

Name	Symptoms	Symptoms	Symptoms
S1	Reduced growth	Dark fronds	Clumping
S2	Reduced growth	White translucent fronds	
S3	Reduced growth	Yellow chlorosis mixed with green fronds	
S4	Reduced growth only		
S5	Reduced growth	Black lesions	

Landoltia

Host	Pathogen	S1	S2	S3	S4	None	Total reps
<i>Landoltia punctata</i>	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	22	0	0	0	0	22
<i>Landoltia punctata</i>	<i>Pseudomonas flourescens</i>	8	6	0	0	0	14
<i>Landoltia punctata</i>	<i>Pseudomonas syringae</i> pv. <i>syringae</i> B728a	2	0	8	0	0	10
<i>Landoltia punctata</i>	<i>Xanthomonas perforans</i>	8	0	2	0	0	10
<i>Landoltia punctata</i>	<i>Xanthomonas euvesicatoria</i>	5	0	7	0	0	12
<i>Landoltia punctata</i>	<i>Xanthomonas gardneri</i>	9	0	1	0	0	10
<i>Landoltia punctata</i>	<i>Pseudomonas syringae</i> pv. <i>glycinea</i> race 4	9	0	0	0	4	13
<i>Landoltia punctata</i>	<i>Xanthomonas translucens</i>	6	0	1		3	10
<i>Landoltia punctata</i>	<i>Pseudomonas syringae</i> pv. <i>maculicola</i>	3	4	7	0	0	12
<i>Landoltia punctata</i>	<i>Pseudomonas syringae</i> pv. <i>tabaci</i>	0	0	10	0	0	10

# Buffer

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D-174  
3/19/21



D-201  
4/29/21



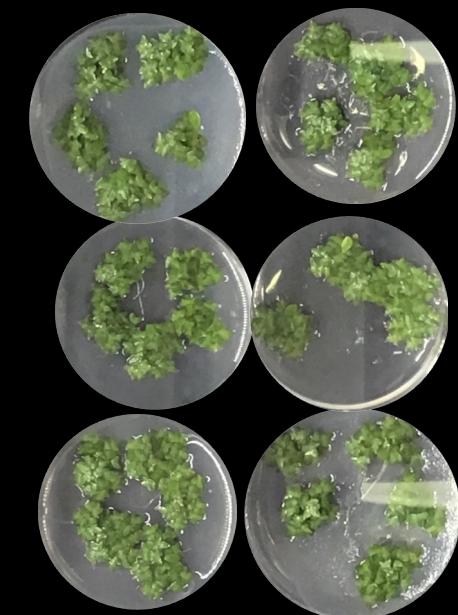
D-203 6/10/21



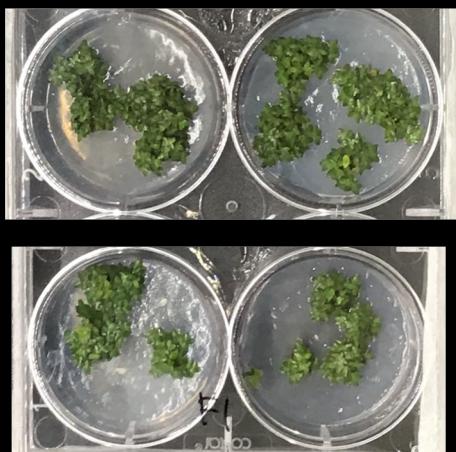
D-164  
3/13/21



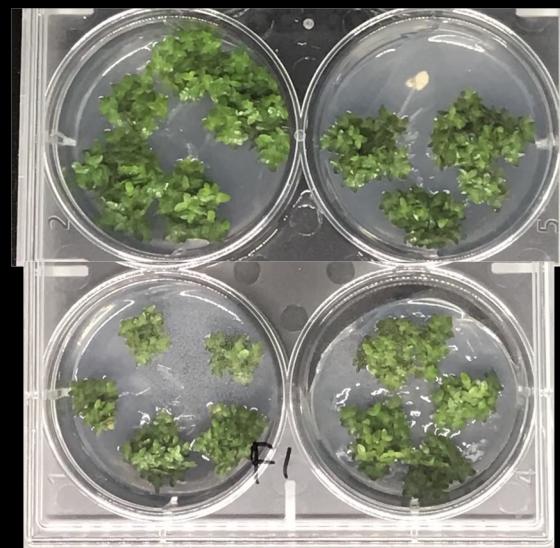
# *Pseudomonas syringae* pv. Tomato DC3000



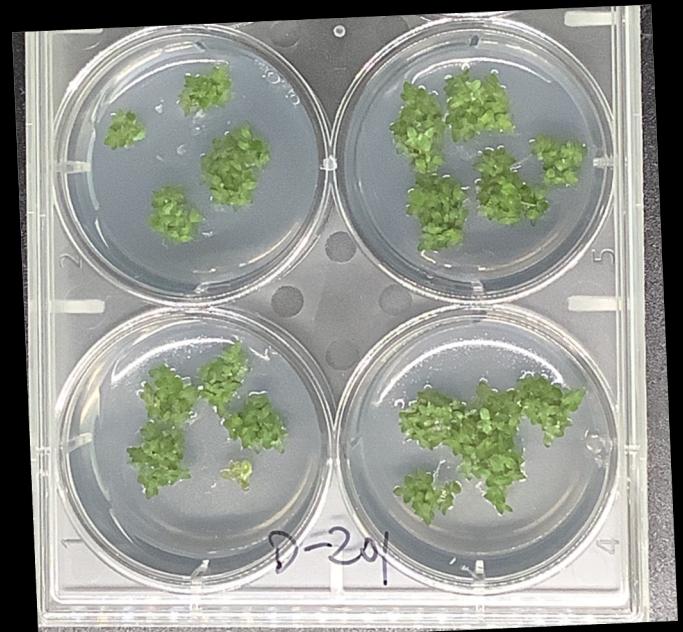
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D-174  
3/19/21



D-164  
3/13/21



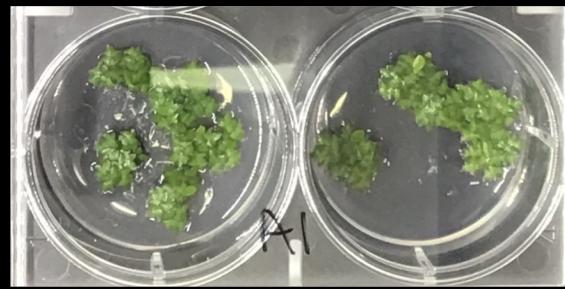
D-201  
4/29/21

22/22  
S1Reduced growth  
Dark fronds  
Clumping

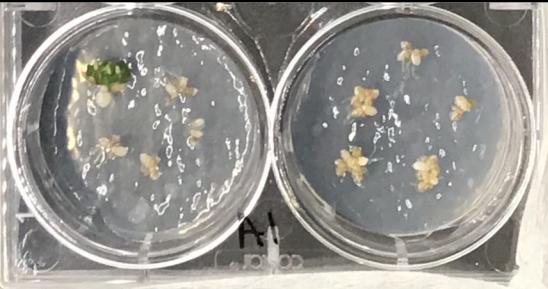
# Pseudomonas fluorescens

8 S1 Reduced growth/Dark fronds/Clumping

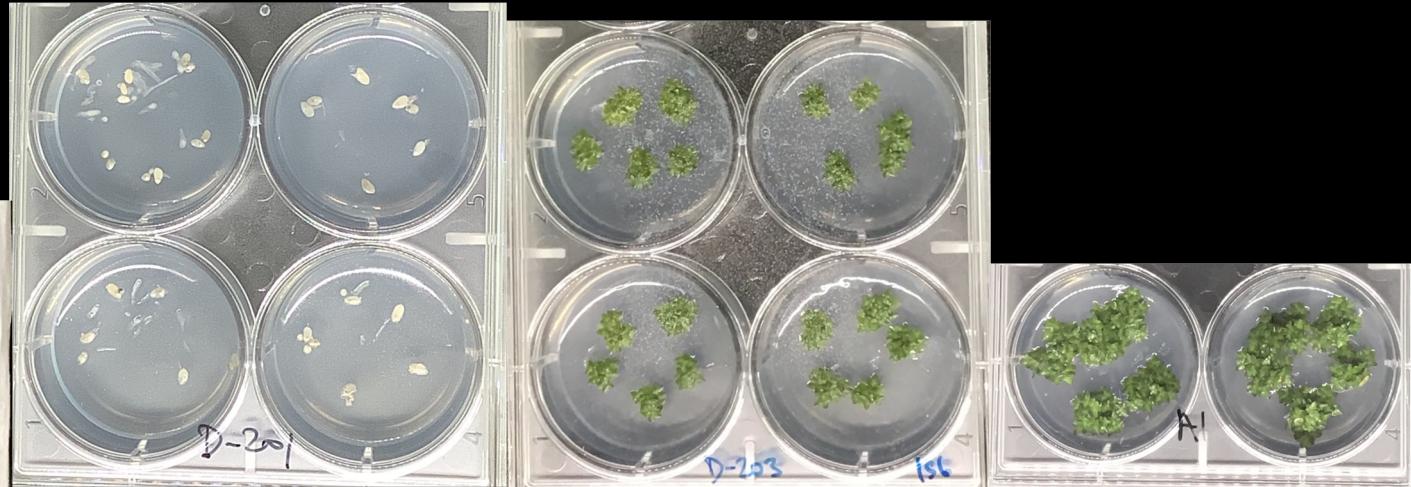
6 S2 White chlorosis



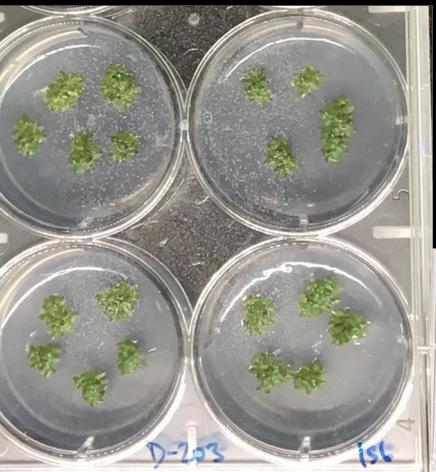
D-163 3/3/21



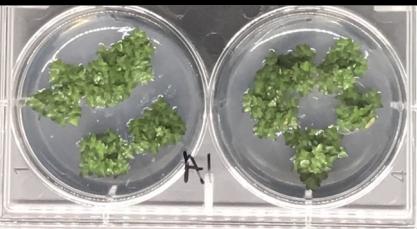
D-174  
3/19/21



D-201  
4/29/21



D-203 6/10/21



D-164  
3/13/21

8 S3 Yellow/green chlorosis – Reduced growth  
2 S1 Reduced growth - Dark fronds - Clumping

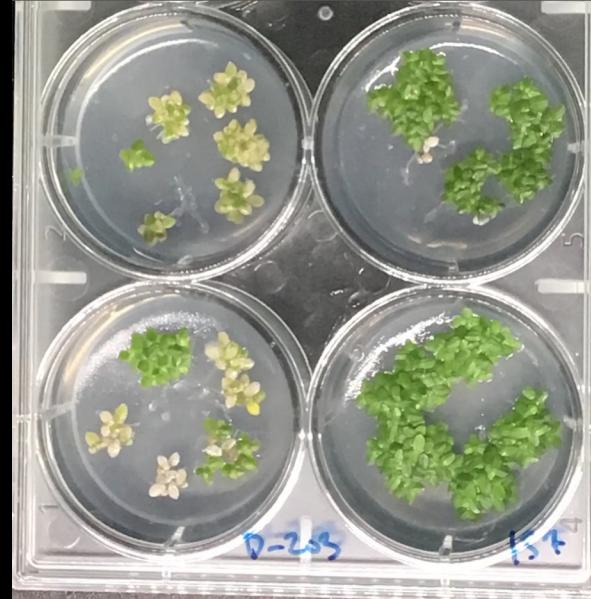
# *Pseudomonas syringae* pv. *syringae* B728A



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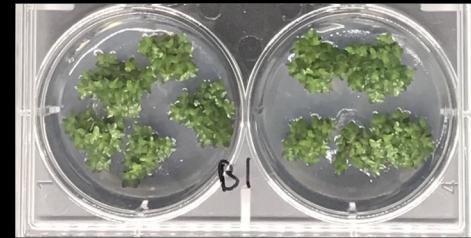
D-164  
3/13/21

2 S3 Yellow/green chlorosis – Reduced growth  
8 S1 Reduced growth - Dark fronds - Clumping

# Xanthomonas perforans

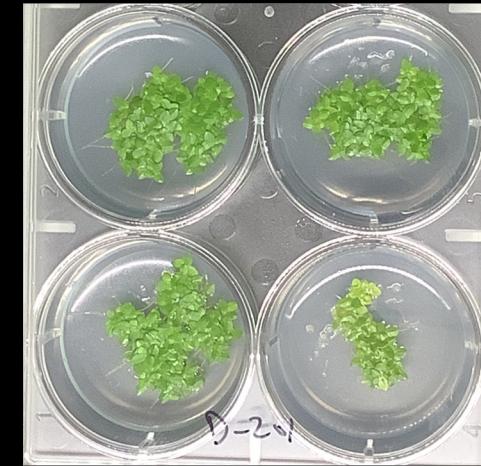


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3/19/21

D-164  
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D-201  
4/29/21

7 S3 Yellow/green chlorosis – Reduced growth  
5 S1 Reduced growth - Dark fronds - Clumping

# Xanthomonas euvesicatoria



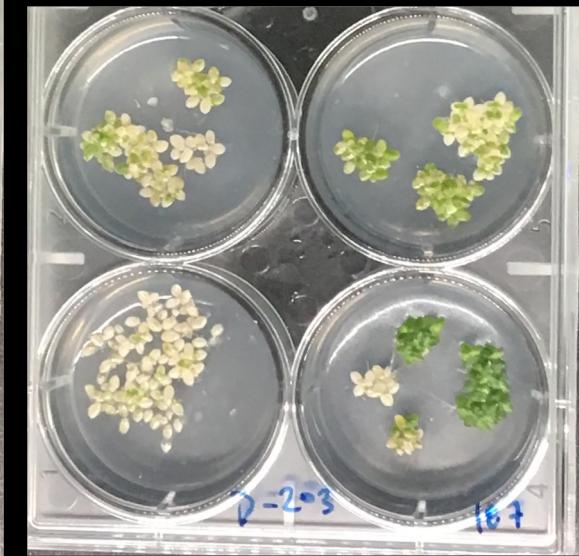
D-163 3/3/21



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3/19/21



D-201  
4/29/21



D-203 6/10/21

# *Xanthomonas gardneri*

1 S3 Yellow/green chlorosis – Reduced growth  
9 S1 Reduced growth - Dark fronds - Clumping



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D-164  
3/13/21



D-174  
3/19/21



D-201  
4/29/21

9 S3 Yellow/green chlorosis – Reduced growth  
4 None

# *Pseudomonas syringae* pv. *glycinea* Race 4



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3/19/21



D-201  
4/29/21



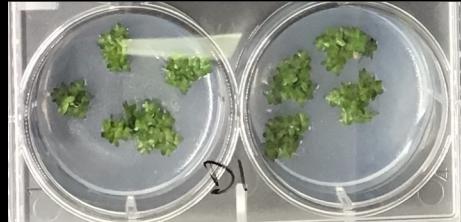
D-203 6/10/21



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6 S1  
1 S3  
3 None

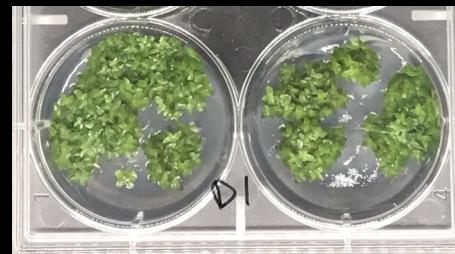
# Xanthomonas translucens 1



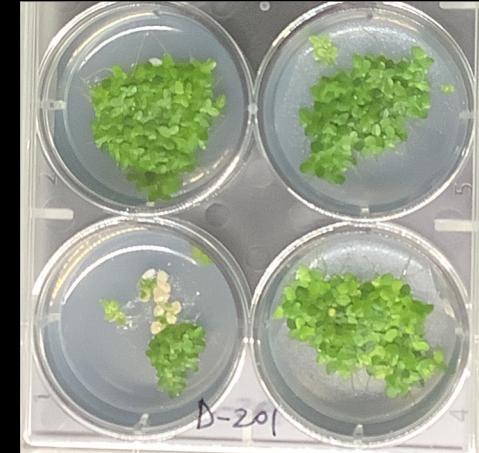
D-163 3/3/21



D-174  
3/19/21



D-164  
3/13/21

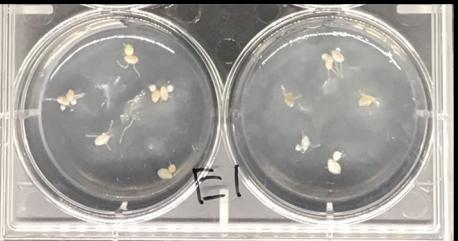


D-201  
4/29/21

# *Pseudomonas syringae* pv. Tobacco



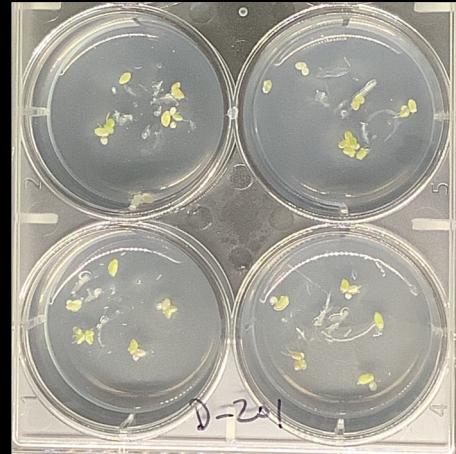
D-163 3/3/21



D-164  
3/13/21



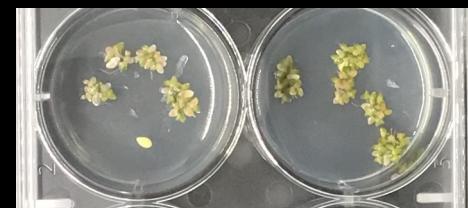
D-174  
3/19/21



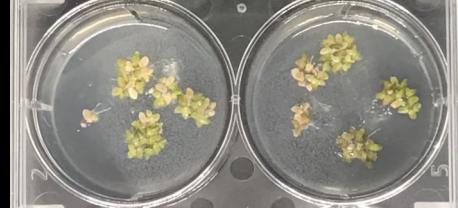
D-201  
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7 S3  
4 S2  
3 S1

# *Pseudomonas syringae* pv. *Maculicola*



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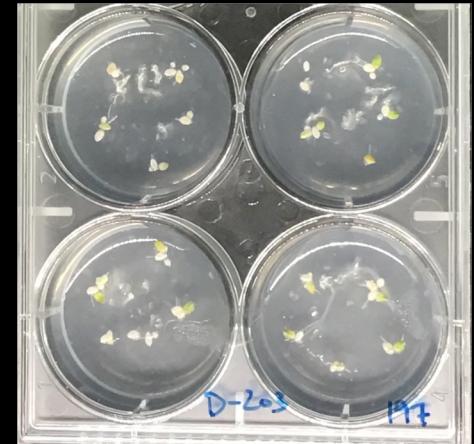
D-164 3/13/21



D-174  
3/19/21



D-201  
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D-203 6/10/21

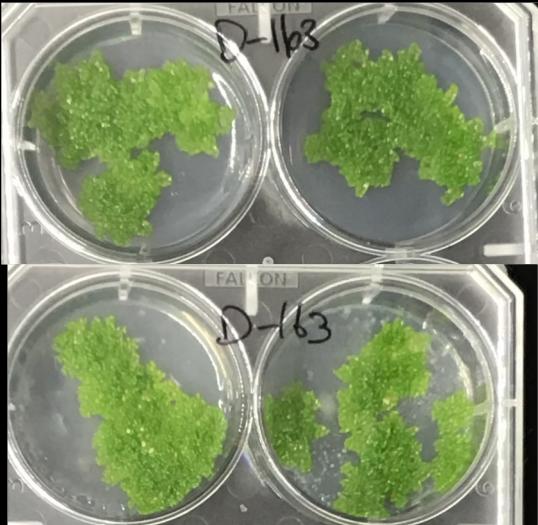
Wolffia

Host	Pathogen	S1	S2	S3	S4	None	Total reps
<i>Wolffia australiana</i>	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	0	0	0	4	8	12
<i>Wolffia australiana</i>	<i>Pseudomonas flourescens</i>	5	3	0	0	2	10
<i>Wolffia australiana</i>	<i>Pseudomonas syringae</i> pv. <i>syringae</i> B728a	0	8	2	0	1	11
<i>Wolffia australiana</i>	<i>Xanthomonas perforans</i>	0	8	0	0	2	10
<i>Wolffia australiana</i>	<i>Xanthomonas euvesicatoria</i>	0	7	0	0	3	10
<i>Wolffia australiana</i>	<i>Xanthomonas gardneri</i>	0	0	0	0	6	6
<i>Wolffia australiana</i>	<i>Pseudomonas syringae</i> pv. <i>glycinea</i> race 4	0	5	0	0	5	10
<i>Wolffia australiana</i>	<i>Xanthomonas translucens</i>	0	5	0	0	1	6
<i>Wolffia australiana</i>	<i>Pseudomonas syringae</i> pv. <i>maculicola</i>	0	0	1	0	5	6
<i>Wolffia australiana</i>	<i>Pseudomonas syringae</i> pv. <i>tabaci</i>	0	0	2	0	4	6

# BUFFER



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D-201  
4/29/21



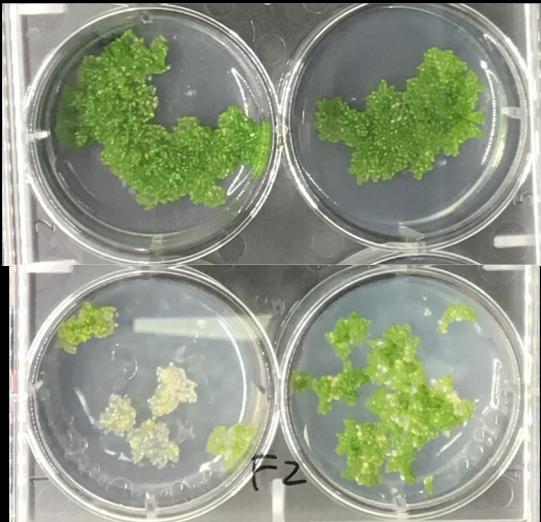
D-174  
3/19/21



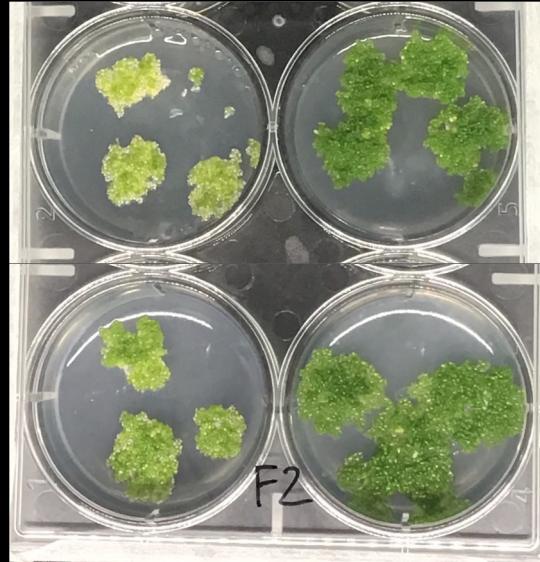
D-164  
3/13/21

# *Pseudomonas syringae* pv. Tomato DC3000

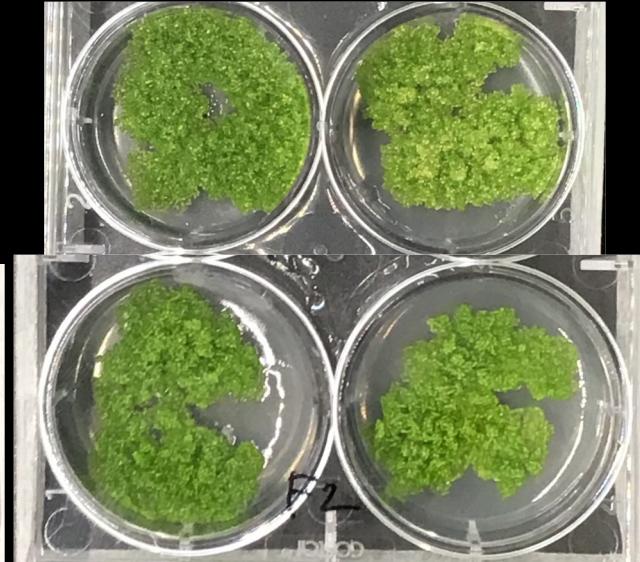
0 S1 Reduced growth/Dark fronds/Clumping  
0 S2 White translucent  
4 S3 Yellow/ Green chlorosis  
8 None



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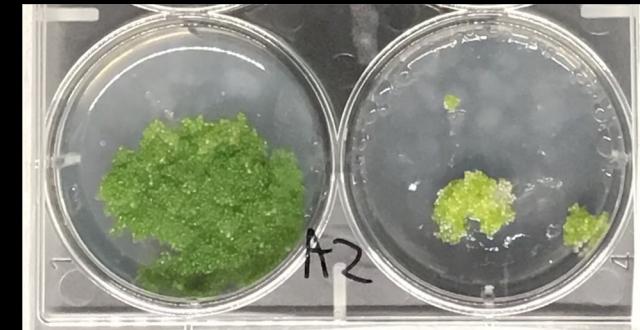
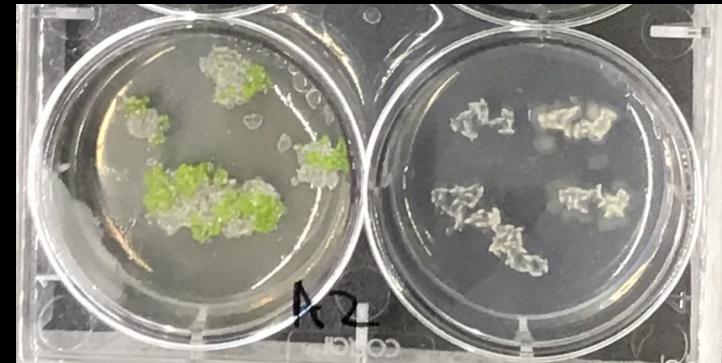
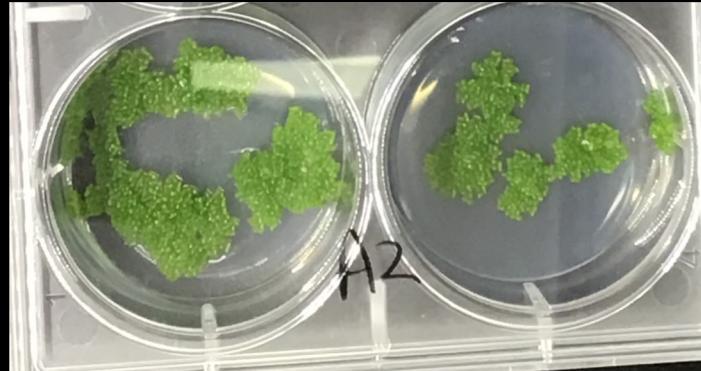
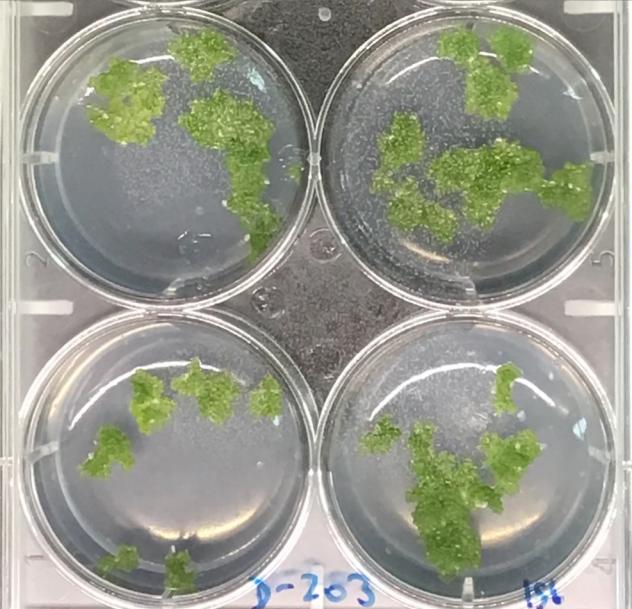
D-164  
3/13/21



D-174  
3/19/21

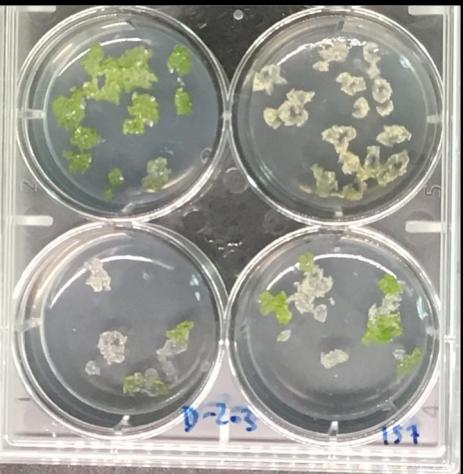
# Pseudomonas fluorescens

0 S1 Reduced growth/Dark fronds/Clumping  
3 S2 White translucent  
0 S3 Yellow/ Green chlorosis  
5 S4 Stunted growth only  
2 None

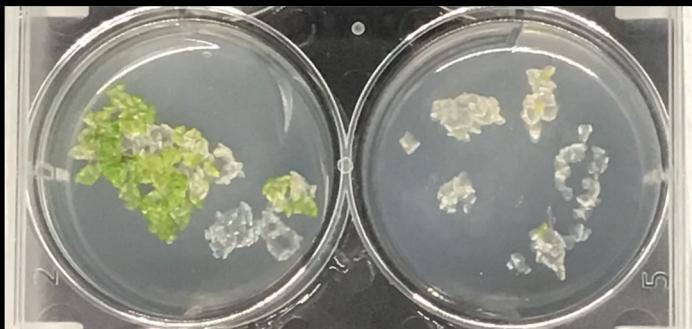


# *Pseudomonas syringae* pv. *syringae* B728A

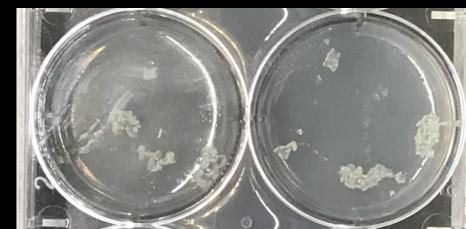
0 S1 Reduced growth/Dark fronds/Clumping  
8 S2 White translucent  
2 S3 Yellow/ Green chlorosis  
0 S4 Stunted growth only  
1 None



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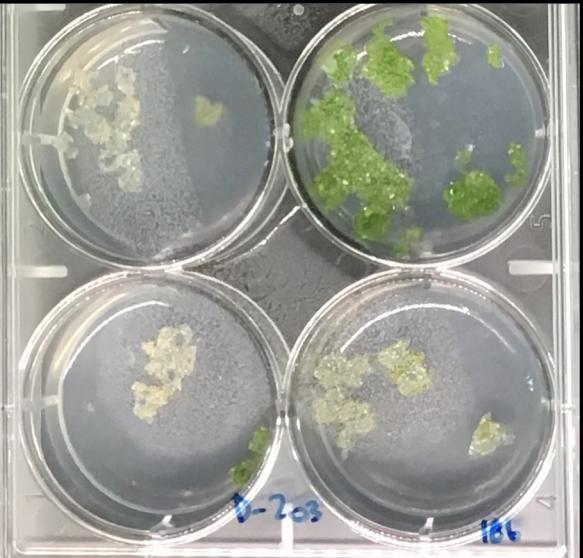
D-164  
3/13/21



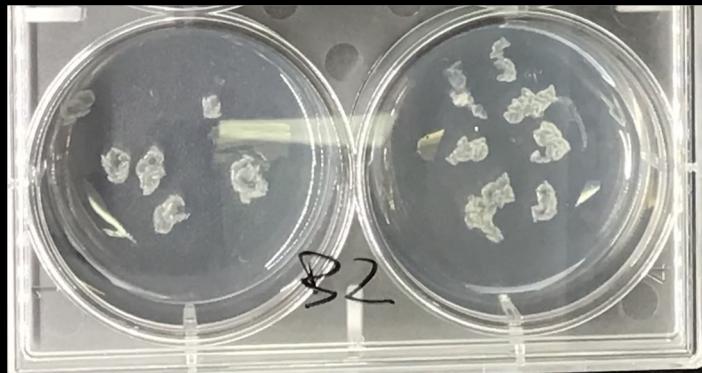
D-174  
3/19/21

# *Xanthomonas perforans*

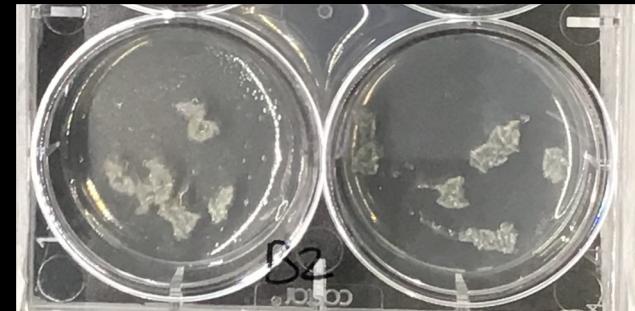
0 S1 Reduced growth/Dark fronds/Clumping  
8 S2 White translucent  
0 S3 Yellow/ Green chlorosis  
0 S4 Stunted growth only  
2 None



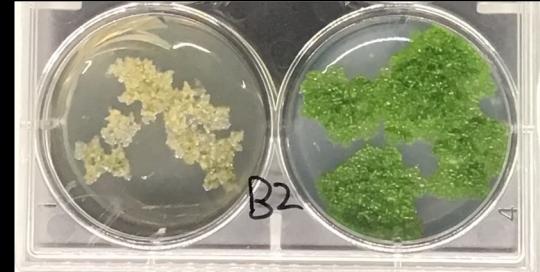
D-203 6/10/21



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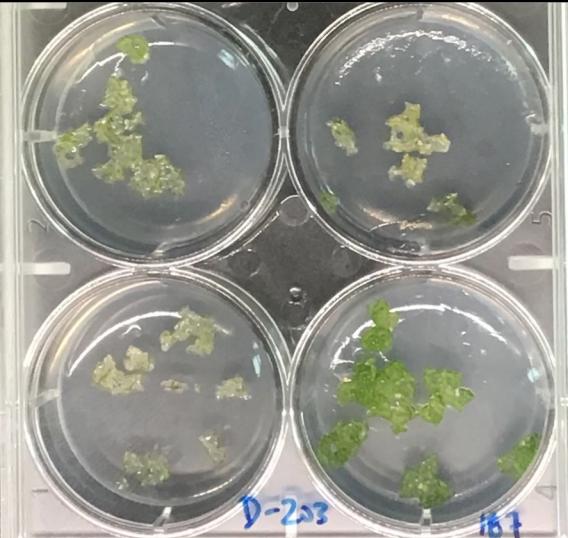
D-174  
3/19/21



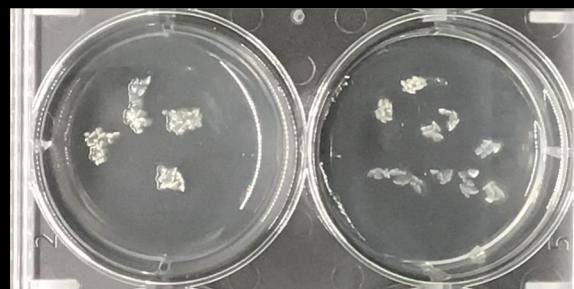
D-164  
3/13/21

# *Xanthomonas euvesicatoria*

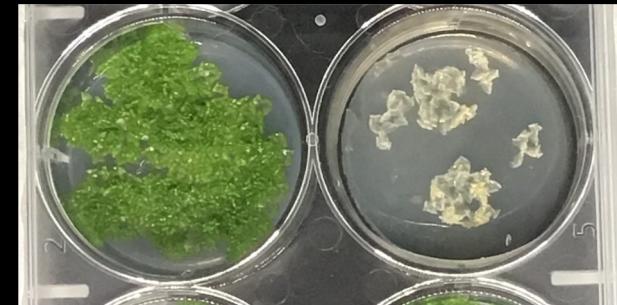
0 S1 Reduced growth/Dark fronds/Clumping  
7 S2 White translucent  
0 S3 Yellow/ Green chlorosis  
0 S4 Stunted growth only  
3 None



D-203 6/10/21



D-163 3/3/21



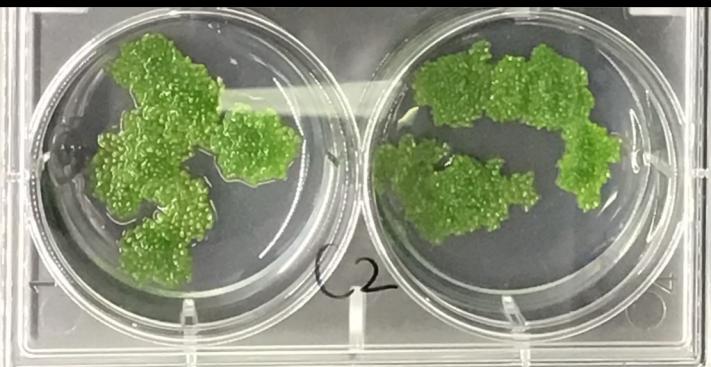
D-164  
3/13/21



D-174  
3/19/21

- O S1 Reduced growth/Dark fronds/Clumping  
O S2 White translucent  
O S3 Yellow/ Green chlorosis  
O S4 Stunted growth only  
6 None

# Xanthomonas gardneri



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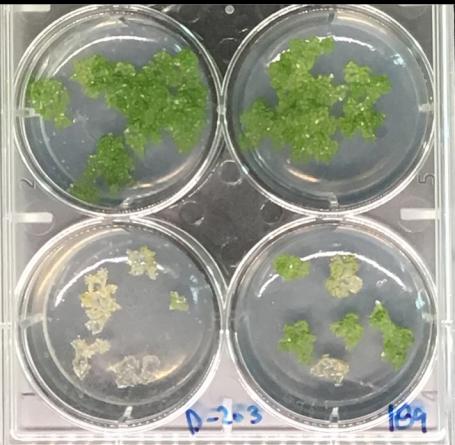
D-164  
3/13/21



D-174  
3/19/21

# *Pseudomonas syringae* pv. *glycinea* Race 4

0 S1 Reduced growth/Dark fronds/Clumping  
5 S2 White translucent  
0 S3 Yellow/ Green chlorosis  
0 S4 Stunted growth only  
5 None



D-203 6/10/21



D-163 3/3/21



D-164  
3/13/21



D-174  
3/19/21

# Xanthomonas translucens 1

0 S1 Reduced growth/Dark fronds/Clumping  
1 S2 White translucent  
0 S3 Yellow/ Green chlorosis  
0 S4 Stunted growth only  
5 None



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D-174  
3/19/21

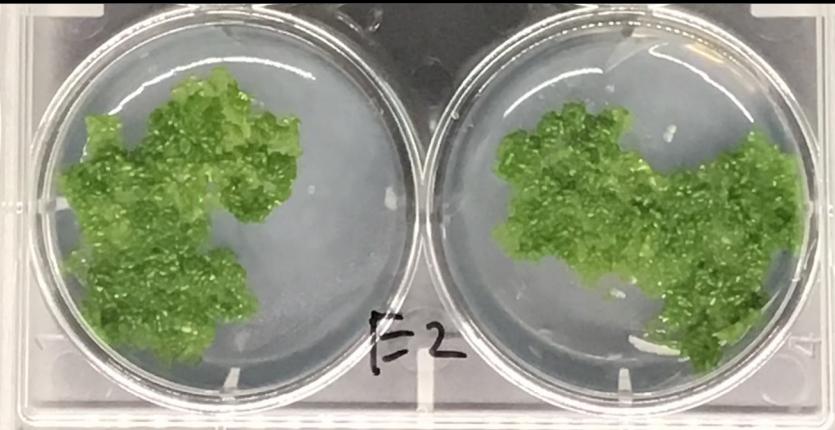
D-164  
3/13/21

# *Pseudomonas syringae* pv. Tobacco

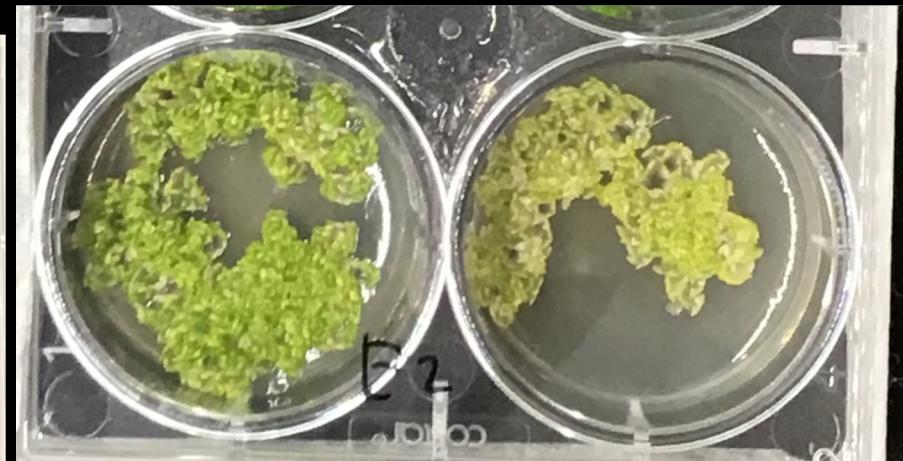
- 0 S1 Reduced growth/Dark fronds/Clumping
- 0 S2 White translucent
- 2 S3 Yellow/ Green chlorosis
- 0 S4 Stunted growth only
- 4 None



D-163 3/3/21



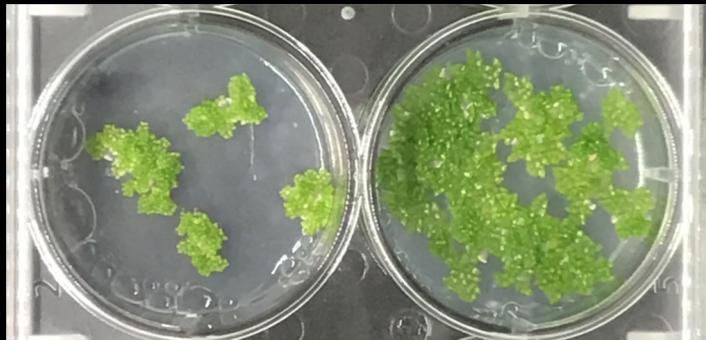
D-164  
3/13/21



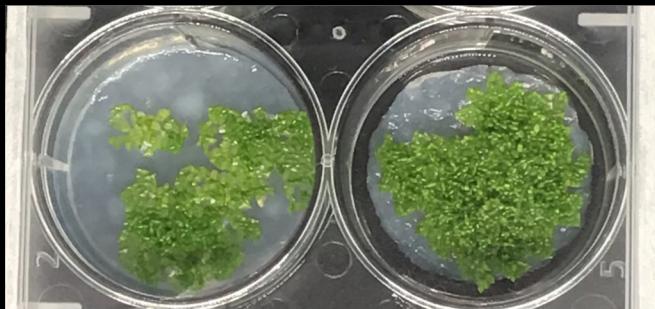
D-174  
3/19/21

# *Pseudomonas syringae* pv. *Maculicola*

0 S1 Reduced growth/Dark fronds/Clumping  
0 S2 White translucent  
0 S3 Yellow/ Green chlorosis  
1 S4 Stunted growth only  
5 None



D-163 3/3/21



D-164  
3/13/21



D-174  
3/19/21

# Spirodela

Host	Pathogen	S1	S2	S3	S4	S5	None	Total reps
<i>Spirodela polyrhiza</i>	<i>Pseudomonas syringae</i> pv. <i>tomato</i> <i>DC3000</i>	0	0	0	0	10	2	12
<i>Spirodela polyrhiza</i>	<i>Pseudomonas flourescens</i>	0	0	0	0	8	0	8
<i>Spirodela polyrhiza</i>	<i>Pseudomonas syringae</i> pv. <i>syringae</i> <i>B728a</i>	0	0	7	0	0	1	8
<i>Spirodela polyrhiza</i>	<i>Xanthomonas perforans</i>	0	0	2	0	5	1	8
<i>Spirodela polyrhiza</i>	<i>Xanthomonas euvesicatoria</i>	0	7	0	0	1	0	8
<i>Spirodela polyrhiza</i>	<i>Xanthomonas gardneri</i>	0	0	2	0	1	9	12
<i>Spirodela polyrhiza</i>	<i>Pseudomonas syringae</i> pv. <i>glycinea race 4</i>	0	3	6	0	0	7	16
<i>Spirodela polyrhiza</i>	<i>Xanthomonas translucens</i>	1	0	0	0	0	11	12
<i>Spirodela polyrhiza</i>	<i>Pseudomonas syringae</i> pv. <i>maculicola</i>	0	0	2	0	9	1	12
<i>Spirodela polyrhiza</i>	<i>Pseudomonas syringae</i> pv. <i>tabaci</i>	0	0	7	0	0	5	12

0 S1 Reduced growth/Dark fronds/Clumping

0 S2 White translucent

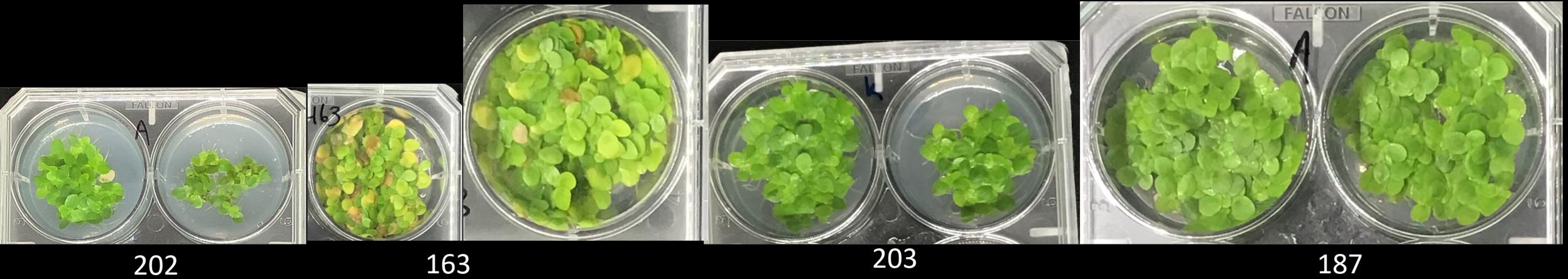
0 S3 Yellow/ Green chlorosis

0 S4 Stunted growth only

0 S5 Black lesions stunted growth

0 None

# Buffer

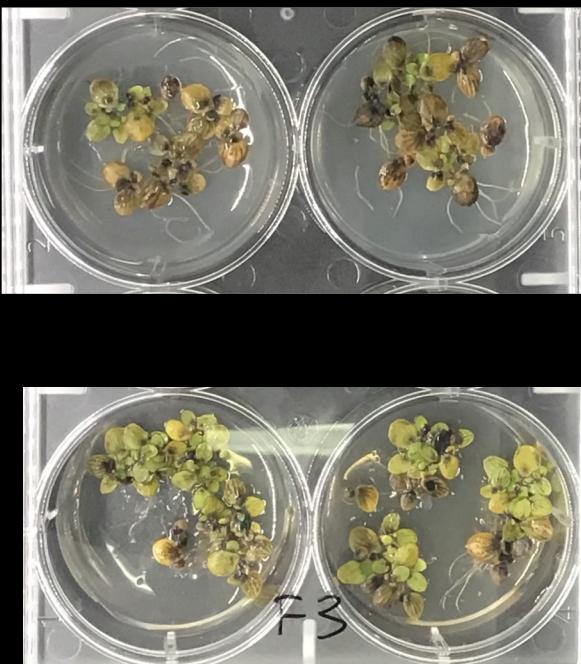


# *Pseudomonas syringae* pv. Tomato DC3000

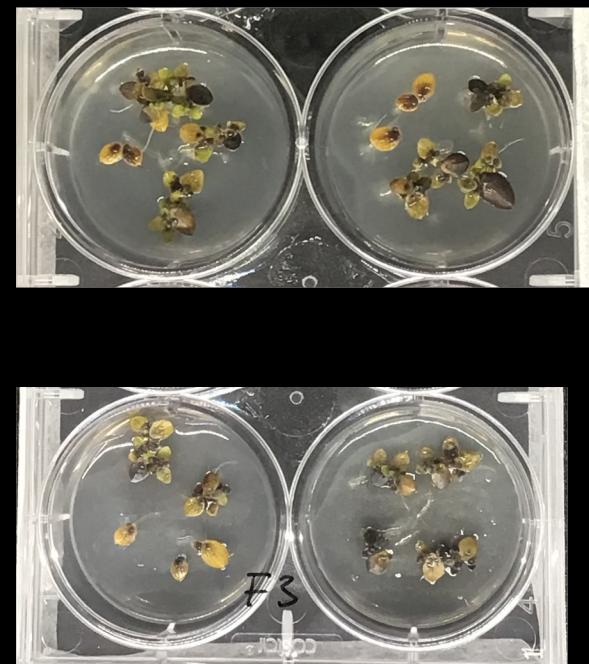
- 0 S1 Reduced growth/Dark fronds/Clumping
- 0 S2 White translucent
- 0 S3 Yellow/ Green chlorosis
- 0 S4 Stunted growth only
- 10 S5 Black lesions stunted growth
- 2 None



D-202  
4/29/21



D-163  
3/3/21



D-164  
3/13/21



D-187

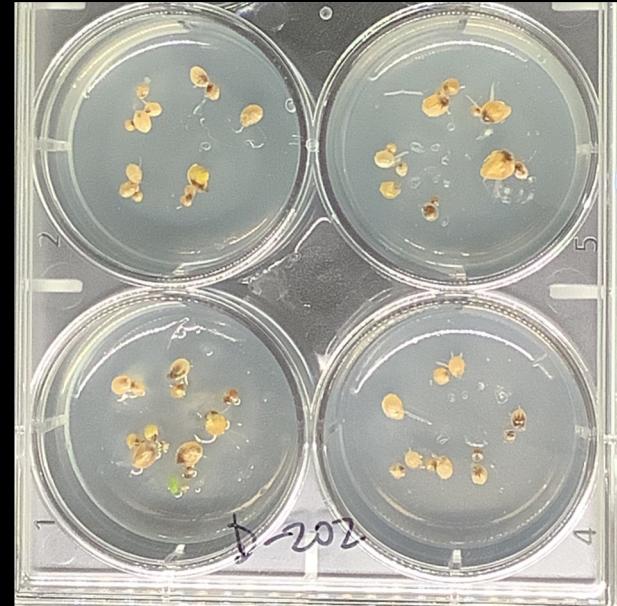
# *Pseudomonas fluorescens*



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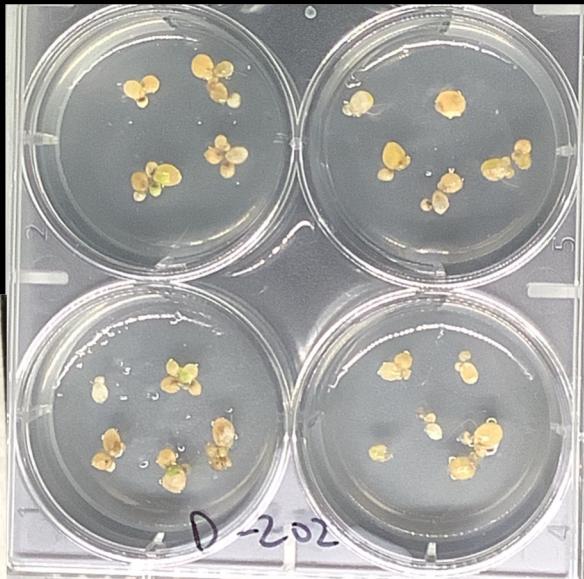
D-164  
3/13/21



D-202  
4/29/21

- 0 S1 Reduced growth/Dark fronds/Clumping
- 0 S2 White translucent
- 0 S3 Yellow/ Green chlorosis
- 0 S4 Stunted growth only
- 8 S5 Black lesions stunted growth
- 0 None

# *Pseudomonas syringae* pv. *syringae* 728A



D-163  
3/3/21

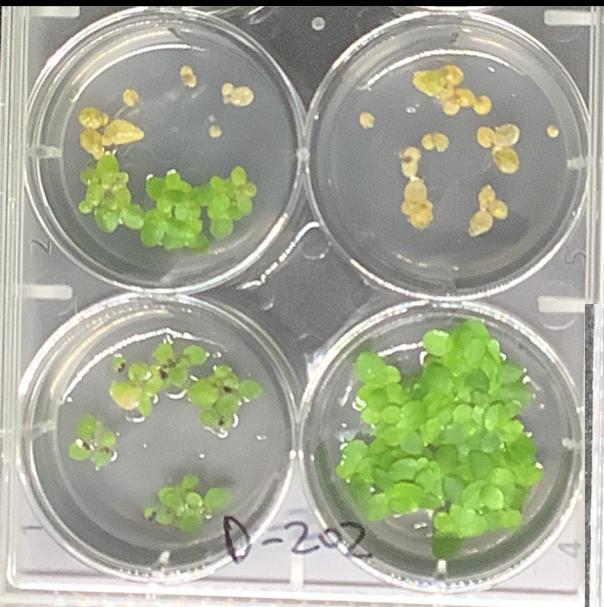
D-164  
3/13/21

D-202  
4/29/21

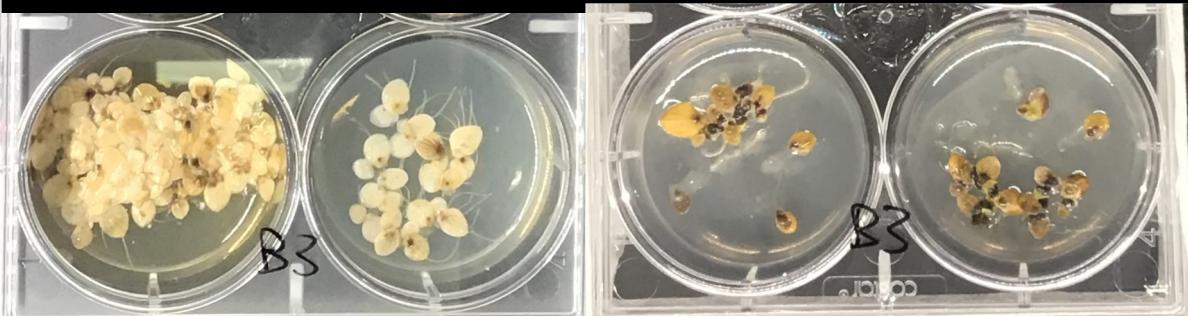
0 S1 Reduced growth/Dark fronds/Clumping  
0 S2 White translucent  
7 S3 Yellow/ Green chlorosis  
0 S4 Stunted growth only  
0 S5 Black lesions stunted growth  
1 None

# *Xanthomonas perforans*

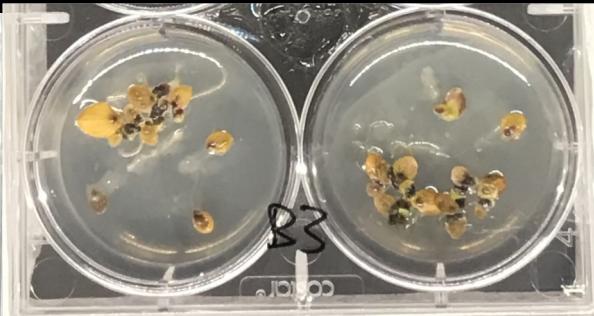
- 0 S1 Reduced growth/Dark fronds/Clumping
- 0 S2 White translucent
- 2 S3 Yellow/ Green chlorosis
- 0 S4 Stunted growth only
- 5 S5 Black lesions stunted growth
- 1 None



D-202  
4/29/21

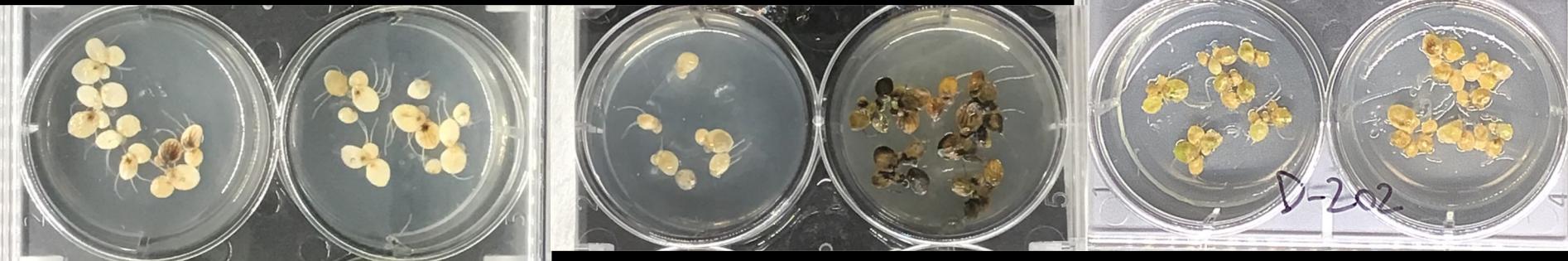


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D-164  
3/13/21

# *Xanthomonas euvesicatoria*



D-163 3/3/21

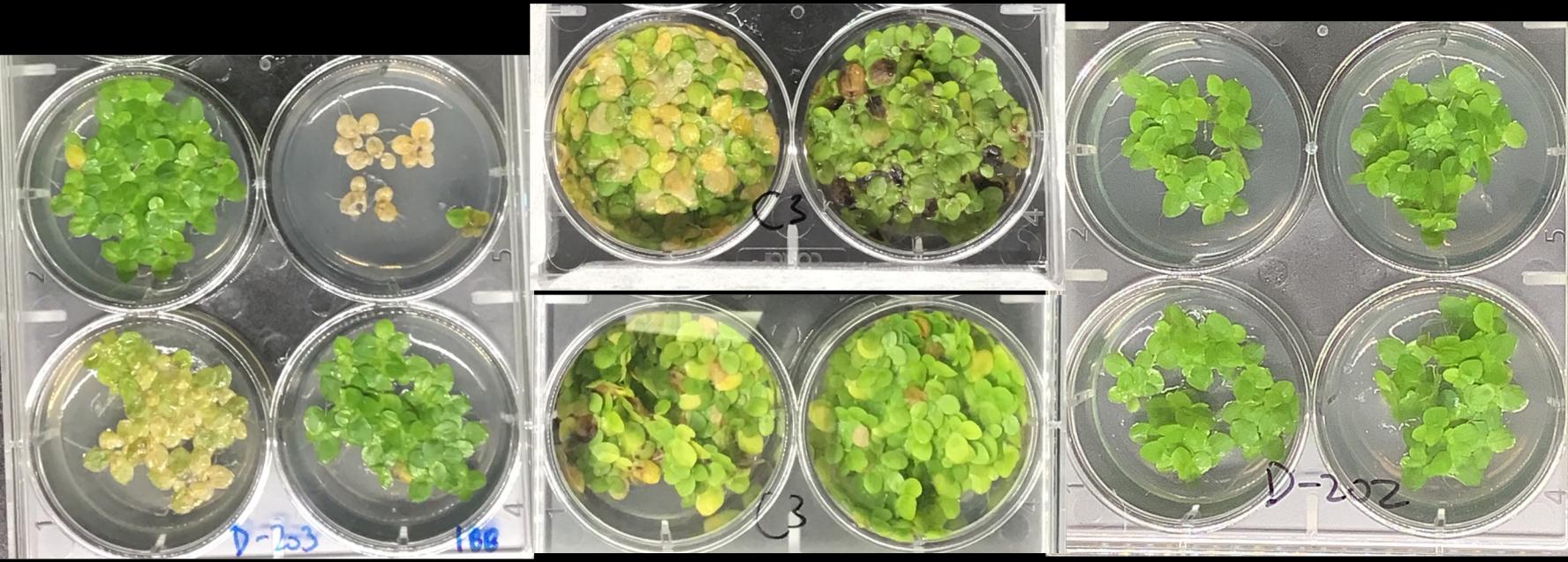
D-164  
3/13/21

D-202  
4/29/21

- 0 S1 Reduced growth/Dark fronds/Clumping
- 7 S2 White translucent
- 0 S3 Yellow/ Green chlorosis
- 0 S4 Stunted growth only
- 1 S5 Black lesions stunted growth
- 0 None

# *Xanthomonas gardneri*

- 0 S1 Reduced growth/Dark fronds/Clumping
- 0 S2 White translucent
- 2 S3 Yellow/ Green chlorosis
- 0 S4 Stunted growth only
- 1 S5 Black lesions stunted growth
- 9 None

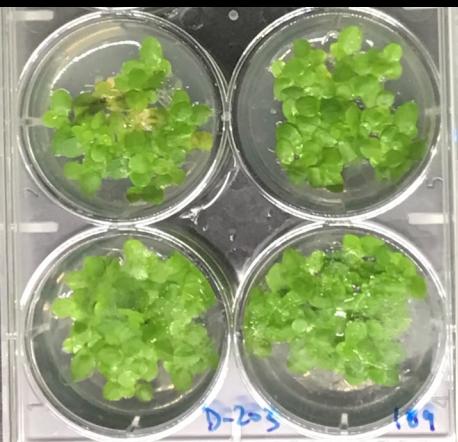


D-203 6/10/21

D-164  
3/13/21  
D-163  
3/3/21

D-202  
4/29/21

# *Pseudomonas syringae* pv. *glycinea* Race 4



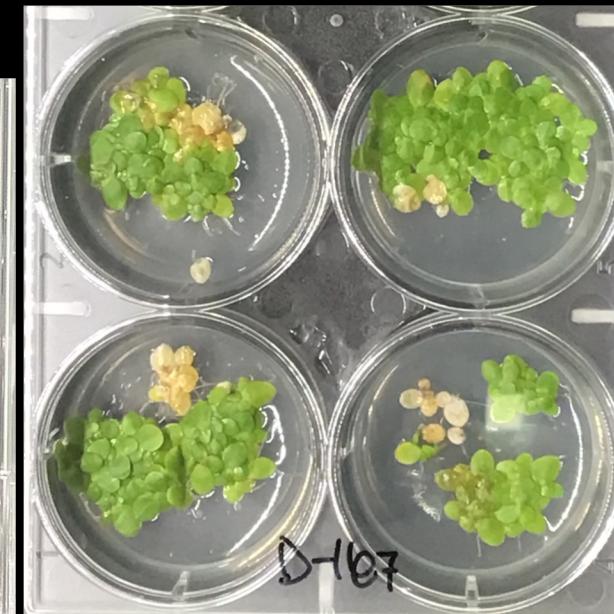
D-203 6/10/21



D-163 3/3/21  
D-164  
3/13/21



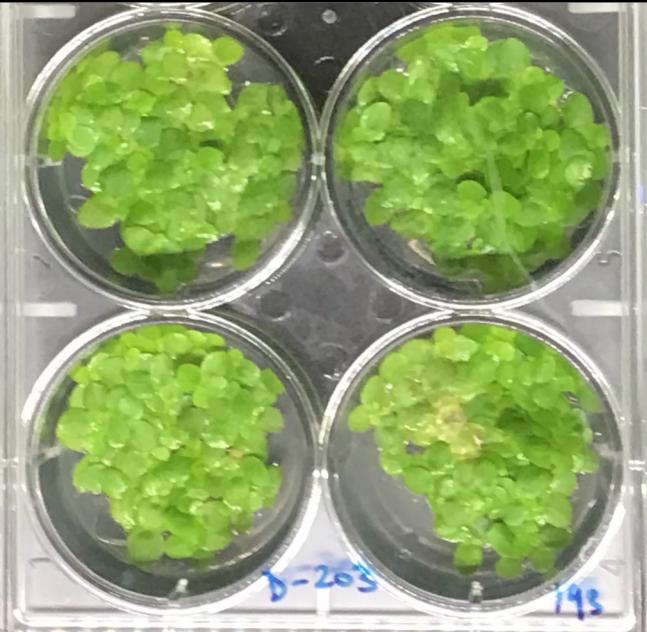
D-202  
4/29/21



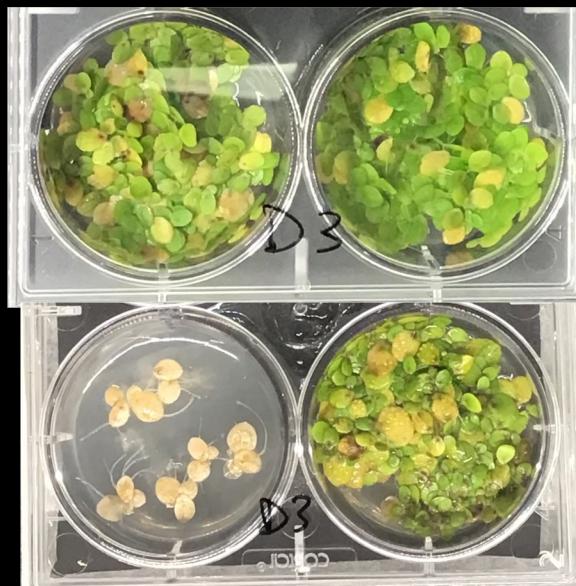
D-187

0 S1 Reduced growth/Dark fronds/Clumping  
3 S2 White translucent  
6 S3 Yellow/ Green chlorosis  
0 S4 Stunted growth only  
0 S5 Black lesions stunted growth  
7 None

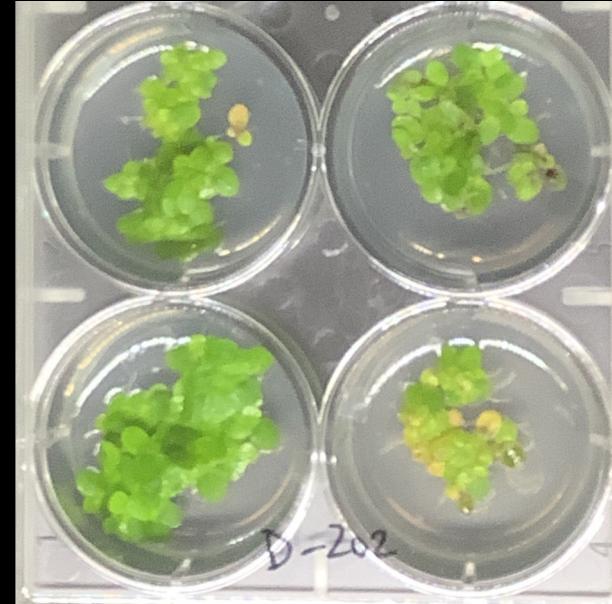
# *Xanthomonas translucens* 1



D-203 6/10/21



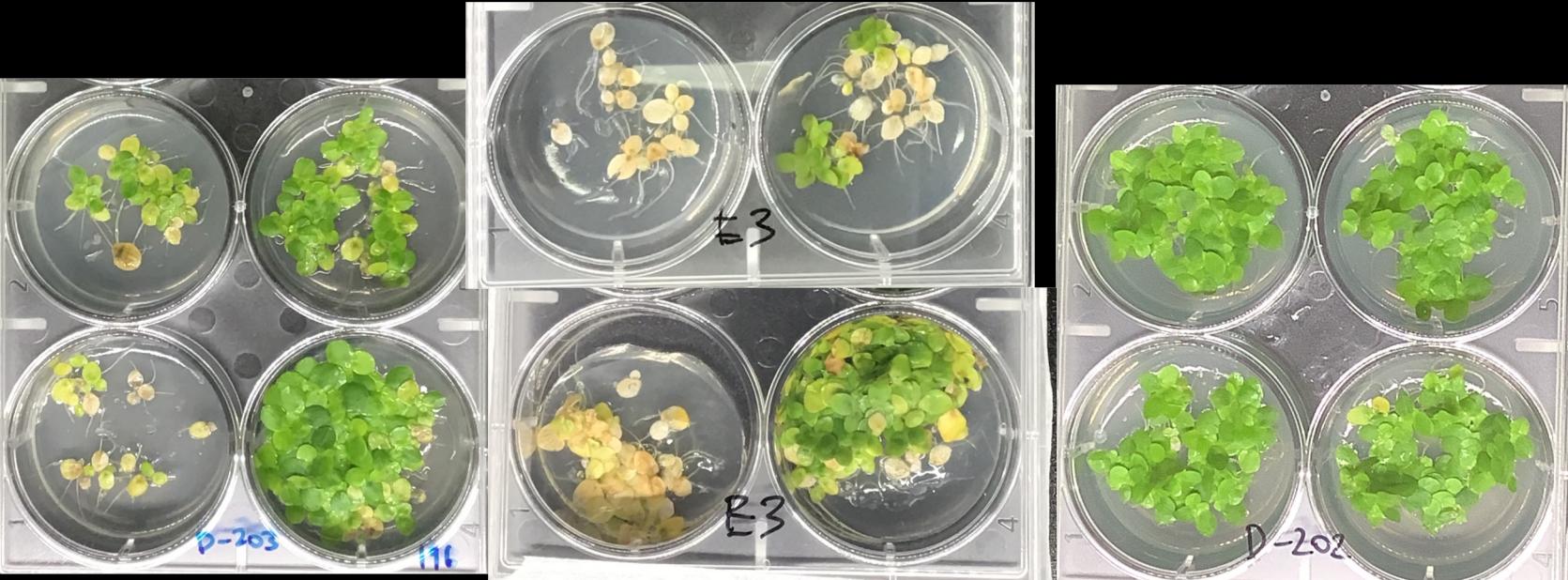
D-163 3/3/21  
D-164 3/13/21



D-202  
4/29/21

- 0 S1 Reduced growth/Dark fronds/Clumping
- 1 S2 White translucent
- 0 S3 Yellow/ Green chlorosis
- 0 S4 Stunted growth only
- 0 S5 Black lesions stunted growth
- 11 None

# *Pseudomonas syringae* pv. Tobacco



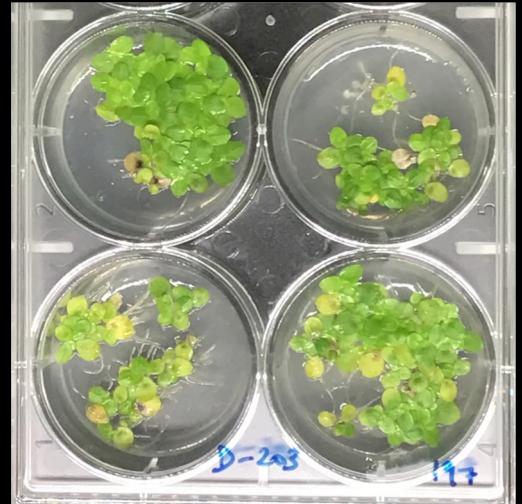
D-203 6/10/21

D-163 3/3/21  
D-164 3/13/21

D-202  
4/29/21

- 0 S1 Reduced growth/Dark fronds/Clumping
- 0 S2 White translucent
- 7 S3 Yellow/ Green chlorosis
- 0 S4 Stunted growth only
- 0 S5 Black lesions stunted growth
- 5 None

# *Pseudomonas syringae* pv. *Maculicola*



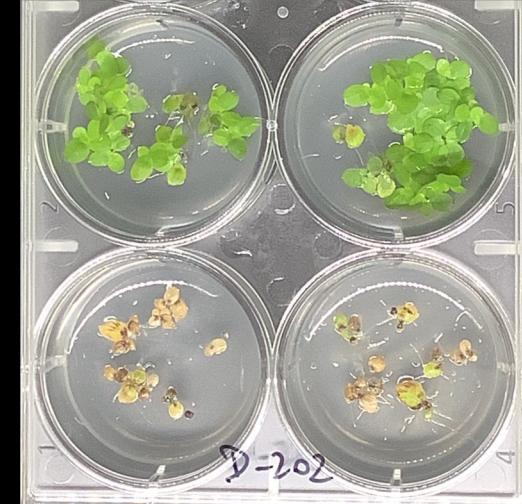
D-203 6/10/21



D-163 3/3/21



D-164  
3/13/21



D-202  
4/29/21

- 0 S1 Reduced growth/Dark fronds/Clumping
- 0 S2 White translucent
- 2 S3 Yellow/ Green chlorosis
- 0 S4 Stunted growth only
- 9 S5 Black lesions stunted growth
- 1 None