



# Agricultural Journals

*Research in*

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## Subscription

# Res. Agr. Eng.

V. Uhlíř, J. Mareček, J.  
Červinka

## Impact of soil

# soil compaction in sowing on development and crops of sugar beet

Res. Agr. Eng., 52 (2006): 11-16

Putting together work operations minimizes the number of machine passes across the plot, which helps to reduce negative soil compaction and to save fuels. However, the combination of working operations also reflects in the increased weight of machines, which – on the other hand – can result exactly in soil compaction. This is why the potential adverse phenomenon can be compensated by using tyres with a larger contact surface with the base. In the case of sowing root crops, some problems may appear with the application of these tyres as a certain part of the stand has been sown in their track. The paper brings an assessment of the possibility to use twin assembly tyres on the tractor model Fendt 822 and on the sowing drill model Monosem NG plus with 18 drilling mechanisms. Parameters to be assessed were soil compaction, and the development of plants sown inside and outside the tractor track. Although the

degree of soil compaction was higher in the tractor track, the biological characteristic of plants including yield reached more favourable criteria of assessment. The situation paradoxically resulted from the creation of more favourable moisture conditions in the soil.

**Keywords:**

sowing; sugar beet; soil compaction; combination of working operations

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