https://doi.org/10.7250/CONECT.2024.063

CARBON FARMING: A SYSTEMATIC LITERATURE REVIEW ON SUSTAINABLE PRACTICES

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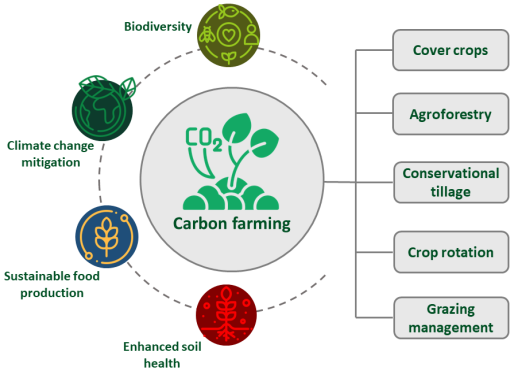
Abstract – The European Union (EU) aims to reduce its greenhouse gas emissions by at least 55 % by 2030. As the goal for 2030 is already set, and now it is challenging to reach a 55 % reduction of greenhouse gas (GHG) emissions, the goals will become more challenging as the EU plans to reach climate neutrality by 2050. As the EU's Climate goals become more ambitious, the countries have to adapt and find more potential ways to decrease GHG emissions in all sectors. One of the biggest contributors to GHG in the EU is the agricultural sector. One of the potential ways to reduce GHG emissions in the agricultural sector is carbon farming. Carbon farming is a sustainable agricultural approach designed to sequester carbon dioxide from the atmosphere and mitigate climate change. By employing regenerative practices, carbon farming enhances soil health, promotes biodiversity, and reduces GHG emissions. Carbon farming emerges as a key player in the global effort to combat climate change. The integration of carbon farming practices into agriculture not only can ensure sustainable food production but also underscores the critical role agriculture can play in sequestering carbon and building resilience against the challenges posed by a changing climate. Even though carbon farming has the potential to decrease GHG emissions from the agricultural sector and sequester carbon, there are still knowledge gaps on how to assess carbon farming practices and their potential carbon sequestration, as well as which practices the farmers could use to gain the best possible outcome based on the carbon practice feasibility and sustainability. The study aims to develop a systematic literature review that assesses the main carbon farming practices and their potential to help reach climate goals and contribute to climate change mitigation.

Keywords – Agriculture; carbon sequestration; climate change mitigation; systematic literature review.



Carbon farming practices and their potential benefits.

ACKNOWLEDGEMENT

This research has been done within Fundamental and Applied Research Project "Carbon farming Certification system: The transition towards result-based agriculture sector (CarbFarmS)", project No. lzp-2023/1-005, funded by the Latvian Council of Science.