

Experiment Summary

Exp.

Treatment

Seed - source, name

H₂O storage
SCS

41°F

(2 37°F attached)

Treatment details

Date

Apr 8 1943
99

Seed into H₂O

By excise

Germination record

Date	Sample No	Treatment (In H ₂ O)	No. of seeds		Germination Tips Percent	Germination Complete Percent		Germination in treatment Percent
			No. of days	Total Viable		No	%	
May 21	142	43	26	26	assume	24	92	
June 4	156	57	26	26		21	81	
" 78	180	81	25	25		8	32	
July 7	189	90	25	25		4	16	
" 13	195	96	25	25		0	0	

1/ In 7 days @ 68°F. Germination complete when root tip through seed coats.

Experiment Summary

Exp.

Treatment: *H₂O storage 37°F*

Seed - source, name

SCS

Treatment details

Date

Apr 8 1943

Seed into H₂O

Germination record

Date	Sample No	Treatment () No. of days	No. of seeds		Germination ^{1/}		Germination in treatment Percent
			Total	Viable	Tips : Complete Percents	Percents	
<i>May 21</i>	<i>1</i>	<i>43</i>	<i>30</i>	<i>Assume</i>	<i>30</i>	<i>100</i>	
<i>June 4</i>	<i>2</i>	<i>57</i>	<i>73</i>	<i>same as</i>	<i>20</i>	<i>87</i>	
<i>" 78</i>	<i>3</i>	<i>81</i>	<i>75</i>	<i>total</i>	<i>16</i>	<i>64</i>	
<i>July 7</i>	<i>4</i>	<i>90</i>	<i>75</i>		<i>15</i>	<i>60</i>	
<i>" 13</i>	<i>5</i>	<i>96</i>	<i>75</i>		<i>0</i>	<i>0</i>	

^{1/} In 7 days @ 68°F. Germination complete when root tip through seed coats.

April 8, 1943

Bitterbrush Germination

Seed used: Seed obtained from the Soil Conservation Service

Pregermination treatment: 2 lots of seed placed in water, 1 at 41° F. and the other at 32° F. on April 8. Purpose to check how long the seed will remain alive when emersed in water. Samples of seed removed periodically and viability of the seeds tested by removing seed coats and noting germination.

Start Day

		41° F.				<u>Germination Record</u>				32° F.					
<u>Days</u>	<u>Date</u>	<u>Germ.</u>	<u>%</u>	<u>Days</u>	<u>Date</u>	<u>Germ.</u>	<u>%</u>	<u>Days</u>	<u>Date</u>	<u>Germ.</u>	<u>%</u>	<u>Days</u>	<u>Date</u>	<u>Germ.</u>	<u>%</u>
		No. of seeds used	26			No. of seeds used	30			No. of seeds used	30			No. of seeds used	30
		Embryos removed				Embryos removed				Embryos removed				Embryos removed	
43	May 21				May 21				May 21				May 21		
3	" 24	20	77		3	" 24	23	77		3	" 24	23	77		
4	" 25	21	81		4	" 25	28	93		4	" 25	28	93		
5	" 26	23	88		7	" 28	30	100		7	" 28	30	100		
6	" 27	24	92												

Two seeds decayed = 76 total.

Check. 45 seeds placed in Petri dish without removing seed coats. 3 germinated by June 3.

No. of seeds used	26
June 4 Embryos removed	
" "	
" 5	-
" 7	8 31
" 8	20 77
" 12	21 81

No. of seeds used	23
June 4 Embryos removed	
" "	
" 5	1 4
" 7	18 78
" 8	20 87
<i>3 embryos decayed = 23 total</i>	

5 embryos decayed = 26

<u>Days in water</u>	<u>Results</u>	
	<u>32° F</u>	<u>41° F</u>
	<i>germination of</i>	
43	100	92
57	87	81
81	64	32
90	60	16
96	40 but all died by time roots 1/4	0

April 8, 1943

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Germination Record

41° F.					32° F.				
Days	Date	Germ.	%		Days	Date	Germ.	%	
No. of seeds used 25					No. of seeds used 25				
Embryos removed					Embryos removed				
8 days	June 28				2	June 28			
2	" 30	3	12		" 30	0	0		
3	July 1	4	16		3	July 1	9	36	
7	" 5	8	32		7	" 5	16	64	
No. of seeds used 25					No. of seeds used 25				
Embryos removed					Embryos removed				
9 days	July 7				6	July 7			
6	" 13	4	16		" 13	15	60		
No. of seeds used 25					No. of seeds used 25				
Embryos removed					Embryos removed				
96	July 13	none germinated			July 13	10 started growth but died after roots were about 1/4" long. Roots segmented.			