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International Agrophysics

Polish Journal of Soil Science

Acta Agrophysica

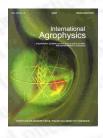
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International Agrophysics

publisher: Institute of Agrophysics

Polish Academy of Sciences

Lublin, Poland

ISSN: 0236-8722

vol. 22, nr. 3 (2008)

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vol. 20 (2006), nr. 4, pp. 353-358

abstract The article presents results of research on the levels of emission of carbon monoxide (CO) in exhaust gases emitted by the S-4002 engine of an agricultural tractor depending on two variables: the horsepower Ne developed by the engine and the percentage of RME (rapeseed methyl ester) contained in the fuel mix with fuel oil. In this experiment six different mixtures of mineral oil and RME were used. They included 0, 20, 40, 60, 80, and 100% of RME, respectively. The differences of the levels of CO emissions produced by the S-4002 tractor-engine, at two different workload values (at maximum torque speed nMomax of 1600 r.p.m. and at maximum power output speed nNemax of 2000 r.p.m.) were examined. Following the multiple regression analysis using the method of backward elimination for the 120 measurements made during the research, two regression equations were obtained for the per cent ratio of CO (Ne, RME) in the emitted fuel gases, in relation to the horsepower Ne developed by the engine and the RME biofuel content in the mix.

keywords fumes, biofuel, rapeseed methyl ester, statistical inference

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