

Organic amendments - farmyard manure application



Farmyard manure application:

- every 3rd year
- application rate 35 t/ha
- before maize in the rotation
- buried by ploughing immediately after spreading

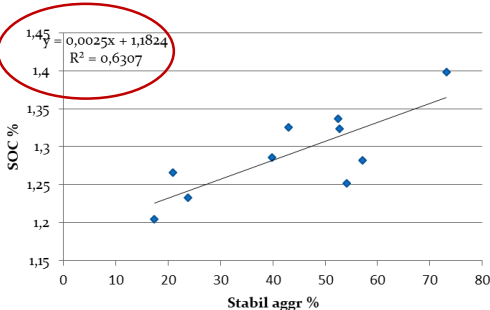
Organic matter loss and physical degradation



Less organic colloids lead to:

- poorer structure and poorer aggregate stability
- unfavourable soil water/air management characteristics
- low microbial activity
- more fuel consumption for cultivation

Scientific evidence



A relatively strong correlation was found between the ratio (%) of stable soil aggregates and soil organic carbon content (SOC)

	variants of organic amendments			LSD5 %
	mineral NPK (control)	mineral NPK + FYM	mineral NPK + straw	
SOC (%)	1,13	1,29	1,14	0,04
Microbial Biomass Carbon (mg C kg ⁻¹ soil)	143	218	164	19

Organic amendments, especially farmyard manure (FYM) application resulted in higher soil organic carbon (SOC) and microbial biomass

Location of demonstration site



The demonstration site is located in the western part of Hungary, in the Pannonian Region under a southern sub-continental climate.

Soil class: Eutric Cambisol

Long-term annual precipitation: 683 mm

Long-term annual mean temperature: 10.5 °C

Further details about farmyard manure application

The farmyard manure applied in the study site is a mixture of cattle, pig and horse manure, with cattle manure being dominant.

The manure itself should be stored and matured carefully, weed infestation during storage should be avoided, otherwise the manure itself can be a source of weeds in the field.

After spreading, manure should be buried immediately in order to avoid nutrient loss (mainly ammonia NH_3 to the atmosphere). After ploughing the soil surface should be cultivated to reduce surface exposed to atmosphere and solar radiation.



**Earthworms like
organic matter too!**



ISQAPER
Interactive Soil Quality Assessment

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