

LTE „Reduced Soil Tillage“ Rauschholzhausen, Justus Liebig University Giessen

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: 1999/2000, 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: 1.1 – 1.5%, pH about 7.5

Experimental Design

Four treatments

1. Conventional tillage: plowing until 30 cm deep
2. Reduced tillage: cultivator until 20-25 cm deep
3. Reduced tillage: cultivator until 10-15 cm deep
4. No tillage, conservation tillage, direct sowing

Strip plot design, Replications: 4 but only within the strips

Strips area: 9 m x 200 m, plot area 10 m².

Crop rotation: not fix, mostly Maize – Wheat - Wheat. One crop per year.