

# agrogaz

renewable natural gas

- ➔ Renewable Natural Gas (RNG) and electrical power from grass, manure and forage.
- ➔ “Gas farms” for tropical regions.



**Rural Development in Tropical Countries**

NEXT

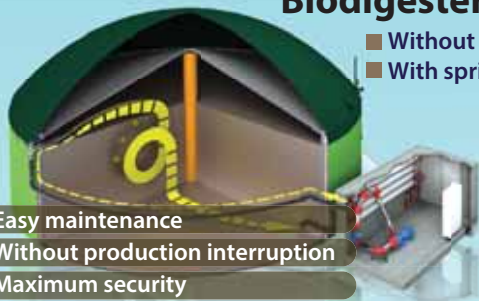
Technological Alliance:





## Biodigesters

- Without mixing
- With sprinkling



Easy maintenance

Without production interruption

Maximum security

## Models

**TANK -TYPE BIODIGESTER**  
Concrete or metal



Arnschwang,  
Germany (4MW)

**LAGOON -TYPE BIODIGESTER**  
To generate 1 to 10 MW of electricity



Citrusvil, Tucumán,  
Argentina (4MW)

## TECHNOLOGY

Integration of the SAUTER and BIOTEC technologies

- Any feedstock can be used
- Low operation and maintenance costs
- High biological stability

## CONCEPT

- The biodigesters are fed with fresh biomass, without water addition
- Liquid bio-fertilizer (digestate) is generated and is applied by irrigation or tanker on crops, replacing the chemical fertilization

## METHANE PRODUCTION

Around 10.000 m<sup>3</sup> CH<sub>4</sub> per hectare per year

## STANDARD SIZES

- 1 MW (250 m<sup>3</sup> CH<sub>4</sub>/h)
- 2 MW (500 m<sup>3</sup> CH<sub>4</sub>/h)
- 4 MW (1.000 m<sup>3</sup> CH<sub>4</sub>/h)

## REFERENCES (since 2006)

- 30 "tank type" biodigesters in Europe (75 to 6.000 kW)
- 30 "lagoon type" biodigesters in tropical countries (750 to 5.000 kW)
- Total installed power: 70 MW

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## Biogas uses

- Industrial gas supply
- Home gas supply
- Grid electricity supply
- Off-grid electricity supply

## Source of local development

- Agricultural employment generation (1 farmer for between 3 and 10 ha)
- Technical employment generation (biodigestion and biogas use)
- Circular economy in municipalities

### BIOTEC

- Lagoon-type biodigesters from 5.000 to 40.000 m<sup>3</sup>
- More than 30 years of experience in the Tropics

### SAUTER

- Biodigesters from 500 to 10.000 m<sup>3</sup>
- Patented sprinkling technology

## EUROPEAN + TROPICAL EXPERIENCE





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## Gas and Electricity production with King Grass (Napier) crops in tropical countries



### Feedstock



#### GERMANY

Am Berg 1  
D-01665 Klipphausen  
T: (49) 351-658 774-0

#### BELGIUM

Rue Louis de Geer, 6  
B-1348 Louvain-La-Neuve  
T: (32) 10 392 202

#### COLOMBIA

Finca Yambo  
km 3 La Buitrera, Cali  
T: (57) 2 325 98 29

#### MALAYSIA

Setia Walk, C-10-2  
47610 Puchong, Selangor  
T: (60) 3 5879 1410

[agroGaz@agroGaz.com](mailto:agroGaz@agroGaz.com)

[www.agroGaz.com](http://www.agroGaz.com)

[www.sauter-biogaz.de](http://www.sauter-biogaz.de)

[www.bio-tec.net](http://www.bio-tec.net)

[www.agroGaz.com](http://www.agroGaz.com)

Technological Alliance:

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BIOGAS GMBH

**biotec**  
The Biogas Experts