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# CARBON FARMING: CALCULATION OF EMITTED AND SEQUESTERED CARBON FOR AN AGRICULTURAL ENTERPRISE. FIELD FARMING

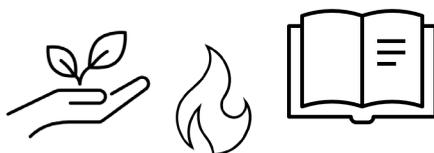
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**Abstract** – Achieving climate neutrality and reducing atmospheric emissions are more critical than ever. Since the agricultural sector is one of the largest contributors to global carbon emissions, the concept of carbon farming is being explored – reducing carbon emissions and sequestering carbon in plants, soil and water. This study combines information from existing research about carbon sequestration with perennial crops and operational data from an agricultural enterprise with a laboratory experiment to assess the carbon dioxide sequestration potential of sea buckthorn plants at different stages of growth. Data obtained from the experiment combined with information about field size, crop yields and resource consumption from an agricultural enterprise, are used to calculate field carbon dioxide balance over the last two harvest seasons. The findings identify key factors influencing sustainable outcomes and propose practical recommendations to enhance sustainability in agricultural systems.

**Keywords** – *Carbon-connected agriculture; carbon dioxide (CO<sub>2</sub>) sequestration; carbon farming; perennials; sea buckthorn.*



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