LAMPIRAN

Lampiran 1 Kebutuhan Bahan

Pengencer Pepton

Setiap sampel membutuhkan 6 tabung untuk:

1. Pengenceran 10^{-1} : satu tabung
2. Pengenceran 10^{-2} : satu tabung
3. Pengenceran 10^{-3} : satu tabung
4. Pengenceran 10^{-4} : satu tabung
5. Pengenceran 10^{-5} : satu tabung
6. Blanko: 1 tabung

Kebutuhan untuk 3 sampel = 3 sampel x 6 tabung = 18 tabung

Pada tiap tabung berisi 9 ml

Kecali Pengenceran 10^{-1} berisi 225 ml sampel 25 ml sampel

Jadi, pengencer yang dibutuhkan (9 x 18) + (225 x 3) = 837 ml

Dan dibuat pengencer +/-1000 ml

Pepton yang ditimbang $\frac{1}{1000}$ x 1000 =1 gram

Media Yeast Extract Agar

Setiap sampel membutuhkan 6 cawan petri untuk:

1. Pengenceran 10^{-1} : satu cawan petri
2. Pengenceran 10^{-2} : satu cawan petri
3. Pengenceran 10^{-3} : satu cawan petri
4. Pengenceran 10^{-4} : satu cawan petri
5. Pengenceran 10^{-5} : satu cawan petri
6. Blanko: 1 cawan petri

Kebutuhan untuk 3 sampel = 3 sampel x 6 cawan petri = 18 cawan petri

Pada tiap cawan petri berisi 15 ml

Jadi, media yang dibutuhkan 15 x 18 = 270 ml

Dan dibuat media +/- 300ml

Media yang ditimbang $\frac{23}{1000}$ x 300 = 6,9 gram

Pembuatan NaOH 1N

1N NaOH $= \frac{m}{Mr} \text{ x } \frac{1000}{V}$

$= \frac{m}{40\ g/mol} \text{ x } \frac{1000}{100}$

m NaOH $= \frac{40}{10}$

=4 gram

Pembuatan HCL1N

M1V1 = M2V2

(12.1 M)(V1) = (1.0 M)(100 mL)

V1 = 8.26 Ml

Data Koloni

Replikasi 1

SAMPEL	PENGENCERAN					Blanko (Media+ Pengencer)	Blanko (Media)
	10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}		
A 1	TBUD	34	17	14	8	13	-
B 1	TBUD	TBUD	135	25	14	14	-
C 1	TBUD	31	22	15	13	13	-

Replikasi 2

SAMPEL	PENGENCERAN					Blanko (Media+ Pengencer)	Blanko (Media)
	10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}		
A 1	TBUD	31	26	22	-	9	-
B 1	TBUD	202	36	18	-	20	-
C 1	TBUD	33	19	17	-	20	-

Replikasi 3

SAMPEL	PENGENCERAN					Blanko (Media+ Pengencer)	Blanko (Media)
	10^{-1}	**10^{-2}**	**10^{-3}**	**10^{-4}**	**10^{-5}**		
A 1	26	24	22	15	-	21	0
B 1	TBUD	TBUD	130	28	-	22	18
C 1	TBUD	34	25	5	-	20	20

Lampiran 2 Perhitungan ALT
SAMPEL A

Replikasi 1(10^{-2} , 10^{-3}):
$C_s = \frac{Z}{Vtot}$ x V_s

Z = 34 + 15 = 51

Vtot =(1 x 1 x 0,01) + (1 x 1 x 0,001) = 0,011

$C_s = \frac{51}{0,011}$ x 1 = 4636
= 4,6 x 10^3

Replikasi 2 (10^{-2} , 10^{-3}):
$C_s = \frac{Z}{Vtot}$ x V_s

Z = 31 + 26 = 57

Vtot =(1 x 1 x 0,01) + (1 x 1 x 0,001) = 0,011

$C_s = \frac{57}{0,011}$ x 1 = 5181
= 5,1 x 10^3

Replikasi 3 (10^{-1} , 10^{-2}):
$C_s = \frac{Z}{Vtot}$ x V_s

Z = 26 + 24 = 50

Vtot =(1 x 1 x 0,1) + (1 x 1 x 0,01) = 0,11

$C_s = \frac{50}{0,11}$ x 1 = 454
= 4,5x 10^2

Rata-rata= (4,6 x 10^3 + 5,1 x 10^3 + 4,5x 10^2) : 3 = 3,4×10^3

SAMPEL B

Replikasi 1 (10^{-3} , 10^{-4}):

$C_s=\frac{Z}{Vtot}$ x V_s

Z = 135 + 25 = 160

Vtot =(1 x 1 x 0,001) + (1 x 1 x 0,0001) = 0,00011

$C_s=\frac{160}{0,0011}$ x 1 = 145.454

= 1,45 x 10^5

Replikasi 2 (10^{-2} , 10^{-3}):

$C_s=\frac{Z}{Vtot}$ x V_s

Z = 202+ 36 = 238

Vtot =(1 x 1 x 0,01) + (1 x 1 x 0,001) = 0,011

$C_s=\frac{238}{0,011}$ x 1 = 21.636

= 2,16 x 10^4

Replikasi 3 (10^{-3} , 10^{-4}):

$C_s=\frac{Z}{Vtot}$ x V_s

Z = 130+ 28 = 158

Vtot =(1 x 1 x 0,001) + (1 x 1 x 0,0001) = 0,00011

$C_s=\frac{158}{0,0011}$ x 1 = 143.636

= 1,43 x 10^5

Rata-rata= (1,45 x 10^5 + 2,16 x 10^4 + 1,43 x 10^5) : 3 = 1.68×10^5

SAMPEL C

Replikasi 1 (10^{-2} , 10^{-3}):

$C_s=\frac{Z}{Vtot}$ x V_s

Z = 31 + 22 = 53

Vtot =(1 x 1 x 0,01) + (1 x 1 x 0,001) = 0,011

$C_s=\frac{53}{0,011}$ x 1 = 4818

= 4,8 x 10^3

Replikasi 2 (10^{-2} , 10^{-3}):

$C_s=\frac{Z}{Vtot}$ x V_s

Z = 31 + 22 = 53

Vtot =(1 x 1 x 0,01) + (1 x 1 x 0,001) = 0,011

$C_s = \frac{53}{0,011}$ x 1 = 4727

= 4,7 x 10^3

Replikasi 3 (10^{-2} , 10^{-3}):

$C_s = \frac{Z}{Vtot}$ x V_s

Z = 34 + 25 = 59

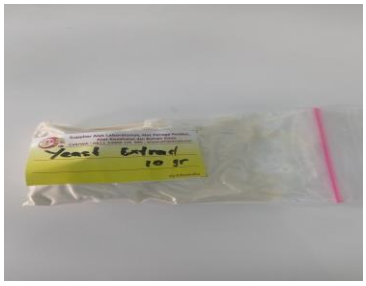
Vtot =(1 x 1 x 0,01) + (1 x 1 x 0,001) = 0,011

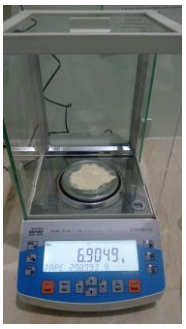
$C_s = \frac{54}{0,011}$ x 1 = 5364

= 5,3 x 10^3

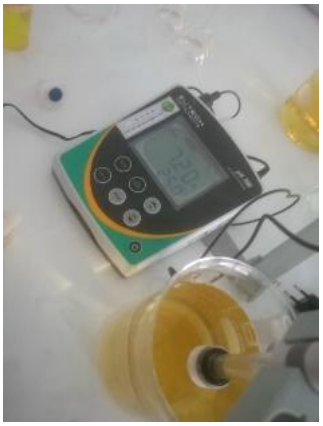
Rata-rata= (4,8 x 10^3+ 4,7 x 10^3 + 5,3 x 10^3) : 3 = 4,9×10^3

Lampiran 3 Lampiran Gambar

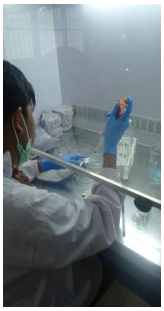
Gambar	Keterangan
 Sampel A.  Sampel B.  Sampel B(ada keruan)  Sampel C	Sampel Air ZAM ZAM kemasan
	Alat - Alat yang digunakan
	Media yang digunakan untuk inokulasi *Angka Lempeng Total* (ALT)
 	Sterilisasi alat.

	Penimbangan media
 	Penimbangan Pepton

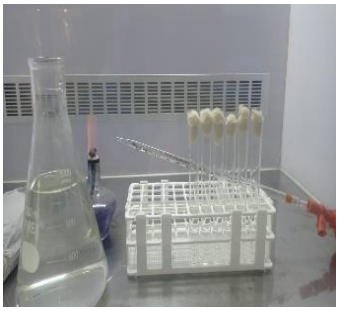
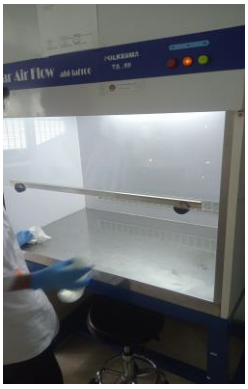
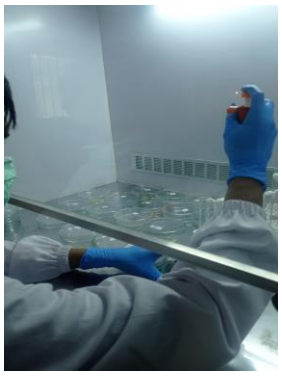
 	Penimbangan NaOH
 	Pembuatan larutan Pengencer Pepton

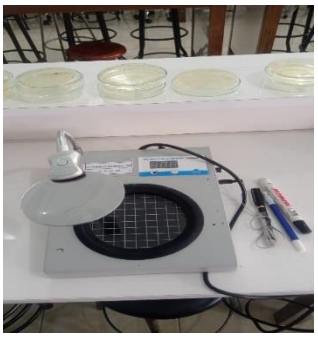
 	Pembuatan Media Yeast Extract Agar dan pengukuran pH
	Pemipetandan Pengenceran Sampel

	Sterilisasi media dan Pengencer Pepton

	Pengenceran ALT 10^{-1}
	Pengenceran ALT 10^{-2}

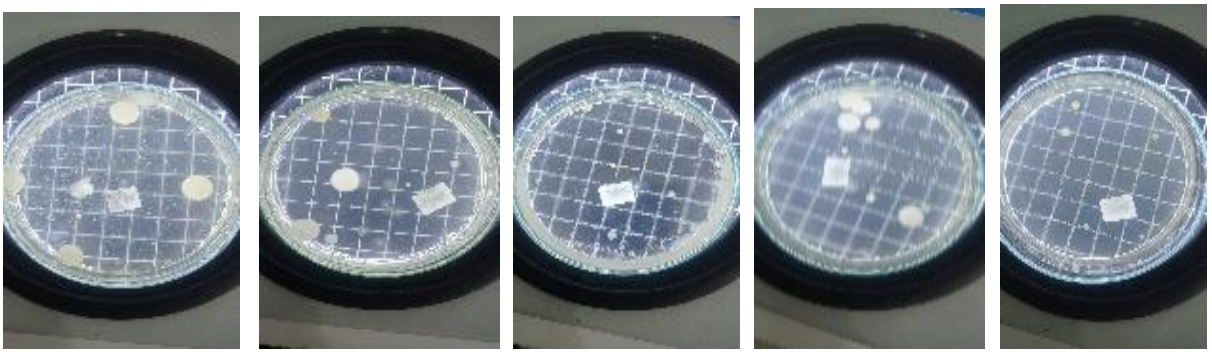
	Pengenceran ALT 10^{-3}
	Pengenceran ALT 10^{-4}

	Pengenceran pepton
	Penyemprotan LAF
	Pemipetan sampel dan pengenceran kedalam cawan.

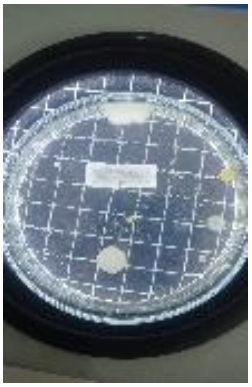
	Penuangan media ke Cawan Petri
	Inkubasi cawan kedalam inkubator.
	Perhitungan Koloni

Sampel A

10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}
A1	**A1**	**A1**	**A1**	**A1**

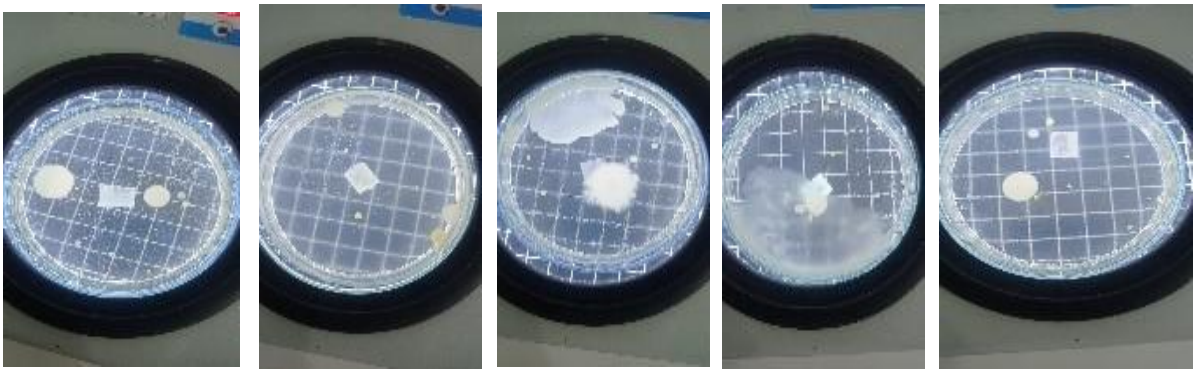


Blanko A

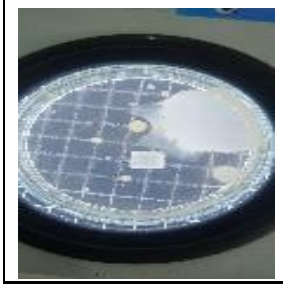


Sampel B

10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}
B1	**B1**	**B1**	**B1**	**B1**

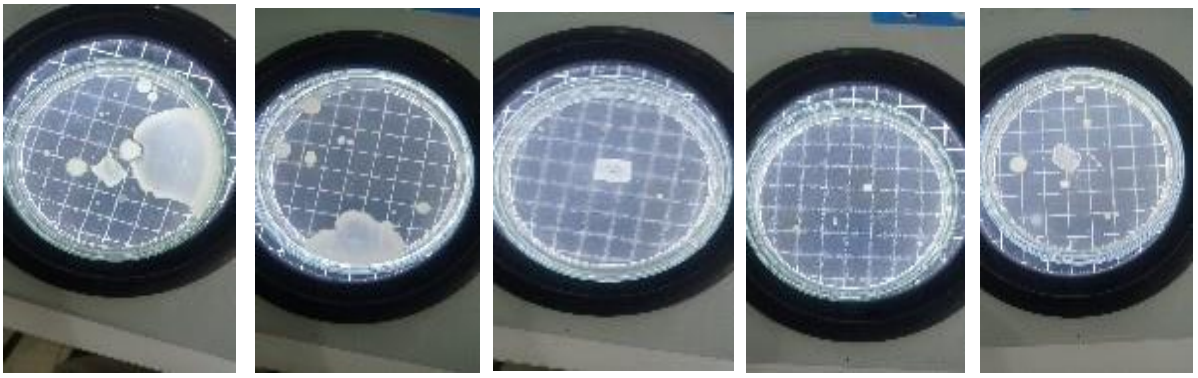


Blanko B

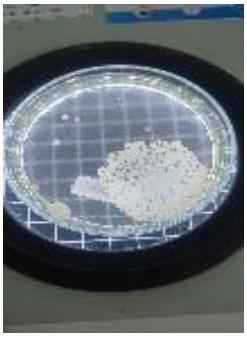


Sampel C

10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}
C1	**C1**	**C1**	**C1**	**C1**



Blanko C



Replikasi 1

Hasil inkubasi cawan petri

Replikasi 1

Sampel A

10^{-1}	10^{-2}	10^{-3}	10^{-4}
A2	**A2**	**A2**	**A2**



Blanko A

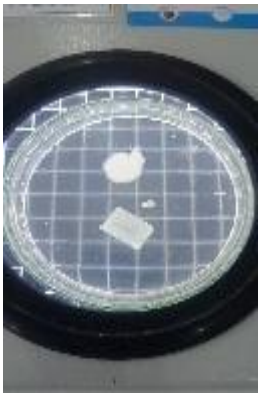


Sampel B

10^{-1}	10^{-2}	10^{-3}	10^{-4}
B2	**B2**	**B2**	**B2**



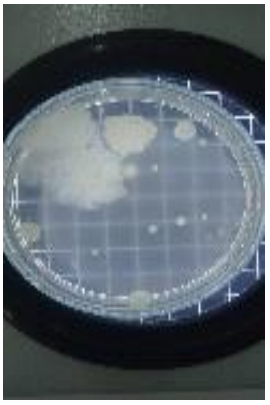
Blanko B



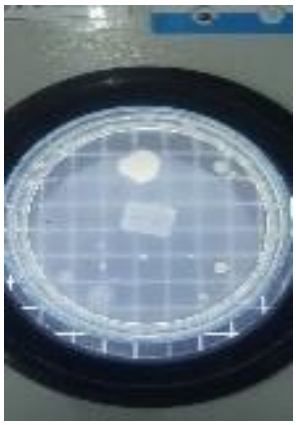
Sampel C

10^{-1}	10^{-2}	10^{-3}	10^{-4}
C2	**C2**	**C2**	**C2**






Blanko C

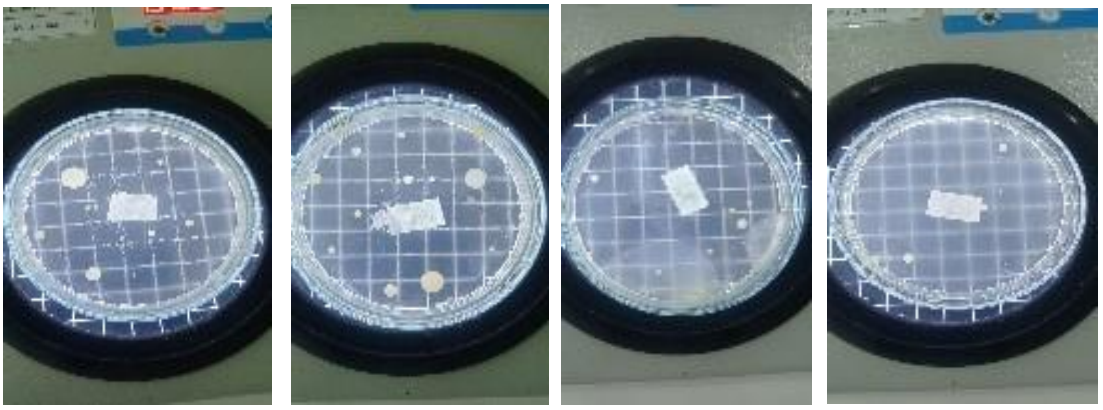


Hasil inkubasi cawan petri

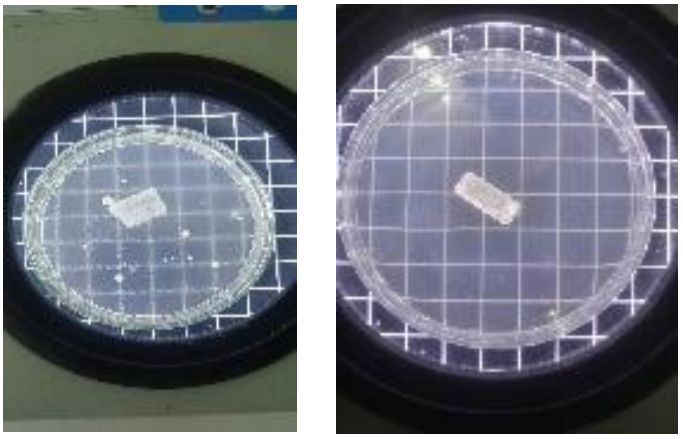
Replikasi 2

Sampel A

10^{-1}	10^{-2}	10^{-3}	10^{-4}
A3	**A3**	**A3**	**A3**

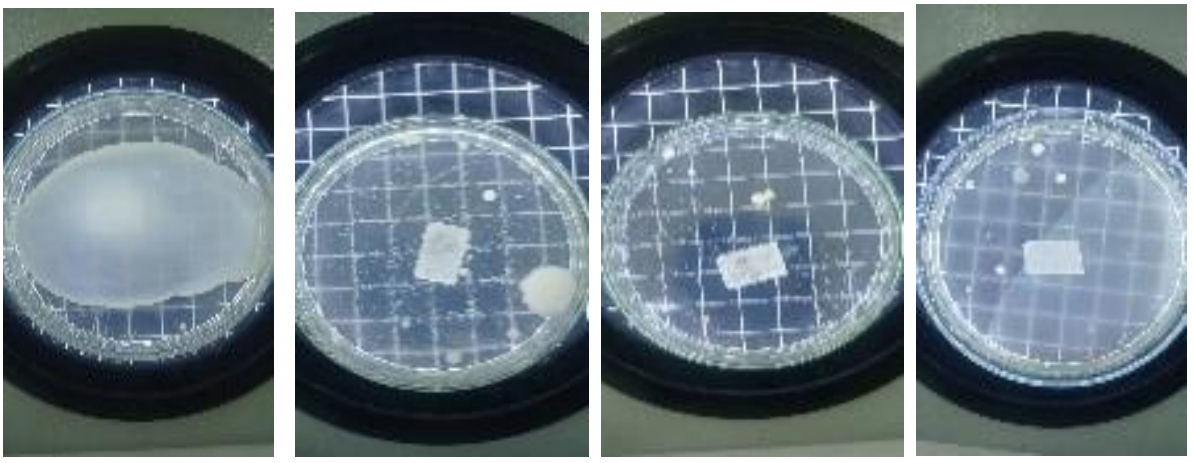


Blanko A **Blanko Media A**



Sampel B

10^{-1}	10^{-2}	10^{-3}	10^{-4}
B3	**B3**	**B3**	**B3**

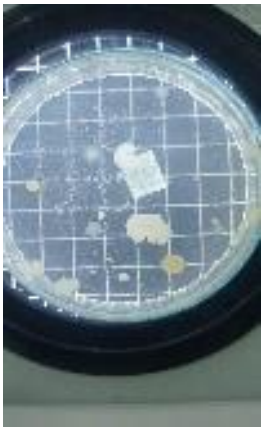
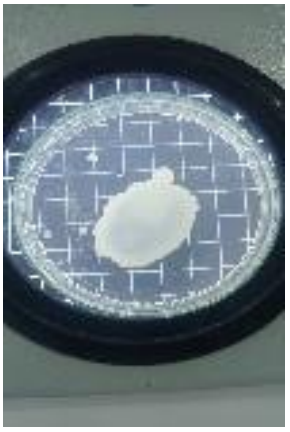


Blanko B **Blanko Media**



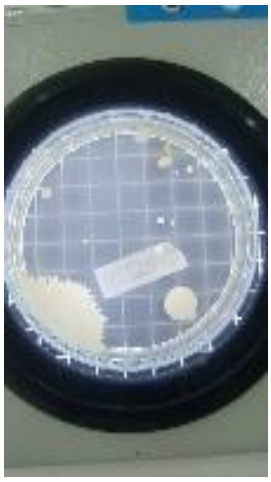

Sampel C

10^{-1} C3	10^{-2} C3	10^{-3} C3	10^{-4} C3



Blanko C **Blanko Media**

Hasil inkubasi cawan petri Replikasi 3