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Case study linked to the theme of the FG on SOM in Mediterranean soils

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ENVIRONMENT AND DEVELOPMENT



13-14 April 2021
EIP-AGRI Seminar 'Healthy soils for Europe:
sustainable management through knowledge and practice'

Operational Group: ECOMONTADO XXI, agroecology applied to the design of the new Montado

Montado – silvo-pastoral system combining forestry, livestock breeding and important ecosystem services.

The problem – It develops in Mediterranean climate, with hot, dry summers and some rainfall in the colder season.

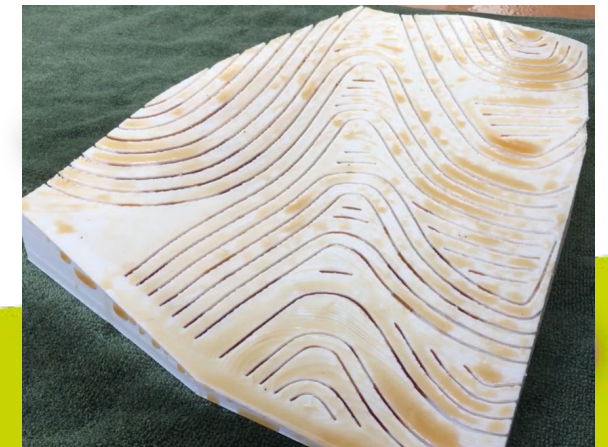
Climate change is causing more frequent droughts and higher temperatures that result in loss of soil organic matter, making soils more prone to erosion and compromising the system vitality.

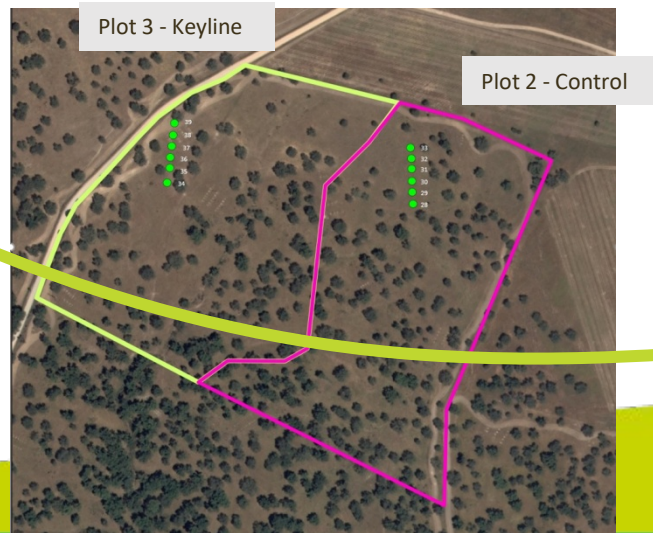
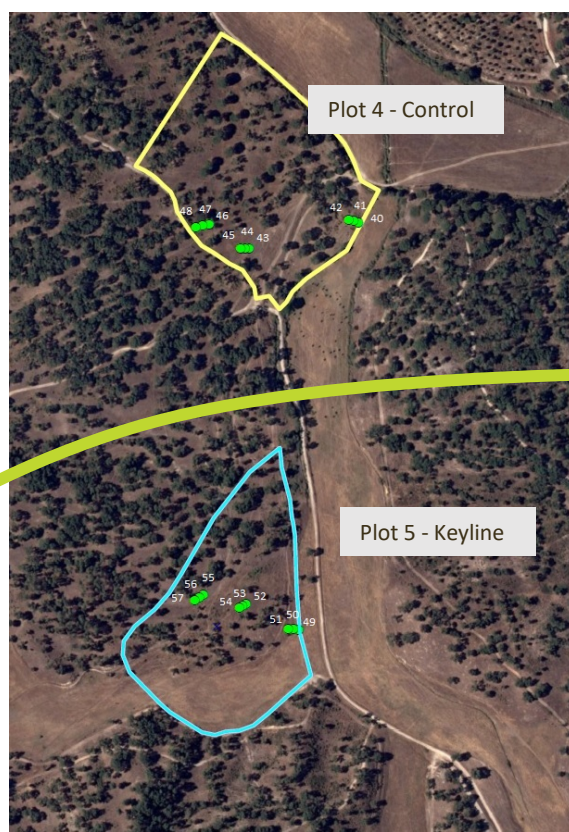
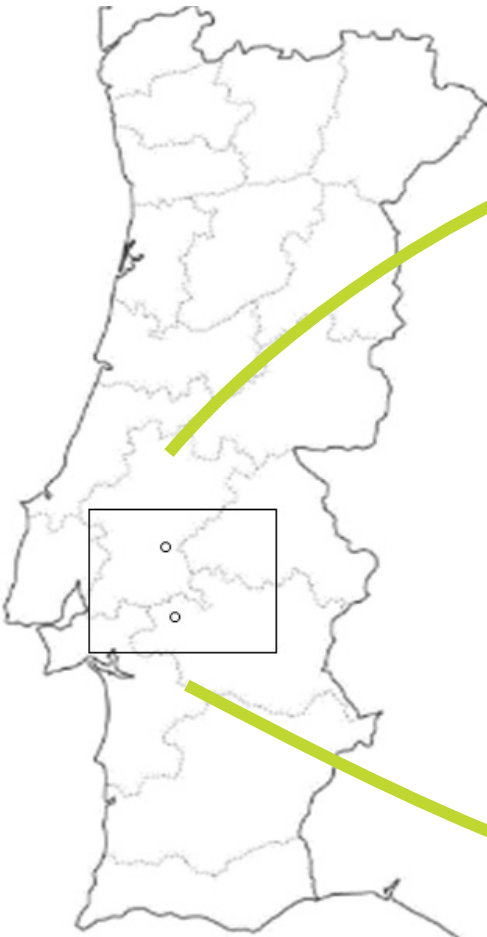


Keyline as a solution

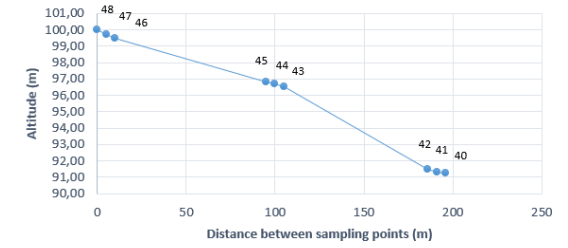


Keyline is an agricultural system developed by Percival Alfred Yeomans (PA), in Australia

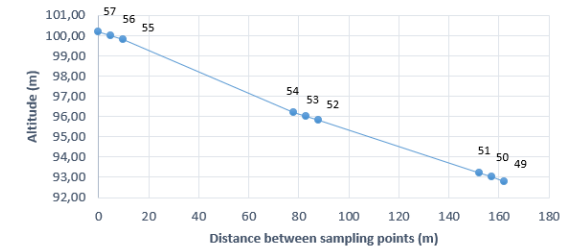




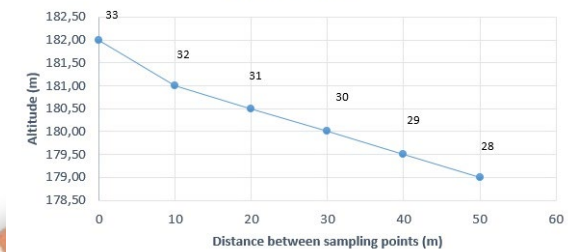
Location of sampling points in Section 6 | Plot 4 HMG



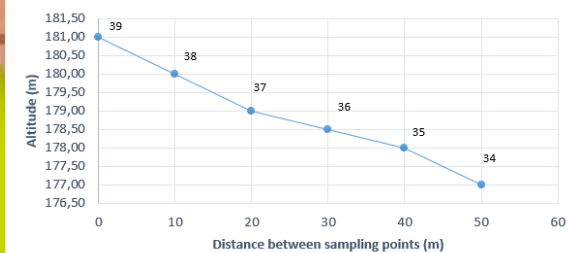
Location of sampling points in Section 7 | Plot 5 HMG



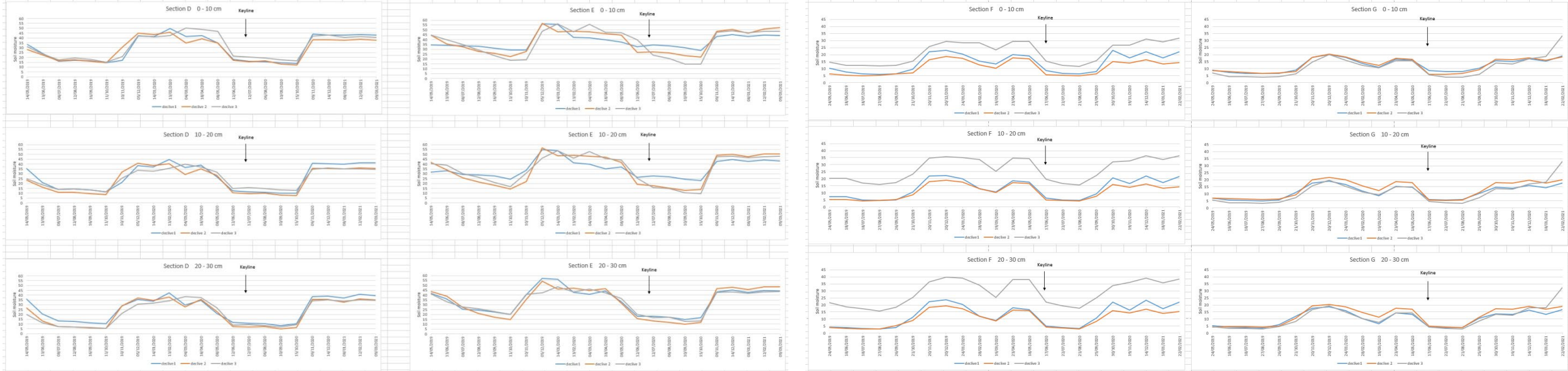
Location of sampling points in Section 4 | Plot 2 HFM



Location of sampling points in Section 5 | Plot 3 HFM



Preliminary results

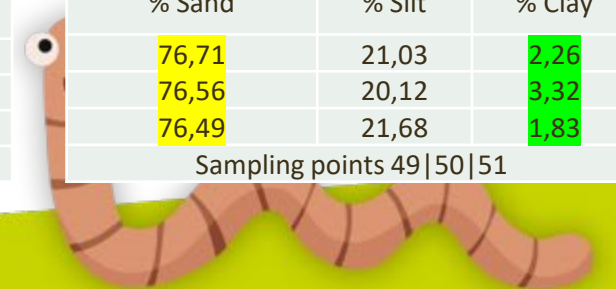


% Sand	% Silt	% Clay
69,15	12,95	17,89
70,46	12,06	17,49
45,95	11,78	42,27
Sampling points 28 29 30		

% Sand	% Silt	% Clay
71,81	7,09	21,09
43,55	18,12	38,32
43,40	23,96	32,65
Sampling points 34 35 36		

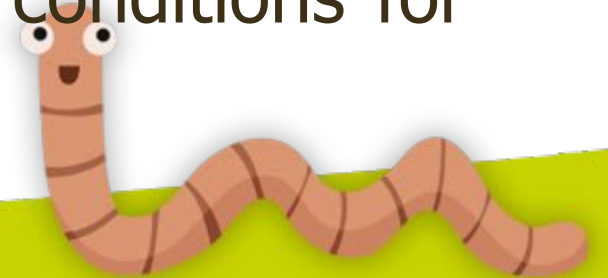
% Sand	% Silt	% Clay
69,86	17,34	12,80
74,11	14,91	10,98
75,68	19,02	5,31
Sampling points 40 41 42		

% Sand	% Silt	% Clay
76,71	21,03	2,26
76,56	20,12	3,32
76,49	21,68	1,83
Sampling points 49 50 51		



Key learnings for other farmers

- The Keyline project must be carried out by an expert, who will also help establish it on the ground;
- Subsequent activities should be done based on the keylines marked on the ground;
- This method is well suited to open areas where the Yeoman plough can work without restrictions such as tree roots;
- On poorly drained soils, Keyline can improve drainage and moisture retention in the drier period, improving conditions for new crop establishment.



EIP-AGRI seminar

Healthy soils for Europe: sustainable management through knowledge and practice

Online – 13-14 April 2021

All information of the seminar is available on
www.eip-agri.eu

On the event webpage
<https://ec.europa.eu/eip/agriculture/en/event/eip-agri-seminar-healthy-soils-europe-sustainable>

