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Res. Agr. Eng.

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Comparison of two

possibilities for mowing machine material feed rate measurement under laboratory conditions

Res. Agr. Eng., 49 (2003): 44-49

The impact of materials and conditions (parameters) changes on mowing machine material feed rate measurement accuracy were measured under laboratory conditions. The influence of crop variety, crop maturity and moisture, and intensity of conditioning were tested. The impact of the changing parameters in two measurement methods (based on torque-meter and/or on impact plate) was studied. Eight files of torque-meter and/or impact plate measurement were obtained during our experiments. Statistical analysis was used for data evaluation. Two-sample comparisons were used for torque-meter measurement. It is evident from that evaluation that changing crop variety, crop maturity and intensity of conditioning can have statistically significant influence on the measurement based on torque-meter. For impact plate measurement the analysis of variance was used. It was found out that it is not possible to statistically determine the influence of tested factors on our measurement. Considering these results the material feed rate measurement based on impact plate is better from practical point of view.

Keywords:

mowing machines; feed rate measurement; accuracy

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