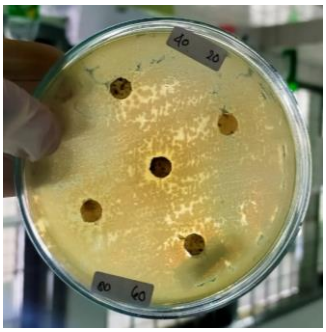
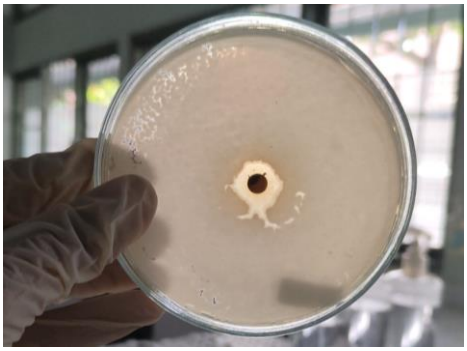
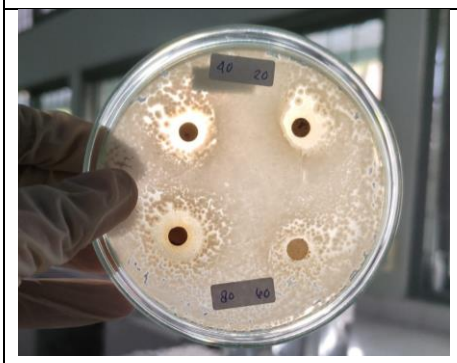
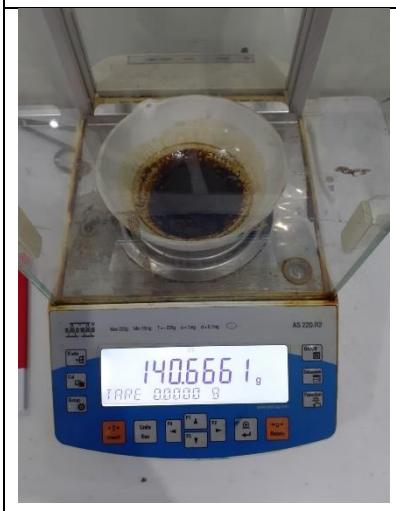
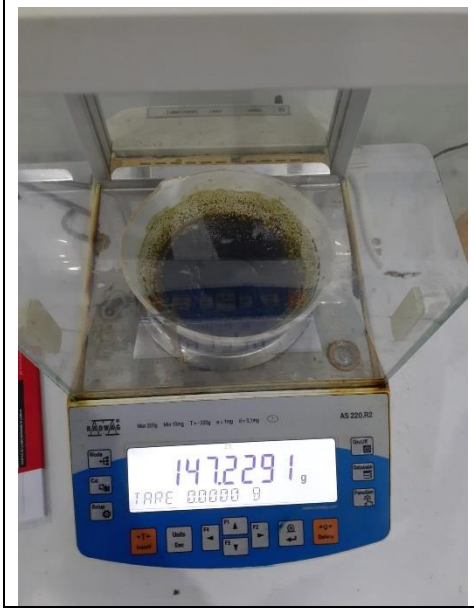
# LAMPIRAN

| Gambar | Keterangan |
|---|---|
|  | Zona hambat ekstrak daun binahong replikasi 1 |
|  | Zona hambat ekstrak daun binahong replikasi 2 |
|  | Zona hambat ekstrak daun binahong replikasi 3 |
|  | Zona hambat ekstrak daun sirih replikasi 1 |

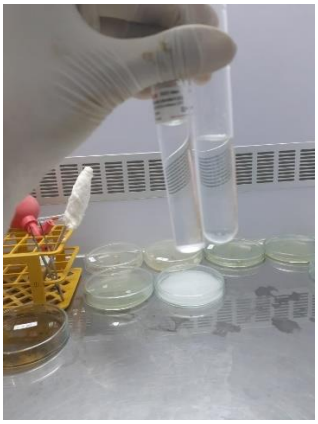
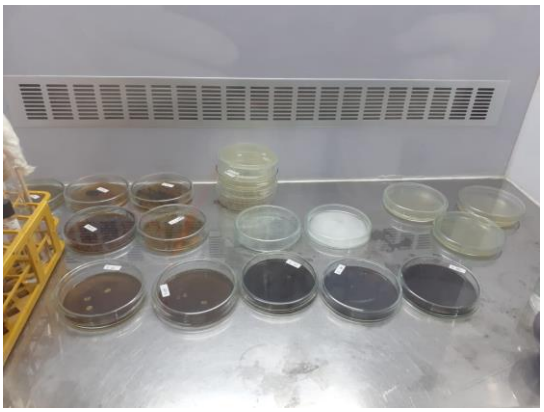
| | |
|---|---|
|  | Zona hambat ekstrak daun sirih replikasi 1 konsentrasi 100% |
|  | Zona hambat ekstrak daun sirih replikasi 2 |
|  | Zona hambat ekstrak daun sirih replikasi 2 konsentrasi 100% |
|  | Zona hambat ekstrak daun sirih replikasi 3 |

| | |
|---|---|
|  | Zona hambat ekstrak daun sirih replikasi 3 konsentrasi 100% |
|  | Pengeringan daun sirih dan daun binahong menjadi simplisia |
|  | Sortasi kering |

| | |
|---|---|
|  | Penghalusan daun sirih dan daun binahong menggunakan grinder |
|  | Serbuk simplisia diayak menggunakan mesh 50 |
|  | Pemekatan ekstrak menggunakan rotary evaporator |

| | |
|---|---|
|  | Menguapkan sisa pelarut menggunakan waterbath |
|  | Ekstrak daun sirih |
|  | Ekstrak daun binahong |

| | |
|---|---|
|  | Sterilisasi alat |
|  | Penimbangan media MHA |
|  | Sterilisasi media MHA |

| | |
|---|---|
|  | Suspensi bakteri disamakan kekeruhannya dengan McFarland 0,5 |
|  | Ekstrak dan larutan DMSO di *vortex* |
|  | Perendaman kertas saring dalam ekstrak selama 15 menit |

| | |
|---|---|
|  | Inkubasi selama 1×24 jam |
|  | Hasil setelah inkubasi selama 1×24 jam |
|  | Autoklaf |

Data Ekstrak Daun Binahong

| **Konsentrasi** | **R** | **Vertikal (mm)** | **Horizontal (mm)** | **Diameter Cakram (mm)** | **Hasil (mm)** | **Rata-Rata (mm)** |
|---|---|---|---|---|---|---|
| 20% | 1 | 7 | 6 | 6 | 0,5 | 0,83 |
| | 2 | 6 | 7 | 6 | 0,5 | |
| | 3 | 6 | 9 | 6 | 1,5 | |
| 40% | 1 | 7 | 7 | 6 | 1 | 1 |
| | 2 | 9 | 6 | 6 | 1,5 | |
| | 3 | 6 | 7 | 6 | 0,5 | |
| 60% | 1 | 8 | 7 | 6 | 1,5 | 1,16 |
| | 2 | 7 | 7 | 6 | 1 | |
| | 3 | 8 | 6 | 6 | 1 | |
| 80% | 1 | 8 | 7 | 6 | 1,5 | 1 |
| | 2 | 7 | 7 | 6 | 1 | |
| | 3 | 6 | 7 | 6 | 0,5 | |
| 100% | 1 | 8 | 8 | 6 | 2 | 2,83 |
| | 2 | 10 | 8 | 6 | 3 | |
| | 3 | 10 | 9 | 6 | 3,5 | |

Data Ekstrak Daun Sirih

| **Konsentrasi** | **R** | **Vertikal (mm)** | **Horizontal (mm)** | **Diameter Cakram (mm)** | **Hasil (mm)** | **Rata-rata (mm)** |
|---|---|---|---|---|---|---|
| 20% | 1 | 10,2 | 15 | 6 | 6,6 | 6,7 |
| | 2 | 10 | 13 | 6 | 5,5 | |
| | 3 | 12 | 16 | 6 | 8 | |
| 40% | 1 | 9 | 10,3 | 6 | 3,65 | 5,075 |
| | 2 | 7 | 7 | 6 | 1 | |
| | 3 | 11 | 12 | 6 | 5,5 | |
| 60% | 1 | 16 | 15 | 6 | 9,5 | 7,33 |
| | 2 | 15 | 16 | 6 | 9,5 | |
| | 3 | 9 | 9 | 6 | 3 | |
| 80% | 1 | 13 | 19 | 6 | 10 | 9,33 |
| | 2 | 16 | 15 | 6 | 8,5 | |
| | 3 | 16 | 15 | 6 | 9,5 | |
| 100% | 1 | 19 | 20 | 6 | 13,5 | 12,16 |
| | 2 | 14 | 15 | 6 | 8,5 | |
| | 3 | 19 | 22 | 6 | 14,5 | |

Perhitungan

- Rendemen ekstrak daun sirih

  $\frac{ekstrak\ daun\ sirih\ (g)}{simplisia\ daun\ sirih\ (g)} \times 100\%$

  $= \frac{16\ g}{160\ g} \times 100\%$

  = 10%

- Rendemen ekstrak daun binahong

  $\frac{ekstrak\ daun\ sirih\ (g)}{simplisia\ daun\ sirih\ (g)} \times 100\%$

  $= \frac{17\ g}{140\ g} \times 100\%$

  = 12,4%

- Media MHA

  $\frac{38\ g}{1000\ ml} = \frac{x}{140\ ml}$

  $x = \frac{38 \times 140}{1000}$

  $x = 5{,}32\ g$

- Diameter zona hambat ekstrak daun sirih
  - Replikasi 1
    - 20%

      $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

      $= \frac{(10{,}2 - 6) + (15 - 6)}{2}$

      $= \frac{4{,}2 + 9}{2}$

      $= 6{,}6$

    - 40%

      $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

      $= \frac{(9 - 6) + (10{,}3 - 6)}{2}$

      $= \frac{3 + 4{,}3}{2}$

      $= 3{,}65$

    - 60%

      $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

      $= \frac{(16 - 6) + (15 - 6)}{2}$

      $= \frac{10 + 9}{2}$

      $= 9{,}5$

    - 80%

      $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

      $= \frac{(13 - 6) + (19 - 6)}{2}$

      $= \frac{7 + 13}{2}$

      $= 10$

    - 100%

      $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

$$= \frac{(19-6)+(20-6)}{2}$$

$$= \frac{13+14}{2}$$

$$= 13{,}5$$

- Replikasi 2
  - 20%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(10-6)+(13-6)}{2}$$

$$= \frac{4+7}{2}$$

$$= 5{,}5$$

  - 40%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(7-6)+(7-6)}{2}$$

$$= \frac{1+1}{2}$$

$$= 1$$

  - 60%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(15-6)+(16-6)}{2}$$

$$= \frac{9+10}{2}$$

$$= 9{,}5$$

  - 80%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(14-6)+(15-6)}{2}$$

$$= \frac{8+9}{2}$$

$$= 8{,}5$$

  - 100%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(14-6)+(15-6)}{2}$$

$= \frac{8+9}{2}$

$= 8{,}5$

- Replikasi 3
  - 20%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(12-6)+(16-6)}{2}$

    $= \frac{6+10}{2}$

    $= 8$
  - 40%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(11-6)+(12-6)}{2}$

    $= \frac{5+6}{2}$

    $= 5{,}5$
  - 60%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(9-6)+(9-6)}{2}$

    $= \frac{3+3}{2}$

    $= 3$
  - 80%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(16-6)+(15-6)}{2}$

    $= \frac{10+9}{2}$

    $= 9{,}5$
  - 100%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(19-6)+(22-6)}{2}$

    $= \frac{13+16}{2}$

    $= 14{,}5$

- Diameter zona hambat ekstrak daun binahong
  - Replikasi 1
    - 20%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(7-6)+(6-6)}{2}$$

$$= \frac{1+0}{2}$$

$$= 0{,}5$$

    - 40%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(7-6)+(7-6)}{2}$$

$$= \frac{1+1}{2}$$

$$= 1$$

    - 60%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(8-6)+(7-6)}{2}$$

$$= \frac{2+1}{2}$$

$$= 1{,}5$$

    - 80%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(8-6)+(7-6)}{2}$$

$$= \frac{2+1}{2}$$

$$= 1{,}5$$

    - 100%

$$= \frac{(D_v - D_s) + (D_H - D_s)}{2}$$

$$= \frac{(8-6)+(8-6)}{2}$$

$$= \frac{2+2}{2}$$

$= 2$

- Replikasi 2
  - 20%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(6-6)+(7-6)}{2}$

    $= \frac{0+1}{2}$

    $= 0{,}5$

  - 40%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(9-6)+(6-6)}{2}$

    $= \frac{3+0}{2}$

    $= 1{,}5$

  - 60%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(7-6)+(7-6)}{2}$

    $= \frac{1+1}{2}$

    $= 1$

  - 80%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(7-6)+(7-6)}{2}$

    $= \frac{1+1}{2}$

    $= 1$

  - 100%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(10-6)+(8-6)}{2}$

    $= \frac{4+2}{2}$

    $= 3$

- Replikasi 3
  - 20%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(6-6)+(9-6)}{2}$

    $= \frac{0+3}{2}$

    $= 1{,}5$

  - 40%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(6-6)+(7-6)}{2}$

    $= \frac{0+1}{2}$

    $= 0{,}5$

  - 60%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(8-6)+(6-6)}{2}$

    $= \frac{2+0}{2}$

    $= 1$

  - 80%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(6-6)+(7-6)}{2}$

    $= \frac{0+1}{2}$

    $= 0{,}5$

  - 100%

    $= \frac{(D_v - D_s) + (D_H - D_s)}{2}$

    $= \frac{(10-6)+(9-6)}{2}$

    $= \frac{4+3}{2}$

    $= 3{,}5$

- Rata-rata diameter zona hambat ekstrak daun binahong
  - Konsentrasi 20%

    $\frac{0,5+0,5+1,5}{3} = 0,83$
  - Konsentrasi 40%

    $\frac{1+1,5+0,5}{3} = 1$
  - Konsentrasi 60%

    $\frac{1,5+1+1}{3} = 1,16$
  - Konsentrasi 80%

    $\frac{1,5+1+0,5}{3} = 1$
  - Konsentrasi 100%

    $\frac{2+3+3,5}{3} = 2,83$

- Rata-rata diameter zona hambat ekstrak daun sirih hijau
  - Konsentrasi 20%

    $\frac{6,6+5,5+8}{3} = 6,7$
  - Konsentrasi 40%

    $\frac{3,65+1+5,5}{3} = 5,075$
  - Konsentrasi 60%

    $\frac{9,5+9,5+3}{3} = 7,33$
  - Konsentrasi 80%

    $\frac{10+8,5+9,5}{3} = 9,33$
  - Konsentrasi 100%

    $\frac{13,5+8,5+14,5}{3} = 12,16$