

Lampiran 1. Luas Lahan, Produksi dan Ekspor Kopi di Indonesia

No	Tahun	Luas Lahan (ha)	Produksi (Kg)	Ekspor (Kg)
1	2003	1.294.888	671.629	232.319
2	2004	1.303.942	647.416	260.024
3	2005	1.255.272	640.365	372.668
4	2006	1.308.732	682.159	416.164
5	2007	1.287.409	673.186	320.417
6	2008	1.302.893	682.938	302.523
7	2009	1.266.237	682.592	525.010
8	2010	1.268.476	684.076	494.664
9	2011	1.233.698	638.647	338.817
10	2012	1.233.982	657.138	446.279

Lampiran 2. Data Luas Lahan, Bahan Baku dan Produksi Kopi Robusta Kebun Ngrangkah Pawon tahun 2003-2012

No	Tahun	Luas Lahan (ha)	Bahan Baku Superior (Kg)	Bahan Baku Inferior (Kg)	Produksi Superior (Kg)	Produksi Inferior (Kg)
1	2003	250.45	1523632	115486	298.192	51.137
2	2004	1187.47	2733674	128225	668.183	60.809
3	2005	801.36	2691536	192204	553.998	75.176
4	2006	688.30	2539452	186020	533.756	76.751
5	2007	379.82	637162	58982	121.702	29.912
6	2008	383.81	1798003	132009	400.833	45.861
7	2009	326.94	1535694	150739	346.110	47.226
8	2010	326.94	912341	121599	200.225	33.609
9	2011	308.27	1175380	163883	240.885	55.379
10	2012	224.27	1447716	125444	306.249	49.637

Lampiran 3. Data Dosis Pupuk Tanaman Kebun Ngrangkah Pawon tahun 2003-2012

No	Jenis Pupuk	Sat	Tahun									
			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1	Urea	Kg	50.376	38.765	98.242	124.630	18.107	48.720	27.503	125.414	64.350	10.121
2	ZA	Kg	-	-	-	-	-	-	-	-	-	-
3	TSP	Kg	-	-	-	-	-	-	-	40.412	24.903	6.954
4	SP-36	Kg	-	31.020	-	-	9.802	-	-	-	-	-
5	KCL	Kg	12.521	20.675	45.000	38.269	13.555	10.509	11.575	22.911	27.292	2.427
6	Kies	Kg	36.780	23.260	25.500	-	-	-	-	73.005	12.696	2.181
7	RP	Kg	-	-	61.360	-	-	-	-	-	-	-
	Dolomite	Kg	-	-	-	184.511	10.004	-	48.573	-	-	-
Jumlah			99.677	113.720	230.102	347.410	51.468	59.229	76.076	261.742	129.241	21.683

Lampiran 4. Perhitungan dan Analisis *Trend* Produksi Kopi Robusta Kualitas Ekspor

No	Tahun	Produksi (Y)	X	XY	X ²
1	2003	298.192	-5	-1490960	25
2	2004	668.183	-4	-2672732	16
3	2005	553.998	-3	-1661994	9
4	2006	533.756	-2	-1067512	4
5	2007	121.702	-1	-121702	1
6	2008	400.833	1	400833	1
7	2009	346.110	2	692220	4
8	2010	200.225	3	600675	9
9	2011	240.885	4	963540	16
10	2012	306.249	5	1531245	25
		3.670.133		-2826387	110

$$\begin{aligned}
 a &= \frac{\sum Y}{n} \\
 &= \frac{3.670.133}{10} \\
 &= 367013.3
 \end{aligned}$$

$$\begin{aligned}
 b &= \frac{\sum XY}{\sum x^2} \\
 &= \frac{-2826387}{110} \\
 &= -25694.4
 \end{aligned}$$

$$\begin{aligned}
 Y &= a + bX \\
 &= 367013.3 - 25694.4X
 \end{aligned}$$

Lampiran 4. (Lanjutan)

Uji Kesesuaian Model

$$\begin{aligned}\sum \text{kuadrat regresi} &= \frac{(\sum Y)^2}{N} \\ &= \frac{(3.670.133)^2}{10} \\ &= \frac{13.469.875.237.689}{10} \\ &= 1.346.987.523.768.9\end{aligned}$$

$$\begin{aligned}\sum \text{kuadrat total} &= \sum Y^2 \\ &= 1.614.371.528.532\end{aligned}$$

$$R^2 = \frac{\sum \text{kuadrat regresi}}{\sum \text{kuadrat total}}$$

$$R^2 = \frac{1.346.987.523.768.9}{1.614.371.528.532}$$

$$R^2 = 0.83$$

Perhitungan *Trend* Produksi Kopi Robusta Kualitas Ekspor

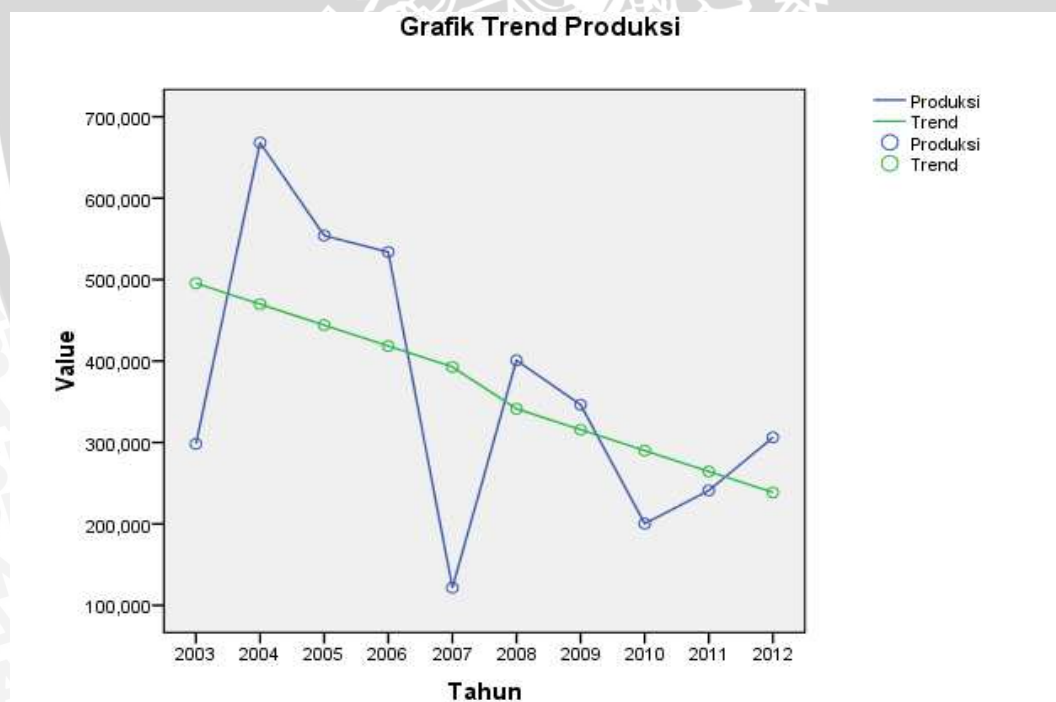
No	Tahun	Produksi (Y)	X	Y= a + bX
1	2003	298.192	-5	495485.3
2	2004	668.183	-4	469790.9
3	2005	553.998	-3	444096.5
4	2006	533.756	-2	418402.1
5	2007	121.702	-1	392707.7
6	2008	400.833	1	341318.9
7	2009	346.110	2	315624.5
8	2010	200.225	3	289930.1
9	2011	240.885	4	264235.7
10	2012	306.249	5	238541.3
		3.670.133		3.670.133

Lampiran 4. (Lanjutan)

Trend Produksi Kopi Robusta Kualitas Ekspor

No	Tahun	Produksi (Y)	<i>Trend</i>
1	2003	298.192	495485.3
2	2004	668.183	469790.9
3	2005	553.998	444096.5
4	2006	533.756	418402.1
5	2007	121.702	392707.7
6	2008	400.833	341318.9
7	2009	346.110	315624.5
8	2010	200.225	289930.1
9	2011	240.885	264235.7
10	2012	306.249	238541.3

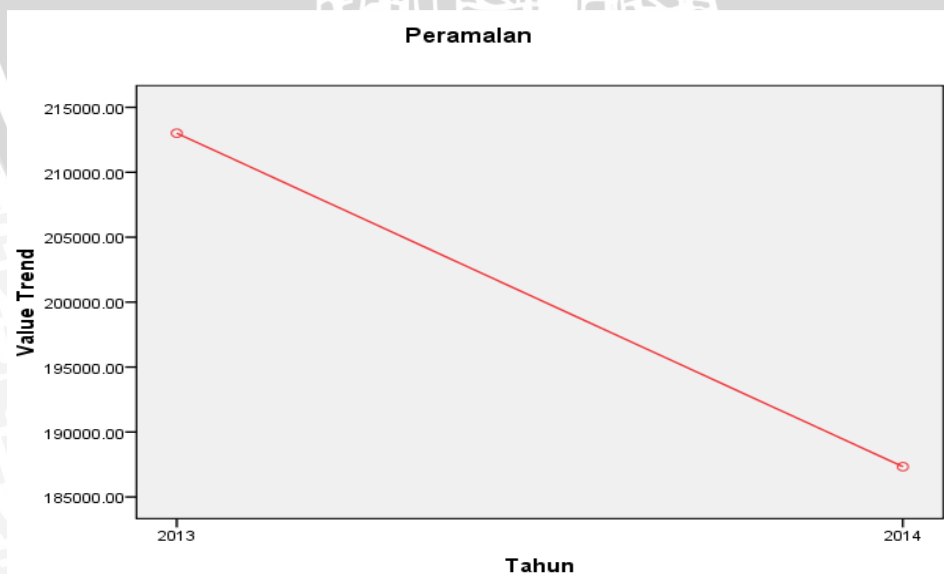
Grafik Produksi dan *Trend* Produksi Kopi Robusta Kualitas Ekspor



Lampiran 5. Perhitungan dan Analisis Peramalan *Trend* Produksi Kopi Robusta Kualitas Ekspor

No	Tahun	Produksi (Y)	X	XY	X ²	Trend
1	2003	298.192	-5	-1490960	25	495485.3
2	2004	668.183	-4	-2672732	16	469790.9
3	2005	553.998	-3	-1661994	9	444096.5
4	2006	533.756	-2	-1067512	4	418402.1
5	2007	121.702	-1	-121702	1	392707.7
6	2008	400.833	1	400833	1	341318.9
7	2009	346.110	2	692220	4	315624.5
8	2010	200.225	3	600675	9	289930.1
9	2011	240.885	4	963540	16	264235.7
10	2012	306.249	5	1531245	25	238541.3
		3.670.133	6			212846.9
			7			187152.5

Grafik Tren Peramalan Produksi Kopi Robusta Kualitas Ekspor



Lampiran 6. Uji Asumsi Klasik Dan Hasil Regresi Linier Berganda Fungsi Produksi *Cobb-Douglas*

Uji Normalitas Data

One-Sample Kolmogorov-Smirnov Test						
		Prod	Lahan	Ppk_Urea	Ppk_kCl	BBI
N		10	10	10	10	10
Normal Parameters ^{a,b}	Mean	12.702699	6.043660	10.816177	9.845111	14.335900
	Std. Deviation	.5160569	.5417829	.7057371	.5239871	.4591182
Most Extreme Differences	Absolute	.126	.269	.132	.236	.153
	Positive	.085	.269	.101	.236	.120
	Negative	-.126	-.122	-.132	-.132	-.153
Kolmogorov-Smirnov Z		.400	.849	.417	.746	.485
Asymp. Sig. (2-tailed)		.997	.467	.995	.634	.973
a. Test distribution is Normal.						
b. Calculated from data.						

Uji Multikolenieritas

Coefficients ^a			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Lahan	.399	2.505
	Ppk_Urea	.382	2.619
	Ppk_kCl	.291	3.442
	BBI	.528	1.895
a. Dependent Variable: Prod			

Uji Autokorelasi

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.997 ^a	.993	.988	.0566604	1.504
a. Predictors: (Constant). BBI. Ppk_Urea. Lahan. Ppk_Kcl					
b. Dependent Variable: Prod					

Lampiran 6. (Lanjutan)

Uji Heteroskedastisitas

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.282	.262		1.078	.330
	Lahan	.005	.021	.158	.246	.815
	Ppk_Urea	.007	.016	.292	.445	.675
	Ppk_kCl	-.013	.025	-.402	-.534	.616
	BBI	-.016	.021	-.405	-.725	.501

a. Dependent Variable: RES2

Hasil Regresi Linier Berganda

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	BBI, Ppk_Urea, Lahan, Ppk_kCl ^a		Enter

a. All requested variables entered.

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.997 ^a	.993	.988	.0566604	.993	185.396	4	5	.000	1.504

a. Predictors: (Constant), BBI, Ppk_Urea, Lahan, Ppk_Kcl

b. Dependent Variable: Prod

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.381	4	.595	185.396	.000 ^a
	Residual	.016	5	.003		
	Total	2.397	9			

a. Predictors: (Constant), BBI, Ppk_Urea, Lahan, Ppk_Kcl

b. Dependent Variable: Prod

Lampiran 6. (Lanjutan)

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.409	.693		3.478	.018	-4.189	-.628
	Lahan	.112	.055	.117	2.025	.090	-.030	.254
	Ppk_Urea	.028	.043	.038	.642	.549	-.084	.139
	Ppk_kCl	-.135	.067	-.137	-2.025	.090	-.307	.037
	BBI	1.079	.057	.960	19.052	.000	.933	1.225
a. Dependent Variable: Prod								

Coefficients ^a						
Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	Lahan	.675	.671	.074	.399	2.505
	Ppk_Urea	.341	.276	.023	.382	2.619
	Ppk_kCl	.373	-.671	-.074	.291	3.442
	BBI	.992	.993	.697	.528	1.895
a. Dependent Variable: Prod						

Coefficient Correlations ^a						
Model			BBI	Ppk_Urea	Lahan	Ppk_kCl
1	Correlations	BBI	1.000	-.275	-.589	.162
		Ppk_Urea	-.275	1.000	.336	-.739
		Lahan	-.589	.336	1.000	-.542
		Ppk_kCl	.162	-.739	-.542	1.000
	Covariances	BBI	.003	.000	-.002	.001
		Ppk_Urea	.000	.002	.001	-.002
		Lahan	-.002	.001	.003	-.002
		Ppk_kCl	.001	-.002	-.002	.004

a. Dependent Variable: Prod

Lampiran 6. (Lanjutan)

Collinearity Diagnostics ^a								
Mode l	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	Lahan	Ppk_Urea	Ppk_kCl	BBi
1	1	4.992	1.000	.00	.00	.00	.00	.00
	2	.004	33.779	.02	.49	.04	.00	.00
	3	.002	45.316	.09	.00	.25	.03	.04
	4	.001	89.021	.03	.05	.50	.71	.11
	5	.000	136.086	.87	.46	.21	.26	.86
a. Dependent Variable: Prod								

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	11.755414	13.372127	12.702699	.5143259	10
Std. Predicted Value	-1.842	1.302	.000	1.000	10
Standard Error of Predicted Value	.027	.052	.039	.008	10
Adjusted Predicted Value	11.985885	13.289017	12.706826	.4839302	10
Residual	-.0665585	.0589809	.0000000	.0422322	10
Std. Residual	-1.175	1.041	.000	.745	10
Stud. Residual	-1.992	1.798	-.001	1.223	10
Deleted Residual	-.2765541	.1758957	-.0041268	.1290497	10
Stud. Deleted Residual	-3.926	2.704	-.109	1.818	10
Mahal. Distance	1.208	6.600	3.600	1.709	10
Cook's Distance	.010	3.971	.666	1.228	10
Centered Leverage Value	.134	.733	.400	.190	10
a. Dependent Variable: Prod					

Lampiran 7. Perhitungan Biaya, Penerimaan dan Pendapatan Kopi Robusta di Kebun Ngrangkah Pawon Tahun 2012

Perhitungan Biaya

URAIAN	NILAI	JUMLAH
Biaya Tetap		
Penyusutan kendaraan, peralatan dan bangunan	169.967.862.00	
Gaji karyawan tetap	49.986.220.00	
Pajak	147.822.800.00	
Jumlah Biaya Tetap		367.776.882.00
Biaya Variabel		
Pemeliharaan tanaman	1.265.281.064.00	
Pupuk	173.080.979.00	
Panen	1.539.269.840.00	
Angkutan panen	72.401.116.00	
Pengolahan	391.435.524.00	
Sortasi	210.452.765.00	
Pengepakan	140.430.402.00	
Pemeliharaan pabrik	205.992.248.00	
Jumlah Biaya Variabel		3.998.343.938.00
Jumlah Biaya Total 224,27 Ha		4.366.120.820.00
Jumlah Biaya Per Ha		19.468.145,00

Lampiran 7. (Lanjutan)

Perhitungan Penerimaan

Penerimaan	Jumlah (Kg)	Harga per Kg (Rp)	Nilai (Rp)
Mutu Ekspor	306.249	28.575.00	8.751.065.175,00
Mutu Lokal	49.637	27.460.00	1.363.032.020.00
Kopi Luwak	242	472.686.00	114.390.012.00
	356.128		10.228.487.207,00

Perhitungan Pendapatan

Keterangan	Jumlah (Rp/Ha)
Penerimaan Produksi Kopi Robusta	10.228.487.207,00
Total Biaya Produksi Kopi Robusta	4.366.120.820.00
Pendapatan Kopi Robusta 224,27 Ha	5.862.266.387,00
Pendapatan Kopi Robusta Per Ha	26.171.305,51

Lampiran 8. Dokumentasi Penelitian

Bahan Baku Kopi Robusta *Inferior* dan Biji Kopi Kering *Inferior*



Bahan Baku *Superior* dan Biji Kopi Kering *Superior*



Perubahan Penggunaan Lahan Kopi Robusta



Lampiran 8. (Lanjutan)



Tanaman Kopi Robusta Areal Murni



Tanaman Kopi Robusta Dalam Kurung atau Tumpangsari dengan Tanaman Lain



Lampiran 9. Penentuan Besarnya Nilai Cacat Biji Kopi Robusta

No	Jenis Cacat	Nilai Cacat
1	1 biji hitam	Satu
2	1 biji hitam sebagian	Setengah
3	Biji hitam pecah	Setengah
4	Kopi gelondong	Satu
5	Biji cokelat	Seperempat
6	Kulit kopi ukuran besar	Satu
7	Kulit kopi ukuran sedang	Setengah
8	Kulit kopi ukuran kecil	Setengah
9	Biji berkulit tanduk	Setengah
10	Kulit tanduk ukuran besar	Setengah
11	Kuli tanduk ukuran sedang	Seperlima
12	Kulit tanduk ukuran kecil	Sepersepuluh
13	Biji pecah	Seperlima
14	Biji muda	Seperlima
15	Biji berlubang 1	Sepersepuluh
16	Biji berlubang >1	Seperlima
17	Biji bertutul	Sepersepuluh
18	Ranting, tanah, dan batu ukuran besar	Lima
19	Ranting, tanah, dan batu ukuran sedang	Dua
20	Ranting, tanah, dan batu ukuran kecil	Satu

Lampiran 10. Standar Mutu Biji Kopi Robusta Ekspor

No	Mutu	Nilai Cacat	Ukuran
1	R/WP 1	0-11	<i>Super small, Small, Medium, Large</i>
2	R/WP 2	12-25	<i>Super small, Small, Medium, Large</i>
3	R/WP 3	26-44	<i>Super small, Small, Medium, Large</i>
4	R/WP 4	46-80	<i>Super small, Small, Medium, Large</i>
5	R/WP 5	81-150	<i>Super small, Small, Medium, Large</i>
6	R/WP 6	151-225	<i>Super small, Small, Medium, Large</i>
7	R/WP K	226-300	-



Lampiran 11. Kebun Kopi Robusta PT Perkebunan Nusantara XII (Persero)

No	Kebun	Kabupaten	Komoditas	Luas Lahan
1	Malangsari	Banyuwangi	Kopi Robusta, Aneka Kayu.	2.095,30 Ha
2	Gunung Gunitir	Jember	Kopi Robusta, Aneka Kayu.	1.165,73 Ha
3	Kaliselogiri	Banyuwangi	Kopi Robusta, Kakao Bulk, Aneka Kayu.	1.116,06 Ha
4	Renteng	Jember	Karet, Kopi Robusta, Aneka Kayu, dan Kakao Edel.	1.957,81 Ha
5	Silosanen	Jember	Kopi Robusta, Aneka Kayu.	1.240,98 Ha
6	Ngrangkah Pawon	Kediri	Kopi Robusta, Kakao Bulk, Aneka Kayu.	3.952,15 Ha
7	Bangelan	Malang	Kopi Robusta, Aneka Kayu.	883,20 Ha