The primary purpose of this experiment is to evaluate the addition of extra SW-967 cells to the explants, and to estimate the fraction of trail-forming clones per initial.

50B—x SW-967 9AM–1130 AM. Concentrate mixtures and trap. (This procedure works very well. Its main limitation is that 30–60 minutes are needed to entrap the motile cells.)

Al-F3 were collected to about 12:30, deposited no later than 12:50.

After lunch, collect to about 2 PM, and deposit F4—H6 (2/sq cm square) by 2:10. At this time, earlier isolates were mostly 2-celled.

Ca. 3 PM, transfer isolates, at random, to motility agar, either alone or with supplement of cells of SW-666 or SW-967.

<table>
<thead>
<tr>
<th>No. of Knees</th>
<th>Grew</th>
<th>Trails</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW644</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>SW967</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>F—G—H</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>SW644</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>SW967</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Total: 13 1

Sw666 17 1
Sw967 16 3

Results indicate going to small number. SW967 might be with meluri a bal—mutant in.

Possibly one at 2-4 cell stage when explanted.

This test had been suggested by the result in 1217A where 10 clones had given 4 trails, whereas individual cells had given few or none. This should be repeated by direct comparison of cell from large clones. Assume for purpose of these data but do not isolate. Repeat individual samples. Enlarge clones with initial transplants.
Collect individual Fl. Envelope series ACEE -
let remainder from larger enzyme remain

\[
\begin{array}{c|c|c|c|c|c|c|c|c|c}
0 - & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline
A & A' & C & E & + & - & 0 & 0 & 0 & 0 \\
\hline
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\end{array}
\]

\[
\text{Note general reaction between A, A'}
\]

Unfortunately A, B not precisely distinguishable here; probably inverted.

Second part of experiment performed - clones were examined and transferred in multiple drops to not agar.

\[
\frac{34}{8} \text{ clones visible: } 4 \text{ trials}
\]

\[
\begin{array}{c|c|c|c|c|c|c|c|c|c}
+ & + & + & + & + & + & + & + & + & + \\
\hline
\end{array}
\]

\[
\text{In this series, 48 cells tested, each was viable (sic!).}
\]

Nucleus detected (probably same one):

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

If at least 20 cells are probable E type, then E = \( \frac{1}{6} \).

Obertable nucleolus after 13 generations = \( \frac{1}{8} \).

Although none of these gave trials, the apparent nucleolus would be about \( \frac{1}{8} \) of \( \frac{1}{64} \). => number of clones is ca 10 motives.

No summary necessary. (?) This may exactly represent by motive (contamination?) in second part.

\[
\text{Results (over)}
\]
FEB 25 1955 - Despite much labor, the crypt was unsatisfactory. Why no tails from the second group? Intent was to look for >1 T/cell/dose. This seems patent from appearance of the tails in past. Instead, offers to retreat to flaring unlikely. Earlier impressions (system regions?)
Note: R/12, R/15 failed to set any F^+ from "SW967" (= ? single colony isolate).

Repeat, cf. "stole SW967" i the estate.

FEB 16 1955

\[
\begin{align*}
\text{A} & \rightarrow \text{Pick as single cells (probably many at 2-cell stage) to} \\
& \text{Motility Coliform Agar (MAC) in } 2 \times 48 \times 96 \text{ petridishes.} \\
\text{B} & \rightarrow \text{colonies (small colonies).}
\end{align*}
\]

FEB 17 1955

\[
\begin{align*}
\text{A: (2 plates). Unfortunately MAC > 8 days (the probably too dry. Colonies totaled 24 on face plate (see!) | Home week!)} \\
& \text{only 1 flag = B3a. and 17 on second plate, 1 fail H6 (swollen.)}
\end{align*}
\]

Results not yet telling pres. sent to the c. gers.

Totals (Note discrepancy - medium difference? - as low the pres. that some of these were non-motile - see plates) 24. Gram plate, virile line: Eba, F 1a, 2a, 3a, S 1a, 6b, 26, 39, 5ab, 6b. H 6b.

\[\text{Hb also plated (not F +) 2x48 of FA 9, 2o x SW967} \]

C. Nothing fails (see pres. c. gers.); underexposing, for too:
\[\text{from 2o x 1T, 1 sec.)} \text{Sec.; i elect.} \text{pu 13 long girls} \]
and nothing else. Save swarmer 12222.

D. Note: "Sci" occupancy proved "died today" end not
\[\text{further sent to PTZ22. SW967 and Sec/193 are hip. Store}
\]
"sci" (see topic on page) at 12222 D1. Spend more time on it now:
\[\text{it may, much be contaminated.} \]
FEB 17 1955

Collect ca 50ml in 100 ml of broth, plate out on (do lab) # H8A and MA in C (spread 101 ml samples)

<table>
<thead>
<tr>
<th>Colonies</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>M8A</td>
<td>1 0</td>
</tr>
<tr>
<td></td>
<td>5 2</td>
</tr>
<tr>
<td></td>
<td>12 5</td>
</tr>
<tr>
<td>MA</td>
<td>7 2</td>
</tr>
<tr>
<td></td>
<td>4 0</td>
</tr>
<tr>
<td></td>
<td>14 0</td>
</tr>
</tbody>
</table>

This was remarkably successful if each colony as of single cell origin. Does spreading influence the age? (I can be divided further). Should be repeated on a larger scale with fresh agar.

Save 1 trial - from colony as 1224-A
FEB 1 8 1955

5 ml + 5 ml 10^11 - 12^25 370
Then R.T., Centrifuge, decant and add 0.1 ml broth. Hold in
refrigeration case (10^5/4).

330 PM Add 1/10th of 10^11
500 (2 ml) resoluted transfer to 0.1 ml broth. Estimate final
density at 2500/ml.

A) Effect of spreading. (Use loop D) etc.

see next page

FEB 19 1955 b) 96 trip drops left under oil -> 14 clones. (+2?)
Plate these on pseud agar. Initially, some
2 clones were noted to grow uniformly.
A20, 23: 14 furthest from 2 (5-10 drops) of microsyringe
in 1 plate. Altogether, only 1 definitely tall; some dubious
colonies
14/10^6
2 clones were spread out on 7 NO-A plates
 gave about 6 and small dry colonies and one clump of 5-6

1 clone gave some indefinite isolated colonies, and one definite act
impulsively: 1'5:8 2'5:5 3'5:1 (if these were
collected together they would probably be more impressive.)
The collected sample was used in various ways, partly diluted by a mixture of the plates. From yesterday's result, it was intended to use the same spreading technique as in the previous day. The following results were obtained:

1. Old plate 5 loops (a) from squad: 13 colonies, not well spread.
2. Fresh (poured Monday) 10 ml spread:
   a. 6 trails 42 colonies (spread)
   b. 2 " 98 " fairly discrete
   c. 0.01 ml not spread (allowed to remain)
      4 trails 35 colonies (spread)
      0.02 ml 5 trails badly spread.

3. Spots (from syringe: est ca. 1 cell/1 spot?)
   100 spots not pressed: 4 trails (per est., 25 cells).
   Pre-spread: 48 spots → 13 colonies
   6 trails

4. Random diet of cells in fungus: commun
   4/10
   8 loops
   not pressed: 3, 0, 2, 0, 3, 0, 2, 3, 1, 2 = 16 cols
   3 T.
Now account for so many discrepancies:

1. Old plate, spread 0/13.
   (Assume loop)

2. Fresh plates, spread
   2x .01 ml. 8/90
   Unspread 103 ml 7/2 (assumed)

3. Fresh plates, pre-spread 4 - 2x
   with b) loop 1/20 c
   Duplicates 0/3 6/13

4. Not prespread
   a) loop 4/25?
   Rep. 3/16

No clear effect of spreading.

Estimated per loop average:
13/5 20/8 16/8.

How about ml fraction?
3/8 for 16/8 mean.

Ca 45 cells per .01 ml
(7 estimated 2500/ml)
and makes the loop now
ca. 49/45 x .01 ml
= .0005 ml [versus estimates]

Note extreme variability (sampling?)

Rep. content set at 25/drop
45 x .01 ml = .0005
= 5 x 10^-5 ml.
collected 896 white cells from same cone suspension as 1225 (ref. over weekend). Transfer to 0.2 ml broth for plating trials. (Transfer directly from pyrite, in two times, this time). Various platings:

1. Spread on M5A. (yellow = E. coli pound) 0.01 samples.

| Colonies T | Y | 37 | 7 |
|           | W | 46 | 7 |
|           | W | 55 | 5 |
|           | W | 504| 6 |
|           | Y | 4 | 3xM |

\[
\frac{Y}{Y + 3M} = \frac{4}{4 + 3 \times 3} = \frac{4}{13} \approx 0.38
\]

\[T/C = \frac{38}{276} = 0.138 (\approx 0.17)\]

6/1225 = 8/90? 7/41

Table 1/8 as length average

2. Pour on M5-A. 0.01 ml

all drop.

23 5

6 1

5 colonies and marked surface TRAILS ARE VERY INTERESTING:

2 trails

9, 17 trails, many are very white. Not multiplied. The white trails are provided chemically.

3. Spread 0.01 ml of ca. 10^8 units 7.76.

4. Spots (loop)
FEB 27 1955 some errors noted in the duplating too, though not long incurred.

4. Spots (Color) c/s prespreading plate surface.

5. Isorhamnins, peps.

6. " " Sm (20): 1+1S

7. " " 10/21 1

C (H, 0.5H/kg drop)

12/13 2 – 1 def. branched?

20/5/001? altogether this plate shows 17/14, ef.

10/65 about

\[ x^2 = 7.4 \]

Average cells in 1=7/loop

p < .01

Try in 0.36 tubes.
Problem: How could one test clones of 10 - 100 cells?

A. $T/C_{\text{init}} - 2a^{1/8}$.

**Approaches**

1. Most rigorous: Isolate single cells, let form clones and transfer individually. Too laborious!

2. Isolate single individuals. T-transfer as singles to broth tubes. Let grow to size $n$. Plate out.

3. Let singles form clones before transfer. Then plate out. (The uncertainty what fraction of clones have divided although more clones are represented).

For this general approach, 2A seems best. Can be contrasted with immediate platings of numerous initials for conformance.
February 23, 1955

I

Dissolve sterile cells but not singly. Plate out intrales for T/C values. Dilute to samples of how many cells and let form clones. Plate these out at slow Ag +

How many? if << 1 then most samples will be wasted

if = 1 then expect only 1/8 to have an active, though no independent structure, anancy.

if > 1 then too high expectation of concidence.

II

Methods of plating?

1. Spread - restriction in volume, may get away & resoind

2. Pour plates

3. Shake tubes
plating SW967x - clones.

FEB 23 1959

P22 Mix SW967 5 ml
1234-5
FD 50

2.3 Concentrate 10x for spraying.

1/10M drop/spray.

PM = N'lyse Many Flat nice wound. Maybe to dedilate some.

PB - Not really. Maybe because of otherwise. Both fluid. Altogether, ca 40 %

were isolated singly.

croup A: cock 2. 12W s, 2, yel 1 b at 3.

B: 2-3 b x 10 days plus. 1 cell.

at 3-4M dose 1 ml broth each.

1:30 - 8PM plate my spots plus shaking tubes

4 18mm (ca 20 ml) ? all had clones

A tubes only 4 18mm (ca 10 ml) not trails. Minor trails seen

B tubes

photographs at about 48 hours.

(51-2-3) 10 cm 3 9 1 2

all show "minor trails"

all but 1 (3a) show.

major.

no trails (12 clone)
shaker tubes probably OK for major trials. For 16 hours, no growth gradient. Later, colonies grow larger near air and minor fails mostly sem.

13 tubes Thayer (20 ml) - 2 blanks
4 ml - 1 blank

Thick

does ca 580 - 18°C each!

So only 17/20 clones! but note minor hands-on.
FEB 23 1955

310-505 pm 0.0967(ol) 15 ml 7.5 ml F350. Ref.
ca 700mg FeCl. (ethanol) in centrifuge. Keep refrigerated when not available.

855
- (27C)

Yields → 1/4 clusters - all flowering! + ? warmer.
FEB 24 1955

state 1227 C.  -- n.g.  -- Wurstkoh

seed 34 tubes (10 ml) moderately lief in coldwater
P24-A25.  Inc 9A25 -
Clone procedure:

1. Store i nutes 2 h after mitosis phase, then in centrifuge ca. 10x. (Takes 2-1/2 hours). Then process set up on e.g. for manipulator and setup shaker. Freeze. Takes ca. 1 hour more to find many motile.

2. This usually begins at ca. 3-1/2 hours. May keep "stale" after concentrating store in ice as indicated.

3. Collect up to 100 motile. Optional: Argyll-Robertson dropper (usually new in line or unwashed glassware. Then promptly pick up from oil with gentle pipette to 1 ml vol. of aerobase.

4. Incubate (3h at 37°C or 1h)

5. Add 10 ml HEPES per plate at indicated time.

For best results have been using hypodermic needles, syringes, and floating hardware etc. for convenience.
Resume plates.

Practically every plate has occasional colonies with 1-3 satellites (minor trails) . . . or . . . . About 1/20 colonies show effect, but rarely.

Three plates were show more definite fail possibilities.

Small plates.

How many small plates were plated? As stands now, 1 blank, 9 è colonies. Yesterday, I scanned through, and did not notice any trails but might have overlooked. Colony is 50-100. (49, 62-132, 74, 28, 82)

Plate 1. Total count is 143. Includes singles; minor trails:

O: 13
0: to O: Y 4 also.

and (tight outer replicates) major trail.

2. O: 61 singles and 0.

Total Count: 66

3. and 7 singles.

Total count: 50
FEB 26 1955

Large plates - 36 plates, all clones.

Plate 1: Several multiple clones.

Bottom plates smilier.

I have few if any reds.

FEB 27 1955

Macjred as 5T/81 colonies. 1 is beautifully linear - should be photographed.

10T/25 colonies.

Left overnight and photographed N27. Occasional reds but not fully developed.

Also plate 1-3 ready for phot. (left in bath overnight).

FEB 27 1955

Examined the tubes of this spread. 34 tubes. 28 clones.

Most showed major tails, most had minor. (very curious) -

And How best to interead anything to do with it. Save a few tubes, e.g. CH4, as 28E.
FEB 25 1955

Prep Inc. 850 - 1110 - ... 1215, suspend in RT.

fresh materials.

<table>
<thead>
<tr>
<th>Plates</th>
<th>5 cm²</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plates</td>
<td>6 cm²</td>
<td>39</td>
</tr>
</tbody>
</table>

Total: 464

No clone used.

Table:

<table>
<thead>
<tr>
<th>Clones</th>
<th>T</th>
<th>L</th>
<th>S</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Plate 5 cm² see next page.

Later: 4 clones designated by tube: (total 295)

J. Jones

Single isolated 115 - 200 M + PL, planted right away.

(to ca 2, 2007)

FEB 26 1955

10 A.M.

100 cells (150 cells estimated)

88 isof colonies (incl. 5 lines) + 12 major trails.

B2 68 isolated, 760; 180; 12 major trails.

Totals: 151 1's

12 2's

1 3's

24 trails

T/C = 24/188 = 12.8%

1/7.8

Remanded 10:15 A.M.
D: 3 groups of 100 planted at 1-2 ft. from growth. 10/0 p 76 - transfer to 35° inc. shelter area only ca 2-5000.

FEB 27 1955
29E - 5 clones 1 c major trail = E1
all show v. prominent minor trails Why delayed, unless
FEB 26 1955

SW967: plated as control or reference of minor tails, SP25.
A 26: (2 plates) < 100 cells.
No MT, too dense.

A 9: 31 clones. 7 (pic) had minor tails at 10^4 AM. (A3-9)
Only 1 tail per each of these clones.

Remaining 24 clones: 15 had all single, 6 had 2's (3, 2, 1, 3 rep.) = A11-16

A-10. I had a definite cluster

A-17 I had a darker surface pattern, probable spatter.

A-18 I had what looks almost like a minor tail.

Resume: 8 tails/31 clones/39 plates. All tails unique.
FEB 27, 1955

1229 C

This control also shows numerous "minor tails" - assume that SW767 produces spontaneous trails? Many are unmistakably distinct

One, these are therefore unrelated to trichominis. Need to
domino test plate on with other F/a stories. (Shall see
peculiar case of the very high incidence of clones with minor trails).

Results or major trails are presumably still valid. Further comment on
minor trails in the Trichominis. Clones may thus be superflores.

1229 A: (Small plates) Remitted & examined 12/52-7-27.
A 9-9 had major trails.

Look at 1-10, 17, 18.
No current unless something
happened.

A 3 9

4 Self-branched branching appearance (spontaneous minor)

5 Column of trails

6 Tight cluster, tapering

7 Edge of plate, loose cluster

8 Loose cluster

9 Edge of plate, branching vertical column

10 Loose cluster 8 large colonies

Photograph 4, 5, 7, 8
MAR 6 1955

D

Plate 1, pH, each of 6

single colony isolates of SE1967

from C. All (including stock SE1967 control)

now show minor tails, though not

prominently (variations in fluidity, Fagar?)
<table>
<thead>
<tr>
<th>Date: Mar 3 1955</th>
<th>Ref: 4/5/61716j9</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/1 A. Repeat 1229c: sw967 plaques alone: same result: numerous yeast, minor faults.</td>
<td></td>
</tr>
<tr>
<td>3/1 B. Plate out sw967 666 1091 1092 1140 546</td>
<td></td>
</tr>
<tr>
<td>(Colony)</td>
<td>Minor leak (40hrs)</td>
</tr>
<tr>
<td></td>
<td>Surrounded (both plates).</td>
</tr>
<tr>
<td>under similar conditions (pour 50-100 per MLA, small plate).</td>
<td></td>
</tr>
<tr>
<td>P2 C. CCC001 sw967. Food for motile. Ca1.2 formal per cent. drop after chance from these. Reached ca. 8-32 cell each by 8PM. Reiterate motile loosely. 4 cell estimate. 1 di cell. See protocols.</td>
<td></td>
</tr>
<tr>
<td>D. Permanents same except left. n.t. ovary 1/1. N3: not seen</td>
<td></td>
</tr>
<tr>
<td>at this time.</td>
<td></td>
</tr>
<tr>
<td>32/12290.</td>
<td></td>
</tr>
</tbody>
</table>
| E: Did not destroy long. Shell 3 of the ultimate clones: E1-3 and also pool others as E0 for comparison, mixture of spontaneous cut after selection.
DATE: MAR 3 1955

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1238 Stks. (ca 300 mm)</td>
<td>2</td>
<td>P/2</td>
<td>ref. system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>22 mm, montg.</td>
<td>(ca 25 mm)</td>
<td>plates in faks + plates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 mm, montg.</td>
<td>of 11 plates + 14 tubes visible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 + 4 = 8 major trails seen, all singly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>but minor trails interfere &amp; should reflect on spectrum (10/12/32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Restart same but abandon. Plate about 45 minutes initially</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A 5</td>
<td>(agar may have been dry)</td>
<td>Soft: fuzzy clusters are not visible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| D | ca 400 to 1000 (say 18 hours) | Photograph to show extent of motility. | Not sufficiently
A. T/L x 6:5/4
B. 10% x 140 (partly dead)
C. FA 37 x 6:5/6

2.0mm x 1.0mm through 1.0x. (To ca 20X.)

Deduce: 3/5 - 4/5. Pick to Vasiljevic and by YO3
substrate 3/20 to c. 6/30 - 6/45 PM, PM.

A showed 4+ in traps and B, none
Plate 1.5 cm. long, of these on M6A.

MAR 6 1955
Noted: A shows moderate Tand S (ca 5 or 10:1:5)
B " none.

C + [5 plates, "101" wells plated in each

1/6: 1. Too clouded by swarms for accurate count. Not possible to estimate swarms. Definite 24/6 trails "singles" and similar
There include about 13 colonies of a few colonies (10 to 1000). 81

2. 1 (?) swarm occupies ca 1/5 of plate area.

Overall T/C = 27/159 = 17% x 0.1 3/6 4/5

13/65 78.
<table>
<thead>
<tr>
<th>10</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
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<th>2</th>
<th>1</th>
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<tr>
<td>0</td>
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<td>0</td>
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<tbody>
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</tr>
<tr>
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<td>11</td>
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<td>3</td>
<td>7</td>
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<table>
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<th>2</th>
<th>2</th>
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<tbody>
<tr>
<td>59</td>
<td>2</td>
<td>79</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>28</td>
<td>82</td>
<td>300</td>
</tr>
</tbody>
</table>

Example of 300 data points.

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<thead>
<tr>
<th>13</th>
<th>15</th>
<th>2</th>
<th>12</th>
</tr>
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<tbody>
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</table>
Read individual clones (all in small plates).
16 plates negative; 25 e clones.

1. 1 trial plus several small clusters
2. 1 trial only, terminal branch?
3. 0 trials several 2's
4. Several 2's, 15' (would have been trial if agcy. ?)
5. 1 trial (non-hum) 2 1/2, 13'
6. 1 trial (non-hum) 13' several 2's.

and remaining 19 have only 1's & occasional 2's.


All singly or put together accompanied by clusters

No survivors

n = 1

□ = 1. 1-obliterated?

Although not very productive this setup deserves is worth continuing.

Place plates at RT for counting time.

Remind me others.

Counts on these were (DCG).
81, 22, 21, 66, 81, 92, 40, 51, 69, 7, 143,
149, 149, 101, 32, 106, 10, 30, 17.

(Note peculiarity of first medium selection) No odd trials seen.

Mix 7 however (count 66) are today aggranated like a polen section,

Hollow balls with splotches usually purplish red or brown.

get some: ą

Try to isolate to verify as salm. cell.

Harm lift at RT 44 hours, photograph name of above (2, 5, 6)

(2 shows trial; 5, 6 accessory clusters)

□
Further tests are necessary.

No solution overnight!

Would need PA-140 to complete test; hold off now.
<table>
<thead>
<tr>
<th>Date: MAR 7 1955</th>
<th>Ref:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Harvest 400 to 2ml ca. 3pm. Ref. to 8pm. Plate.</td>
<td></td>
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<tr>
<td>2. Single cell transferred to ca 11pm. Incub 320 to 430. Plate out.</td>
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<table>
<thead>
<tr>
<th>MAR 8 1955 B.</th>
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</thead>
<tbody>
<tr>
<td>20. Group: MA (no gelatin) 2 plates negative 8 positive. Total counts.</td>
<td></td>
</tr>
<tr>
<td>1. Colony of 7 colonies all colonies tend to diffuse out.</td>
<td></td>
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<tr>
<td>2. ? Colony at wall of plate.</td>
<td></td>
</tr>
<tr>
<td>3. 32's</td>
<td></td>
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<tr>
<td>4. 37's</td>
<td></td>
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<tr>
<td>5. 82's, 23's 17.</td>
<td></td>
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<tr>
<td>6. 72's</td>
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<tr>
<td>7. All angles 51, 15, 12.</td>
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<tr>
<td>8. (mini MARA) all angles.</td>
<td></td>
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<tr>
<td>9. 42's</td>
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<tr>
<td>10. 32's</td>
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<tr>
<td>11. 12</td>
<td></td>
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<tr>
<td>12. 2 swarms. Dries ? No</td>
<td></td>
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<tr>
<td>13. 22's</td>
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<tr>
<td>14. 1 swarm, Small trail.</td>
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<tr>
<td>15. Covered by swarm 0.01</td>
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</table>

188 colonies total. Swarms 188. 188 colonies, no trails.
A's total is 100 more
4500/2/4 + duties/98+20%?
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</table>
|   | left 9 ml slide A7 to 20 °P M  
 |   | harvest + transfer 50 ml by 320  
 |   | plate 560 - 610  
 |   | 48 transf. plates
| B |   |   |   |   |   |   |   |   |   |   |
|   | new trays harvest 200/2 ml plate 12 and 1 ml  
 |   | sample plate in 10A, 10B
|   |   |   |   |   |   |   |   |   |   |   |
| MAR 9 1955 |   |   |   |   |   |   |   |   |   |   |
| A | further low recovery 33 are negative (Readers!)  
 |   | of 15 positive clones 9 had only singles  
 |   | clone signs: recall  
 |   | 16, 17, 18, 19, 17, 19
| B |   |   |   |   |   |   |   |   |   |   |
|   | 5.6 remaining 6  
 |   | 1. 40 colonies graden to 5 singles + clusters  
 |   | 2. 8 singles + 80 + 8  
 |   | 3. 6 singles + 80 + 8
|   |   |   |   |   |   |   |   |   |   |   |

Total: 8
more difficult reaching ground.

6, 8, 11, 12, 13, 14 and 6 clusters of 3-5.8 columns each.

phloxy Set 6!

Mar 10 1955

On decoloration, puddle positive, clones apparent.

Count: 16 singles

Remainder plates show no change in cyst surface

overgrowth. No minor faults or

marked failure expression.
3/9/55.

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</table>

Trail not greatly different H04, H08.

13 sec. 18 trails 2 esteros. Save for photo.

How such an old me? Abnormal death of cells, or too many agar?

14. little. Could they have been washed between H04, H08?

May have to repeat test.

Conclusion:

1. Effect of gelatin concentration is increasing

2. 6 clones 15/48 had trails. But destruction of main and minor trails may not be so clear as most of these clones did have several aggregation. Note: Clones small.

3. Why low survival yield, but apparently adherent