

Growth In Petri

(tips)

Exp G Germination strat seed, @ temps 59°F-95°F
In Petri dishes

1970 Date	Time of day	Germination					Germ time Days
		59°F	68°F	77°F	86°F	95°F	
		No Cum % <u>25</u>	No Cum % <u>25</u>	No Cum % <u>25</u>	No Cum % <u>26</u>	No Cum % <u>25</u>	
Jan 26		Into 2:30P	Into 2:35P	Into 2:40P	Into 2:45P	Into 2:50P	<u>0</u>
" 27	10:30A	7 7 1.5mm	16 16 1 to 3mm	19 19 1 to 5mm	6 6 1mm ave	0 0 0 No growth	<u>.75</u>
" 28	11:30A	18 25 100 1-7mm Ave 4mm	8 24 6-16mm Ave 11mm	6 25 100 6-22mm Ave 13mm	5 11 4-21 Ave 11mm	0 0 0 No germ	<u>1.75</u>
			1 did not germinate prob not fully conditional Healthy vigorous growth Radicals straight	growth not quite nor- mal. Wavy roots, Brown roots	Definitely not normal Wavy stunted root, Low germination	Seeds excised	
Jan 29		All 25 growing vigorously Ave 10mm	All 25 germinated vigorous Ave 15mm	All 25 germinated somewhat abnormal growth Ave 20mm thin spindly wavy roots	<u>14 tips to 2</u> no growth { 12, 10-75mm These wavy curly stunted roots 46% ger	Some growth on all excised embryos On Jan 29 On Jan 30 growth 2-10mm but all embryos will die	<u>0% germ</u>
		(End) 100% ger Excellent growth.	(End) 100% ger	100% ger	75% ger		Seeds totally inactivated at this temp. Jan 31 9:00 AM All excised embryos still alive but will die! Febr 1. 2 or 3! 1 may have survived in sand, soil (End)
			Prob opti mum ger. temp about 65°F	But growth somewhat abnormal slightly	But seed lings ab normal Doubtful many will grow in soil Root tips injected (End)		

Exp G Growth strat seed at various temps

Appraisal after 6 days ± of germination

Check in sand	Temp	Growth	Germination of viable seeds %
	50° (→ 55°F)	Growth normal, healthy roots quite straight <u>Portion hypos of total radical.</u>	100%
X	59°F	Growth about as for 50°F but more rapid. Portion hypos	100% 25%
X	65°F (Near optimum)	Growth about as for 50, 59 but more rapid. No adverse effect evident yet. Portion hypos	100% 30%
X	68°F (→ 80°F)	Growth about as for 50, 59, 65. but more rapid Portion hypos	100% 40%
X	77°F	Definitely adverse effects roots stunted Portion hypos	100% 60%
X	86°F	Germination down to Roots stunted	44%
X	95°F	All growth arrested (seeds killed?)	0%

Growth

End (All)

Repeat

77,86,95

104

Experiment

G Germination strat seed in sand @ 50°F

Silver #2

①

Date 1970	Time of day	Germ. time (days)	Tips			Germination			No. of days
			No.	Cum.	%	No.	Cum.	%	

40°F Jay strat seed used. Seeds placed in
sand in perforated plastic cups between 8 and 9 AM
June 10 and placed at temperatures 50°F-95°F

Sample

20 to 25 seeds per sample

Take sample a June 13 8AM

Take sample b " " 15: after emergence @ 68°F

Note! Caps with ^{net} sand stored at test temperatures
for 20 hours before test started June 10 9AM

June 10	8:00A	Sample Da	0	20	20V	20	20	3-10mm	
" 13								Ave 7mm	100% Normal

Into sand @ germ temp
Healthy Roots straight
white

June 10	8:00A	Sample Db	0	20	20V	20	20	5-25mm	
June 15	1PM	out						Ave 15mm	100% Normal

Into sand @ germ temp
Healthy

Experiment

① Germination strat seed in sand @ 59°F

②

Date	Time of day	Germ. time (days)	Tips			Germination			No. of days
			No.	Cum.	%	No.	Cum.	%	
		Sample ②a		(22)	(22)				
June 10	8:10	0							
13	11:45A					22	22		8-30 mm Ave 20 mm
									Roots Healthy straight white
									100%
		Sample ②b		(20)	(20)				
June 10	8:10	0							
" 15	1 PM	out				20	20		25-60 mm Ave 36 mm
			40	38	60	75			
			48	36	30	35			Ave hypo = 6 mm
			30	30	35				
			40	36	45				$\frac{728}{20} = \text{Ave } 36 \text{ mm}$
			30	35	30				
			40	40	75				Healthy 100%
		Sample		()	()				
		0							

Experiment

⑥ Germination strat seed in sand @ 65°F

③

Date	Time of day	Germ. time (days)	Tips			Germination			No. of days
			No.	Cum.	%	No.	Cum.	%	
June 10	8:20A	0							
" 13	12noon	0				20	20		15-35mm Ave 28mm
									Healthy, straight Ratio hypo-roots 20-80 100%
June 10	8:20A	0							
" 15	1PM	0				22	20		42-82mm Ave 61mm
									Total Hypo Total Hypo
									55 20 68 26 66 25 74 25
									75 32 70 30 60 30 (42) 20
									70 22 45 25 70 23 68 30 Ave hypo 25mm
									58 25 58 25 45 20 60 30
									74 26 (82) 26 65 25 70 30 100%
									62 30 N=22 Ave 61 1337 545 75
June 10	9:30	0							
									Check @ 65°F
									Sample ⑦ (50V)
									Into petri dish and 65°F (cold rm radiq)

Experiment

(G) Germination strat seed in sand @ 68°F
4

Date	Time of day	Germ. time (days)	Tips			Germination			No. of days
			No.	Cum.	%	No.	Cum.	%	
June 10	8:30A	0	(20)	(20)					
" 13	12 noon	0				20	20	20-42mm	
			Into sand @ temp					Ave 30mm	
			Straight white healthy						
			Ratio 15-85				100%		
June 10	8:30A	0	(19)	(19)					
" 15	1PM	0				19	19	60-92mm	
			Into sand @ temp					Ave 70mm	
			Healthy					Ave hypo 30mm	
							100%		
			()	()					

Experiment **⑥** Germination flat seed in sand @ **77°F**
⑤

Date	Time of day	Germ. time (days)	Tips			Germination			No. of days
			No.	Cum.	%	No.	Cum.	%	
June 10	8:45A	0	(20)	(19)					
" 13	12:00 noon		Into sand and temp			19	19	30-72mm Ave 45mm	
			Healthy vigorous						
			Ratio 35-65						
							100%		
June 10	8:45A	0	(20)	(20)					
" 15	1 PM		Into sand & temp			20	20	68-140mm Ave 100mm Ave hypo = 46mm	
			Healthy						
			Hypo's long because of dark?						
							100%		
		0	()	()					

Experiment

G Germination strat seed in sand @ 86°F
6

Date	Time of day	Germ. time (days)	Tips			Germination			No. of days
			No.	Cum.	%	No.	Cum.	%	
June 10	8:55	0				18	18		30-95mm Ave 55
			Sample <u>6a</u> (20) (184) Into sand @ temp Healthy white etc Ratio 40-60						
June 10	8:55	0				21	21		85-140mm Ave 90mm Ave hypo 40mm
15	1PM		Sample <u>6b</u> (21) (21) Into sand @ temp Healthy						
			Sample <u> </u> () () 0						

Experiment

(G) Germination strat seed in sand @ 95°F

(7)

Date	Time of day	Germ. time (days)	Tips			Germination			No. of days
			No.	Cum.	%	No.	Cum.	%	

Sample

2a

(24)

June 10 9:05A
13

Into sand @ temp

Stunted growth only 9
about normal. Even these not

This temp close to upper limit
of ^{normal} growth

Try 104°F

7 → 5-40 mm
AVE 20 mm
8 → 1-5 mm
AVE 3 mm

9 no germ
63% germ

Abnormal stunted

Sample

2b

(20)

June 10 9:05A
15 1:30 P

Into sand @ temp

10 10-55 mm max
10 T-3 mm $\frac{2}{34}$

Growth very abnormal. Roots injured Ave 17

50% germ
Very abnormal

Sample

0

50
63

√ 113
56

Exp 60 Growth strat seed @ 50°F 1.
Seed strat @ 30°F

Seed No	24 seeds				Temp up to 55°F		
	May 27 11:30A	May 28 10:00A	May 29 9:15A	May 30 9:30A		June 1 12 noon	
1	↑	2.0	5.0	10.0	12.0 4.0 20.0		
2	↑	2.0	5.0	13.0	17.0 5.0 26.0		
3			Bend 3.0	8.0	13.0 4.0 23.0		
4			T ^{Maybe nonviable} T	NG	NG		
5		1.0	3.5	11.0	18.0 6.0 28.0		
6		1.0	3.0	8.0	15.0 5.0 27.0		
7			Bend Curv	4.0	8.0 4.0 15.0		
8		0.8	3.0	9.0	14.0 5.0 20.0		
9			Bend	2.0	7.0	17.0 4.0 15.0	
10	No germination yet	1.0	3.0	8.0	15.0 6.0 17.0		
11		0.8	3.0	9.0	15.0 6.0 23.0		
12		1.0	5.0	11.0	18.0 7.0 23.0		
13		0.8	4.0	8.0	10.0 4.0 14.0		
14		1.0	4.0	9.0	16.0 6.0 22.0		
15		0.8	5.0	11.0	17.0 7.0 27.0		
16		1.0	3.0	7.0	13.0 4.0 18.0		
17		1.0	4.0	7.0	13.0 4.0 16.0		
18				Bend	2.0	6.0	11.0 4.0 14.0
19			0.8	2.5	10.0	15.0 7.0 20.0	
20		1.0	3.0	9.0	16.0 6.0 23.0		
21		2.0	4.0	12.0	18.0 7.0 23.0		
22			T	1.0	5.0	9.0 1.0 15.0	
23		2.5	5.5	13.0	17.0 7.0 20.0		
24		2.0	5.5	10.0	19.0 6.0 22.0		
25	↓	1.0	4.0	8.0	12.0 3.0 17.0		

(End)

Days → 21 hrs 1-24 hrs 2-19 hrs 3-17 hrs 5.0
 → 1.83 2.79 3.79
 ✓ Colored portion of radical. Not measured until coloring appears
 Light brown Normal
 Roots quite straight growing
 2 mm/day in 3.8 days
 Factor $\frac{1}{24} = .4167$
 Roots quite straight

Total girth	23.5	87.5	213.6	343.0
Ave	0.98	3.44	8.88	14.29
No germ	19	23	24	24
% "	79	96	100	100
Girth rate mm/day	0.536	1.733	2.343	2.858

Silver #2

Exp 60

@ 59°F 2.

Into May 26 2:00 P 1970 24 seeds factor 4167

Seed No	Date & Growth mm		Date & Growth mm		Date & Growth mm		Date & Growth mm		June 1 17 noon
	May 27 11:40 A	28 10:30 A	29 9:30 A	30 9:40 A	30 Contid	31 8:45 A	Total rad	Total Hypo	
1	NG	0.8	2.5	8.0	—	5.0	13.0	5.0	17.0
2	Germ 0.8	4.0	10.0	20.0	5.0	5.0	26.0	7.0	30.0
3	NG	3.0	5.0	7.0	2.0	3.0	7.0	3.0	7.0 Nonviable
4	NG	4.0	10.0	20.0	5.0	10.0	24.0	8.0	34.0
5	NG	4.5	9.0	18.0	4.0	7.0	21.0	7.0	28.0
6	Germ 1.0	7.0	14.0	23.0	5.0	9.0	27.0	8.0	34.0
7	NG	4.5	10.0	16.0	4.0	6.0	22.0	7.0	29.0
8	NG	5.0	12.0	17.0	5.0	8.0	22.0	7.0	30.0
9	NG	Prob non viable	NG	NG	NG	Non viable, removed			
10	Germ 1.5	6.0	12.0	22.0	5.0	7.0	28.0	8.0	35.0
11	NG	5.0	10.0	20.0	4.0	6.0	22.0	8.0	25.0
12	Germ 1.0	5.0	10.0	15.0	3.0	9.0	30.0	8.0	38.0
13	NG	3.0	10.0	13.0	3.0	9.0	20.0	7.0	28.0
14	NG	1.0	5.0	10.0	3.0	7.0	18.0	8.0	22.0
15	Germ 1.0	7.0	13.0	15.0	4.0	9.0	12.0	5.0	20.0
16	Germ 1.0	7.0	12.0	20.0	5.0	8.0	23.0	8.0	34.0
17	NG	2.0	6.0	11.0	3.0	5.0	27.0	7.0	37.0
18	NG	3.0	10.0	13.0	5.0	5.0	13.0	5.0	17.0
19	Germ 1.0	6.0	8.0	15.0	4.0	6.0	20.0	7.0	30.0
20	Germ 1.5	7.0	13.0	17.0	4.0	9.0	22.0	8.0	25.0
21	NG	6.0	9.0	14.0	4.0	6.0	20.0	8.0	26.0
22	Germ 2.0	7.0	11.0	17.0	5.0	9.0	22.0	8.0	29.0
23	Germ 1.0	6.0	13.0	25.0	5.0	9.0	32.0	10.0	41.0
24	NG	5.0	9.0	12.0	5.0	7.0	15.0	7.0	23.0
25	Germ 1.0	6.0	12.0	26.0	5.0	7.0	35.0	11.0	48.0

Earliest root hair buds / root
 Hypo + hairy, coloring of seeds

2.7 mm/day in 2 days

Days-hrs	2 hrs	1-2 hrs	2-19 hrs	3-19 hrs	4-18
Days	0.88	1.83	2.79	3.79	4.75
Total growth	12.8	114.8	235.5	332.0	521.0
Ave "	0.53	4.78	9.81	13.83	21.71
No germ %	11	24	35	24	24
% "	46	100	100	100	100
↓ Colored portion		✓ Entire hypo	✓ Entire hypo	✓ Entire hypo	No root hairs Hypo + rad.

(End)

Exp 91

@ 65°F, 3

	Into May 26 2:20P		25 seeds		40 factor				
Seed No	Date & Growth mm		Date & Growth mm		Date & Growth mm		Date & Growth mm		Date
	May 27	28	29	30	31	June 1			
	11:45A ✓	10:45A ✓	9:45A	10:15	9:30A	17:30P	Total rad	Total Hippo	
1	Germ 1.0	7.0	16.0	6.0	31.0	12.0	38.0	12.0	50.0
2	" 1.0	7.0	15.0	5.0	28.0	9.0	35.0	11.0	50.0
3	" 1.0	6.0	13.0	3.0	19.0	7.0	22.0	10.0	33.0
4	" 2.0	7.0	15.0	5.0	25.0	11.0	26.0	11.0	40.0
5	" 1.0	11.0	20.0	6.0	28.0	10.0	32.0	11.0	36.0
6	" 0.8	6.0	14.0	5.0	26.0	11.0	30.0	11.0	46.0
7	" 0.8	6.0	10.0	3.0	13.0	6.0	17.0	7.0	26.0
8	" 1.0	8.0	15.0	4.0	18.0	6.0	18.0	6.0	25.0
9	" 0.8	7.0	16.0	5.0	23.0	6.0	38.0	9.0	55.0
10	" 1.5	8.0	18.0	6.0	24.0	7.0	35.0	7.0	50.0
11	NG	7.0	15.0	5.0	20.0	6.0	31.0	11.0	42.0
12	Germ 0.8	6.0	12.0	3.0	14.0	4.0	17.0	6.0	29.0
13	NG	5.0	11.0	2.0	20.0	6.0	30.0	8.0	45.0
14	Germ 2.0	12.0	16.0	5.0	24.0	8.0	32.0	10.0	52.0
15	NG	1.5	8.0	0	20.0	8.0	28.0	8.0	40.0
16	Germ 1.0	12.0	20.0	6.0	30.0	12.0	37.0	13.0	41.0
17	" 1.0	10.0	15.0	5.0	19.0	10.0	22.0	10.0	37.0
18	" 1.0	7.0	11.0	3.0	24.0	8.0	27.0	10.0	36.0
19	" 1.0	7.0	15.0	5.0	28.0	11.0	35.0	12.0	41.0
20	NG	6.0	13.0	4.0	20.0	7.0	30.0	8.0	47.0
21	Germ 2.0	8.0	12.0	3.0	21.0	8.0	30.0	10.0	50.0
22	" 1.5	10.0	15.0	5.0	25.0	9.0	40.0	10.0	60.0
23	" 1.0	10.0	16.0	5.0	18.0	6.0	25.0	11.0	40.0
24	" 1.0	8.0	13.0	2.0	20.0	6.0	30.0	11.0	40.0
25	" 0.8	12.0	26.0	5.0	40.0	8.0	60.0	10.0	78.0
Days-hrs	2hrs	1-2hrs	2-19hrs		3-20hrs		4-18		
Days	0.88	1.83	2.79		3.83		4.75		
Total grith	24.0	194.5	370.0		574.0		765.0		
Ave "	0.96	2.78	14.80		22.96		30.68		
Germ No	21	25	25		25		25		
" %	84	100	100		100		100		
		2.8mm in 1.4 days							
	✓ Entire	lennin (Judg'ed)			changed		Root hairs		
					disks		on some		

(End)

Exp 60

@ 68°F ■ 4

May 76 2:70PM Into

75 seeds

Temp up
to 20°F
out
June 1
1PM

Seed No	May 27	✓ 78	Date & Growth mm				✓ 31	June 1	
			11:55A	10:55	10:20A	10:50A			9:30A
			Total radical	Hypos rad. (mm)	Total	Hypos Total			
1	2.0		20.0	3.0	28.0	7.0	36.0	11.0	56.0
2	NG	2.0	10.0	3.0	18.0	7.0	22.0	7.0	42.0
3	1.0	7.0	11.0	3.0	17.0	7.0	18.0	10.0	30.0
4	1.0	10.0	17.0	6.0	23.0	7.0	25.0	12.0	35.0
5	0.8	10.0	21.0	6.0	23.0	8.0	35.0	12.0	60.0
6	2.0	11.0	21.0	7.0	29.0	9.0	35.0	12.0	60.0
7	NG	7.0	15.0	5.0	25.0	6.0	30.0	10.0	42.0
8	1.0	5.0	10.0	3.0	15.0	5.0	18.0	8.0	30.0
9	1.0	5.0	10.0	3.0	17.0	7.0	22.0	8.0	31.0
10	NG	10.0	20.0	5.0	24.0	9.0	30.0	11.0	41.0
11	NG	7.0	15.0	4.0	27.0	8.0	30.0	11.0	58.0
12	1.0	8.0	13.0	6.0	20.0	8.0	25.0	9.0	40.0
13	0.8	6.0	10.0	3.0	14.0	5.0	18.0	8.0	38.0
14	3.0	12.0	21.0	7.0	28.0	8.0	22.0	9.0	40.0
15	2.0	11.0	20.0	6.0	24.0	7.0	30.0	12.0	52.0
16	4.0	12.0	18.0	7.0	22.0	10.0	32.0	14.0	52.0
17	NG	5.0	15.0	4.0	20.0	8.0	25.0	10.0	48.0
18	1.0	6.0	15.0	4.0	25.0	8.0	35.0	10.0	70.0
19	0.8	7.0	12.0	4.0	16.0	5.0	16.0	6.0	36.0
20	1.5	10.0	18.0	7.0	25.0	7.0	35.0	11.0	60.0
21	1.0	10.0	15.0	6.0	22.0	6.0	30.0	11.0	48.0
22	2.0	12.0	15.0	6.0	18.0	8.0	23.0	10.0	37.0
23	1.0	10.0	18.0	7.0	20.0	6.0	27.0	11.0	48.0
24	2.0	7.0	13.0	5.0	17.0	5.0	22.0	10.0	46.0
25	NG	Curv	10.0	3.0	17.0	5.0	20.0	5.0	42.0

Hypes showing reddening Radicals curving
flexuous. Root hair bulbs on 1 root.

Growth
flexuous New dishes
All but 3
2.8mm in 4 days
hypes pink
-red. Most
brown roots
Root hairs
on some

(End)

Days	22hrs	1-2hrs	2-2hrs	3-2hrs	4-19hrs
Days	6.92	1.88	2.83	3.88	4.79
T Growth	28.9	201.0	382.0	576.0	661.0
Ave "	1.16	8.04	15.78	21.04	26.4
Germ No	79	24	75	25	25
Germ %	76	96	100	100	100
Factor	4				

Silver #2

Exp 60

@77°F .5

Seed No	May 26 2:20 PM Intb	24 seeds					
No	Date & Growth mm						
	May 27	28	29	30	31	June 1	
	12:05P	11:00A	10:10A	12:00 noon	10:00 AM	10:00 AM	
	✓	✓	✓		Total Total	Total	✓
					hypd hypo	hypd	
1	1.5 Curl	72.0	26.0		44.0	15.0	60.0
2	1.0	5.0	11.0		15.0	6.0	20.0
3	2.0 "	15.0	21.0		32.0	12.0	42.0
4	1.0	6.0	19.0		33.0	13.0	42.0
5	4.0 "	16.0	23.0		35.0	12.0	45.0
6	2.0	9.0	16.0		30.0	12.0	42.0
7	1.5	11.0	27.0		30.0	12.0	42.0
8	0.8	6.0	13.0		25.0	11.0	33.0
9	1.5	5.0	17.0		35.0	13.0	43.0
10	2.5	16.0	26.0		28.0	11.0	58.0
11	2.5	12.0	30.0		55.0	15.0	70.0
12	4.0 "	15.0	26.0		35.0	14.0	48.0
13	2.0	12.0	23.0		30.0	12.0	45.0
14	1.0	13.0	21.0		33.0	16.0	40.0
15	1.0	12.0	18.0		43.0	25.0	48.0
16	1.0	10.0	16.0		31.0	11.0	40.0
17	0.8	Prob nonviable		NG	NG nonviable		
18	2.5 "	13.0	24.0		42.0	15.0	53.0
19	0.8	7.0	21.0		35.0	12.0	50.0
20	3.0 "	15.0	26.0		35.0	14.0	45.0
21	1.0	15.0	28.0		46.0	12.0	48.0
22	0.8	6.0	8.0		10.0	8.0	30.0
23	1.0	8.0	16.0		25.0	12.0	37.0
24	1.0	9.0	14.0		17.0	7.0	20.0
25	1.0	9.0	18.0		27.0	12.0	35.0

Transferred seedlings to new dishes
No measurements taken

Radicals
Stenuous
& brown
roots

2.8mm in 1.40 days

(End)

Root definitely stunted
Prop hypo 60%
5-20hrs 5.83

Days-hrs	22hrs	1-2hrs	2-20hrs	3±	4-20hrs	5-20hrs
Days	0.92	1.88	2.83		4.83	5.83

T Growth	40.4	257.0	488.0		774.0	1036.0
Ave "	1.68	10.71	20.33		32.25	43.17
Germ No	24	24	24	24	24	24
" %	100	100	100	100	100	100

Factor 4167

Exp 60

@ 86°F .6

Seed No	May 27	May 28	May 29	May 30	May 31	June 1	
	12:10	11:10 A	10:00 A	11:30	10:30	10:30	
				Total Hypo	Total	Total Hypo	
1	1.0	7.0	20.0	25-1/2	33.0	15.0	45.0
2	NG	—	NG	—	NG	—	—
3	NG	0.8	0.8	0.8	0.8	0.8	0.8
4	1.0	3.0	8.0	13-6	20.0	13.0	32.0
5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
6	0.8	3.0	10.0	15-6	28.0	20.0	40.0
7	NG	—	NG	—	NG	—	—
8	0.8	1.0	8.0	15-6	25.0	15.0	35.0
9	0.5	0.5	0.5	0.5	0.5	0.5	0.5
10	0.8	1.0	6.0	8-1	75.0	15.0	32.0
11	0.8	1.0	8.0	17-6	24.0	17.0	40.0
12	NG	—	NG	—	NG	—	—
13	NG	—	T	—	T	—	—
14	0.8	0.8	0.8	0.8	0.8	12.0	9.0
15	0.8	1.0	1.0	1.0	1.0	1.0	1.0
16	0.8	1.5	6.0	8.0	8.0	20.0	10.0
17	NG	0.8	0.8	0.8	0.8	0.8	0.8
18	0.5	1.0	1.0	1.0	1.0	1.0	1.0
19	1.0	4.5	10.0	15-5	25.0	17.0	35.0
20	0.8	1.0	7.0	13-7	30.0	17.0	60.0
21	2.5	11.0	18.0	32-13	45.0	25.0	50.0
22	NG	—	NG	—	NG	—	—
23	2.0	8.0	10.0	21-10	30.0	20.0	30.0
24	NG	7.0	13.0	21-10	30.0	20.0	32.0
25	1.0	10.0	22.0	30-11	48.0	15.0	50.0

147 TG 14.1 59.8 146.8 233.8 405.0 537.0
 148 NG 1.007 4.272 10.49 16.70 329.3 38.00
 Factor 1.095 2.272 3.707 4.304 5.990 6.518
 1/14 7.143
 2.7mm/day in 2 days
 THESE transferred to new dish
 Days hrs 22hrs 12hrs 2-20hrs 3-2hrs 4-20hrs 5-20hrs
 Days 0.92 1.88 2.83 3.88 4.83 5.83
 Total 14.9 62.4 149.4 361.5 397.6 534.6
 Ave " 0.60 2.50 5.98 14.46 15.90 21.38
 Germ No 14 14
 " % 56 56
 Factor 4

(End)
 44% germ
 56% but abnorm.

Silver #2

Exp G①

@95°F.7

May 26 7:20 PM Into

75 seeds

Seed No	Date & Growth in mm					June 1
	May 27 12:15 P	28 11:20 A	29 10:55 A	30 11:20 A	31 10:30 A	
1	0.8 not germ	0.8				
2	NG	NG				
3	"	"				
4	"	"				
5	0.5 not germ	0.5				
6	"	"				
7	"	"				
8	0.5	0.5				
9	"	"				
10	"	"				
11	"	"				
12	"	"				
13	"	"				
14	"	"				
15	"	"				
16	"	"				
17	0.5 not germ	0.5				
18	"	"				
19	"	"				
20	"	"				
21	"	"				
22	"	"				
23	"	"				
24	"	"				
25	"	"				

No change from May 27 to 28
All prob w. ill dieAll chyring
No change

All about dead

(End)

No growth. All dead in 5 days