





## 4F CROPS Kick-off meeting

PARTNER: University of Bologna (UNIBO) - Italy

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The University of Bologna was founded in 1088 A.D. and it is probably the first University in the western world.

The University of Bologna has adopted a Multicampus structure (Cesena, Ravenna, Forlì and Rimini)

- 23 Faculties
- 69 Departments
- ~3.000 Teachers
- ~100.000 Students





# Department of Agroenvironmental Sciences and Technologies (DISTA)



Land and soil use: digitized color infrared image of a farming area









Honey bee on flower



DNA genetic fingerprinting





### Facilities and infrastructures



Several laboratories, greenhouses, growth chambers .. and 11 experimental sites (crop science, fruit tree, forestry, veterinary, zootechnics etc..)

The core of field experiments is in two major farms:



Cadriano (~70 ha)



Ozzano E. (~250 ha)



# X - ESA Congress will be held at the Agricultural Faculty of Bologna



**CROPS** – Kick-off meeting

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For info: www.esagr.org



# Research Group on Industrial Crops (GRiCI)

University of Bologna (UNIBO)

Department of Agroenvironmental Sciences and Technologies (DISTA)



#### RESEARCH GROUP ON INDUSTRIAL CROPS (GRiCI)

www.dista.unibo.it/grici





### Research Group on Industrial Crops The research group is currently involved in about **10 Projects (4 EU projects)** mainly regarding energy crops **Main activities involve**:

- finding high yield biomass crops to be used as energy feedstock. The main crops under studying are: switchgrass, miscanthus, giant reed, cardoon, sorghum, hemp and kenaf;
- performing tests in open field or controlled environments to study the crop response mechanisms to variable conditions (gas exchange, photosynthetic efficiency etc.);





# Research Group on Industrial Crops

 long-term comparison between perennial herbaceous crops and SRF (poplar) based on crop yield and crop ability as carbon sink;

Brussels, July 1st, 2008

**CROPS** – Kick-off meeting

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- calculating energy and environmental balances (LCA, carbon balance...) of the above crops, also embedding LCA outcomes in GIS applications;
- testing different biofuels for pyrolysis processes;
- testing the effects of the re-use of combustion ashes as a fertilizer for energy crops themselves.



### UNIBO in 4F CROPS

UNIBO will provide its technical expertise on herbaceous energy crops and their cropping techniques as gained in decades of research (crop yields, crop responses, suitability to pedoclimatic conditions, hybrid choice, etc.)

 Basing on the existing literature and the foreseen available lands, the latter being provided in WP1, the crop responses to climate change will be analysed (Task 1.2);





## UNIBO in 4F CROPS

#### WP2 – Task 2.2 (rotational possibilities)

**Rationale:** a correct crop rotation spreads the workload and improves the soil fertility and net profits, while reducing erosion and agro-chemicals need.

- The rule is: crops from a common group must not succeed each other.
- The key aspects of rotations including non-food crops will be examined within the task 2.2.
- Of course UNIBO will also contribute in dissemination activities and in the organisation of the workshop in Bologna (WP7)







University: <u>www.unibo.it</u>

Department: www.dista.unibo.it

Group: www.dista.unibo.it/grici/

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