Sweet Sorghum: an alternative energy crop

Fact Sheet

Project Information

SWEETFUEL

Grant agreement ID: 227422

Status
Closed project

Start date
1 January 2009

End date
30 June 2014

Funded under
FP7-KBBE

Overall budget
€ 5 120 946.20

EU contribution
€ 2 967 975

Coordinated by
CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LE DEVELOPPEMENT - C.I.R.A.D. EPIC

France

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RESEARCH*EU MAGAZINE
Preserving our cultural heritage

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Objective

Increasing world market prices for fossil fuels, driven by limited reserves, growing demand and instability in producing regions, now render renewable fuels economical. Such fuels are also a pathway to reducing GHG emissions and mitigating climate change. Bio-ethanol from crop plants is a promising, partial solution to sustainably satisfy the energy demand for road transport. The success of bio-ethanol from sugarcane in Brazil demonstrates proof of concept but cannot be transferred to water-limited or temperate environments. Sweet sorghum, as a source of either fermentable free sugars or lignocellulosics, has many potential advantages, including: high water, nitrogen and radiation use efficiency; broad agro-ecological adaptation; rich genetic diversity for useful traits; and the potential to produce fuel feedstock, food and feed in various combinations. Fuel-food crops can thereby help reconciling energy and food security issues. This project will breed for improved cultivars and hybrids of sorghum for temperate, tropical semi-arid and tropical acid-soil environments by pyramiding in various combinations, depending on region and ideotype, tolerance to cold, drought and acid (Al-toxic) soils; and high production of stalk sugars, easily digestible biomass and grain (WP 1-3). Molecular-genetic and physiological breeding support is given by WP4, and agro-ecological adaptation and sustainable practices are developed by WP5. Other WPs (6, 7, 8) provide for integrated technology and impact assessments including economics, dissemination and coordination. The Consortium is composed of 10 members from France (leader), Italy, Germany, Brazil, India, Mexico and South Africa, including a seed company. Research involves structured participation of stake holders, including policy makers. Project outcomes will be new germplasm, sustainable practices and commodity chain concepts adapted to each target region. The duration of the project is 5 years.

Field of science

/social sciences/economics and business/economics/sustainable economy
/social sciences/economics and business/economics
/social sciences/economics and business
/engineering and technology/environmental engineering/energy and fuels/renewable energy
Programme(s)

Topic(s)

Call for proposal

FP7-KBBE-2008-2B

Funding Scheme

CP-SICA - Collaborative project for specific cooperation actions dedicated to international cooperation partner countries (SICA)

Coordinator

CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LE DEVELOPPEMENT - C.I.R.A.D. EPIC

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<tr>
<th>Address</th>
<th>Activity type</th>
<th>EU contribution</th>
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<tr>
<td>Rue Scheffer 42</td>
<td>Research Organisations</td>
<td>€ 506 825</td>
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<td>75016 Paris</td>
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<td>France</td>
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Daniel Sannie (Mr.)

Participants (9)

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<th>Country</th>
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<tr>
<td>India</td>
<td>€ 382 500</td>
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Brazil
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