

Species: ELEL

Temp range: 5-25oC

DayHr: 12

Date 9/9/28
Name TEN

PI: Martyn
Project: SA Species
Aug 27 2025 @ 1730

Start Time 1382

11 173

End Time 1600

11 12 13 | 12 13 13 14 14

11 12 12 13 13 14 14

11 9/15 811 OL 9/15 9/15 Th2#

1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14			
1	6/3	OL	OH	2H	OL	6/3	6/4	OH	2L	OL	9/3	OL	OL	6/2	OH	9/1	2L	9/5	H	9/1	9/5	OL	9/5	9/5	7/6	H				
1	2L	OL	OH	1H	OL	4/1	9/2	OH	9/2	OL	2L	9/2	OL	OL	9/4	OH	5	OL	7/4	2L	9/4	9/5	9/2	2L	9/2	9/5	7/5			
2	2	C	1W	OW	2C	9/3	C	9/4	W	9/5	OC	2W	W	9/4	2L	9/5	W	9/5	C	9/5	W	2C	9/5	OV	9/5	9/5	OC	9/5	2W	
2	2C	6/3	C	6/3	W	8/3	C	9/2	C	OW	OW	9/4	C	OW	2L	7/4	6/2	O	W	5	7/4	7/3	9/4	C	O	W	OC	9/5	O.W	
3	9/2	L	OL	2H	OH	2H	OL	9/4	2L	OL	7/4	9/4	2L	7/4	2L	9/5	6/4	OH	8/4	OL	9/5	OH	9/4	OL	6/2	1L				
3	2L	2H	3H	2H	OL	9/2	2L	9/2	2L	OL	9/2	2L	9/2	2L	7H	H	9/2	9/2	9/2	9/2	2L	0.4	OH	9/2	M	9/5	7/6	H		
4	3C	6/3	C	6/3	W	8/3	C	9/3	W	9/4	2W	6/3	W	OW	2C	OC	9/4	9/5	7/6	W	6/5	9/3	OW	9/4	9/4	9/4	C	OW	9/W	
4	6/2	OC	OW	2W	9/4	C	9/4	C	OW	9/4	2L	9/5	9/4	9/4	OW	7/4	C	9/5	O.C	9/2	9/5	9/4	9/5	2W	OW	O.C	OW	1S		
5	6/4	2L	2	H	3L	1L	6/4	OH	3C	OC	2H	1H	2L	9/2	L	0.H	OL	OH	9/4	2L	OL	OH	1H	9/1	OL	9/4	H	OH		
5	2L	2L	9/2	3L	OL	9/4	1H	3H	2C	3C	6/3	7/4	9/2	L	6/2	9/4	2L	9/4	OH	9/5	OL	8/6	9/5	1S	1/5	7/5	0.H			
6	2	C	OW	1W	3C	OW	2W	9/4	6/3	2L	9/4	6/3	W	9/4	2C	6/5	3W	9/4	8/5	9/5	OW	8/4	C	OW	2W	OC	9/5	9/5	9/5	OW
6	1L	2C	2W	2W	9/2	C	9/2	C	2S	9/4	9/4	1H	2W	9/4	6/3	6/4	6/4	6/4	W	9/5	OW	6/4	2C	6/5	9/1	W	9/4	OC	1S	OW
7	OL	3L	OH	1H	OL	1H	3H	4L	3L	3H	OL	OH	2H	6/1	3L	6/4	OH	9/4	2L	9/4	2L	7/4	4	2H	0.H					
7	2L	3H	2H	4L	3L	3H	2H	3V	2L	OH	3H	6/4	2L	8/4	H	0.H	6/3	2L	9/4	OL	8/4	9/5	9/2	9/5	9/5	H	9/5			
8	1C	2C	2W	OW	2	L	0.W	2C	3C	4W	6/4	3L	6/4	9/4	W	9/5	6/4	C	9/5	9/5	3L	0.W	9/4	9/5	3W	8/4	W			
8	1C	2C	OW	2W	3	L	0.W	3C	OC	6/4	9/4	2C	3C	3W	2W	OC	9/4	7/6	W	6/4	9/5	2W	6/4	9/5	9/5	2W	0.W			
9	OL	1H	2H	OL	3L	2H	3H	4L	3L	4H	3H	6/4	1L	6/4	1L	OL	2L	0A	2H	6/4	8/2	6/4	UH	OL	8/4	2H	0.H			
9	1L	OL	OH	1H	OL	3V	0.H	9/4	3L	4H	0.H	0L	3L	3H	9/4	2L	2L	6/4	2H	8/2	OL	6/4	2H	0.2	8/5	8/4	H	0.H		
10	OC	OW	OW	2C	2C	OW	2W	3C	OW	4W	4C	3L	3W	2W	3C	4C	3W	OW	6/4	C	1W	6/4	V	9/5	C	2C	9/5	9/5	W	
10	1C	OC	1W	1W	OC	2C	OW	2W	4C	2C	OW	3W	2L	4C	7/4	1W	DC	6/4	W	3C	9/4	OW	6/4	8/5	9/5	OW	9/W			
11	OL	1L	2L	OL	OH	2H	3L	OL	2H	3H	3L	3H	4L	2H	OH	5L	2L	3H	2H	2L	OL	0.H								
11	OL	OL	1L	2L	OL	8/4	OL	2H	0.H	4L	3L	0.H	OL	3L	3H	0.H	OL	6/4	2H	9/2	2L	2	4							
12	OL	0W	OC	2W	6W	OC	1C	ON	2W	1C	2C	4W	0W	4C	2C	2W	4W	OC	3W	9/4	9/4	EC	0	W						
12	OL	0W	1C	0C	0W	1W	1C	2C	W	0W	1C	OC	3W	0W	3C	4C	0W	7/4	W	2C	9/2	3W	2	C	2W	6/4	W			
13																														
13	OL	0H	OL	0H	1H	0H	2H	OL	1L	2H	0H	1L	2H	0H	1L	OL	3A	2H	2L	0H	2L	7/4	2H							
14	OC	6W	OC	6W	IC	OC	W	2W	OC	2C	2W	0W	2C	3C	0W	2W	3C	2C	2W	0W	2W	OC	9/2	C	OW	3W				
14	OC	6W	OC	6W	2C	OC	W	2W	2C	3C	2W	0W	2C	3C	2W	3C	2C	3W	2C	3W	0W	2C	3W	0W	2C	2W	4W			

Codes:

- 0 no radicle or coleoptile emergence
 - 1 first instance of radicle emergence (**must be used and can only use once**)
 - 2 radicle 1-5mm long
 - 3 radicle 6-10mm
 - 4 radicle 10-20mm
 - 5 radicle >20mm

- 6 coleoptile emergence (must be used and can only use once)
 - 7 coleoptile length 0-10mm
 - 8 coleoptile length 10-20mm
 - 9 coleoptile >20mm

once)

Notes:

Species: ELEL

Temp range: 5-25oC

DayHr: 12

PI: Martyn

Project: SA Species

Planted: Aug 27 2025 @ 1730

Date 9/3/25

Name MH

SA Levels/Codes

Control =

C

0.5mM =

L (low)

Water =

W

1.0mM =

H (high)

Start Time

13:20pm

End Time

15:40 pm

	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14								
1	OH	OH	OW	OH	OH	2W	CW	2H	OH	8W	CW	1H	OH	HS	W	7/4	7/4	W	2H	OH	OW	W	2H	7/4	W	2W	W									
1	OH	2W	CW	1H	OH	OW	OH	OH	OH	OW	2W	OH	1/4	H	OH	W	7/4	7/4	W	3H	4H	OW	4H	7/4	W	2W	CW									
2	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL								
2	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL	2L	OL	2C	OL								
3	2H	OH	2W	CW	2H	2W	6/4W	2H	1W	3W	CW	OH	OH	HS	W	OW	5H	2H	OW	5H	2H	OW	7/4W	W	2H	OW	7/4W									
3	2H	1H	OW	2W	2H	OW	OW	3H	2W	2W	6/3H	OW	2H	7/4W	W	OW	7/4H	2H	2W	OW	9H	7H	OW	8H	7H	OW	9H	7H								
4	2C	2C	OL	2L	2C	OL	2L	2C	1C	2C	2C	1C	2C	2C	OL	2C	2C	1C	2C	2C	OL	2L	2C	2C	1C	2C	2C	1C	2C							
4	2L	2C	OC	2L	2L	2C	OL	1L	6/4L	2C	5L	2L	6/2C	2L	2L	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2C	2C							
5	1H	2H	HOW	CW	3H	OH	CW	2W	2H	OH	2W	3W	OH	6/4V	SW	OH	7/4H	6/3W	OW	OH	OW	2W	6/2H	OH	7/4W	W	2H	OW	7/4W							
5	1H	1W	W	OH	2H	1W	CW	2H	2H	6/3H	OW	3W	2H	3W	6/3W	3H	OH	OW	2W	2W	6/3H	7/3H	6/3W	1W	6/3H	OW	7/3H	W	2H	OW	7/3H					
6	2L	1C	2L	2L	2C	3L	2L	2C	2L	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C							
6	1L	2L	OC	1C	2L	2L	2C	2L	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C						
7	OH	1W	OW	OH	2H	OW	8H	3W	OH	2H	3W	OH	2H	3W	6/4V	OW	7/4H	6/3W	OW	3H	CH	2W	6/2H	OH	7/4W	W	2H	OW	7/4W							
7	8H	OW	2W	2H	1H	OW	OH	1H	2W	8H	OW	2W	8H	OH	2W	8H	OW	2W	2W	7/4H	3H	2W	2W	7/4H	3H	2W	2W	7/4H	3H	2W	2W					
8	2L	2L	OC	1C	OL	2C	3L	2L	2L	2C	OL	2C	3C	2L	2L	3L	2C	3L	2L	2C	2L	3L	2C	2L	3L	2C	3L	2C	2L	3L	2C					
8	1L	2L	CC	2C	2L	1C	2C	2L	1L	2C	CC	3L	2L	2C	2L	2C	2L	3L	2C	3C	2L	2C	2L	3C	2L	2C	3C	2L	2C	3C	2L	2C				
9	OH	1H	OW	1H	2H	OW	W	2H	CW	3H	2H	2H	2W	2H	2H	2W	2H	2W	OW	2H	2H	OW	2W	2H	2H	OW	2W	2H	2H	OW	2W					
9	OH	OW	OH	GH	OW	2W	2H	OW	1W	2H	3H	OW	3H	2H	OW	3H	2H	OW	3H	2H	OW	3W	1/2	OH	OW	3W	1/2	OH	OW	3W	1/2	OH	OW	3W		
10	OL	OC	OL	OC	2L	2C	2C	1L	2L	2C	3L	2L	2C	2L	2C	2L	2C	3L	2L	2C	3C	3C	2L	2C	3C	2L	2C	3C	2L	2C	3C	2L	2C			
10	OL	OC	OL	OC	2L	2C	2C	2L	2C	2L	1L	3C	2L	2L	2C	2L	2C	1L	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C		
11	OH	ON	OH	W	1W	2H	OW	W	1H	2W	OW	2H	2H	2W	2H	2H	2W	2H	2W	3W	2H	2W	3W	2H	2W	3W	2H	2W	3W	2H	2W	3W	2H	2W	3W	
11	OH	ON	OH	OH	1H	W	1H	OW	OH	1H	2W	OW	1H	2H	OW	1H	2H	OW	1H	2H	2W	2H	2W	2H	2W	3W	2H	2W	3W	2H	2W	3W	2H	2W	3W	
12	OL	OC	OL	OC	2L	2L	2C	2L	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C		
12	OL	OC	OL	OC	2L	2L	2C	2L	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C		
13	OH	ON	OH	ON	OH	1H	OW	2W	2H	OH	2W	OW	2H	2W	2H	2W	2H	2W	OW	2W	2H	2W	2H	2W	2H	2W	2H	2W	2H	2W	2H	2W	2H	2W	2H	2W
13	OH	ON	OH	ON	OH	2H	OW	OW	OH	2H	2W	OW	2H	2W	2H	2W	2H	2W	OH	2W	2H	2W	2H	2W	2H	2W	2H	2W	2H	2W	2H	2W	2H	2W	2H	2W
14	OL	OC	OL	OC	OL	OL	OL	OL	OL	OL	OC	OL	OL	OC	2C	OL	OL	OL	OL	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C
14	OL	OC	OL	OC	OL	OL	OL	OL	OL	OL	OC	OL	OL	OC	2C	OL	OL	OC	2C	OL	OL	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C	2L	2C

Codes:

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- 1 first instance of radicle emergence (**must be used and can only use once**)
- 2 radicle 1-5mm long
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Notes:

Species: EEL
Temp range: 5-25°C
DayHr: 12

PI: Martyn

Project: SA Species

Planted: Aug 27 2025 @ 1730

Date 9/2/25
Name MH

SA Levels/Codes

Control = C
Water = W
0.5mM = L (low)
1.0mM = H (high)

Start Time 13:45 pm
End Time 15:15 pm

	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14		
1	OWOW		2C	2WON	2C	2WON	3C	OC	2W	2W	10C	2C	6W	6W	3W	3W	3C	3C	10C	10C	ON	ON	2L	2L	2W	2W	7C	OC		
1	2WON	2C	2WON	2C	2WON	2W	3C	2C	2W	2W	3C	2C	2C	2W	3W	3C	3C	2C	2C	2W	2W	2C	2C	2W	2W	2C	2C			
2	CH2H	IL	OL	IH	OT	AL	OL	IH	OH	2L	10A	OL	6/3	H	3L	2L	7/3	H	3L	2L	7/3	H	3L	2L	7/3	H	3L	2L		
2	CHOH	2L	CL	OT	AL	OT	2H	AL	CL	OT	2L	3L	CL	2L	10	3L	OL	QH	3L	2L	7/3	H	3L	2L	7/3	H	3L	2L		
3	2WON	2C	1W2W	2C	2W	2C	2W	2C	2W	2C	2W	2C	2C	2C	2W	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C			
3	CW	2W	2C	2C	2W	2W	2C	2C	2W	2C	2W	2C	2C	2C	2W	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C			
4	2H2H	8L	OL	1H	2H	OL	2L	2H	OL	2L	2H	2L	2L	2L	2H	OL	6/3	H	2L	2L	2L	2L	2L	2L	2L	2L	2L			
4	2H2H	2L	2L	2H	1H	AL	1L	2H	OL	2L	2L	2L	2L	2L	2L	2H	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L			
5	OWOW		ON	2W	2C		1C	OC	3N	2W		2C	2WON	3C	2C	OW	2W		2C	2W	2C	2C	2C	2C	2C	2C	2C			
5	ON	OC	OW	OC	2C	2W	2C	2C	2W	2C	2C	2C	2W	2C	2C	2W	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C			
6	OH2H	2L	2H	OH	2L	2L	2H	OH	2L	OH			OH	OH	OL	6/3	H	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L			
6	CH2L	2L	2L	OH	1H	2L	1H	2H	2L	1L	2H	2L	2L	2L	2H	2L	2L	2H	2L	2L	2L	2L	2L	2L	2L	2L	2L			
7	CW	OC		2C	1C	2W	2C	1C	2W	2C	2C	2C	2W	2C	2C	CW	2W	7/3	2C	2C	2W	3W	3C							
7	OW2W	2C	2C	ON	OC	2C	1W	2W	1C	OC	1W	2W	2C	1C	3W	OW	CC	2C	2C	2W	2C	2C	2W	2C	2C	2C	2C			
8	CH	OL	2L	CH	1H	OL	NH	1H	2L	1L	CH	1H	OL	4H	OH	2L	2L	2H	3L	2L	1H	CH	2L	3L						
8	2H	1H	OL	2L	1H	OH	2L	OH	1L	OL	2H	OH	2L	OH	OH	OL	3H	4H	2L	OL	5/4	2H	9/2	2L						
9	ON	OC	OW	OC	1C	ON	2W	1C	2C	2W	2W	1C	2C	2W	2W	2C	3C	3C	2W	4W		2C								
9	ON	OC	OW	2W	OC	1C	ON	2C	1C	2W	2C	1C	2W	2C	2C	2W	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C		
10	OH	OL	OH	2H	2L	2L	1H	1H	OL	2H	1H	2L	2L	2L	2H	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L		
10	OH	OL	OH	2H	2L	2L	1H	2H	2L	1H	2H	2L	2L	2L	2H	1H	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L		
11	OW	OC	ON	OC	OC	2W	2W	OC	2C	2W	2W	2C	2C	2W	2W	2C	3C	3C	2W	4W		2C								
11	ON	OC	ON	OC	OC	1C	ON	2C	1C	2W	2C	2C	2C	2W	2C	2C	2W	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C		
12	OH	OL	CH	OL	2H	2L	CL	2L	IL	2L	2L	2L	2L	2L	2L	2H	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	
12	OH	OL	CH	OL	2H	2L	CL	2L	CL	2H	2L	2L	2L	2L	2L	2H	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	
13	ON	OC	ON	OC	ON	2W	2W	OC	2W	2C	2C	2C	2W	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C		
13	ON	OC	ON	OC	ON	1C	CC	1W	ON	2C	1C	1C	1C	2C	1C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	2C	
14	OH	OL	OH	OL	CH		OL	1H	OT	OL	OL	1H	2H	OL	2H	2L	1L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L
14	OH	OL	OH	OL	CH	2H	OL	OH	2H	OL	2H	2L	1L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	

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Notes:

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PI: Martyn
Project: SA Species
Planted: Aug 27 2025 @ 1730

Date 8/11/25
Name Tom

SA Levels/Codes

Control = C
Water = W
0.5mM = L (low)
1.0mM = H (high)

Start Time 1402
End Time 1538

	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14
1	LC	OL			DV	DV	2C	1C	I	L	2C	1C	OL	2C	93	L	Z	C	84	6/3	L	9/2	C	OL	ZL			
1	2C	1C	IL	OL			DV	IL	2C	6/2	2L	OL	2C	6/4	OL	2C	93	3L	OL	94	7/4	3L	6/3	OL	2C	6/2	ZL	
2	OW	OH	2H	2W	OW	O+	2W	OW	DH	7/4	2W	W	O+	3W	2W	2H	OW	2W	8/1	OH	2W	1W	2H					
2	1W	OW	OH	OW	OW	O+	DV	2W	OH	1H	1K	O	W	OH	2H	7/4	2W	2H	OW	2H	9/2	OW	3H	1H				
3	2C	ZL	OL	2C	OL	2L	OC	1C	OL	ZL	1C	OC	IL	2L	OL	2C	OL	6/3	C	2C	ZL	OL	2C	2L	OL			
3	10	OC	2L	1L	2C	1C	OL	2C	OL	2L	2C	1L	2L	2C	OL	2L	3L	2C	OL	OL	2L	2C	OL	2L				
4	1W	2W	1H	OH	OW	2W	O+	2H	DW	2W	2H	1H	2W	OW	2H	3/3	OW	O+	OH	OW	2W	3H	OH	OW	2W	2H	1H	
4	OW	2W	1H	O+	OW	W	2H	OH	2W	2H	2W	2H	O	W	1H	2H	2W	9/4	2H	2W	OW	6/3	3H	7/4	H			
5	OC	1L	2L	1C	ZL	2L	OL	OC	I	L	1C	2L	3C	2C	OL	2L	2C	1L	OL	OC	6/4	3L	OL					
5	OL	1L	OC	2C	OL	2L	IC	ZL	2L	OL	1C	2C	1L	2L	2C	2L	3L	2L	OL	2C	OC	2L	6/4	L				
6	OW	OW	O+	1H	OW	1H	OH	L	W	1H	OH	3W	2W	O	1H	2W	OW	O+	2H	OW	1W	O+	3W	OW	2H	OH		
6	OW	OW	O	H	OW	O	W	OH	2H	2W	1H	2W	1H	OW	2W	2H	O+	2W	2H	3H	2W	OW	6/3	3H	O+			
7	OC	OC	OR	1L	1C	OC	OL	1C	OC	1L	4L	1C	2C	OL	2L	2C	1L	2C	3L	2L	2L	3L	2L	3L				
7	OC	1C	OK	1L	OC	1G	I	L	OC	O	L	2C	OC	2L	OC	2C	2L	2C	3C	2L	OL	2C	3L	2L				
8	OW	O	H																									
8	OW	1W	1H	O+	OW	O	H	ZW	OW	2W	2H	1H	3W	OW	O	H	2W	2H	4H	2W	OW	3H	2H					
9	OC	OL	OC	OL	OC	IC	OL	OC	1C	I	L	1C	OL	2L	2C	2L	2C	1L	2C	2L	3L	2L	3L	2L	3L			
9	OL	1L	OC	2C	OL	2L	OL	OC	1C	O	L	OC	OL	2L	2C	2L	2C	3C	2L	OL	2C	OL	2L	6/4	L			
10	OW	O	H	O	W	O	H	1H	OW	2W	O	H	2W	1W	2H	O+	2W	OW	O	H	1H	OW	2W	O	H	2H	3L	1H
10	OW	OW	O	W	O	H	O	W	1H	O	H	2W	OW	O	H	2H	2W	O	H	2H	1H	OW	2W	O	H	2H	O+	
11	OC	OL	OC	OL	OC	OL	OC	OL	1L	OL	OC	1L	OL	1C	2L	1L	OC	1L	2L	2L	2L	2L	2L	2L	2L			
11	OC	OL	OC	OL	OC	OL	OC	OL	1L	OL	OC	1L	OL	1C	2C	OL	2L	1L	OC	1C	OL	2C	OL	3L	2L			
12	OW	O	H	O	W	O	H	1H	OW	2W	O	H	2W	1W	2H	O+	2W	OW	O	H	1H	OW	2W	O	H	2H	3L	1H
12	OW	OW	O	W	O	H	O	W	1H	O	H	2W	OW	O	H	2H	2W	O	H	2H	1H	OW	2W	O	H	2H	O+	
13	OC	OL	OC	OL	OC	OL	OC	OL	OC	IC		IC	OL	1C	OL	1C	OL	1L	OL	OC	2L	1L	2L	2L	2L			
13	OC	OL	OC	OL	OC	OL	OC	OL	1C	OC	OL	OC	2C	1L	OL	2C	OL	2L	2C	OL	OL	OC	1C	OL	2L	OL		
14	OW	O	H	O	W	O	H	1H	OW	1W	O	H	1W	OW	O	H	1W	OW	O	H	1W	OW	1W	O	H	1W	O+	
14	OW	O	H	O	W	O	H	1H	OW	1W	O	H	1W	OW	O	H	1W	OW	O	H	1H	OW	1W	O	H	1W	O+	

Codes:

0 no radicle or coleoptile emergence

1 first instance of radicle emergence (must be used and can only use once)

2 radicle 1-5mm long

3 radicle 6-10mm

4 radicle 10-20mm

5 radicle >20mm

6 coleoptile emergence (must be used and can only use once)

7 coleoptile length 0-10mm

8 coleoptile length 10-20mm

9 coleoptile >20mm

Notes:

GP 10
GP 21

1 0
1 0

Species: ELEL

Temp range: 5-25oC

DayHr: 12

Date 8/31/25Name MIA*scan*

SA Levels/Codes

Control = C

0.5mM =

L (low)

Water = W

1.0mM =

H (high)

PI: Martyn

Project: SA Species

Planted: Aug 27 2025 @ 1730

Start Time 13:50 pmEnd Time 15:10 pm

1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14				
1	OL	OH	8H	CL	L	OL	OH	OL	OL	OH	2L																				
1	OL	OH	OH	CL	OH	2L	CL	OH	2L	OH	2H	2L	1H	2H	2L	1H	CH														
2	OC	OW	1C	2C	an	an	an	ac	oc	2an	2C	cc	%	W	an	W	2C	an	2W	ac	CC	2W	an								
2	OC	OC	OW	2C	an	an	an	an	2C	2C	an	2C	2C	%	W	2C	2C	2C	ON	OC	2C	an									
3	OL		OL	2L	OH	1H	OL	1L	8H	1H	OL	L	H	R	OL	OH	OL	2L	OL	2H	CH	1L	1L	2H	OH						
3	2L	CL	OL	H	OL	OL	H	OL	2L	1H	2H	CL	2L	OH	1H	2L	CL	2H	2L	2L	2L	2H	2H	2L	2L	2H					
4	OC	OW	1C	OW	W	OC	OW	an	an	CC	2W	CN	CC	2C	2W	W	2C	an	2W	AC	IC	an	W								
4	2C	CC	an	an	an	1C	CC	an	an	1W	1C	2C	an	W	1C	CC	2W	2C	1C	an	W	CC	an	2W							
5	CL	2L	2L	OL	OH	OL	CL	OH	2L	2L		OL	OH	2L	2L	OL	OH	2L	2L	OL	2H	OH									
5	OL	OH	OL	OL	OH	IL	OL	OH	2H	OL	IL	OL	OH	2L	1H	OL	2L	OL	2H	2L	2L	2L	2H	CH							
6	OC	OW	OC	1C	OC	OW	OC	2W	CC	2W	2C	2C	2W	W	2C	W	an	2C	ON	OC	2C	W	ON								
6	OC	OC	OW	an	an	an	an	2C	CC	an	2W	CC	2C	2C	2W	CC	2C	an	2W	2C	2C	2C	2W	an							
7	OL	OH	OL	OA	OL	OH	OL	OL	O	H	2L	OL	2H	OH	2L	1H	2H	2L	OL	2L	2L	2L	2L	2H	OH						
7	OL	OL	OL	OL	OL	IL	OL	IL	1H	0H	IL	2L	0H	OL	IL	1H	2H	2L	IL	2L	2L	2L	2H	2H							
8	OC	OW	OC	OC	OC	W	2W	CC	2C	2W	an	2C	CC	2W	an	2C	W	2W	2C	2C	2C	2W	2W	2C	2C	2W	W				
8	OC	OW	OC	OC	OC	W	an	2C	CC	an	1W	2C	CC	an	1W	2C	1C	2W	2C	1W	2W	1C	1C	2W	OW						
9	OL	OH	OL	OH	OL	OL	OL	OL	2H	0H	OL	OL	OH	1L	2L	1H	2H	OL	1L	OL	1H	2H	OL	1L	OL	1H	2H				
9	OL	OH	1H	OL	OL	1H	OH	1L	OL	1H	2H	OL	2L	1H	0H																
10	OC	ON	OC	ON	OC	ON	W	OC	2W	OW	OC	2W	OW	OC	2W	2C	2C	0W	1W	1C	OC	2W	2W	1C	OC	2W	2W				
10	OC	ON	OC	ON	OC	ON	OC	ON	OC	1W	OW	OC	1W	OW	OC	1W	2W	2C	OC	1W	OC	1W	2C	0W	1W						
11	CL	OH	OL	OH	OL	OL	OL	OL	OL	OH	OL	1H	2H	IL	OL	OL	OH														
11	CL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	1H	2H	2L	2L	2H	CH														
12	CC	an	OC	an	OC	an	OC	an	CC	an	OC	an	OC	an	OC	an	OC	an	OC	an	ON	an	OC	an	OC	an	W				
12	CC	an	OC	an	OC	an	OC	an	CC	an	OC	an	OC	an	OC	an	OC	an	OC	an	ON	an	OC	an	OC	an	W				
13	OL	OH	OL	OH	OL	OL	OL	OL	OL	OH	OL																				
13	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL											
14	OC	ON	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC		
14	OC	ON	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC	AN	OC		

Codes:

- 0 no radicle or coleoptile emergence
- 1 first instance of radicle emergence (must be used and can only use once)
- 2 radicle 1-5mm long
- 3 radicle 6-10mm
- 4 radicle 10-20mm
- 5 radicle >20mm
- 6 coleoptile emergence (must be used and can only use once)
- 7 coleoptile length 0-10mm
- 8 coleoptile length 10-20mm
- 9 coleoptile >20mm

Notes:

Species: ELEL

Temp range: 5-25oC

DayHr: 12

Date 8/30/25

Pl: Marty

Project: SA Species

Planted: Aug 27 2025 @ 1730

Name TEM

SA Levels/Codes

Control =

C

0.5mM =

L (low)

Water =

W

1.0mM =

H (high)

Start Time 1605

End Time 1706

1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14										
1	OH	OW	OH	1600W	OH	W	OW	OH	W	OW	OH	2W	1W	1H	1W	OW	1W																				
1	OH	OW	OH	OWOW	OH	W	OW	OH	W	OW	OH	1W	1H	2W	1W	OW	OH	1H	OW	OH	1W	OW	1H	OW	1W	OW	1W										
2	OL	OC	OL	OLIC	OL	IC	OC	O	L	IC	OC	1L	1C	2L	1L	1C	OL	IC	OC																		
2	1C	OC	OL	1C	1L	OL	1C	1L	OL	1C	1L	OL	1C	1L	OL	1C	1L	OL	1C	1L	OL	1C	2L	1C	2L	1C	2L	1C	1C								
3	OH	OW	OH	OW	1H	OH	OW	1W	OH	OW	1W	OH	OW	1H	OH	OW	1H	OH	OW	1W	1H	OH	OW	1W	1H	OH	OW	1W									
3	OW	1W	OH	OW	1H	OH	OW	1W	OH	OW	1H	OH	OW	1W	1H	1H	1W	OW	1H	2H	1W	OW	1H	2H	1W	1H	2H	1W									
4	1H	OR	OC	OL	1L	OC	OL	1C	OL	OC	OL	1C	IC	2L	OL	1C	IC	OL	IC	OC																	
4	1L	OR	1C	OC	O	V	1C	OC	OL	1L	OC	OL	1C	1L	OC	2L	OL	2C	OC	1L	2L	OC	1C	2L	OC	1C	2L	OC	1L	2L	OC						
5	OH	OW	OH	OW	OH	OW	1W	OH	OW	1H	OH	OW	1W	1H	OH	OW	1W	1H	OH	OW	1W																
5	OH	1H	OH	OW	OH	1H	OW	1W	OH	1W	OH	1W	OH	1H	OW	1W	1H	OW	2W	1H	OH	OW	1W	1H	OH	OW	1W	1H	OH	OW	1W						
6	OL	1L	OC	1L	OL	OC	OL	1C	OL	OC	OL	1C	IC	2L	OL	1C	IC	OL	OC	1C	1L	OL	OC	1C	1L	OL	OC	1C	1L	OL	OC						
6	O	V	1V	OC	1C	OL	1C	1C	OL	OC	OL	1C	IC	1L	OC	1C	1L	OL	1C	1L	OL	OC	1C	1L	OL	OC	1C	1L	OL	OC	1C						
7	OH	OW	OH	OW	OH	OW	1W	OH	OW	1W	1H	OH	1W	1H	OW	1W	1H	OW	2W	1H	OH	1W	1H	OW	1W	1H	OH	1W	1H	OW	1W						
7	OH	OW	OH	OW	OH	OW	1H	OH	OW	1W	OH	OW	1H	OW	1W	1H	OH	1W	1H	OW	1W	1H	1H	1W	1W	1H	1H	1W	1W	1H	1H	1W					
8	OV	OC	OL	OC	OL	OC	OL	OC	OL	OC	2L	OL	1C	1L	OC	1L	1C																				
8	OV	OC	OL	OC	OL	OC	1C	OL	OC	OL	OC	1C	IC	1L	OC	1C	1L	OL	OC																		
9	OH	OW	OH	OW	OH	OW	1W	OH	OW	1H	OH	1W																									
9	OH	OW	OH	OW	OH	OW	1H	OH	OW	1W	OH	OW	1H	OW	1W	1H	OH	1W																			
10	OV	OC	OL	OC	OL	OC	1C	OL	OC	OL	OC	1L	OC	1L	1C	1L	1C	OL	OC																		
10	OL	1L	OC	1L	OC	1C	OL	OC	1L	OC	1C	OL	OC	1L	1C	OL	OC																				
11	OH	OW	OH	OW	OH	OW	1H	OH	OW	1H	OH	OW	1H	OH	1W																						
11	OH	OW	OH	OW	OH	OW	1H	OH	OW	1H	OH	OW	1H	OH	1W																						
12	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	
13	OH	OW	OH	OW	OH	OW	1H	OH	OW	1H	OH	OW	1H	OH	1W																						
13	OH	OW	OH	OW	OH	OW	1H	OH	OW	1H	OH	OW	1H	OH	1W																						
14	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	OL	OC	

Codes:

- 0 no radicle or coleoptile emergence
- 1 first instance of radicle emergence (must be used and can only use once)
- 2 radicle 1-5mm long
- 3 radicle 6-10mm
- 4 radicle 10-20mm
- 5 radicle >20mm
- 6 coleoptile emergence (must be used and can only use once)
- 7 coleoptile length 0-10mm
- 8 coleoptile length 10-20mm
- 9 coleoptile >20mm

Notes:

Species: ELEL

PI: Martyn

Temp range: 5-25°C

Project: SA Species

DayHr: 12

Planted: Aug 27 2025 @ 1730

Date 8/29/25

Start Time 12:30 pm

Name MH

End Time 13:23 pm

SA Levels/Codes

Control =	C	0.5mM =	L (low)
Water =	W	1.0mM =	H (high)

1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	
1	OW	OC	ON	OC	ON	OC	OW	IW	OW	OC	OW	IW	OW	OC	ON	OC	IC	ON	OC									
1	IW	CW	OC	ON	OC	ON	OC	OW	OC	IW	OW	OC	IW	OW	OC	ON	OC	IC	ON	OC	IC	ON	OC	ON	OC	ON	OC	
2	OH	OL	OT	AL	OH	OL	OT	OH	OT	AL	OH	AL	OH	AL	OH	CL	CH	OH	OL	AL	CH	OL	CH	OH	AL	IL	IL	
2	OH	OL	OT	AL	OH	OL	OT	OH	OT	AL	OH	AL	OH	AL	OH	CL	CH	OH	AL	CH	OL	CH	OH	AL	IL	IL	IL	
3	ON	CE	ON	OC	ON	AV	OC	AV	OC	ON	AV	OC	ON	OC	ON	OC	ON	OC	ON	OC	IC	OC	ON	OC	ON	OC	ON	OC
3	ON	CE	ON	OC	ON	AV	OC	AV	OC	ON	AV	OC	ON	OC	ON	OC	ON	OC	ON	OC	IC	OC	ON	OC	ON	OC	ON	OC
4	OH	OL	OT	OL	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	CH	CH	OT	CH	OL	OT	OH	AL	OT	CH	AL	IL
4	OH	OL	OT	OL	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	CH	CH	OT	CH	OL	OT	OH	AL	OT	CH	AL	IL
5	OW	OC	ON	OC	ON	OC	OW	OC	OW	OC	OW	OC	OW	OC	OW	OC	OW	OC	OW	OC	OW	OC	ON	OC	ON	OC	ON	OC
5	OW	OC	ON	OC	ON	OC	OW	OC	OW	OC	OW	OC	OW	OC	OW	OC	OW	OC	OW	OC	OW	OC	ON	OC	ON	OC	ON	OC
6	OH	OL	OT	AL	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT
6	OH	OL	OT	AL	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT
7	OW	OW	OC	ON	OC	ON	OC	ON	OC	ON	OC	IC?	OC	OW	OC	ON	OC											
7	CW	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC								
8	OT	OL	OH	OL	OH	OL	OH	OL	OT	OL	OH	OL	OT	AL														
8	OT	OL	OH	OL	OH	OL	OH	OL	OT	OL	OH	OL	OT	AL														
9	OW	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC								
9	OW	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC								
10	OH	OL	OT	OL	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT
10	OH	OL	OT	OL	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT	OH	OL	OT
11	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC										
11	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC	ON	OC										
12	OT	AL	OH	OL	OH	OL	OT	OT	AL	OT	OL	OT	OT	AL														
12	OT	AL	OH	OL	OH	OL	OT	OT	AL	OT	OL	OT	OT	AL														
13	AN	OC	AN	OC	AN	OC	ON	OC	AN	OC	AN	OC	ON	OC	AN	OC	AN	OC	ON	OC	ON	OC	OC	IC	OC	OC	OC	OC
13	AN	OC	AN	OC	AN	OC	ON	OC	AN	OC	AN	OC	ON	OC	AN	OC	AN	OC	ON	OC								
14	OH	OL	OT	AL	OT	AL	OT	OT	AL	OT	OL	OT	OT	AL														
14	OH	OL	OT	AL	OT	AL	OT	OT	AL	OT	OL	OT	OT	AL														

Codes:

- 0 no radicle or coleoptile emergence
- 1 first instance of radicle emergence (must be used and can only use once)
- 2 radicle 1-5mm long
- 3 radicle 6-10mm
- 4 radicle 10-20mm
- 5 radicle >20mm
- 6 coleoptile emergence (must be used and can only use once)
- 7 coleoptile length 0-10mm
- 8 coleoptile length 10-20mm
- 9 coleoptile >20mm

Notes:

fibers have sprouted

Species: ELEL

PI: Martyn

Temp range: 5-25°C

Project: SA Species

DayHr: 12

Planted: Aug 27 2025 @ 1730

Date 8/28/25

Start Time 13:00pm

Name MH

End Time 14:02 pm

SA Levels/Codes

Control = C

0.5mM =

L (low)

Water = W

1.0mM =

H (high)

	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14
1	OC	OL	OC	CL	OC	ON	OC	OL																				
2	ON	OH	AN	ON	ON	OW	OT	CW	OH	ON	OH	ON	ON	OH														
3	OC	OL																										
4	ON	OH	OW	OH	AN	ON	OH	AN	ON	OH	ON	OH	ON	OH	AN	OH												
5	OC	OL																										
6	ON	OH	AN	ON	OW	OH	OT	ON	OH	AN																		
7	OC	OL																										
8	ON	OH	ON	OH	ON	OH	ON	OT	CW	OH	ON	OH																
9	OC	OL																										
10	AN	OH	AN	OH	ON	OH	ON	OT	AN	OH	ON	OH																
11	OC	OL																										
12	AN	OH	AN	OH	ON	OH	ON	OT	AN	OH	ON	OH																
13	OC	OL																										
14	ON	OH	AN	OH	AN	OH	OT	CW	OT	AN	OH	AN																

Codes:

- 0 no radicle or coleoptile emergence
- 1 first instance of radicle emergence (**must be used and can only use once**)
- 2 radicle 1-5mm long
- 3 radicle 6-10mm
- 4 radicle 10-20mm
- 5 radicle >20mm
- 6 coleoptile emergence (**must be used and can only use once**)
- 7 coleoptile length 0-10mm
- 8 coleoptile length 10-20mm
- 9 coleoptile >20mm

Notes: