

SoildiverAgro project

Adoption of new management practices to increase crop production and quality



THE WHAT AND WHY

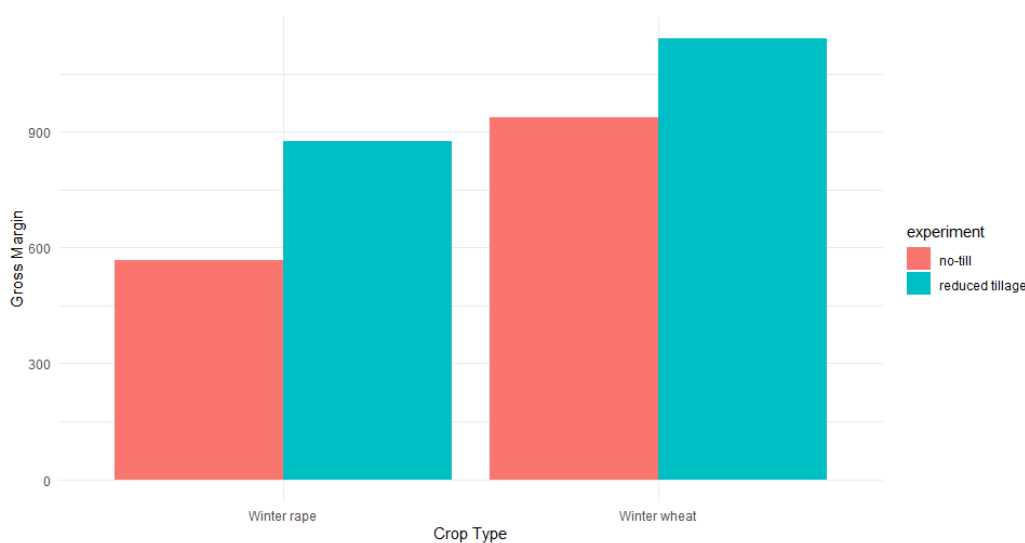
Economic comparison of reduced and no-tillage practices in cereal fields in Estonia

Gross margin analysis offers the farmers an opportunity to identify which soil management practices and crops offer better returns in similar climatic and soil conditions. In Estonia, representing nemoral region in the SoilDiverAgro project, a comparison of profitability of no tillage and reduced tillage (up to 12 cm) was conducted using data from ten fields in five farms in 2020 in which winter wheat was grown in all fields. For comparison, the gross margin was also calculated for 2019 in which the rape seed was grown in the same fields.

The years 2019 and 2020 were very favourable for wheat production in Estonia and saw the highest average yields in a decade. The highest wheat yield from the cases studied was 8,300 kg/ha from reduced tillage fields followed by 7,800 kg/ha from the no-till field, that are well above national average

that year. The revenue variability was impacted by the yields as those varied considerably across the cases in 2020. The direct costs were higher for no-till fields. The gross margin for winter wheat in 2020 ranged between 318 €/ha in a no tillage field to 1140 €/ha in reduced tillage field that had very high yield. For winter rapeseed, the gross margins in 2019 varied between 562 €/ha in no tillage field and 874 €/ha in a reduced tillage field.

No-till fields incurred higher direct costs, particularly for wheat in 2020, which resulted in lower profitability in comparison with reduced tillage. Wheat production was more profitable for farmers in comparison with winter rapeseed production in the cases studied due to lower input costs and high yields in the year studied.



1. The average gross margin (€/ha) by crop and tillage method.

KEYWORDS

Farm profitability, gross margin, no tillage, reduced tillage.

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