

Farm CO2Sink - C sequestration and GHG emissions reduction at farm level

Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

Farm CO2Sink

Tematica

Impronta carbonica

Information

Time frame

2018 - 2021

Durata

36 months

Partners (no.)

7

Regione

Emilia-Romagna

Comparto

Forestale

Localizzazione

ITH51 - Piacenza

Costo totale

€196.278,41

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP003: Italy - Rural Development

Programme (Regional) - Emilia Romagna

Parole chiave

Landscape /land management

Soil management / functionality

Farming equipment and machinery

Farming practice

Forestry

Agricultural production system

Sito web

http://farmco2sink.crpa.it/nqcontent.cfm?a_id=19589&tt=t_bt_app1_www

Project status

completed



Objectives

The aim of Farm CO2Sink is to quantify the C sequestration potential at farm level and the reduction of GHG related to the adoption of a series of sustainable agricultural practices.

Across a latitudinal gradient going from Po floodplain to the mountainous areas of Piacenza province, the CO2 sink potential will be evaluated for the following agricultural practices:

- A. SRF poplar grove along Po floodplain (during establishment and after re-conversion to arable land);
- B. Perennial herbaceous and SRC woody crops (re-conversion to arable land);
- C. Contour strip-cropping with miscanthus in underutilized hilly areas
- D. mountain beech forest (conversion of beech coppice to high forest)

Activities

Action 1 Project management.

Action 2 Data collection and inventory.

Action 3 Adoption of sustainable farming practices aiming at sequestering C in agricultural and forestry sector.

Action 4 C balance at farm level and assessment of carbon footprint.

Action 5 Dissemination and divulgation.

Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Università Cattolica del Sacro Cuore - Dipartimento di Scienze delle produzioni vegetali sostenibili (DI.PRO.VE.S.) - Piacenza	Via Emilia Parmense 84 29122 Piacenza PC Italy	0523 599269	diproves-pc@unicatt.it
Partner	Azienda Agricola Buschi Fratelli	Cascina Valentino 26026 Pizzighettone CR Italy	328 8729635	azbuschi.fratelli@libero.it
Partner	Gruppo Bassanetti	Via Granelli 15/a S. Nazzaro 29010 Monticelli D'Ongina PC Italy	0523 815001	bebsrl@dadapec.com
Partner	Consorzio agro-forestale dei Comunelli di Ferriere	Via Milano 1 29024 Ferriere PC Italy	333 5025972	info@consorziodiferriere.com
Partner	C.R.P.A. S.p.A.	V.le Timavo 42/2 42121 Reggio Emilia RE Italy	0522 436999	info@crpa.it
Partner	Quagliaroli	Rocca dei Folli 29024 Ferriere PC Italy	0523 922293	info@roccadeifolli.com
Partner	Consorzio Comunalie Parmensi	Via Nazionale 90 43043 Borgo Val di Taro PR Italy	0525 90155	info@comunalie.com

Pratiche abstract

Description

Farm CO2Sink aims to compare, for four land uses in the Piacenza province, the C sequestration potential at farm level of a conventional management system with high environmental impacts with a conservative and sustainable management system. The conservation practices addressed within Farm CO2Sink are based on the reduction of inputs and aim to sequester C into the agricultural soil and to reduce the farm carbon footprint by lowering GHG emissions throughout the life cycle (from cultivation to final product).

Specifically, in the Po floodplain, we want to show through the calculation of a C balance at farm level as the sustainable

management of agricultural soils associated with the cultivation of perennial biomass crops (herbaceous and woody) promotes an active balance of the soil organic matter. This result wants to be achieved not only for the establishment phase and during the cultivation phase (through inter-row cover cropping with mixture of perennialspecies) but after the re-conversion to arable land through the maintenance of a positive balance of the soil C sequestered during the whole crop lifespan of perennial crops.

In the in the mountainous areas, instead, we expect that the LCA study and its related ecodesign show a strong reduction in carbon footprint related to some of the end-productsalternative to direct combustion addressed in Farm CO2Sink such as the thatched house (from miscanthus biomass from contour strip-cropping) and wood furnishing products (fromharvested wood products of beech high forest).

Link utili

Titolo/Descrizione	Url	Tipologia
Pagina web del progetto	http://farmco2sink.crpa.it/nqcontent.cfm?a_id=19589&tt=t_bt_app1_www	Sito web
Video - "Prova sperimentale del progetto"	https://www.youtube.com/watch?v=4oma0sOGRck	Materiali utili
Video - "Pratiche agricole conservative nel pioppeto"	https://www.youtube.com/watch?v=wKK-4w5GU_4	Materiali utili
Video - Semina di Soia con seminatrice da sodo	https://www.youtube.com/watch?v=1T7x95jtUX4	Materiali utili
FarmCO2Sink in TV	https://www.youtube.com/watch?v=Fb43DqC78y0	Materiali utili
Comunicato stampa sulla conclusione del progetto	http://farmco2sink.crpa.it/nqcontent.cfm?a_id=22006	Materiali utili