



ClieNFarms
Climate Neutral Farms

ClieNFarms EIP-AGRI Practice Abstracts

Use of improved inter-rows on olive groves, as a solution to increase carbon sequestration

Isabel Ribeiro, Ana Seabra (Nutrifarms)

The maintenance of permanent inter-row cover with spontaneous vegetation is a common practice in modern olive groves in the Alentejo.

However, the quantity and diversity of vegetation between the rows tends to degrade over the years. This is due to soil compaction by the repeated passage of machinery and actions of cutting the vegetation and destroying pruning wood before or during the flowering season.

It is believed that maintaining cover vegetation between the rows of the olive grove can support soil and water conservation. As such, we decided to sow a biodiverse meadow in the inter-row to improve the quantity and quality of vegetation present and to support soil functions. In a parcel of the Demonstration Farm Outeiro, it was sowed a seed mixture of legumes, grasses, umbelliferous and crucifers adapted to the soil and climate conditions of the site. Before sowing, the soil was tilled with disc harrow and chisel passes.

The evolution of the improved inter-row will be compared with a control plot where the spontaneous inter-row is maintained. It's expected that implementing this measure will contribute to an increase in Carbon sequestration, improved soil structure and fertility and reduced losses by mineralization and erosion.

Another expected outcome is the improvement of water infiltration into the soil, which consequently improves the transactability of machinery at times of the year when there is more humidity in the soil as well as improved biodiversity in the inter-row.



Figure 1: Permanent biodiverse meadow in the inter-row of an olive grove in the Alentejo region.



ClieNFarms
Climate Neutral Farms



THIS PROJECT HAS RECEIVED FUNDING FROM
THE EUROPEAN UNION'S HORIZON 2020
RESEARCH AND INNOVATION PROGRAMME
UNDER GRANT AGREEMENT NO 101036822

-  cliefarms.eu
-  twitter.com/ClieNFarms
-  www.linkedin.com/company/cliefarms/
-  www.facebook.com/clieNFarms
-  www.youtube.com/@cliefarms2778/featured