



**KINERJA MESIN PENGUPAS (*PULPER*) TIPE *DOUBLE SILINDER*  
PADA PROSES PENGUPASAN KULIT BUAH  
KOPI ROBUSTA DAN ARABIKA**

**SKRIPSI**

oleh :  
**Azizah**  
**NIM 061710201062**

**JURUSAN TEKNIK PERTANIAN  
FAKULTAS TEKNOLOGI PERTANIAN  
UNIVERSITAS JEMBER  
2010**



**KINERJA MESIN PENGUPAS (*PULPER*) TIPE *DOUBLE SILINDER*  
PADA PROSES PENGUPASAN KULIT BUAH  
KOPI ROBUSTA DAN ARABIKA**

**SKRIPSI**

diajukan guna memenuhi salah satu syarat untuk menyelesaikan pendidikan  
Strata Satu Jurusan Teknik Pertanian Fakultas Teknologi Pertanian  
Universitas Jember

oleh :  
**Azizah**  
**NIM 061710201062**

**JURUSAN TEKNIK PERTANIAN  
FAKULTAS TEKNOLOGI PERTANIAN  
UNIVERSITAS JEMBER  
2010**

## SUMMARY

**The Work of a Pulper Type Double Cylinders to The Robusta and Arabica Coffee Peeling Process ; Azizah , 061710201062 ; 2010 ; The Agriculture Technique Departement, The Agriculture Technology Faculty, Jember University.**

Coffee is a kind of well-known beverage. Many people like it because of its nice aroma, its delicious taste, and its virtue which can refresh our body. It makes the market demand of coffee increasing these days. To anticipate the phenomenon, a group of farmers need a coffee pulper which has good quality and capacity in the coffee peeling process. One of the pulper types was a double cylinders pulper. This research aimed to know the work of the pulper during the Arabica and Robusta coffee peeling process.

The research was conducted in May to August 2010 in Sidomulyo village, Silo district, Jember and in the tools and agriculture machine engineering laboratory, the Agriculture Technique Departement, The Agriculture Technology Faculty, Jember University.

The experiment was conducted by differentiating the coffee varieties into two types and connecting each of them with the rotation speed of the pulper which contains of 3 types, in which the of the types of the coffee are connected with each type of the pulper. The varieties of coffee were Arabica and Robusta coffee. The variation of the rotation speed of the pulper were 2000 , 2200, and 2400 rpm.

The research result shows that the variation of the rotation speed of the coffee pulper and the coffee varieties influence the pulper work. The highest peeling capacity produced by the pulper while peeling Arabica coffee respectively was : 2000 rpm pulper was 58,63; at 2200 rpm pulper was 69,48; and at 2400 rpm pulper was 85,21 g/s. On the other hand, the capacity of the pulper in peeling Robusta coffee respectively was : 2000 rpm pulper was 36,02; at 2200 rpm pulper was 42,21; and at 2400 rpm pulper was 58,63 g/s. The total amount of Arabica coffee peeling seems greater that of Robusta peeling. The total amount of Arabica peeling was 7330,30 for the 2000 rpm pulper, 7455,50 for the 2200 rpm pulper and 7379,98 g for the 2400 rpm pulper, while the total amount of Robusta peeling was 7235,47 for the 2000 rpm pulper, 7373,95 for the 2200 rpm pulper and 7332,20 g for the 2400 rpm pulper. The peeling efficiency is affected by the total amount of peeling, so that the higher total amount of peeling, the higher peeling efficiency will be gained. The damage of the peeling result for Arabica Coffee were : 0,21 for the 2000 rpm pulper, 0,22 for the 2200 rpm pulper, and 0,43% for the 2400 rpm pulper. The damage of the peeling result for Robusta Coffee were : 0,99 for the 2000 rpm pulper, 0,78 for the 2200 rpm pulper, and 1,48% for the 2400 rpm pulper. The combination of the total amount of peeling ang the damage percentage of it, which has the best performance was the 2200 rpm pulper, both for Arabica and Robusta Coffee with the damage percentage 0,78% for Robusta and 0,22% for Arabica.

## DAFTAR ISI

	Halaman
<b>HALAMAN JUDUL</b> .....	i
<b>HALAMAN PERSEMBAHAN</b> .....	iii
<b>MOTTO</b> .....	iv
<b>PERNYATAAN</b> .....	v
<b>HALAMAN PEMBIMBINGAN</b> .....	vi
<b>HALAMAN PENGESAHAN</b> .....	vii
<b>SUMMARY</b> .....	viii
<b>PRAKATA</b> .....	ix
<b>DAFTAR ISI</b> .....	xi
<b>DAFTAR GAMBAR</b> .....	xiii
<b>DAFTAR LAMPIRAN</b> .....	xiv
<b>BAB 1. PENDAHULUAN</b>	
<b>1.1 Latar Belakang</b> .....	1
<b>1.2 Permasalahan</b> .....	2
<b>1.3 Tujuan</b> .....	2
<b>1.4 Manfaat</b> .....	3
<b>BAB 2. TINJAUAN PUSTAKA</b>	
<b>2.1 Sejarah Kopi Indonesia</b> .....	4
<b>2.2 Sitematika Tanaman Kopi</b> .....	5
2.2.1 Klasifikasi Tanaman Kopi .....	5
2.2.2 Jenis (varietas) Kopi .....	5
<b>2.3 Proses Pengolahan Kopi</b> .....	8
2.3.1 Pengolahan Kering .....	8
2.3.2 Pengolahan Basah .....	8
<b>2.4 Mesin Pengupas Kulit Buah Kopi (<i>Pulper</i>)</b> .....	12

**BAB 3. METODOLOGI PENELITIAN**

**3.1 Tempat dan Waktu Penelitian** ..... 14

**3.2 Alat dan Bahan Penelitian**..... 14

    3.2.1 Alat Penelitian..... 14

    3.2.2 Bahan Penelitian..... 14

**3.3 Metode Penelitian**..... 14

**3.4 Deskripsi Alat** ..... 15

**3.5 Pelaksanaan Penelitian**..... 17

**3.6 Pengamatan** ..... 17

**BAB 4. HASIL DAN PEMBAHASAN**

**4.1 Kecepatan Putar Mesin** ..... 19

**4.2 Waktu Pengupasan** ..... 21

**4.3 Kapasitas Pengupasan** ..... 22

**4.4 Total Pengupasan**..... 23

**4.5 Efisiensi Pengupasan** ..... 25

**4.6 Kerusakan Hasil Pengupasan** ..... 26

**4.7 Jumlah Kotoran** ..... 27

**Bab 5. KESIMPULAN DAN SARAN**

**5.1 Kesimpulan** ..... 29

**5.2 Saran** ..... 29

**DAFTAR PUSTAKA**.....30

**LAMPIRAN**.....32