

Experiment CT-steps Cont'd

Finished

Date	Time of Day	Germ. time (Days)	DNT	Norm	Abnor.	Gdd	Dd	DT	No. of Days
<p>(4) 45°C (115)</p> <p>Sample 45°C</p>									
Apr. 17	9:33	0							
"	9:43								
"	10:03								
19	10:AM								
<p>Most germinating to 8mm</p> <p>91 8 5 clean</p> <hr/> <p>45°C about the same as 40°C 11 0 91 8 5</p> <p>91 End</p>									
<p>(5) 50°C (96)</p> <p>Sample 50°C</p>									
Apr 17	10:03	0							
"	10:14								
"	10:33								
19	10AM								
22	10:30A	70							
23	8AM	75							
<p>Most germinating to 6mm</p> <p>11 57</p> <p>1 13 5</p> <hr/> <p>70 1 70 5 ← →</p> <p>96 71 End</p>									
<p>(6) 55°C (101)</p> <p>Sample 55°C</p>									
Apr. 17	10:33	0							
	10:48								
	11:03								
19	11AM								
24	9AM								
25	10AM	19							
<p>No growth. The rest excised</p> <p>23</p> <p>19 25 ← 34 →</p> <hr/> <p>End 19 48 34</p> <p>101 48</p>									

Finished

Experiment CT-steps Cont'd

Date	Time of Day	Germ. time (Days)	DNT	Germination Norm	Abnor.	Gdd	Dd	DT	No. of Days
		Sample 60°C							
		0	(102)	()					
April 17	11:03								
	11:16								
	11:33								
19	11 AM								
22		5							
		Sample 65°C							
		0	(95)	()					
April 17	11:33								
"	11:45								
"	12:03								
"									
"	19	11 AM							
22	11 AM								
		Sample 70°C							
		0	(88)	()					
April 17	12:03								
"	12:14								
"	12:33								
"									
"	19	11 AM							

Start 60°C step
Reached 60°C

Sample out. Excised
All appear dead
No growth " "

All dead
Positive 0%

End
~

Start 65°C step
Reached 65°C

Sample out Excised
All dead Gray No growth

Positive

~ Verified but left for further observations
Yes all dead.

0% End
~

Start 70°C step
Reached 70°C

Sample out Excised
All dead gray no growth

Positive

Verified →

End
0%
~

Conduct test
April 15/74

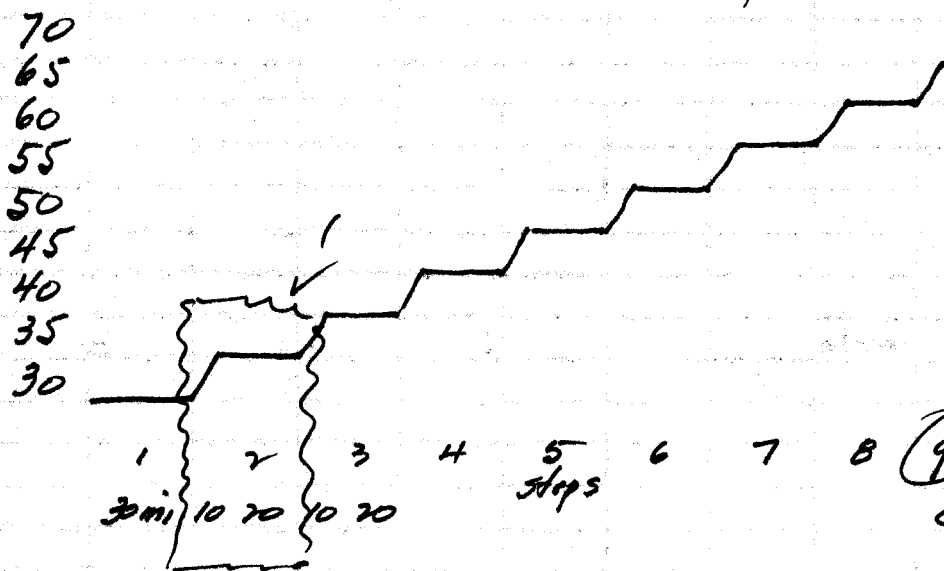
April 11/74
Holman

Plan

Exp. Effect temp on seed viability (Wet seeds)

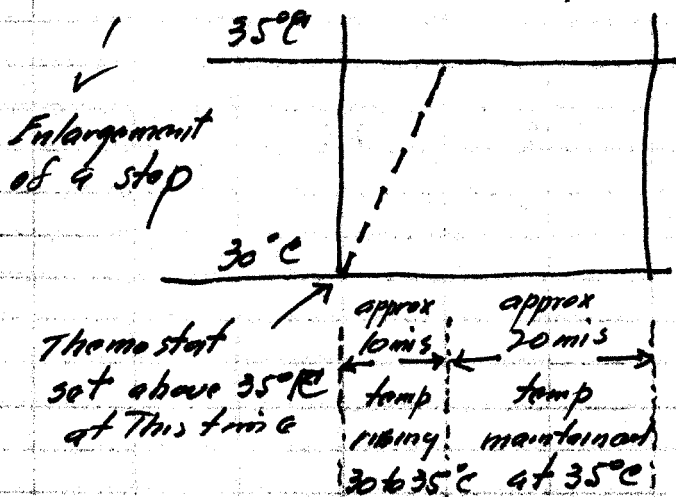
Determine cumulative effect of rising temp

Temperature range 30°C (86°F) to 70°C (158°F)
Control temp. So this range is covered in
4 hrs by 8 30 minute stops



This sample exposed 10 min approx as temp rises from 65°F to 70°F

Thermostat set at 35°C



Number of seeds
1000

Seed used → Harper (roots)

85% viability

Late rise soil temp BSEIC

1939

	80°F	100°F	to	Max	Max	Max duration		
May 27	10A + 1.0	11AM	3hrs	2PM	134	30 mis	0.5	
28	9:30A	1.5	"	4hrs 3 "	140	4hrs	4.0	
29	9A	1.0	"	3hrs 1 PM	140	30 mis	.5	
30	9:30	1.5	"	3hrs 2	136	1hr	1.0	
24	11A	2.0	1 PM	2hr 3 PM	110	15 mis	.75	
25	12 noon	Did not reach 100°F						
26	10A	1.0	11A	2hrs 1 PM	120	15 mis	.75	
	80	16	17		134	15 mis	6.50	
	Ave	3 hrs				Ave	1 hr.	
	4.1 hrs							

$$\begin{array}{r}
 17 \\
 \underline{80} \\
 6 \overline{) 250} \\
 \underline{4}
 \end{array}$$