



DISCOVER BIO4A RESULTS AT THE EUROPEAN BIOMASS CONFERENCE AND EXHIBITION 2023

This June the BIO4A project comes to its end and many of its final results will be presented during the upcoming European Biomass Conference and Exhibition (EUBCE) which will take place from 5 to 8 of June in Bologna and online. Here is a recap of the presentations that you cannot miss.

BIO4A IN THE OFFICIAL EUBCE OPENING SESSION - IS CARBON THE ENEMY?

PRESENTER: CALOGERO SCHILLACI - MONDAY 5 JUNE 9.00-10.00 CEST

The official Opening of the 31st EUBCE will host a plenary session titled *Is Carbon the Enemy? What would the EU do without it?* The session will be co-chaired by David Chiaramonti, Polytechnic of Turin/ RE-CORD and BIO4A project coordinator, and will feature also a presentation by Calogero Schillaci, Scientific project officer at the Joint Research Centre JRC of the European Commission, dealing with land degradation, agronomy, soil mapping, and crop modelling at the regional scale. Calogero is partner in BIO4A where he has developed extensive research on the mapping potential Camelina yield and environmental sustainability in the EU Mediterranean region for advanced biofuel production. This plenary session will be free for attendance and streamed.



5 - 8 June 2023
Bologna, Italy



EUBCE Monday Opening Plenary Session Theme: Is Carbon the Enemy? What Would the EU Do Without it?

Monday, 5 June 2023, 09:00 CEST



Chair
DAVID CHIARAMONTI
Politecnico di Torino,
DENERG Dpt.,
ITALY



Chair and Panelist
MICHAEL CARUS
nova-Institut GmbH,
GERMANY



Panelist
ANDRÉ
FAAIJ
ECN part of TNO,
University of Groningen,
THE NETHERLANDS



Panelist
MARIA MICHELA
MORESE
FAO,
ITALY



Panelist
CALOGERO
SCHILLACI
EU Commission,
JRC,
ITALY



Panelist
ANA MARIA
BRAVO-ANGEL
International Flavors
& Fragrances,
BELGIUM

USE OF BIOCHAR AS SOIL AMENDMENT ON CAMELINA SATIVA YIELD FOR SUSTAINABLE OIL PRODUCTION

PRESENTER: TOMMASO BARSALI

TUESDAY 6 JUNE 9.00 CEST - EUBCE SESSION 1.BO.1



The use of biochar as a soil amendment is a sustainable agronomic practice to increase the fertility and carbon sequestration of marginal lands, often left to abandonment due to low resilience and high risk of desertification and erosion.

According to REDII, in the context of the low-ILUC biofuel production, the use of biochar into the agro-energy system represents a strategic approach to increase biomass yield, improve soil carbon stock, mitigate and adapt to climate change at the same time.

In this study, biochar from ligno-cellulosic feedstock was tested as a soil amendment in open field trials, alone or mixed with compost, and compared with compost alone and mineral fertilisation only.

Field trials were sown with Camelina, an oleaginous crop with favourable traits in terms of resilience to water stress, which can be cultivated on marginal lands for Sustainable Aviation Fuel production.

Two varieties of Camelina were grown simultaneously during the spring-summer period in 2022, in two different locations in Tuscany with different soil texture. Before and at the end of plant cycle, soil was characterized for several physical and chemical properties (e.g. water holding capacity, organic carbon, total and available concentration of macro and micro nutrients). Regarding Camelina, biomass, seed, oil yields and several oil qualitative attributes were determined. Soil in both locations was treated with the same agronomic practices in terms of tillage, sowing density, fertilisation rate. The emergence rate of both Camelina varieties were influenced by soil texture; differences in rainfall strongly influenced plant growth and seed yield.

The highest seed yield performances in both locations and for the two varieties were found when biochar and compost were applied. Biomass productivity followed the same trend, confirming a good suitability of the biochar and compost-mix as an amendment to support plant growth and development. Analyses of the soil and the qualitative determination of the oil are still in progress and their outcome will allow further investigation into the possible influence of biochar on the physical chemical fertility of the soil and the quality of the oil.



SAF AND LOW-ILUC RISK BIOMASS FEEDSTOCK: THE BIO4A PROJECT

PRESENTER: DAVID CHIARAMONTI

THURSDAY 8 JUNE 13.00 CEST



This presentation will provide an extensive overview of the results and the milestones achieved by the BIO4A partners in the production, blending and distribution of SAF at kilotonnes scale. It will also illustrate the challenges and solutions for the deployment of feedstock alternatives to waste lipids and oils, obtained from low ILUC risk agricultural biomass, from HEFA pathways.

These solutions require a synergistic policy and agro-industrial approach to reconcile SAF deployment at scale with carbon removal and soil health, for carbon neutrality and the other objectives of the EU Green Deal. The presentation is part of the EUBCE side event **Upscaling the production of low ILUC risk biomass feedstock for the bioeconomy**, jointly organized by BIO4A and BIKE projects.

AGENDA

Introduction and overview of BIKE

A. Salimbeni, RE-CORD

The policy context for low-ILUC risk biofuels

C. Malins, Cerulogy- G. Vourliotakis Exergia

Evidences from the BIKE case studies

E. Alexopoulou, CRES

Replicability potential assessment of the BIKE case studies in Europe

C. Borch, RE-CORD


The certification scheme developed in BIKE


P. Hawighorst, ISCC

SAF and low-ILUC risk biomass feedstock: the BIO4A project

D. Chiaramonti, POLITO/RE-CORD



Discussion followed by networking Lunch







EUBCE 5th-8th June 2023 - Bologna, Online

FREE EVENT

Upscaling the production of low ILUC risk biomass feedstock for the bioeconomy

 8 June
  11:45- 13:45 CEST

ORGANISED BY:

RECENT EVENT: FUELLING CLEAN AVIATION FOR EUROPE

19 APRIL 2023 - BRUSSELS

SLIDES AND RECORDING AVAILABLE



DG RTD UPDATES FOR RENEWABLE FUELS

MESSAGE FROM CINEA

SCALING-UP SAF PRODUCTION IN EUROPE: LESSONS LEARNT FROM 5 YEARS OF BIO4A

FULL SCALE INDUSTRIAL HVO-SAF PRODUCTION FROM WASTE FEEDSTOCK

MARKET ANALYSIS OF WASTE OILS AND LIPIDS FEEDSTOCK FOR SAF

MARKET OUTLOOK: VISION, POTENTIALS, LIMITATIONS, AND STRATEGY FOR SAF PRODUCTION IN THE EU

ACCELERATING THE IMPLEMENTATION OF INNOVATIVE AND SUSTAINABLE TECHNOLOGIES TO REDUCE EMISSIONS AT AIRPORTS, TULIPS PROJECT

TOWARDS THE FINAL TRILOGUE ON REFUELEU AVIATION: OPPORTUNITIES AND CHALLENGES?

THE ROLE OF AIRPORT REGIONS IN THE NEW GREEN AVIATION ENERGIES

BIOCHAR INFLUENCE ON SOIL SEQUESTRATION POTENTIAL AND PLANT PRODUCTIVITY IN MARGINAL LAND

CULTIVATION OF CAMELINA IN SEMI-ARID LAND WITH A HIGH RISK OF DESERTIFICATION AND SOIL CARBON SEQUESTRATION

MAPPING THE POTENTIAL CAMELINA YIELD AND ENVIRONMENTAL SUSTAINABILITY IN THE EU MEDITERRANEAN REGION FOR ADVANCED BIOFUEL PRODUCTION

SUSTAINABILITY ASSESSMENT OF LOW-ILUC FEEDSTOCK SAF VALUE CHAINS AT SCALE



EVENT

Fuelling Clean Aviation for Europe

Scaling up SAF production towards carbon
neutrality and the EU Green Deal

Slides and recording available



BIO4A Advanced Sustainable Biofuels for Aviation



BIO4A - Advanced Sustainable Biofuels for Aviation is a Horizon 2020 project which addresses the call LCE-20-2016- 2017 - Enabling pre-commercial production of advanced aviation biofuel. The project's aim is to demonstrate the large industrial-scale production and use of sustainable aviation fuel in Europe (HEFA), obtained from residual lipids such as Used Cooking Oil. The project will also implement actions for the market uptake of sustainable aviation fuel, and it will investigate the alternative supply of sustainable feedstocks produced from drought-resistant crops such as Camelina, grown on marginal land in EU Mediterranean areas.



European Commission
Joint Research Centre



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www.bio4a.eu
info@bio4a.eu
[@projectbio4a](https://twitter.com/projectbio4a)