

RINGKASAN

Mendoan merupakan salah satu makanan khas di Indonesia yang banyak digemari, jenis makanan ini yang bisa dijumpai hampir disetiap pedagang hingga restoran besar yang menyajikan berbagai jenis hidangan khususnya di daerah Banyumas, Jawa Tengah. Selain harganya yang relatif murah mendoan juga memiliki rasa yang gurih dan enak. Konsumsi minyak berlebih dan penggunaan minyak berkali-kali dapat menyebabkan penyakit. Hal itu bisa terjadi dikarenakan kurang maksimalnya perlakuan pada saat proses penirisan mendoan.

Penelitian bertujuan untuk: 1) Merancang mesin peniris minyak (*spinner*) mendoan tipe rak *square box*, 2) Membuat prototipe mesin peniris minyak (*spinner*) mendoan tipe rak *square box*, serta 3) Menguji kinerja prototipe mesin peniris minyak (*spinner*) mendoan tipe rak *square box*. Penelitian dilaksanakan di bengkel Ikhwan dan Laboratorium Teknologi Pertanian, Universitas Jenderal Soedirman. Beberapa penelitian ini terdiri dari tahap perancangan, tahap pembuatan dan, tahap pengujian. Pengujian dilakukan dalam bentuk uji kinerja mesin peniris minyak (*spinner*) mendoan tipe rak *square box* dengan variabel yang diamati meliputi massa rak tipe *square box* (m), massa mendoan (m), waktu penirisan (t), persentase minyak (%).

Hasil penelitian menunjukkan bahwa desain dan prototipe mesin peniris minyak (*spinner*) mendoan tipe rak *square box* berhasil dirancang menggunakan prinsip mekanisme kerja pemanfaatan gaya sentrifugal. Kapasitas maksimal penirisan mendoan mesin peniris minyak (*spinner*) mendoan tipe rak *square box* adalah 40 mendoan per penirisan atau 1,75 Kg. Uji fungsional mesin menunjukkan hasil penirisan menggunakan mesin peniris minyak (*spinner*) mendoan tipe rak *square box* memiliki nilai persentase penirisan minyak sebesar 5,53 % selama 1 menit penirisan dan 8,12 % selama 2 menit penirisan.

SUMMARY

Mendoan is one of the special food from Indonesia that much loved, these foods can be found in almost every food seller from trader fried food until restaurants serving various types of dishes, especially in Banyumas, Central Java. Besides the price is relatively cheap mendoan also has a savory and delicious taste. Excessive oil consumption and oil use for many time can cause some diseases. That's could occur because deficient treatment during the draining process for mendoan.

This research was aimed to: 1) Designing of the oil separator machine (spinner) rack type square box for mendoan, 2) Make a prototype of the oil separator machine (spinner) rack type square box for mendoan, and 3) Examine performance prototype of the oil separator machine (spinner) rack type square box for mendoan. This research was conducted in the Ikhwan workshop and Laboratory of Agricultural Technology, Jenderal Soedirman University. This research has several stages: designing, manufacturing and, examine the performance. The test has carried out in the form of performance test of the oil separator machine (spinner) rack type square box for mendoan with variable observed is mass type rack square box mass (m), mendoan mass (m), time of separate (t), and oil persentation (%).

The results shows that design and prototype of the oil separator machine (spinner) rack type square box for mendoan successfully designed using the rotation principle mechanism of the sentrifugal forced. The result of the oil separator with oil separator machine (spinner) rack type square box for mendoan is 40 mendoan per separate or 1,75 Kg. Functional test machine shows the persentation separated result using the oil separator machine (spinner) rack type square box for mendoan has a value of 5.53% for 1 minute separated oil and 8.12% for 2 minutes separated oil.