Workshop on the use of RothC for simulation of soil organic carbon

The course will be conducted by Roberta Farina, with Costanza Andrenelli and Claudia Di Bene leading a lesson on the RothCIS tool for spatial data analysis.

5-7 September 2023
CREA-Research Centre for Agriculture and Environment, via della Navicella 2-4, Rome, Italy

Agenda
First Day (5th of September)

Time	Subject
14:00 – 17.30	Roberta Farina
14.00 – 14.15	Meeting at CREA-Agriculture and Environment
14.15 – 14.30	Welcome and meeting introduction
14.30 – 14.45	The importance of soil organic carbon
14.45 – 15:00	Overview of soil C models
15:00 – 15.20	The RothC model
15:20 – 16:00	Model description and equations used
16.00 - 16.15	**Coffee break**
16:15 – 16:25	Data requirement
16:25 – 17:30	First run of the model (files organisation)

Second day (6th of September)

Time	Subject
09:30 – 13.00	
9:30 – 10.30	DOS/WIN original version (dataset preparation, initialization, run, outputs display)
10:30 – 10:45	**Coffee break**
10.45 – 11.45	SoilR (dataset preparation, initialization, run, outputs display)
11.45.- 12:45	Excel version (dataset preparation, initialization, run, outputs display)
12:45 – 13.45	**Lunch break**
13:45 – 14:45	Excel version (dataset preparation, initialization, run, outputs display)
14.45 – 15:45	RothCIS (Claudia Di Bene and Costanza Andrenelli)
15.45 – 17.00	Output analysis and model performance evaluation

Third day (7th of September)

Time	Subject
09:30 – 13.00	
9:30 – 10.45	Examples of simulations (bring your own data!)
10:45 – 11:00	**Coffee break**
11.00 – 12:45	Examples of simulations (bring your own data!)
12.45 – 13.00	Recap and last comments

What you should bring:

Your PC

Before the course is advisable to:

-Download RothC from https://www.rothamsted.ac.uk/rothamsted-carbon-model-rothc in both versions DOS and WIN and install them. If you have problems, please let me know and we try to fix it (possibly arrive earlier the 5th morning)

-Download and install Rstudio in your PC

-Prepare your own file of climate and C inputs to soil (I'll send you separately the format)

Fine tuning" of the inputs, initiation (spin-up) and potential model calibration for carbon offset projects

In a separate file you'll find all information to reach us