Agroforestry: Can trees change aggregate stability?
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Agroforestry: Can trees change aggregate stability?

**Why?**
Soil erosion in farmlands is a major cause of water quality degradation and reduced crop production potential throughout the European countries.

**Soil erodibility** is the ability of soils to resist erosion, assessed by measuring soil aggregate stability (Le Bissonnais 1996).

Soil aggregate stability can be positively correlated to soil organic matter content, roots presence, and soil biota (Graf and Menasseri 2013).

In agroforests, if the role of tree lines as physical barriers to runoff is easily understood, processes involving rooting systems and soil erodibility are still unknown.

**Objectives**
- Do the presence of a tree line improve soil aggregate stability?
- What are the mechanisms underlying?

**Are there effects of the tree line on soil aggregate stability?**

**What factors drive the soil aggregate stability?**

**Then... what next?**

- Most of sites are too young to reveal a distance effect to the line. **new sampling design with hedges**
- Next analysis to better explain our results: Soil organic matter content / Root morphological traits / Microbial activity & metabolic diversity