 (-32)	21.8 (-0.3)	143 (+31)	26.4 (+2.4)	25 (-79)	22.8 (-0.2)	81 (-17)	17.9 (-0.9)	145 (+53)
	2013	17.1 (+0.0)	299 (+182)	21.7 (-0.4)	96 (-16)	22.1 (-1.9)	52 (-52)	22.4 (-0.6)	1 (-97)	19.7 (+0.9)	52 (-40)
	2014	16.7 (-0.4)	83 (-34)	22.3 (+0.2)	181 (+69)	20.7 (-3.3)	108 (+4)	22.8 (-0.2)	134 (+36)	17.4 (-1.4)	154 (+62)
ILurb	2012	20.2 (+3.2)	79 (-44)	22.4 (+0.1)	58 (-60)	27.9 (+3.9)	15 (-100)	23.4 (+0.3)	141 (+47)	18.2 (-0.9)	145 (+67)
	2013	17.9 (+0.8)	95 (-28)	21.8 (-0.5)	159 (+51)	22.5 (-1.5)	90 (-25)	22.8 (-0.3)	9 (-85)	20.9 (+1.8)	17 (-61)
	2014	17.7 (+0.6)	111 (-12)	22.8 (+0.5)	209 (+101)	21.0 (-3.0)	221 (+106)	23.0 (-0.1)	39 (-55)	18.1 (-1.0)	87 (+9)
INwan	2012	18.4 (+3.5)	62 (-35)	21.2 (+0.6)	89 (-16)	14.4 (-7.9)	155 (+45)	20.2 (-1.0)	89 (-21)	15.9 (-1.3)	45 (-39)
	2013	15.7 (+0.8)	89 (-8)	19.6 (-1.0)	242 (+137)	22.5 (+0.2)	62 (-48)	19.7 (-1.5)	112 (+2)	17.6 (+0.4)	78 (-6)
	2014	15.3 (+0.4)	95 (-2)	21.6 (+1.0)	248 (+143)	23.0 (+0.7)	87 (-23)	21.2 (+0.0)	265 (+155)	17.0 (-0.2)	84 (+0)
INwla	2012	19.9 (+3.5)	88 (-32)	22.3 (+0.7)	42 (-64)	26.6 (+3.5)	27 (-77)	21.8 (-0.2)	198 (+109)	17.3 (-1.0)	104 (+34)
	2013	18.4 (+2.0)	95 (-25)	21.8 (+0.2)	124 (+18)	22.1 (-1.0)	70 (-34)	21.4 (-0.6)	48 (-41)	19.0 (+0.7)	90 (+20)
	2014	17.0 (+0.6)	124 (+4)	22.7 (+1.1)	148 (+42)	20.1 (-3.0)	95 (-9)	21.9 (-0.1)	211 (+122)	16.8 (-1.5)	143 (+73)
KSman	2012	21.4 (+3.0)	34 (-94)	25.2 (+1.4)	105 (-41)	30.0 (+3.4)	18 (-105)	24.4 (-1.4)	109 (+4)	19.6 (-0.9)	72 (-15)
	2013	17.6 (-0.8)	102 (-25)	23.7 (+0.0)	96 (-50)	24.9 (-1.7)	107 (-6)	24.9 (-0.9)	83 (-22)	22.7 (+2.2)	146 (+59)
	2014	18.4 (+0.0)	55 (-72)	23.3 (-0.4)	245 (+99)	24.1 (-2.5)	17 (-106)	26.1 (+0.3)	82 (-23)	19.7 (-0.8)	52 (-35)
KSros	2012‡	21.9 (+3.5)	61 (-65)	26.1 (+2.6)	115 (-15)	30.2 (+4.0)	30 (-76)	24.8 (-0.5)	36 (-76)	19.9 (-0.3)	12 (-89)
	2013‡	18.1 (-0.3)	147 (+21)	24.3 (+0.8)	62 (-68)	25.8 (-0.4)	59 (-47)	25.2 (-0.1)	71 (-41)	22.7 (+2.5)	251 (+150)
	2014‡	19.9 (+1.5)	58 (-68)	24.4 (+0.9)	140 (+10)	24.9 (-1.3)	44 (-62)	26.9 (+1.6)	42 (-70)	20.6 (+0.4)	123 (+22)

KSsca	2012†	20.4 (+3.1)	3 (-99)	24.7 (+1.9)	116 (+17)	28.6 (+2.7)	75 (-24)	23.3 (-1.6)	59 (-19)	18.7 (-1.1)	30 (-39)
	2013†	16.8 (-0.5)	96 (-6)	22.9 (+0.1)	43 (-56)	24.4 (-1.5)	111 (+12)	24.6 (-0.3)	133 (+55)	21.9 (+2.1)	40 (-29)
	2014†	17.2 (-0.1)	11 (-91)	23.2 (+0.4)	131 (+32)	23.8 (-2.1)	36 (-63)	24.8 (-0.1)	112 (+34)	18.6 (-1.2)	73 (+4)
KYhod	2012	20.9 (+2.2)	134 (-14)	22.8 (+0.1)	9 (-91)	26.7 (+2.1)	201 (+91)	24.0 (-0.1)	71 (-6)	20.6 (+0.0)	101 (+8)
	2013	18.9 (+0.2)	163 (+15)	22.6 (-0.1)	203 (+103)	22.8 (-1.8)	226 (+116)	23.2 (-0.9)	179 (+102)	21.1 (+0.5)	104 (+11)
	2014	18.8 (+0.1)	179 (+31)	22.7 (+0.0)	36 (-64)	23.2 (-1.4)	95 (-15)	23.3 (-0.8)	168 (+91)	20.7 (+0.1)	13 (-80)
KYlex	2012†	20.4 (+2.5)	91 (-44)	22.4 (-0.3)	41 (+73)	26.9 (+0.6)	203 (+85)	23.4 (-0.7)	55 (-28)	19.2 (-0.9)	138 (+61)
	2013	19.0 (+1.1)	144 (+9)	23.2 (+0.5)	192 (+78)	23.6 (-2.7)	231 (+113)	23.8 (-0.3)	131 (+48)	20.9 (+0.8)	41 (-36)
	2014	19.2 (+1.3)	138 (+3)	23.8 (+1.1)	142 (+28)	22.9 (-3.4)	82 (-36)	24.4 (+0.3)	243 (+160)	20.8 (+0.7)	110 (+33)
MIbre	2012	15.8 (+1.9)	55 (-33)	19.8 (+0.5)	63 (-26)	23.9 (+2.2)	177 (+106)	20.0 (-0.4)	130 (+41)	16.0 (+0.0)	29 (-56)
	2013	15.3 (+1.4)	120 (+32)	18.9 (-0.4)	74 (-15)	21.3 (-0.4)	22 (-49)	19.9 (-0.5)	86 (-3)	16.1 (+0.1)	26 (-59)
	2014	13.7 (-0.2)	84 (-4)	19.8 (+0.5)	61 (-28)	18.8 (-2.9)	167 (+96)	19.5 (-0.9)	65 (-24)	15.8 (-0.2)	91 (+6)
MIela	2012	17.0 (+3.0)	58 (-29)	21.0 (+1.6)	48 (-40)	25.4 (+3.7)	44 (-31)	21.2 (+0.6)	98 (+15)	16.6 (+0.3)	73 (-11)
	2013	16.4 (+2.4)	100 (+13)	19.7 (+0.3)	213 (+125)	22.0 (+0.3)	44 (-31)	20.7 (+0.1)	121 (+38)	16.5 (+0.2)	25 (-59)
	2014	14.7 (+0.7)	108 (+21)	20.5 (+1.1)	163 (+75)	19.5 (-2.2)	123 (+48)	20.8 (+0.2)	121 (+38)	16.1 (-0.2)	65 (-19)
MNstp	2012	17.6 (+2.5)	237 (+150)	22.4 (+2.0)	91 (-18)	26.8 (+3.5)	124 (+20)	22.2 (+0.4)	35 (-73)	17.7 (+1.0)	8 (-69)
	2013	14.6 (-0.5)	158 (+71)	20.5 (+0.1)	131 (+22)	23.9 (+0.6)	89 (-15)	23.7 (+1.9)	53 (-55)	19.6 (+2.9)	34 (-43)
	2014	14.8 (-0.3)	116 (+29)	20.8 (+0.4)	289 (+180)	21.9 (-1.4)	58 (-46)	22.9 (+1.1)	74 (-34)	17.1 (+0.4)	23 (-54)
MNwas	2012	17.1 (+2.5)	146 (+46)	21.0 (+0.9)	108 (-12)	24.3 (+2.2)	53 (-61)	20.3 (-0.5)	37 (-78)	15.4 (-0.7)	24 (-69)
	2013	13.0 (-1.6)	164 (+64)	19.6 (-0.5)	169 (+49)	22.1 (+0.0)	134 (+20)	20.9 (+0.1)	53 (-62)	17.9 (+1.8)	49 (-44)
	2014	13.7 (-0.9)	73 (-27)	20.2 (+0.1)	328 (+208)	20.1 (-2.0)	30 (-84)	21.5 (+0.7)	81 (-34)	16.0 (-0.1)	59 (-34)
WIarl	2012	15.0 (+0.9)	75 (-18)	19.8 (+0.4)	7 (-111)	24.3 (+2.7)	56 (-46)	19.4 (-1.0)	73 (-24)	14.3 (-1.8)	26 (-65)
	2013	13.3 (-0.8)	153 (+60)	17.9 (-1.5)	191 (+73)	20.4 (-1.2)	76 (-26)	19.2 (-1.2)	45 (-52)	15.5 (-0.6)	75 (-16)
	2014	12.6 (-1.5)	71 (-22)	19.2 (-0.2)	237 (+119)	18.1 (-3.5)	48 (-54)	19.4 (-1.0)	94 (-3)	15.4 (-0.7)	45 (-46)
WIjan	2012	17.5 (+2.2)	50 (-48)	21.6 (+1.4)	14 (-87)	26.6 (+3.7)	81 (-23)	21.5 (+0.1)	76 (-18)	16.3 (-0.5)	60 (-26)
	2013	15.9 (+0.6)	84 (-14)	19.9 (-0.3)	242 (+141)	22.1 (-0.8)	46 (-58)	20.7 (-0.7)	36 (-58)	17.9 (+1.1)	50 (-36)
WIetr	2014	13.3 (+0.0)	75 (-16)	20.4 (+1.5)	125 (+28)	19.9 (-1.5)	72 (-14)	20.4 (-0.2)	71 (-28)	15.5 (-0.5)	68 (-15)

† ARcol, Colt, AR; ARnew, Newport, AR; IAfar, Farley, IA; IAhum, Humboldt, IA; ILmon, Monmouth, IL; ILurb, Urbana, IL; INwan, Wanatah, IN; INwla, West Lafayette, IN; KSman, Manhattan, KS; KSros, Rossville, KS; KSsca, Scandia, KS; KYhod, Hodgenville, KY; KYlex, Lexington, KY; MIbre, Breckenridge, MI; MIela, East Lansing, MI; MNstp, St. Paul, MN; MNwas, Waseca, MN; WIarl, Arlington, WI; WIjan, Janesville, WI; WIetr, East Troy, WI.

‡ Location received supplemental irrigation.