Results and Discussion

Objectives

- To determine climatic and crop management drivers for each crop.
- To establish the three crop rotation carbon (C) budgets and to analyze the different budget terms.
- To investigate the role of intercrops in the C budget.

Methods

- Eddy-covariance measurements over the crop (2.8 m): sonic anemometer (Solent Research Gill R3) + infrared gas analyzer (LI-COR Li-7200)
- Measurements active since 2004
- Crop biomass samplings
- Usual EC corrections applied
- Data gap-filling and flux partitioning based on air temperature with the online tool provided by the MPI-BGC Jena (www.bgc-jena.mpg.de/~MDIwork/eddyproc/)

Overall, our results show that, on average, LTO behaves as a C source of 87 ± 44 gC m$^{-2}$ yr$^{-1}$, which agrees with what is found at other European crop sites, but represents a large proportion of the C stock at LTO.

Validation by soil inventories is foreseen.

Contact person: Pauline Buysse, PhD (paulinebuysse@gmail.com)