LAMPIRAN

Lampiran 1. Tabel Hasil Pengamatan

Tabel 8. Tabel Hasil Analisa Warna Minyak Inti Sawit

Variabel	Suhu (C^o)	Warna	Bau
1	70	Kuning Pucat	Khas Kelapa
2	70	Kuning Pucat	Khas Kelapa
3	70	Kuning Pucat	Khas Kelapa
4	85	Kuning Pucat	Khas Kelapa
5	85	Kuning Pucat	Khas Kelapa
6	85	Kuning Pucat	Khas Kelapa
7	100	Kuning Pucat	Khas Kelapa
8	100	Kuning Pucat	Khas Kelapa
9	100	Kuning Pucat	Khas Kelapa

Tabel 9. Tabel Hasil Analisa Sifat Fisik Minyak Inti Sawit

Variabel	Variabel Berubah		Rendemen (%)	Kadar Air yang teruapkan (%)	Densitas (gr/ml)	Viskositas (cp)
	Suhu Pemanasan Awal (˚C)	Tekanan (kg/cm^2)				
1	70	110	0,24	2.5	-	-
2	70	130	0,78	2.2	-	-
3	70	150	2,16	1.9	-	-
4	85	110	4,15	1.3	0,968	147,225
5	85	130	4,54	0.9	0,967	146,757
6	85	150	5,38	0.7	0,963	146,036
7	100	110	7,28	0.3	0,957	145,810
8	100	130	9,65	0.2	0,952	144,033
9	100	150	13,03	0.1	0,946	142,998

Tabel 10. Tabel Hasil Analisa Sifat Kimia Minyak Inti Sawit

Variabel	Variabel Berubah		Angka Asam (mg KOH/g)	Angka Penyabunan (mg KOH/g)
	Suhu Pemanasan Awal (ºC)	Tekanan (kg/cm^2)		
1	70	110	-	-
2	70	130	-	-
3	70	150	9,36	-
4	85	110	9,45	141,372
5	85	130	9,54	139,689
6	85	150	10,03	139,128
7	100	110	10,52	136,884
8	100	130	10,73	135,762
9	100	150	11,05	134,079

Lampiran 2. Hasil Perhitungan

6.2.1 Persentase Rendemen Minyak Inti Sawit

% Rendemen = $\frac{massa\ minyak\ yang\ terekstrak\ (gr)}{massa\ sampel\ (gr)}$ x 100 %

Variabel 1 = $\frac{0{,}61gr}{250\ gr}\ x\ 100\ \% =$ 0,24 %

Variabel 2 = $\frac{1{,}97\ gr}{250\ gr}\ x\ 100\ \% =$ 0,78%

Variabel 3 = $\frac{5{,}42\ gr}{250\ gr}\ x\ 100\ \% =$ 2,16 %

Variabel 4 = $\frac{10{,}39\ gr}{250\ gr}\ x\ 100\ \% =$ 4,15 %

Variabel 5 = $\frac{11{,}37\ gr}{250\ gr}\ x\ 100\ \% =$ 4,54 %

Variabel 6 = $\frac{13{,}45gr}{250\ gr}\ x\ 100\ \% =$ 5,38 %

Variabel 7 = $\frac{18{,}22\ gr}{250\ gr}\ x\ 100\ \% =$ 7,28 %

Variabel 8 = $\frac{29{,}14\ gr}{250\ gr}\ x\ 100\ \% =$ 9,65 %

Variabel 9 = $\frac{32{,}58\ gr}{250\ gr}\ x\ 100\ \% =$ 13,03 %

6.2.2 Kadar Air Teruapkan Minyak Inti Sawit

$$\rho = \frac{(massa\ sampel\ sebelum\ dipanaskan - massa\ sampel\ setelah\ dipanaskan)gr}{massa\ sampel\ (gr)}$$

Variabel 1 = $\frac{(37.18 - 36.93)gr}{10gr}$ = 2.5 %

Variabel 2 = $\frac{(36.53 - 36.31)gr}{10gr}$ = 2.2 %

Variabel 3 = $\frac{(35.72 - 35.53)gr}{10gr}$ = 1.9 %

Variabel 4 = $\frac{(37.31 - 37.18)gr}{10gr}$ = 1.3 %

Variabel 5 = $\frac{(36.71 - 36.62)gr}{10gr}$ = 0.9 %

Variabel 6 = $\frac{(35.64 - 35.57)gr}{10gr}$ = 0.7 %

Variabel 7 = $\frac{(37.22 - 37.18)gr}{10gr}$ = 0.3 %

Variabel 8 = $\frac{(36.58 - 36.56)gr}{10gr}$ = 0.2 %

Variabel 9 = $\frac{(35.24 - 35.23)gr}{10gr}$ = 0.1 %

6.2.3 Densitas Minyak Inti Sawit

$$\rho = \frac{(massa\ pikno\ isi\ minyak - massa\ pikno\ kosong)gr}{volume\ pikno\ yang\ digunakan\ (ml)}$$

Variabel 1 = −

Variabel 2 = −

Variabel 3 = −

Variabel 4 = $\frac{(19{,}63 - 9{,}95)gr}{10\ ml}$ = 0,968 gr/ml

Variabel 5 = $\frac{(19{,}62 - 9{,}95)gr}{10\ ml}$ = 0,967 gr/ml

Variabel 6 = $\frac{(19{,}58 - 9{,}95)gr}{10\ ml}$ = 0,963 gr/ml

Variabel 7 = $\frac{(19{,}52 - 9{,}95)gr}{10\ ml}$ = 0,957 gr/ml

Variabel 8 = $\frac{(19{,}47 - 9{,}95)gr}{10\ ml}$ = 0,952 gr/ml

Variabel 9 = $\frac{(19{,}41 - 9{,}95)gr}{10\ ml}$ = 0,946 gr/ml

6.2.3 Viskositas Minyak Inti Sawit

$$i_x = \frac{t_x d_x}{t_0 d_0} . i_0$$

Variabel 1 = –

Variabel 2 = –

Variabel 3 = –

Variabel 4 = $\frac{181{,}42\ s\ x\ 0{,}968 \frac{gr}{ml}}{1{,}2\ s\ x\ 0{,}998 \frac{gr}{ml}} . 1{,}004\ cP$ = 147,225 Cp

Variabel 5 = $\frac{181{,}03\ s\ x\ 0{,}967 \frac{gr}{ml}}{1{,}2\ s\ x\ 0{,}998 \frac{gr}{ml}} . 1{,}004\ cP$ = 146,757 Cp

Variabel 6 = $\frac{180{,}89\ s\ x\ 0{,}963 \frac{gr}{ml}}{1{,}2\ s\ x\ 0{,}998 \frac{gr}{ml}} . 1{,}004\ cP$ = 146,036 Cp

Variabel 7 = $\frac{180{,}61\ s\ x\ 0{,}957 \frac{gr}{ml}}{1{,}2\ s\ x\ 0{,}998 \frac{gr}{ml}} . 1{,}004\ cP$ = 145,810 Cp

Variabel 8 = $\frac{180{,}47\ s\ x\ 0{,}952 \frac{gr}{ml}}{1{,}2\ s\ x\ 0{,}998 \frac{gr}{ml}} . 1{,}004\ cP$ = 144,033 Cp

Variabel 9 = $\frac{180{,}31\ s\ x\ 0{,}946 \frac{gr}{ml}}{1{,}2\ s\ x\ 0{,}998 \frac{gr}{ml}} . 1{,}004\ cP$ = 142,998 Cp

6.2.4 Angka Asam Minyak Inti Sawit

Rumus = $\frac{56{,}1\ x\ ml\ KOH\ yang\ dibutuhkan\ x\ normalitas\ KOH}{massa\ sampel\ (gr)}$

Variabel 1 = –

Variabel 2 = –

Variabel 3 = $\frac{56{,}1\ x\ 8{,}35\ ml\ x\ 0{,}1\ N}{5\ gr}$ = 9,36 mg KOH/g

Variabel 4 = $\frac{56{,}1\ x\ 8{,}43 ml\ x\ 0{,}1\ N}{5\ gr}$ = 9,45 mg KOH/g

Variabel 5 = $\frac{56{,}1\ x\ 8{,}51\ ml\ x\ 0{,}1\ N}{5\ gr}$ = 9,54 mg KOH/g

Variabel 6 = $\frac{56{,}1\ x\ 8{,}94\ ml\ x\ 0{,}1\ N}{5\ gr}$ = 10,03 mg KOH/g

Variabel 7 = $\frac{56{,}1\ x\ 9{,}38\ ml\ x\ 0{,}1\ N}{5\ gr}$ = 10,52 mg KOH/g

Variabel 8 = $\frac{56{,}1\ x\ 9{,}57\ ml\ x\ 0{,}1\ N}{5\ gr}$ = 10,73 mg KOH/g

Variabel 9 = $\frac{56{,}1\ x\ 9{,}85\ ml\ x\ 0{,}1\ N}{5\ gr}$ = 11,05 mg KOH/g

6.2.5 Angka Penyabunan Minyak Inti Sawit

Rumus = $28{,}05\ x\ \frac{(titrasi\ blanko - titrasi\ sampel)ml}{massa\ sampel\ (gr)}$

Variabel 1 = –

Variabel 2 = –

Variabel 3 = –

Variabel 4 = $28{,}05\ x \frac{(36{,}7 - 11{,}\mathbf{5})ml}{5\ gr}$ = 141,372 Cp

Variabel 5 = $28{,}05\ x \frac{(36{,}7 - 11{,}\mathbf{8})ml}{5\ gr}$ = 139,689 Cp

Variabel 6 = $28{,}05\ x \frac{(36{,}7 - 11{,}\mathbf{9})ml}{5\ gr}$ = 139,128 Cp

Variabel 7 = $28{,}05\ x \frac{(36{,}7 - 12{,}\mathbf{3})ml}{5\ gr}$ = 136,884 Cp

Variabel 8 = $28{,}05\ x \frac{(36{,}7 - 12{,}\mathbf{5})ml}{5\ gr}$ = 135,762 Cp

Variabel 9 = $28{,}05\ x \frac{(36{,}7 - 12{,}\mathbf{8})ml}{5\ gr}$ = 134,079 Cp

Lampiran 3. Foto Praktikum

1. Foto Bahan

Gambar 1. Kepala Sawit

Gambar 2. Inti Sawit

Gambar 3. Inti sawit setelah di press

2. Foto Kegiatan Praktikum

2. Foto Hasil Praktikum

Suhu 70°C

Suhu 85°C

Suhu 100°C