

LAMPIRAN 2 PERHITUNGAN

A. Perhitungan Hasil Rendemen Pulp

- Waktu pemasakan 60 Menit

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 23,85 gram

$$\begin{aligned}\% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{23,85 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 79,5 \%\end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 23,75 gram

$$\begin{aligned}\% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{23,75 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 79,15 \%\end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 23,97 gram

$$\begin{aligned}\% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{23,97 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 79,9 \%\end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 23,87 gram

$$\begin{aligned} \% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{23,87 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 79,56 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 23,59 gram

$$\begin{aligned} \% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{23,59 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 78,62 \% \end{aligned}$$

- **Waktu pemasakan 90 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 23,26 gram

$$\begin{aligned} \% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{23,26 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 77,53 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 23,78 gram

$$\begin{aligned} \% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{23,78 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 79,25 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 24,71 gram

$$\begin{aligned} \% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{24,71 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 82,36 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 24,02 gram

$$\begin{aligned} \% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{24,02 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 80,05 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 23,84 gram

$$\begin{aligned} \% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{23,84 \text{ gram}}{30 \text{ gram}} \times 100\% \\ &= 79,47 \% \end{aligned}$$

- **Waktu pemasakan 120 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 22,21 gram

$$\% \text{ Rendemen } Pulp = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{22,21 \text{ gram}}{30 \text{ gram}} \times 100\%$$

$$= 74,03 \%$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 21,14 gram

$$\% \text{ Rendemen } Pulp = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{21,14 \text{ gram}}{30 \text{ gram}} \times 100\%$$

$$= 70,46 \%$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 21,38 gram

$$\% \text{ Rendemen } Pulp = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{21,38 \text{ gram}}{30 \text{ gram}} \times 100\%$$

$$= 71,27 \%$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 22,21 gram

$$\% \text{ Rendemen } Pulp = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{22,21 \text{ gram}}{30 \text{ gram}} \times 100\%$$

$$= 73,68\%$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

Berat sampel awal (a) = 30 gram

Berat *pulp* kering (b) = 22,95 gram

$$\begin{aligned}
 \% \text{ Rendemen } Pulp &= \frac{(b)}{(a)} \times 100\% \\
 &= \frac{22,95 \text{ gram}}{30 \text{ gram}} \times 100\% \\
 &= 76,51\%
 \end{aligned}$$

B. Perhitungan Kadar Selulosa Pulp

- Waktu pemasakan 60 Menit

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,414 \text{ gram}$$

$$\begin{aligned}
 \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\
 &= \frac{1,414 \text{ gram}}{2 \text{ gram}} \times 100\% \\
 &= 70,7 \text{ gram}\%
 \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,378 \text{ gram}$$

$$\begin{aligned}
 \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\
 &= \frac{1,378 \text{ gram}}{2 \text{ gram}} \times 100\% \\
 &= 68,89 \%
 \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,438 \text{ gram}$$

$$\begin{aligned}
 \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\
 &= \frac{1,438 \text{ gram}}{2 \text{ gram}} \times 100\% \\
 &= 71,9 \%
 \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,426 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{1,426 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 71,29 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,5 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{1,5 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 75 \% \end{aligned}$$

- **Waktu pemasakan 90 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,649 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{1,649 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 82,45\% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,625 \text{ gram}$$

$$\% \text{ Kadar Selulosa} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{1,625 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 81,26 \%$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,607 \text{ gram}$$

$$\% \text{ Kadar Selulosa} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{1,607 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 80,34\%$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,550 \text{ gram}$$

$$\% \text{ Kadar Selulosa} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{1,550 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 77,52 \%$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,521 \text{ gram}$$

$$\% \text{ Kadar Selulosa} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{1,521 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 76,05\%$$

- **Waktu pemasakan 120 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

Berat endapan selulosa (b) = 1,405 gram

$$\begin{aligned} \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{1,405 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 70,26 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

Berat sampel awal (a) = 2 gram

Berat endapan selulosa (b) = 1,421 gram

$$\begin{aligned} \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{1,421 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 71,07 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

Berat sampel awal (a) = 2 gram

Berat endapan selulosa (b) = 1,385 gram

$$\begin{aligned} \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{1,385 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 69,26 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

Berat sampel awal (a) = 2 gram

Berat endapan selulosa (b) = 1,349 gram

$$\begin{aligned} \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{1,349 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 67,43 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan selulosa (b)} = 1,371 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar Selulosa} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{1,371 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 68,55 \% \end{aligned}$$

C. Perhitungan Kadar abu

- Waktu pemasakan 60 Menit

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,05 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar abu} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,05 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 2,5 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,087 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar abu} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,087 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 4,35 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,102 \text{ gram}$$

$$\% \text{ Kadar abu} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,102 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 5,08 \%$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,112 \text{ gram}$$

$$\% \text{ Kadar abu} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,112 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 5,6 \%$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,170 \text{ gram}$$

$$\% \text{ Kadar abu} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,170 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 8,49\%$$

- **Waktu pemasakan 90 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,05 \text{ gram}$$

$$\% \text{ Kadar abu} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,05 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 2,5 \%$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,075 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar abu} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,075 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 3,73 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,083 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar abu} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,083 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 4,16\% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,123 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar abu} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,123 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 6,15 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,158 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar abu} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,158 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 7,89\% \end{aligned}$$

- **Waktu pemasakan 120 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,056 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar abu} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,056 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 2,8 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,071 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar abu} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,071 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 3,56 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,103 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar abu} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,103 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 5,17 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,154 \text{ gram}$$

$$\% \text{ Kadar abu} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,154 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 7,69 \%$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat abu (b)} = 0,177 \text{ gram}$$

$$\% \text{ Kadar abu} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,177 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 8,87 \%$$

D. Perhitungan Kadar air

- **Waktu pemasakan 60 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Selisih berat sampel setelah dioven (b)} = 0,129 \text{ gram}$$

$$\% \text{ Kadar air} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,129}{2 \text{ gram}} \times 100\%$$

$$= 6,45 \%$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Selisih berat sampel setelah dioven (b)} = 0,144 \text{ gram}$$

$$\% \text{ Kadar air} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,144 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 7,2 \%$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

Selisih berat sampel setelah dioven (b) = 0,169 gram

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,169 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 8,45 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

Berat sampel awal (a) = 2 gram

Selisih berat sampel setelah dioven (b) = 0,1834 gram

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1834 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 9,17\% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

Berat sampel awal (a) = 2 gram

Selisih berat sampel setelah dioven (b) = 0,1846 gram

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1846 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 9,23 \% \end{aligned}$$

- **Waktu pemasakan 90 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

Berat sampel awal (a) = 2 gram

Selisih berat sampel setelah dioven (b) = 0,13 gram

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,13 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 6,5 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)
 Berat sampel awal (a) = 2 gram
 Berat sampel setelah dioven (b) = 0,1422 gram

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1422 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 7,11 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)
 Berat sampel awal (a) = 2 gram
 Selisih berat sampel setelah dioven (b) = 0,1524 gram

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1524 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 7,62 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)
 Berat sampel awal (a) = 2 gram
 Selisih berat sampel setelah dioven (b) = 0,1602 gram

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1602 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 8,01 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)
 Berat sampel awal (a) = 2 gram
 Selisih berat sampel setelah dioven (b) = 0,1646 gram

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1646 \text{ gram}}{2 \text{ gram}} \times 100\% \end{aligned}$$

$$= 8,23 \%$$

- **Waktu pemasakan 120 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Selisih berat sampel setelah dioven (b)} = 0,1256 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1256 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 6,28 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Selisih berat sampel setelah dioven (b)} = 0,1402 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1402 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 7,01 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat sampel setelah dioven (b)} = 0,1472 \text{ gram}$$

$$\begin{aligned} \% \text{ Kadar air} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1472 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 7,36 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat sampel setelah dioven (b)} = 0,1556 \text{ gram}$$

$$\% \text{ Kadar air} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,1556 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 7,83 \%$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat sampel setelah dioven (b)} = 0,1548 \text{ gram}$$

$$\% \text{ Kadar air} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,1548 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 7,92 \%$$

E. Perhitungan Kadar Lignin

- **Waktu pemasakan 60 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan lignin (b)} = 0,1134 \text{ gram}$$

$$\% \text{ Kadar lignin} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,1134 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 5,67 \%$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

$$\text{Berat sampel awal (a)} = 2 \text{ gram}$$

$$\text{Berat endapan lignin (b)} = 0,1554 \text{ gram}$$

$$\% \text{ Kadar lignin} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,1554 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 7,77 \%$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

Berat sampel awal (a) = 2 gram

Berat endapan lignin (b) = 0,1766 gram

$$\begin{aligned} \% \text{ Kadar lignin} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1766 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 8,83\% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

Berat sampel awal (a) = 2 gram

Berat endapan lignin (b) = 0,1874 gram

$$\begin{aligned} \% \text{ Kadar lignin} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1874 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 9,37 \% \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

- Berat sampel awal (a) = 2 gram

- Berat endapan lignin (b) = 0,203 gram

$$\begin{aligned} \% \text{ Kadar lignin} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,203 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 10,15 \% \end{aligned}$$

• **Waktu pemasakan 90 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)

Berat sampel awal (a) = 2 gram

Berat endapan lignin (b) = 0,1112 gram

$$\% \text{ Kadar lignin} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,1112 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 5,56\%$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)

Berat sampel awal (a) = 2 gram

Berat endapan lignin (b) = 0,1242 gram

$$\% \text{ Kadar lignin} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,1242 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 6,21 \%$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)

Berat sampel awal (a) = 2 gram

Berat endapan lignin (b) = 0,15 gram

$$\% \text{ Kadar lignin} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,15 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 7,5 \%$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)

Berat sampel awal (a) = 2 gram

Berat endapan lignin (b) = 0,1784 gram

$$\% \text{ Kadar lignin} = \frac{(b)}{(a)} \times 100\%$$

$$= \frac{0,1784 \text{ gram}}{2 \text{ gram}} \times 100\%$$

$$= 8,92 \%$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)

Berat sampel awal (a) = 2 gram

Berat endapan lignin (b) = 0,1948 gram

$$\begin{aligned}
 \% \text{ Kadar lignin} &= \frac{(b)}{(a)} \times 100\% \\
 &= \frac{0,1948 \text{ gram}}{2 \text{ gram}} \times 100\% \\
 &= 9,74 \%
 \end{aligned}$$

• **Waktu pemasakan 120 Menit**

- Komposisi campuran eceng Gondok : Tkks (8 : 2)
- Berat sampel awal (a) = 2 gram
- Berat endapan lignin (b) = 0,1224 gram

$$\begin{aligned}
 \% \text{ Kadar lignin} &= \frac{(b)}{(a)} \times 100\% \\
 &= \frac{0,1224 \text{ gram}}{2 \text{ gram}} \times 100\% \\
 &= 6,12\%
 \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (7 : 3)
- Berat sampel awal (a) = 2 gram
- Berat endapan lignin (b) = 0,1306 gram

$$\begin{aligned}
 \% \text{ Kadar lignin} &= \frac{(b)}{(a)} \times 100\% \\
 &= \frac{0,1306 \text{ gram}}{2 \text{ gram}} \times 100\% \\
 &= 6,53 \%
 \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (6 : 4)
- Berat sampel awal (a) = 2 gram
- Berat endapan lignin (b) = 0,148 gram

$$\begin{aligned}
 \% \text{ Kadar lignin} &= \frac{(b)}{(a)} \times 100\% \\
 &= \frac{0,148}{2 \text{ gram}} \times 100\% \\
 &= 7,4 \%
 \end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (5 : 5)
- Berat sampel awal (a) = 2 gram
- Berat endapan lignin (b) = 0,1714 gram

$$\begin{aligned}\% \text{ Kadar lignin} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,1714 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 8,57 \%\end{aligned}$$

- Komposisi campuran eceng Gondok : Tkks (4 : 6)
- Berat sampel awal (a) = 2 gram
- Berat endapan lignin (b) = 0,182 gram

$$\begin{aligned}\% \text{ Kadar lignin} &= \frac{(b)}{(a)} \times 100\% \\ &= \frac{0,182 \text{ gram}}{2 \text{ gram}} \times 100\% \\ &= 9,1 \%\end{aligned}$$