LTE „IOSDV“ Rauischholzhausen, Justus Liebig University Giessen

IOSDV: International Organic Nitrogen Long-Term Fertilisation Experiment

Responsible: Prof. Dr. Bernd Honermeier (till 2021), Justus Liebig University Gießen, Institute of Agronomy and Plant Breeding I, Chair of Agronomy & Crop Physiology.
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Beginning: 1984, still running until now

Soil and Climate

Mean annual precipitation 576 mm, Mean annual temperature 8.5 °C.
Soil type: Haplic Luvisol (*IUSS Working Group WRB*, 2014), developed from quaternary loess deposits. Texture: loamy texture, average clay content of 36%, Corg: 1.3 – 1.5%, pH about 7.7

Experimental Design

3 factors: **A**: crops (Maize, Winter wheat, winter barley), all three crops parallel in each year, **B**: mineral N fertilization (1: zero/control, 2: 50 kg N, 3: 100 (50+50) kg N, 4: 150 (100+50) kg N, 5: 200 (100+50+50) kg N/ha, **C**: organic fertilization: 1: control, 2: FYM (every third year to maize), 3: straw+ 50 kg N, digestate, catch crops/+ 50 kg N)
Number of replications: 3

References

Wang, Y., Bauke, S., von Sperber, C., Tamburini, F., Guique, J., Winkler, P., Kaiser, K., Honermeier, B., Amelung, W. (2021): Soil phophorus cycling is modified by carbon and nitrogen fertilization in a long-term field experiment. Journal of Plant Nutrition and Soil Science, DOI: 10.1002/jpln.202000261.

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