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LAMPIRAN

Lampiran 1. Pengaruh Kapasitas Volume 75% Terhadap Kadar Air Pada Kernel Silo

Jam	Suhu	Ulangan	Berat Wadah	Berat Wadah + Sampel	Sampel	Berat Wadah + Sampel kering	Sampel kering	Kadar air	Rerata kadar air (%)
09.00	55 ^{o}C	1	39,5255	49,8645	10,339	49,1042	0,7603	7,35	**7,88**
		2	39,4252	48,6356	9,2104	47,8542	0,7814	8,48	
		3	39,5242	49,753	10,2288	48,9534	0,7996	7,82	
10.00	60 ^{o}C	1	38,5363	49,3245	10,7882	48,4853	0,8392	7,78	**7,74**
		2	39,425	49,4302	10,0052	48,6653	0,7649	7,65	
		3	39,6343	49,8353	10,201	49,0413	0,794	7,78	
11.00	65 ^{o}C	1	39,3198	49,4223	10,1025	48,671	0,7513	7,44	**7,50**
		2	39,1625	49,9242	10,7617	49,1342	0,79	7,34	
		3	39,2425	49,6356	10,3931	48,8324	0,8032	7,73	
12.00	65 ^{o}C	1	39,5332	50,1242	10,591	49,3422	0,782	7,38	**7,39**
		2	39,5234	49,9323	10,4089	49,1382	0,7941	7,63	
		3	39,5255	49,9242	10,3987	49,1785	0,7457	7,17	
13.00	70 ^{o}C	1	37,8534	48,5353	10,6819	47,7834	0,7519	7,04	**6,95**
		2	37,6585	47,7424	10,0839	47,0021	0,7403	7,34	
		3	38,8452	49,3245	10,4793	48,6453	0,6792	6,48	
14.00	70 ^{o}C	1	38,0242	48,7534	10,7292	48,027	0,7264	6,77	**6,76**
		2	39,2425	49,5262	10,2837	48,8042	0,722	7,02	
		3	39,4255	49,7545	10,329	49,0832	0,6713	6,50	
15.00	70 ^{o}C	1	39,4255	49,6353	10,2098	48,935	0,7003	6,86	**6,70**
		2	39,3252	49,6242	10,299	48,9291	0,6951	6,75	
		3	38,3424	48,8353	10,4929	48,1552	0,6801	6,48	

Lampiran 1. Lanjutan

16.00	70oC	1	39,2525	49,5353	10,2828	48,8435	0,6918	6,73	**6,66**
		2	39,5633	50,0343	10,471	49,2954	0,7389	7,06	
		3	39,5343	49,8425	10,3082	49,2034	0,6391	6,20	
17.00	70oC	1	39,3569	49,7461	10,3892	49,0025	0,7436	7,16	**6,83**
		2	38,1762	48,3518	10,1756	47,6683	0,6835	6,72	
		3	38,5353	49,0495	10,5142	48,3527	0,6968	6,63	

Lampiran 2. Pengaruh Kapasitas Volume 100% Terhadap Kadar Air Pada Kernel Silo

Jam	Suhu	Ulangan	Berat Wadah	Berat Wadah + Sampel	Sampel	Berat Wadah + Sampel kering	Sampel kering	Kadar air	Rerata kadar air (%)
09.00	55^{o}C	1	39,5633	49,8645	10,3012	49,1042	0,7603	7,38	**7,54**
		2	38,1762	48,6356	10,4594	47,8542	0,7814	7,47	
		3	38,4524	48,753	10,3006	47,9534	0,7996	7,76	
10.00	65 ^{o}C	1	38,4526	49,3245	10,8719	48,5353	0,7892	7,26	**7,28**
		2	38,7131	49,4302	10,7171	48,6653	0,7649	7,14	
		3	38,4522	48,8353	10,3831	48,0613	0,774	7,45	
11.00	70 ^{o}C	1	39,6918	50,4223	10,7305	49,6853	0,737	6,87	**6,84**
		2	38,7131	48,9242	10,2111	48,2342	0,69	6,76	
		3	38,4344	48,6356	10,2012	47,9324	0,7032	6,89	
12.00	75 ^{o}C	1	39,555	50,1242	10,5692	49,4322	0,692	6,55	**6,69**
		2	39,4771	49,9323	10,4552	49,2152	0,7171	6,86	
		3	39,3985	49,5242	10,1257	48,8495	0,6747	6,66	
13.00	75 ^{o}C	1	39,3198	49,5353	10,2155	48,8834	0,6519	6,38	**6,42**
		2	39,2412	49,7424	10,5012	49,1021	0,6403	6,10	
		3	39,1625	49,3245	10,162	48,6353	0,6892	6,78	
14.00	80 ^{o}C	1	38,4526	48,7534	10,3008	48,1341	0,6193	6,01	**5,96**
		2	39,2425	49,5262	10,2837	48,8942	0,632	6,15	
		3	39,4255	49,7545	10,329	49,1632	0,5913	5,72	

Lampiran 2. Lanjutan

15.00	80 ^{o}C	1	39,4255	49,6353	10,2098	49,0534	0,5819	5,70	**5,75**
		2	38,3252	48,6242	10,299	48,0191	0,6051	5,88	
		3	38,4524	48,8353	10,3829	48,2452	0,5901	5,68	
16.00	80 ^{o}C	1	39,2425	49,5353	10,2928	48,9435	0,5918	5,75	**5,66**
		2	39,5633	50,0343	10,471	49,4854	0,5489	5,24	
		3	39,5343	49,8425	10,3082	49,2245	0,618	6,00	
17.00	80 ^{o}C	1	39,3569	49,7461	10,3892	49,1725	0,5736	5,52	**5,70**
		2	38,1762	48,3518	10,1756	47,7483	0,6035	5,93	
		3	38,3016	49,0495	10,7479	48,4427	0,6068	5,65	

Lampiran 3. Hasil Perhitungan Kadar Air Suhu 60^{o}C

60 ^{o}C								
Analis ke	Ulangan	Berat Wadah	Berat Wadah + Sampel	Sampel	Berat Wadah + Sampel kering	Sampel kering	Kadar air (%)	Rerata kadar air (%)
0 Jam	1	38,6815	49,2693	10,5878	47,0672	2,2021	20,80	**20,65**
	2	38,1585	48,3085	10,15	46,2686	2,0399	20,10	
	3	39,2864	49,3865	10,1001	47,2594	2,1271	21,06	
12 Jam	1	38,7314	49,2414	10,51	48,1672	1,0742	10,22	**9,46**
	2	39,8356	50,1031	10,2675	49,124	0,9791	9,54	
	3	39,213	49,4151	10,2021	48,5342	0,8809	8,63	
14 Jam	1	38,6815	49,3633	10,6818	48,5672	0,7961	7,45	**7,86**
	2	38,1715	48,2685	10,097	47,4086	0,8599	8,52	
	3	39,31	49,355	10,045	48,5894	0,7656	7,62	
16 Jam	1	39,3165	49,4245	10,108	48,8041	0,6204	6,14	**6,65**
	2	37,9598	48,0956	10,1358	47,397	0,6986	6,89	
	3	38,177	48,5143	10,3373	47,7998	0,7145	6,91	
18 Jam	1	39,3239	49,9128	10,5889	49,2523	0,6605	6,24	**6,05**
	2	37,9567	48,5095	10,5528	47,8619	0,6476	6,14	
	3	38,2193	48,4112	10,1919	47,8224	0,5888	5,78	
20 Jam	1	39,3385	50,1121	10,7736	49,5241	0,588	5,46	**5,57**
	2	37,9656	48,5996	10,634	48,0338	0,5658	5,32	
	3	38,2035	48,6657	10,4622	48,0444	0,6213	5,94	

Lampiran 4 Hasil Perhitungan Kadar Air Pada Suhu 70^{o}C

70 ^{o}C								
Analis ke	Ulangan	Berat Wadah	Berat Wadah + Sampel	Sampel	Berat Wadah + Sampel kering	Sampel kering	Kadar air (%)	Rerata kadar air (%)
0 Jam	1	37,8423	48,3353	10,493	46,1232	2,2121	21,08	**21,01**
	2	39,3121	49,4232	10,1111	47,302	2,1212	20,98	
	3	38,2131	48,4643	10,2512	46,3132	2,1511	20,98	
12 Jam	1	37,8534	47,9532	10,0998	47,1354	0,8178	8,10	**7,75**
	2	37,6585	48,2134	10,5549	47,4474	0,766	7,26	
	3	38,8452	49,2425	10,3973	48,4231	0,8194	7,88	
14 Jam	1	37,5335	47,8504	10,3169	47,1958	0,6546	6,34	**6,33**
	2	36,7686	47,0151	10,2465	46,329	0,6861	6,70	
	3	39,8358	49,8848	10,049	49,2865	0,5983	5,95	
16 Jam	1	39,3069	49,7461	10,4392	49,1325	0,6136	5,88	**5,29**
	2	38,1762	48,3518	10,1756	47,8303	0,5215	5,13	
	3	51,3016	61,8495	10,5479	61,3357	0,5138	4,87	
18 Jam	1	37,3107	47,9613	10,6506	47,4777	0,4836	4,54	**4,42**
	2	37,3434	47,8569	10,5135	47,3539	0,503	4,78	
	3	42,062	52,1498	10,0878	51,7534	0,3964	3,93	
20 Jam	1	38,6826	48,7828	10,1002	48,3906	0,3922	3,88	**4,00**
	2	38,1769	48,4366	10,2597	48,0241	0,4125	4,02	
	3	51,2057	61,8319	10,6262	61,3959	0,436	4,10	

Lampiran 5. Hasil Perhitungan Kadar Air Pada Suhu 80^{o}C

80 ^{o}C								
Analis ke	Ulangan	Berat Wadah	Berat Wadah + Sampel	Sampel	Berat Wadah + Sampel kering	Sampel kering	Kadar air (%)	Rerata kadar air (%)
0 Jam	1	38,8423	48,93537	10,09307	46,8011	2,1343	21,15	**21,05**
	2	38,3121	48,4232	10,1111	46,2852	2,1380	21,15	
	3	39,2131	49,4643	10,2512	47,3271	2,1372	20,85	
12 Jam	1	37,9413	47,9932	10,0519	47,3434	0,6498	6,46	**6,43**
	2	37,6753	48,3263	10,651	47,6042	0,7221	6,78	
	3	38,9423	49,5346	10,5923	48,8953	0,6393	6,04	
14 Jam	1	37,5454	48,2821	10,7367	47,8155	0,4666	4,35	**4,53**
	2	38,1759	48,3878	10,2119	47,8579	0,5299	5,19	
	3	38,6808	48,8149	10,1341	48,4038	0,4111	4,06	
16 Jam	1	37,5431	48,3313	10,7882	47,8484	0,4829	4,48	**4,07**
	2	38,1744	48,8965	10,7221	48,4942	0,4023	3,75	
	3	38,6822	48,9657	10,2835	48,5551	0,4106	3,99	
18 Jam	1	37,5453	48,0572	10,5119	47,7084	0,3488	3,32	**3,60**
	2	38,1761	48,5954	10,4193	48,1983	0,3971	3,81	
	3	38,6828	49,0996	10,4168	48,7172	0,3824	3,67	
20 Jam	1	37,5428	47,8805	10,3377	47,5452	0,3353	3,24	**3,49**
	2	38,1753	48,7436	10,5683	48,369	0,3746	3,54	
	3	38,6815	48,9858	10,3043	48,6073	0,3785	3,67	

Lampiran 6. Penurunan Kadar Air Perjam

JAM	SUHU		
	60	70	80
12	0,9325	1,10583	1,21833
14	0,92	1,04929	1,18214
16	0,87375	0,9825	1,06125
18	0,81	0,92222	0,96944
20	0,7535	0,8505	0,8785
Rata-rata	**0,85795**	**0,98207**	**1,06193**

Lampiran 7. Perhituungan Waktu Yang Dibutuhkan Pada Suhu 60,70, dan 80^{o}C

a) Suhu 60^{o}C
Y= 20,572e$^{-0,067x}$
Standar Kadar Air = 6%

6= 20,572e$^{-0,067x}$

$\frac{6}{20,572} = e^{-0,067x}$

$Ln(\frac{6}{20,572}) = -0,067x$

-1,232171459=-0,067x
X= **18,39**

b) Suhu 70^{o}C
Y= 20,974e$^{-0,085x}$
Standar Kadar Air = 6%

6= 20,974e$^{-0,085x}$

$\frac{6}{20,974} = e^{-0,085x}$

$Ln(\frac{6}{20,974}) = -0,085x$

-1,251524106 = -0,085x
X= **14,72**

c) Suhu 80^{o}C
Y= 19,907e$^{-0,095x}$
Standar Kadar Air = 6%

6= 19,907e$^{-0,095x}$

$\frac{6}{19,907} = e^{-0,095x}$

$Ln(\frac{6}{19,907}) = -0,095x$

-1,199311959= -0,095x
X= **12,62**

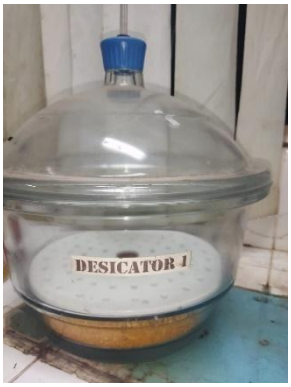
Lampiran 8. Dokumentasi Hasil Penelitian

a. *Oven Memmert*

b. Timbangan *Digital*

c. *Microwave Oven*

Lampiran 8. Lanjutan



d. *Desicator*

e. *Petridish*

f. Pengamatan Kapasitas Volume *Kernel Silo*

Lampiran 8. Lanjutan

g. Pengamatan Suhu *Kernel Silo*

h. Menghidupkan mesin dan peralatan di Stasiun *Nut and Kernel*

i. Gambar Proses Stasiun *Nut and Kernel*

Lampiran 9. Foto bersama PT. Kapuasindo Palm Industry

a. Foto bersama Tim Proses

b. Foto bersama Tim *Mechanical* dan *Electrical*

c. Foto bersama Manager dan Staff PT. Kapuasindo Palm Industry