



SWEETFUEL Regional Stakeholder Workshop

Energy Sorghum – An Alternative Energy Crop for Industrial Use

26th June 2013, 10:15 – 15:00

CCH – Congress Center Hamburg, Room [], Hamburg, Germany

on the occasion of the 22nd European Biomass Conference and Exhibition

Programme

(Status: 28 March 2014)



SWEETFUEL is co-funded by the European Commission in the 7th Framework Programme (Project No. FP7-227422) – www.sweetfuel-project.eu

The SWEETFUEL Project

The energy crop sweet sorghum (*Sorghum bicolor* L. Moench) is raising considerable interest as a source of either fermentable free sugars or lignocellulosic feedstock with the potential to produce fuel, food, feed and a variety of other products. Sweet sorghum is a C4 plant with many potential advantages, including high water, nitrogen and radiation use efficiency, broad agro-ecological adaptation as well as a rich genetic diversity for useful traits. For developing countries sweet sorghum provides opportunities for the simultaneous production of food and bioenergy (e.g. bio-ethanol), contributing to increase access to renewable energy sources without compromising food security. In temperate and usually more industrialised regions (e.g. in Europe) sweet sorghum is seen as promising crop for the production of raw material for 2nd generation bio-ethanol or bio-methan.

The project SWEETFUEL (Sweet Sorghum: An alternative energy crop) is supported by the European Commission in the 7th Framework Programme to exploit the advantages of sorghum as potential energy crop for bio-ethanol production. Thereby, the main objective of SWEETFUEL is to breed for improved varieties and hybrids of sorghum for temperate, tropical semi-arid and tropical acid-soil environments. Breeding aims include, depending on region and ideotype, improved tolerance to cold, drought and acid (Al-toxic) soils as well as high production of stalk sugars, easily digestible biomass and grain.

SWEETFUEL outcomes include new germplasm, improvement of cultural and harvest practices as well as commodity chain concepts adapted to target regions within Europe, Latin America, Asia and Africa.

SWEETFUEL Consortium

The SWEETFUEL partnership is coordinated by the Centre International en Recherche Agronomique pour le Développement (CIRAD) from France and comprises the following 10 partners from research, academia and industry:

- CIRAD (coordinator), France
- ICRISAT - International Crops Research Institute for Semi-Arid Tropics, India
- EMBRAPA Maize and Sorghum, Brazil
- KWS SAAT AG, Germany
- IFEU Institute, Germany
- Università di Bologna (UNIBO), Italy
- Università Cattolica del Sacro Cuore (UCSC), Italy
- Agricultural Research Council (ARC) – Grain Crop Institute (GCI), South Africa
- Universidad Autónoma de Nuevo León (UANL), Mexico
- WIP Renewable Energies, Germany

SWEETFUEL Coordination

CIRAD, Centre de coopération internationale en recherche agronomique pour le développement, France

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Workshop Objectives

In this workshop activities and findings of the SWEETFUEL project will be discussed with international stakeholders representing feedstock suppliers, entrepreneurs, NGO's, policymakers, and agricultural research institutions.

Specific emphasis will be placed on the opportunities and challenges of energy sorghum breeding for industrial applications (e.g. biogas and lignocellulosic ethanol production) in Europe.

Workshop Organisation

WIP Renewable Energies, Germany

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Workshop Details

*Conference Venue: CCH – Congress Center Hamburg, Room [], Hamburg, Germany
on the occasion of the 22nd European Biomass Conference and
Exhibition (EU BC&E) in Hamburg on 23-26 June 2014*

Conference Language: English

Registration: <http://www.conference-biomass.com/>

Project website: www.sweetfuel-project.eu



Thursday, 26 June 2014

- 09:45 *Registration*
- 10:15 **Welcome to the Workshop**
RAINER JANSSEN, WIP RENEWABLE ENERGIES, GERMANY
- 10:20 **SWEETFUEL Activities and Results**
SERGE BRACONNIER, CIRAD, FRANCE
- 10:40 **Breeding of Energy Sorghum for Temperate Climates – Industry Perspective**
REPRESENTATIVE OF KWS SAAT AG, GERMANY (TBC)
- 11:00 **Breeding of Energy Sorghum for Temperate Climates – Research Perspective**
GILLES TROUCHE, CIRAD, FRANCE
- 11:20 **Ethanol Production from Sweet Sorghum in Brazil – Industrial Application in the Sugar Cane Sector**
ROBERT SCHAFFERT, RAFAEL PARRELLA, EMBRAPA MAIZE AND SORGHUM, BRAZIL
- 11:40 **Panel Discussion on Sweet Sorghum Valorisation in Semi-arid Tropics – Food and Fuel Production**
MODERATION:
SERGE BRACONNIER, CIRAD, FRANCE
PANNELISTS:
SRINIVAS RAO, ICRISAT, INDIA
FRANCISCO ZAVALA-GARCIA, UNIVERSIDAD AUTÓNOMA DE NUEVO LEÓN, MEXICO
NEMERA SHARGIE, WIKUS SNIJMAN, AGRICULTURAL RESEARCH COUNCIL, SOUTH AFRICA
TBC
- 12:20 *Lunch Break*
- 13:20 **Agronomy of Energy Sorghum in Temperate Climates**
WALTER ZEGADA LIZERAZU, UNIVERSITY OF BOLOGNA, ITALY
- 13:40 **Environmental Assessment of Energy Sorghum in Temperate Climates**
GUIDO REINHARDT, IFEU, GERMANY
- 14:00 **Panel Discussion on Industrial Use of Energy Sorghum in Europe**
MODERATION:
DOMINIK RUTZ, WIP RENEWABLE ENERGIES, GERMANY
PANNELISTS:
REPRESENTATIVE OF ENERGY SORGHUM BREEDING INDUSTRY
REPRESENTATIVE OF INDUSTRIAL BIOENERGY SECTOR (LIGNOCELLULOSE ETHANOL)
REPRESENTATIVE OF INDUSTRIAL BIOENERGY SECTOR (BIOGAS)
REPRESENTATIVE OF EUROPEAN COMMISSION
TBC
- 14:50 **Summary**
RAINER JANSSEN, WIP RENEWABLE ENERGIES, GERMANY
- 15:00 *End of the workshop*