

Summary Exp R

Purpose of test observed "quality" of growth
of strat seeds at various temperatures
Strat seeds grown in sand.

Temps of	Comments on growth
45	Healthy
52	" "
61	results out of line
66	Healthy
72	Healthy
77	Spindly
83	"
88	"
93	Stunted - roots
98	" "
105	" "
111	No growth

Growth

Feb 27/45
AH

Exp (R) Germination in sand at various temp. strat seed 36°F in jar not aerated.
Purpose to observe rate of growth and vigor

Germinate until cotyledons expand.

36 45 59 61 66 72 77 83 88 93 98

	36	45	59	61	66	72	77	83	88	93	98
Temp. °F	36	45	59	61	66	72	77	83	88	93	98
Length	1 3/8	1 1/8	1 1/4	1 1/2	1 3/4	6	7	7	1 3/4	1"	
Hypoc	3/8"	1/4	1/4	3/8"	1/2"	2"	2"	2"	3/4"	3/4"	
Roots	1"	7/8"	3/4	1"	1 1/4	4"	5"	5"	1"	1/4"	
Vigor	Heathy	Heathy	stunted	Heathy	Heathy	spindly	spindly	spindly	stunted roots	stunted roots	
	1.4	1.12		1.5	1.75	6.0	7.0	7.0	1.75	1.4	
	105°	111°									
	Into Mar 2 2PM										
	out Mar 5 9AM										
	104	109									
Hypoc	5/8"	0									
Roots	1/2"	roots									
Vigor	1/8"	killed									
	0.6	0.0									

Observe Length roots, hypoc, health of growth

Note, Seeds into tt with moist sand



Rate of root growth @ 41°F

Notes on seed kept @ 41°F

Days	Date							
⑤ 35	April 9	-	Seed collected near Truckee placed into moist sand at 41°F on March 5 now showing first signs of root growth - $\frac{1}{32}$ " - 35 day = 5 weeks.					
38	April 12	}	Coarse sand <u>100 seeds</u>		Fine sand <u>100 seeds</u>			
			number of seeds	Length of roots	number of seeds	Length of roots		
			15	$\frac{1}{8}$ & $\frac{1}{4}$	0	-		
⑥ 41	April 15		6	" "	3	$\frac{1}{8}$ - $\frac{3}{16}$		
45	April 19		20	" "	10	" $\frac{1}{4}$		
⑦ 52	April 26		" "		" $\frac{1}{2}$			
	" 27		35	" "	14	" $\frac{3}{4}$		

April 12 seeds kept @ 55° Truckee shelled
 seeds 1 $\frac{1}{8}$ "

Note. Seeds planted in window box Nov. 28/42
 3 germinated Feb 1943
 2 " " April 19 1943