Table of Contents

For Authors

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

For Reviewers

- Guide for Reviewers
- Reviewers Login

Subscription

Res. Agr. Eng.

I. A. Loukanov, J. Uziak, J. Michálek

Draught requirements

animal drawn mouldboard plough

Res. Agr. Eng., 51 (2005): 56-62

The power requirement of tillage implements is an important design consideration particularly for animal-drawn implements where the power is limited. The paper presents the possibilit of reduction in the draught requirements of animal-drawn mouldboard plough by using enamel coating on the soil-engage components such as the mouldboard, share and the landside. Trials were conducted to compare enamel-coated Maun Series single mouldboard plough (manufactured by Zimplow Limited, Bulawayo,Zimbabwe) with similar uncoated plough, both animal-drawn, under comparable working conditions. Experiments were done at 25% and 32% d.b. soil moisture content on a red clay soil inZimbabwe. The parameters measured in evaluating the draught performance of both ploughs were the tractive effort (pull), speed of ploughing, depth and width of ploughing, and soil conditions (i.e. soil moisture content, soil

bulk density and soil penetration resistance). It was found that for similar working conditions the enamel coating