



Agricultural Journals

Research in

AGRICULTURAL ENGINEERING

home **page** about **us** contact 

us

**Table of
Contents**

IN PRESS

RAE 2014

RAE 2013

RAE 2012

RAE 2011

RAE 2010

RAE 2009

RAE 2008

RAE 2007

RAE 2006

RAE 2005

RAE 2004

RAE 2003

RAE Home

Editorial

For Authors

- **Authors Declaration**
- **Instruction to Authors**
- **Guide for Authors**
- **Copyright Statement**
- **Submission**

For Reviewers

- **Guide for Reviewers**
- **Reviewers Login**

Subscription

Res. Agr. Eng.

Pexa M., Kubín K.:

Effect of rapeseed methyl ester on

emission production

Res. Agr. Eng., 60 (2014): 1-9

This paper describes the effect of a mixture of rapeseed methyl ester and diesel oil on emission production of tractor engine. The hydraulic dynamometer was used to load the engine of Zetor Forterra 8641 tractor over rear power take-off. The measured tractor is almost new with less than 100 h worked. The measurements were realized for several ratios of diesel oil and rapeseed methyl ester (from pure diesel to pure rapeseed methyl ester). The engine was loaded by the dynamometer in several working points which were predefined by engine speed and its torque. The production of carbon monoxide (CO), carbon dioxide (CO₂), hydrocarbons (HC), nitrogen oxides (NO_x) and particulate matter (PM) were measured in each of these points. The comparison of different fuels was performed using the Non-Road Steady Cycle (NRSC) test procedure. Engine maps were also created for each emission component and for all of tested fuels.

Keywords:

biofuel; ecology; NRSC; engine characteristic

[[fulltext](#)]

© 2011 Czech Academy of Agricultural Sciences

XHTML11 VALID

CSS VALID