Enhancement of forest residues for carbon storage

Riferimenti
Tipo di progetto
Gruppo Operativo

Acronimo
Res4Carbon

Tematica
Impronta carbonica

Information
Time frame
2019 - 2022

Durata
36 months

Partners (no.)
12

Regione
Veneto

Comparto
Forestale

Localizzazione
ITH33 - Belluno
ITH34 - Treviso
ITH36 - Padova

Costo totale
€352.894,04

Fonte di finanziamento principale
Programma di sviluppo rurale

Programma di sviluppo rurale
2014IT06RDRP014: Italy - Rural Development Programme (Regional) - Veneto

Parole chiave
Farming/forestry competitiveness and diversification
Fertilisation and nutrients management
Soil management / functionality
Waste, by-products and residues management
Forestry

Sito web
https://www.res4carbon.com/

Project status
completed

Objectives
The Res4carbo project was born with the aim of solving the problem of the disposal of residues and waste generated by the wood energy chain. Specifically, the residual wood residue from the sieving of the wood chips, the combustion ash and the gasification char of the wood. Today these elements are a problem for the quality of the fuel on the one hand and a waste that must be disposed of on the other.
Given the chemical-physical characteristics of these elements of interest for the composting and fertilization sector, the feasibility of being able to direct them to composting will be studied.

Activities
The project foresees three macro-periods of activity.
The first, "Plan and Do" provides for a period of discussion between partners, sponsoring entities and companies in the supply chain to plan the basic architecture of the platform.
The second, "Check and Action", foresees the planning and execution phase of the woodland construction sites, the experimental activities of material separation, the collection of residues and the study (analysis) of their use as compost.
The third, "Dissemination Activities", provides for the dissemination and presentation of results together with the control, coordination and reporting of the project progress of the phase.

Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Biomass Green Energy srl	Via Garibaldi, 32 35028 Piove di Sacco PD Italy	049 5310333	info@biomassgreenenergy.com
Partner	Azienda agricola Guerra Renato	Via Nuova Moglianese, 29 30030 Peseggia di Scorzè VE Italy	393864773	aziendaguerra@hotmail.com
Partner	Lunazzurra Cooperativa Sociale	Viale dell'Industria, 3 35026 Conselve PD Italy	049 9708585	segreteria.generale@lunazzurracoop.it
Partner	Varet di Dal Farra Corrado	Via Madeago, 209 32100 Belluno BL Italy	320 0693768	info@varet.it
Partner	La Meccanica srl di Reffo	Via Padre Nicolini, 1 Cittadella PD Italy	049 941 9000	lameccanica@lameccanica.it
Partner	Società Estense Servizi Ambientali spa	Via Comuna, 5/B 35042 Este PD Italy	0429 612773	compost@sesaeste.it
Partner	Confagricoltura Treviso	Via Feltrina, 56/B (TV). 31038 Castagnole Paese TV Italy	0422 410135	treviso@confagricoltura.it
Partner	Agrimpresa Veneto srl	Via Feltrina, 56/B (TV). 31038 Castagnole Paese TV Italy	0422 954611	

Role	Azienda	Address	Telephone	E-mail
Partner	Consorzio Imprese Forestali del Triveneto CIFORT	Viale Venezia, 17/19 32036 Sedico BL Italy	0437 858537	info@ecosinergia.eu
Partner	AIEL - Associazione italiana energie agroforestali	Viale dell'Università, 14 35020 Legnaro PD Italy	0498 830722	segreteria.aiel@cia.it
Partner	PEFC Italia	Via Pietro Cestellini, 17 06135 Ponte San Giovanni PG Italy	075 7824825	info@pefc.it
Partner	Università degli Studi di Padova - Dipartimento Territorio e Sistemi Agro-forestali	Viale Università 16 35020 Legnaro PD Italy	049 8272728	ricerca.tesaf@unipd.it

Pratice abstract

Description
The Res4carbon project is built around the design idea that sees as a general objective the enhancement, from an environmental and economic point of view, of the consumption of the utilizations of the mountain forest areas and of the lowland arboreal belts, as well as of the by-products of the wood-energy chain. The valorisation of the residues is aimed at making an improvement contribution to the soil thanks to the processing of the same residues through the contribution of organic carbon and nutrients.
Along the path of the forest-wood and wood-energy supply chains, waste or residues are generated which currently present a difficult location on the market or consistently constituted by a disposal problem, but which, due to their chemical-physical properties, are used to be valued as a fertilizer / soil conditioner product; specifically these are the following elements:
- Residue from the separation / sieving (of the sieving) of the shredded or chipped material from forest use and river cleaning and management of wooded areas and plantations, mainly whole broad-leaved plants mixed in the lowland context and coniferous cymes in the mountain context;
- Biochar as a residue from the gasification of virgin wood biomass in pellet or wood chip gasification plants;
- unburnt ash as a residue from the combustion of virgin wood biomass in wood chip boilers.

Description
The innovation of the design proposal, presented by the GO, consists in the development of a new management of the operational processes that can lead to the creation of a new product, the result of the characterization and enhancement of by-products and residues / waste generated at multiple levels of the wood-based supply chain. power.
The general objective of innovation is to create an innovative soil conditioner product, obtained by intercepting the various residues available at various levels in the production chain. Product innovation will allow to enhance - from an environmental and economic point of view - the chemical-physical characteristics of the intercepted elements, thanks to the processing, conditioning and mixing of the same. The actions will translate into greater carbon conservation and sequestration, better

soil fertility and increased carbon stock capacity which will then be reintroduced in subsequent vegetative cycles in the agro-forest context.

Link utili

Titolo/Descrizione	Url	Tipologia
Sito web del progetto	http://https://www.res4carbon.com/	Sito web
Video Youtube progetto Res4carbon	https://www.youtube.com/channel/UCibdm6LKvQimutSEd14u62A	Link ad altri siti che ospitano informazioni del progetto
La Meccanica	https://www.lameccanica.it/it/news/fiere-eventi/il-progetto-res4carbon-presenta...	Link ad altri siti che ospitano informazioni del progetto
Confagricoltura Treviso	http://www.confagricolturatreviso.it/progetti/res4carbon-valorizzazione-dei-res...	Link ad altri siti che ospitano informazioni del progetto
PEFC	https://www.pefc.it/cosa-facciamo/il-nostroimpegno- collettivo/i-progetti-del-p...	Link ad altri siti che ospitano informazioni del progetto
TESAF - UNIPD	https://www.tesaf.unipd.it/res4carbon	Link ad altri siti che ospitano informazioni del progetto
Youtube channel	https://www.youtube.com/channel/UCibdm6LKvQimutSEd14u62 A	Materiali utili