



# Agricultural Journals

*Research in*

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**Res. Agr. Eng.**

**Kabutey A., Herák D.,  
Chotěborský R.,  
Navrátilová M.:**

# **Model for energy and deformation determination of selected oilseeds under compression loading – Short communication**

Res. Agr. Eng., 58 (2012): 155-158

Compression loading test was performed to determine the dependency between force and deformation of jatropha, sunflower and rape seeds with respect to different pressing seed volume.

Parameters such as max. deformation and energy were measured. The results which were statistically significant at ( $P < 0.05$ ) show that rape seed with lower deformation values utilized greater energy than the seeds of jatropha and sunflower which obtained higher deformation values in that order of magnitude. The energy (J) was determined by the area under the force-deformation curve while deformation (mm) was obtained directly from the compression test. Based on the statistical

analysis, the energy and deformation with respect to the different pressing seed volume of jatropha, sunflower and rape approximately showed linear relationship.

### **Keywords:**

force-deformation curve; pressing seed volume; jatropha; sunflower; rape seeds

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