

SoildiverAgro project

Adoption of new management practices to increase crop production and quality



THE WHAT AND WHY

Farmers' perceptions on advantages and disadvantages of no tillage

While conventional tillage has been the most common cultivation technique in Estonia, the last decade has seen a trend towards less intensive management practices. The qualitative interviews with 7 farmers in Nemoral region discussed the farmers' experience with no tillage. The arable land of the farms ranged from 700 ha to 4000 ha and with a mix of different soils, the farmers decide on tillage practice based on the exact soil conditions of specific fields and combined the use of no tillage, minimum and conventional tillage. The farmers were well aware of environmental advantages of no tillage such as the less soil disturbance, lower environmental and carbon footprint, conservation of soil structure, improved water infiltration, increase of organic matter. Time and input savings and thus lower costs were significant considerations

for the use of no tillage. The biggest problems with no tillage are controlling the weeds and higher need for plant protection products. The farmers' views were that it is not well suited for organic farming, grasslands or seed farming. The additional disadvantages were lower yields, lack of long-term traditions, need for more specific knowledge on timing of field works and herbicide use and concerns about controlling the quality, costs, and lack of suitable technical solutions for no till in different types of soils and for different production practices. Specialist knowledge sharing and dissemination could help to address the farmers' concerns. However, as specific conditions change from year to year and the farmers cultivate various types of soils, the choice of tillage practice should be adapted to the specific conditions of the fields.



1. No-tillage field in Tartu county, Estonia. Photo Sutri, M.

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