

#120

35° → 31°

Bitterbrush Germination

Fruit

Experiment Planting Stock Treatment Strat 35° Location Lab 2

Seed: Name Wheeler Source _____ Collection date _____

Viability: By excise % From this test %

Date	Time of Day	Germ. time (days)	Tips		Germination			No of Days Treat.	
			(No)	(%)	(No)	(Cum)	(%)		
Febr 14			Seeds soaked for 2hrs Then into 35°F in "gallon" size plastic jars @ _____ PM						Strat
Febr 21	1PM	0	Sample (1) (121) (99V) 27NUTTY out 35°F In 60° after mending			0	0	0	
Mar 1	8AM	2	Straw Into 40°			0	0	0	
Apr 18	10AM	0	out 40 In 31° super			11	11		Mouldy
May 7	10AM	0	@68 12 days rest In 31			29	40		"
" 22	9AM	19-1	No count						
" 23	"	2	@68 Super			16	56		"
" 24	11AM	3	In 31			5	61		
June 22	1PM	29-2	In 31			18	79		" Super
Mar 13	9AM	0	Sample (7) () () out 35 In 60° Straw (natural)			0	0	0	
" 15	"	2	@68° super			17	17		To 7mm Ave 3.5mm
" 16	1PM	3	" " " Mod mould			3	20		
" 19	9AM	6	Into 40°			2	22		They mould
Apr 18	10AM	0	out 40 In 31° Very big mould "fuzzy"			3	75		To 4mm
May 2	"	0	@68 Holy bearded 12 days rest			27	52		" Back 31" Super To 20 straight
" 22	9AM	19-1	No count				52		
" 23	"	2	To 22 Ave 12			16	68		
In 31 24	11AM		Very heavy bearded moulded all fruits			4	72		Not inhibiting growth (over)
Mar 29	9AM	0	Sample (3) () () out 35 In 68 Natural o tips			0	0	0	
Mar 29	9AM		Note! Supply #120 Fruit out of 35°F and into 31°F This day						
Apr 2	9AM	4	Fruits moist appearance and spotty light mould			44	44		
" 4	8AM	6	To 25mm Ave 15" Excellent some curl superior to seeds			7	46		
" 18	10AM	0	out 40 In 31° Holy fuzzy mould			11	57		super
May 2	"	0	@68 12 days rest Bearded			5	62		Not Bead 31°
" 22	9AM	19-1	No count				62		
" 23	"	2	Very big beard mould			7	69		Super straight
" 24	11AM	3	In 31			6	75		

① Cont'd

July 16 9AM 0 out 31 In 68
19 8AM -3 @68 Ex.

79
— —
12 91
8

99

End

91

30

121

14

29

43

② Cont'd

June 22 1PM 29-2 @ In 31

4 72

July 19 8AM -3 @68

4 76

7 83

Woolly moul
super
Ex. woolly m. buy

③ Cont'd

6 75

June 22 11PM 29-2 @68 In 31

4 79

July 19 8AM -3 @68

10 89

Woolly moul
super

#120 35°-31°

Bitterbrush Germination

Fruit

Experiment _____ Treatment 35° → 31° Location Lab 2 → Cold Rm
 Seed: Name Planting Stock Source _____ Collection date _____

Viability: whichever By excise % From this test %

Date 1979	Time of Day	Germ. time (days)	Tips		Germination			No of Days Treat.
			(No)	(%)	(No)	(Cum)	(%)	
Sample (4) (139) (117V) 22 NV								
Apr. 19	10 AM	0	cut 31 to 68 No tips		0	0	0	Seeds juicy
			Light mould most husks					
20	8 AM	1	@ 68 Super		88	88		To 5mm Ave 2
23	11 AM	4	" To 4mm Ave 1mm		75	113		Super super
			Much better than seeds Mod to dry mould					
24	8 AM	5	In 31°		0	113		End
						4		
						117		End
113			See seeds for treatment of supply - Supply					
76			Last fruit now into drying					
139								
Sample (5) () ()								
Apr. 24	9 AM	0	cut 31 to 68 No tips		0	0	0	
			Light - Med mould Dark tan					
25	8 AM	1	@ 68 To 7mm Ave 3		143	143		Super super
			Spotty mould Tan - Med brown					
26	"	2	" To 12mm Ave 7mm		32	175		" "
			Growth much superior to seeds					
			Mod hairy mould on most fruits					
27	"	3	@ @ 68° F		10	185		super
30	10 AM	6	"		4	189		"
May 1	"	7	In 31°		1	190		
Sample () () ()								
" 15	2 PM	0	In 31°		6	196		
" 22	9 AM	6-1	No counts		-	196		
23	"	2	Very dry bearded mould		4	200		
24	11 AM	3	In 31°		0	200		
June 22	1 PM	29-2	@ 68 In 31°		2	202		Mouldy mould super
July 19	8 AM	-3	@ 68°		4	206		

#120

35°-31°

Bitterbrush Germination

Seed

Experiment Planting Stock Treatment Strat 35° Location Lab 2-7 Cold Rm

Seed: Name Whetzel Source _____ Collection date _____

Viability: By excise % From this test %

Date 1979	Time of Day	Germ. time (days)	Tips		Germination			No of Days Treat.	
			(No)	(%)	(No)	(Cum)	(%)		
Febr 14			Seeds soaked for 1 hr 30 minutes. Then into strat 35° F @ 1 PM						
Febr 21	1 PM	0 0	Sample (1) (136) (114V) 22 NU Treat out 35° In 68° after wetting 5 minutes			0	0	0	
	73	8 AM	2	2 mm	1	1			
Mar 1	"	8	Into 40°			4	5		To 20 curly (End)
April 18	10 AM	0	out 40 super Mouldy, all.			86	91		In 31°
May 2	9 AM	0	out 31 sup sup " "			73	114		13 days restreat
						0			
						114			(End)
						136			
			Sample (2) (186) (162V) 24 NU Treat						
Mar 13	9 AM	0 0	out 35 In 68° 5% tips			0	0	0	
15	"	2	668 To 8mm Ave 3mm			27	27		Purple No mould
16	1 PM	3	" Ave 8mm			4	31		(End)
19	9:30	6	" Into 40			0	31		Touch of mould
Apr 18	"	0	out 40 In 31° super sup.			87	113		Mouldy
May 2	9:00	0	668 super super Mouldy all.			44	157		13 days restreat
						3			
						162			(End)
			Sample (3) (241) (216V) 25 NU Treat						
Mar 29	9 AM	0 0	out 35 In 68° 25% tips			0	0	0	
Mar 29	9 AM		Note! Supply #120 seeds out of 35° F and into 31° F This day.						
			Seeds moist just short of being sticky						
Apr. 2	9 AM	4	{ To 20 Ave 10 Most seeded			113	113		
			{ Brown tips usually						
" 4	8 AM	6	Into 40°			3	116		(End)
" 18	9:30 A	0	out 40 In 31° Super			59	175		
May 2	9:00	0	668 super Mouldy			36	211		13 days restreat
						5			
						216			(End)

#120 35°-31°

Bitterbrush Germination

Seed

Experiment Planting Stock Treatment 35°-31° Location Lab 2 - Cold Room
 Seed: Name Whitaker Source _____ Collection date _____

Viability: By excise % From this test %

Date 1979	Time of Day	Germ. time (days)	Tips		Germination			No of Days Treat.	
			(No)	(%)	(No)	(Cum)	(%)		
Sample (4) (207) (172V) 35NV									
Apr 19	10AM	0.0	out 31	68	5% tips	0	0	0	Light mould
Seeds juicy Syrup flow Not sticky									
20	8AM	1	68	1-3mm	super	87	87		
23	11AM	4	"	Ave 7mm		76	163		
163	Late mould Prob only on NV seeds								
44	24	8AM	5	Excise		9			
207	No seed (6) → No 172 End								
Sample (3) (311) (281V) 30NV									
April 24	8AM	0.0	out 31	65	20% bulging	0	0	0	
Syrup flow. Not looking tacky									
25	"	1	68	super to 8 Ave 3mm		114	114		
26	"	2	"	" To 8 Ave 4mm		141	255		
27	"	3	"	"		4	259		
30	"	6	"	shaded but ok		10	269		
May 1	"	7	"	"			12		
769	281 End								
42									
311	Sample () () ()								
0									

These seeds strat @ 35° Feb 14 to Mar 29, 43 days Then strat @ 31° F Mar 29 to Apr. 24, 26 days then dried 4hrs 8A-12noon in Lab 7' drier box. Dried seeds into 31° F storage on April 25/79 at noon

Fruits also treated in this way
 The dried seeds and fruits used in Exp # 130

#120 35°-31°

Bitterbrush Germination

Seed

Experiment Planting Stage Treatment Strat 35-31 Location Lab 2 - Cold Rm
 Seed: Name _____ Source _____ Collection date _____

Viability: By excise % From this test %

Date	Time of Day	Germ. time (days)	Tips		Germination			No of Days Treat.
			(No)	(%)	(No)	(Cum)	(%)	
May 11	11AM	00	Sample ⑥ (145) (127V) 18NV		2	2	2	10
<p>Sept 31 In 68 To 1.5mm 2 2 2 Left.</p> <p>These not and frozen when out of 31°</p> <p>Used in continuing strat germ test</p> <p>Note The supply of these seeds dried Lab 7 box for 15 minutes to reduce moisture content of the seeds to near sticky condition</p>								
May 15	2PM	4			123	125	2	
<p>127 End</p>								
May 22	9AM	00	Sample ⑦ (206) (189V) 17NV		1	1	1mm left	
May 23	8AM	1	out 31 In 68 20% bulging tips		no count			
May 24	11AM	2	80-90% germ Ave 2mm to 10 To 17mm Ave 9mm		185	186		Super super
May 25	8AM	3	Fruit's somewhat more vigorous He would		3	189		
June 7	9AM	0	Sample ⑧ (140) (176V) 14NV+7N		3	3		
June 8	9AM	1	out 31 In 68 90% bulging One of these 7mm 2 are 1.5mm		173	176		End
<p>068 To 10mm Ave 5 Super super He would Black 0</p> <p>176</p> <p>14</p> <p>140</p> <p>126 End</p>								

Seed

Exp. #120

Experiment Summary

Lab 2 to Cold Room

Treatment Strat 35°F to 31°F

Seed - source, name Wheeler (Holland)

Treatment details

Date 1979

Febr 14 Seeds soaked 1hr 30 min. Then into 35°F Lab 2 @ 1 PM. Into 31°F Mar 29 - Apr 24 These seeds are planting stock. A portion of these seeds dried 4hrs in Lab 7 Apr 25 and placed into 31°F storage 12 noon.

Germination record

Date	Sample No	Treatment (Strat.)	No. of seeds Total	Viable	Strat temp	Germination 1/		Germination in treatment	
						Tips Percent	Complete Percent	Percent	Percent
Febr 14	1 PM 0	0			9°F	0		0	
" 21	1 PM 1	7	136	114	35	5		0	
Mar 13	9 AM 2	27	186	162	35	31		0	
" 29	9 AM 3	43	241	216	35	116		0	
Apr 19	10 AM 4	64	207	172	31	163		0	
" 24	8 AM 5	69	311	281	31	269		0	
May 11	11 AM 6	86	145	127	31	125		2	
" 22	9 AM 7	97	206	189	31	189		1	
June 7	9 AM 8	113	140	126	31	126		3	
Aug 8	9 AM 9	175	316	281	35				
Aug 17		82	25		31				
Total			1572	1387					

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