



## BioKenaf

# Biomass Production Chain and Growth Simulation Model for Kenaf

*Contract No: QLK5-CT2002-01729*

## WP2. Adaptability and Productivity Field Trials

### Task 2.2 \_ 2.3

*([www.agrsci.unibo.it/dista/index.htm](http://www.agrsci.unibo.it/dista/index.htm))*



# University of Bologna

<http://www.unibo.it>



The University of Bologna is the oldest in the Western World.

We might even say the oldest in the world if we accept the premise that the term "University" may be applied not merely to a generic school but to a place of advanced study which has continued its role uninterrupted through the ages.

## Organisation

Faculties            19

Departments        67

Teachers            3071 (year 2002)

Students            99279 (year 2002)



# DiSTA organization

- Agronomy area
- Chemistry area
- Entomology area
- Microbiology area
- Phytopatology area

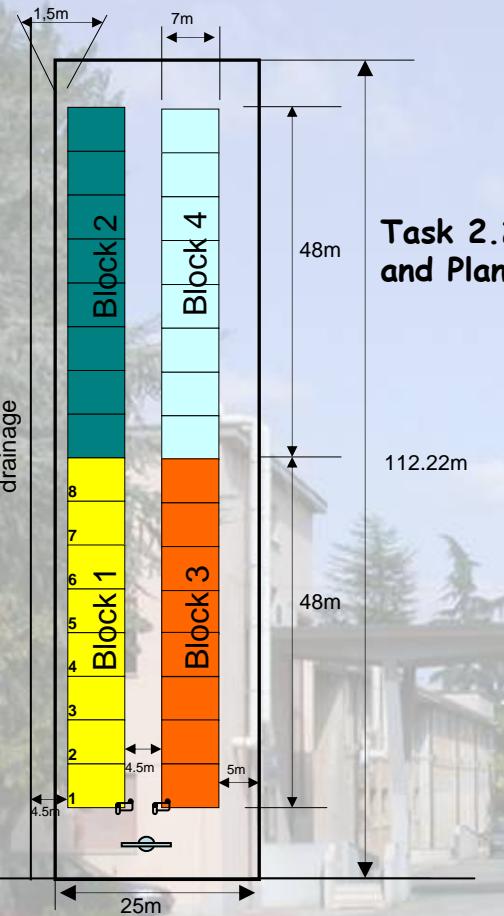
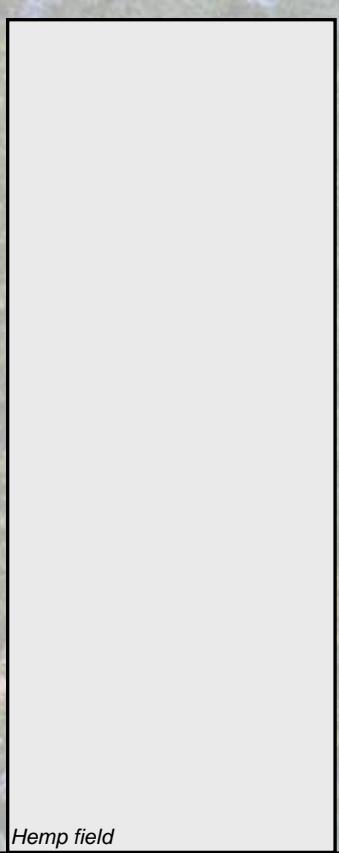
- ◆ Agrometeorology and agricultural ecology
- ◆ Conservation of soil fertility
- ◆ Biology and field crop science
- ◆ Plant breeding
- ◆ Seed biology, technology and production
- ◆ Soil plant-atmosphere system;
- ◆ Weed science

# GRICI (Research Group on Industrial Crops)

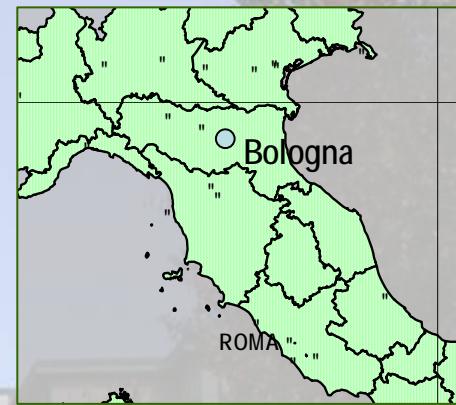
## Involved staff

➤ G. Venturi M.T. Amaducci	Full professors
L. Barbanti G. Pritoni A. Vecchi	Permanent scientific and technical staff
L. Vannini P. Bonatti S. Amaducci M. Donatelli P. Venturi	Scientific staff outside DiSTA
➤ L. Rapparini S. Vecchi	Collaborating technical staff
M. Grigatti A. Monti N. Di Virgilio A. Zatta F. Pelatti M. Tabarroni	Temporary scientific staff

# Experimental Farm of Bologna University Cadriano (BO)



Task 2.2 Sowing time  
and Plant populations



## Site description

### coordinates:

44° 33' N, 11° 21' E

altitude: 32 m a.s.l.

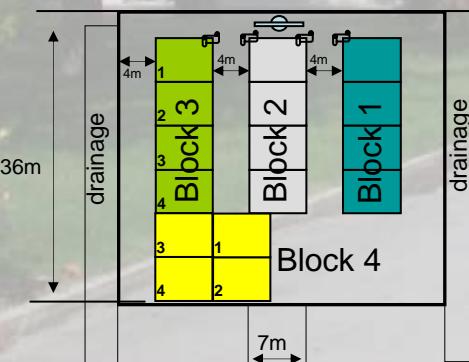


### soil typology:

Udic Ustochreps fine silty, mixed mesic

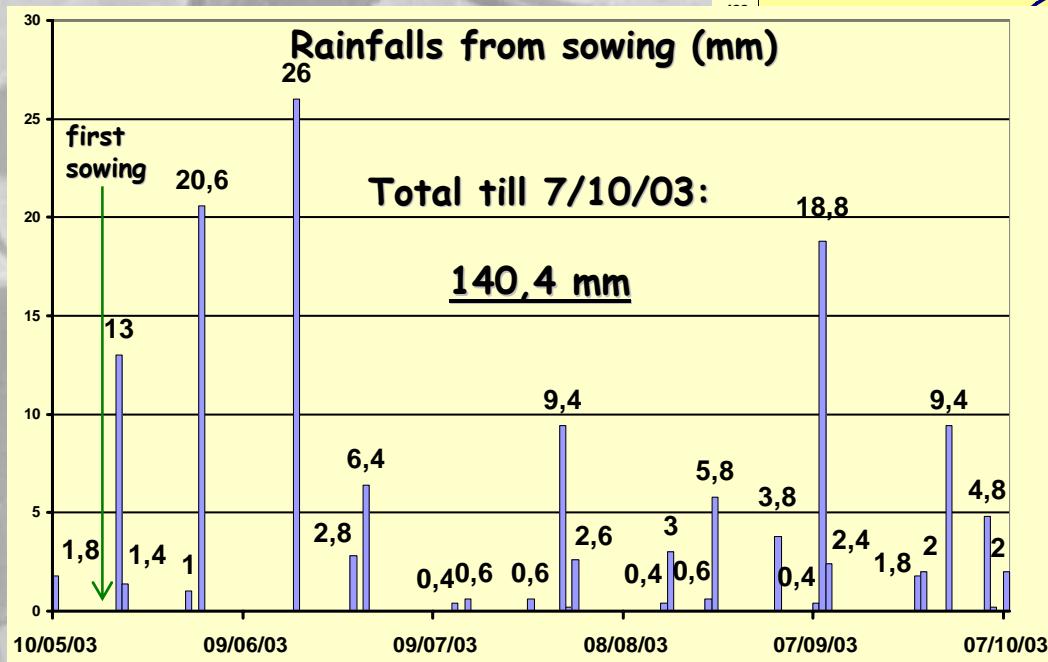
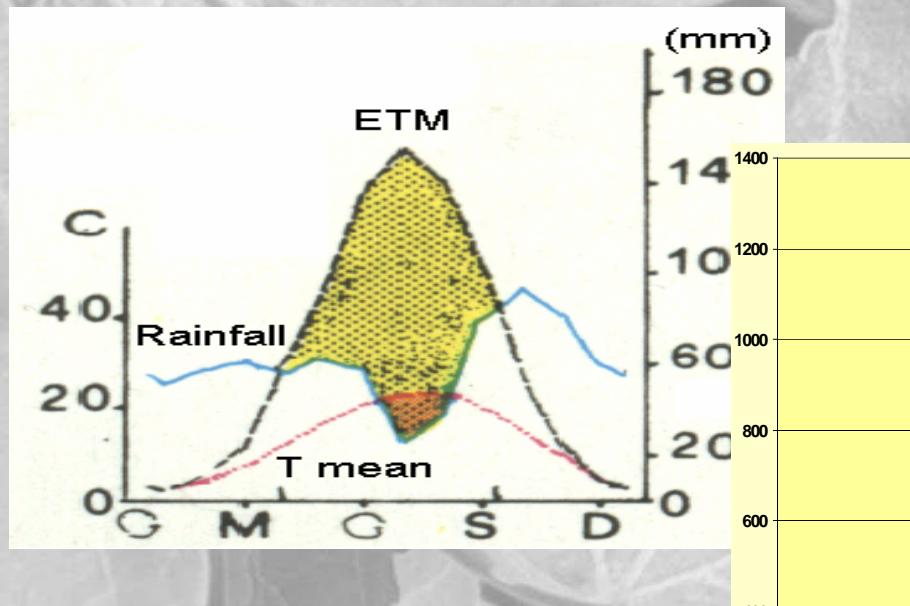
pH = 7.14

organic matter = 1.9%



Task 2.3 Nitrogen fertilisation rates

## Climatic condition



# Experimental layout Task 2.2 Sowing time and Plant populations

10/10/03

Complete randomized blocks

S1: First sowing time

S2: Second sowing time

V1: TAINUNG2

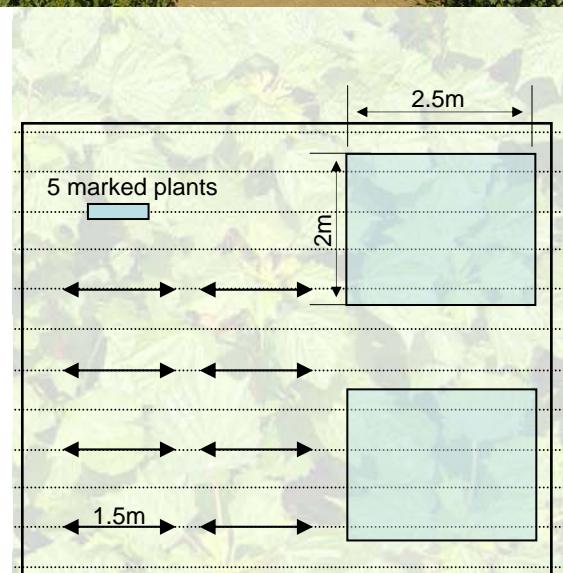
V2: EVERGLADES41

D1: 20 p/m<sup>2</sup>

D2: 40 p/m<sup>2</sup>

first sowing time

		S <sub>1</sub> V <sub>1</sub> D <sub>1</sub>	8
		S <sub>2</sub> V <sub>1</sub> D <sub>1</sub>	7
		S <sub>2</sub> V <sub>1</sub> D <sub>2</sub>	6
		S <sub>1</sub> V <sub>2</sub> D <sub>2</sub>	5
	Block 2	S <sub>1</sub> V <sub>2</sub> D <sub>1</sub>	4
		S <sub>2</sub> V <sub>2</sub> D <sub>1</sub>	3
		S <sub>1</sub> V <sub>1</sub> D <sub>2</sub>	2
		S <sub>2</sub> V <sub>2</sub> D <sub>2</sub>	1
		S <sub>2</sub> V <sub>1</sub> D <sub>1</sub>	8
		S <sub>1</sub> V <sub>1</sub> D <sub>1</sub>	7
		S <sub>2</sub> V <sub>2</sub> D <sub>2</sub>	6
		S <sub>2</sub> V <sub>2</sub> D <sub>1</sub>	5
	Block 1	S <sub>1</sub> V <sub>2</sub> D <sub>1</sub>	4
		S <sub>2</sub> V <sub>2</sub> D <sub>2</sub>	3
		S <sub>1</sub> V <sub>1</sub> D <sub>2</sub>	2
		S <sub>2</sub> V <sub>1</sub> D <sub>2</sub>	1



The size of each plot is 6X7m (42 m<sup>2</sup>)

The distance between the rows is 50 cm

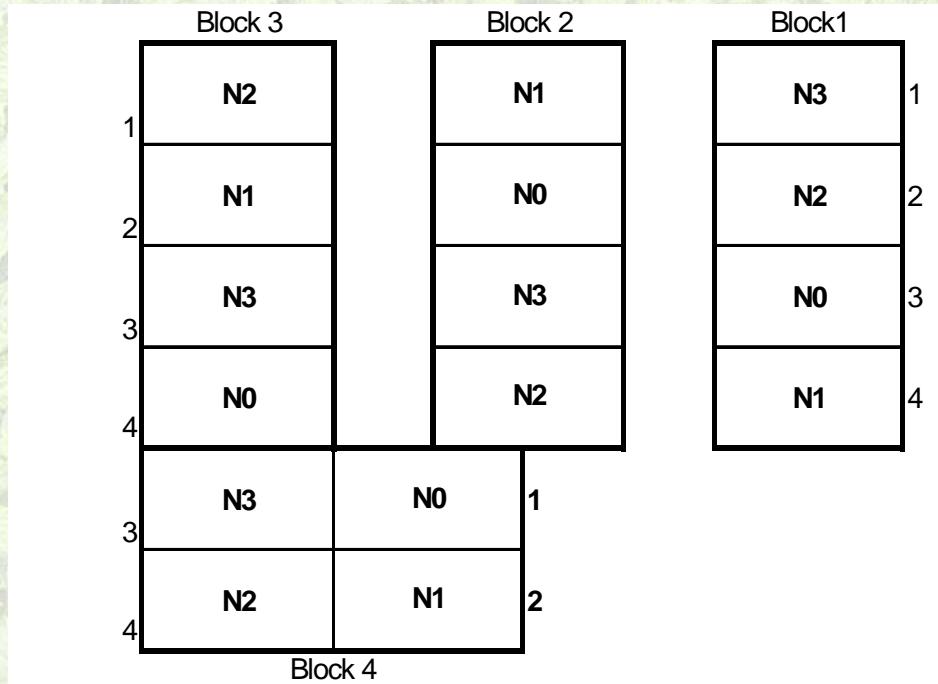
The distance within the rows is 5 cm for D40 and 10 cm for D20

12 rows for each plot

# Experimental layout Task 2.3 Nitrogen fertilisation rates

10/10/03

Complete randomized blocks



- N0: no fertilization**
- N1: 50 kg N/ha**
- N2: 100 kg N/ha**
- N3: 150 kg N/ha**

**genotype:** Dowling

**density:** 20 plant/m<sup>2</sup>

The size of each plot is 6X7m (42 m<sup>2</sup>)

The distance between the rows is 50 cm

The distance within the rows is 10 cm

12 rows for each plot

# Sowing, Emergence and Thinning out operations

19/05/2003 Sowing of Task 2.2 S1

24/05/2003 Emergence of Task 2.2 S1

5/06/2003 Thinning out of Task 2.2 S1

19/06/2003 Sowing of Task 2.2 S2

27/06/2003 Emergence of Task 2.2 S2

**Task 2.2**

26/05/2003 Sowing of Task 2.3

29/05/2003 Emergence of Task 2.3

4/07/2003 Thinning out of Task 2.2 S2

**Task 2.3**

20/06/2003 Thinning out of Task 2.3





Task 2.2 field\_6/5/2003



Task 2.2\_20/6/2003



Task 2.2\_20/6/2003



Task 2.2\_ 5 /9/2003



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Task 2.2\_ 10 /10/2003