

## LAMPIRAN

### Lampiran 1. Hasil Pengamatan Praktikum

- **Hasil Minyak pada Buah Kelapa Parut**

Tabel Hasil Minyak Kelapa yang didapat :

Berat Kelapa Parut (gr)	Lama pemanasan (menit)	Suhu Screw Press (°C)	Kecepatan RPM	Volume Minyak (ml)
300	70	40	200	16
300	70	50	200	22
300	70	60	200	26,5
300	70	70	200	42
300	70	80	200	38

- **Hasil Analisa pada Minyak Kelapa**

Tabel Analisa Minyak Kelapa :

Suhu Screw Press (°C)	Densitas (gr/ml)	Viskositas (cp)	PH	Angka Asam	Angka Penyabunan
40	0,902	528,63	6	5,2	14,26
50	0,909	484,11	6	6,1	14,45
60	0,917	520,28	6	4,06	14,46
70	0,920	513,2	6	6,5	14,68
80	0,929	512,3	6	6,6	14,73

- **Hasil Uji Organoleptik Pada Minyak Kelapa**

Tabel Uji Organoleptik Minyak kelapa :

Suhu Screw Press (°C)	Vol Minyak (ml)	Warna	pH	Bau
40	16	kuning bening	6	kelapa
50	22	kuning bening	6	kelapa
60	26,5	kuning bening	6	kelapa
70	42	kuning bening	6	kelapa
80	38	kuning bening	6	kelapa

- **Komposisi Percobaan Pembuatan Balsem dengan Menggunakan Minyak Kelapa**

Tabel Komposisi variabel balsem

Komposisi	Jumlah
Vaselin putih	50 gram
Kamper	10 gram
Mentol	10 gram
Perpermin	5 cc
Minyak Gandapura	10 cc
Minyak Kelapa	10 cc

- **Hasil Uji Organoleptik pada Percobaan Balsem Minyak Kelapa**

Tabel Uji Organoleptik balsem

Uji organoleptik	Balsem	
	Balsem minyak kelapa	Balsem konvensional
Tekstur	Lembek	Padat
Warna	Putih	Putih
Bau	Menthol	Menthol
Rasa	Agak hangat	Panas
Homogenitas	Homogen	Homogen

## Lampiran 2. Perhitungan Analisa Praktikum

- **Menghitung Densitas Minyak Kelapa**

$$\text{Rumus densitas} = \frac{\text{berat piknometer isi minyak} - \text{berat piknometer kosong}}{\text{volume piknometer yang digunakan}}$$

$$\text{Variabel 1 (pada suhu } 40 \text{ }^\circ\text{C)} = \frac{(37,84 - 15,29)\text{gram}}{25 \text{ ml}} = 0,902 \text{ gram/ml}$$

$$\text{Variabel 2 (pada suhu } 50 \text{ }^\circ\text{C)} = \frac{(38,01 - 15,29)\text{gram}}{25 \text{ ml}} = 0,909 \text{ gram/ml}$$

$$\text{Variabel 3 (pada suhu } 60 \text{ }^\circ\text{C)} = \frac{(38,21 - 15,29)\text{gram}}{25 \text{ ml}} = 0,917 \text{ gram/ml}$$

$$\text{Variabel 4 (pada suhu } 70 \text{ }^\circ\text{C)} = \frac{(38,29 - 15,29)\text{gram}}{25 \text{ ml}} = 0,92 \text{ gram/ml}$$

$$\text{Variabel 5 (pada suhu } 80 \text{ }^\circ\text{C)} = \frac{(38,51 - 15,29)\text{gram}}{25 \text{ ml}} = 0,929 \text{ gram/ml}$$

- **Menghitung Viskositas Minyak Kelapa**

$$\text{Rumus Viskositas} = \frac{\text{densitas minyak} \times \text{laju alir minyak}}{\text{densitas air} \times \text{laju alir air}} \times \text{viskositas air}$$

$$\text{Variabel 1} = \frac{30,2 \text{ sekon} \times 0,902 \text{ gr/ml}}{1,1 \text{ sekon} \times 1 \text{ gr/ml}} \times 1,004 \text{ cp} = 24,86 \text{ cp}$$

$$\text{Variabel 2} = \frac{30 \text{ sekon} \times 0,909 \text{ gr/ml}}{1,1 \text{ sekon} \times 1 \text{ gr/ml}} \times 1,004 \text{ cp} = 24,89 \text{ cp}$$

$$\text{Variabel 3} = \frac{29,9 \text{ sekon} \times 0,917 \text{ gr/ml}}{1,1 \text{ sekon} \times 1 \text{ gr/ml}} \times 1,004 \text{ cp} = 25,02 \text{ cp}$$

$$\text{Variabel 4} = \frac{29,8 \text{ sekon} \times 0,92 \text{ gr/ml}}{1,1 \text{ sekon} \times 1, \text{gr/ml}} \times 1,004 \text{ cp} = 25,02 \text{ cp}$$

$$\text{Variabel 5} = \frac{30,4 \text{ sekon} \times 0,929 \text{ gr/ml}}{1,1 \text{ sekon} \times 1, \text{gr/ml}} \times 1,004 \text{ cp} = 25,77 \text{ cp}$$

- **Menghitung Angka Penyabunan Minyak Kelapa**

$$\text{Rumus analisa angka penyabunan} = \frac{(v_2 - v_1) \times N \times 56,1}{W}$$

$$\text{Variabel 1} = \frac{28,5 \times (55,8 - 12,5) \text{ml}}{5 \text{ gram}} = 246,81$$

$$\text{Variabel 2} = \frac{28,5 \times (57,8 - 12,7) \text{ml}}{5 \text{ gram}} = 257,07$$

$$\text{Variabel 3} = \frac{28,5 \times (58,8 - 12,6) \text{ml}}{5 \text{ gram}} = 259,182$$

$$\text{Variabel 4} = \frac{28,5 \times (59,2 - 12,8) \text{ml}}{5 \text{ gram}} = 260,304$$

$$\text{Variabel 5} = \frac{28,5 \times (58,9 - 12,2) \text{ml}}{5 \text{ gram}} = 261,987$$

- **Menghitung Angka Asam Minyak kelapa**

$$\text{Rumus analisa angka asam} = \frac{\text{ml KOH} \times \text{N KOH} \times 56,1}{\text{berat sampel (gram)}}$$

$$\text{Variabel 1} = \frac{2,4 \text{ ml} \times 0,1 \text{ N} \times 56,1}{0,902 \text{ gram}} = 14,92 \text{ gram/ml}$$

$$\text{Variabel 2} = \frac{2,8 \text{ ml} \times 0,1 \text{ N} \times 56,1}{0,909 \text{ gram}} = 17,28 \text{ gram/ml}$$

$$\text{Variabel 3} = \frac{2,6 \text{ ml} \times 0,1 \text{ N} \times 56,1}{0,917 \text{ gram}} = 15,9 \text{ gram/ml}$$

$$\text{Variabel 4} = \frac{2,8 \text{ ml} \times 0,1 \text{ N} \times 56,1}{0,92 \text{ gram}} = 17,07 \text{ gram/ml}$$

$$\text{Variabel 5} = \frac{3 \text{ ml} \times 0,1 \text{ N} \times 56,1}{0,929 \text{ gram}} = 18,11 \text{ gram/ml}$$

- **Gambar**



Alat screw press



hasil minyak kelapa



Perbandingan balsem minyak  
Kelapa dengan balsem konvensional