

Table S1. Temperature and precipitation at each location (PrpB: Accumulated precipitation (mm) occurring within the week before the tillage; PrpA: Accumulated precipitation (mm) occurring within the 2 weeks after the tillage; GDDB: Accumulated growing-degree days (°C) during the week before the tillage; GDDA: Accumulated growing-degree days (°C) during the two weeks period after the tillage).

Location	Timing of tillage (date)	Timing of tillage (day of the year)	PrpB	PrpA	GDDB	GDDA
Big Flats	29-Apr	119	7.4	12.2	61.7	181.7
	13-May	133	12.2	14.2	100.8	200.6
	27-May	147	13.7	42.9	118.3	228.6
	10-Jun	161	17.5	20.8	103.6	236.4
	24-Jun	175	11.2	101.6	131.4	302.5
	8-Jul	189	25.1	11.9	168.9	311.9
	22-Jul	203	8.4	33.5	176.9	242.5
	5-Aug	217	1.5	38.9	130.8	234.4
	19-Aug	231	7.9	47.5	118.9	283.1
	2-Sep	245	31.5	23.6	166.4	207.8
Musgrave	16-Sep	259	22.4	25.9	121.1	166.4
	29-Apr	119	4.8	19.3	56.4	210.6
	13-May	133	19.1	48.3	112.5	190
	27-May	147	47.2	68.6	117.5	231.4
	10-Jun	161	41.7	24.4	104.4	229.4
	24-Jun	175	2	86.9	131.9	295
	8-Jul	189	27.4	31.5	162.5	308.1
	22-Jul	203	15.2	38.4	175.3	246.1
	5-Aug	217	16.3	84.1	131.9	235.6
	19-Aug	231	25.7	51.6	120.3	272.5
Woodman	2-Sep	245	51.1	45.2	153.9	215.8
	16-Sep	259	38.9	33.5	120.3	168.3
	30-Sep	273	0	46.2	84.4	201.1
	29-Apr	119	1.8	8.6	59.7	168.3
	13-May	133	8.6	106.4	104.1	168.6
	27-May	147	102.1	71.9	90.6	242.5
	10-Jun	161	53.6	66.3	117.2	240.4
	24-Jun	175	0.8	89.2	140.4	302.7
	8-Jul	189	17.5	15	173.4	316
	22-Jul	203	7.4	49	182.4	265.5
Rogers	5-Aug	217	15.5	53.1	145.4	251.1
	19-Aug	231	0	10.4	132.2	283.9
	2-Sep	245	9.4	116.1	155.6	230.1
	16-Sep	259	115.8	20.6	126.9	183.6
	30-Sep	273	0.3	14.7	93.6	179.9
	29-Apr	119	5.6	23.7	44.6	160.7
	13-May	133	23.7	94.2	98.6	135.8
	27-May	147	71.6	56.1	78.9	208
	10-Jun	161	49.2	52.3	99.5	204.7
	24-Jun	175	0.5	59.1	114.8	274
	8-Jul	189	13.7	12.5	157.6	282.3
	22-Jul	203	9.6	75.1	162.3	241.4
	5-Aug	217	22.9	59.1	131.9	226.5
	19-Aug	231	3.6	94	121.6	247.8
	2-Sep	245	90.5	63.9	135.1	204.9
	16-Sep	259	47.6	14	114.2	162.1