## **WP2**

# Adaptability and Productivity Field Trials

## **Partner UniNOVA, Portugal (7)**

Task 2.2 – Effect of different sowing dates and plant populations on biomass yieldsTask 2.3 – Effect of irrigation and nitrogen fertilization on biomass yields

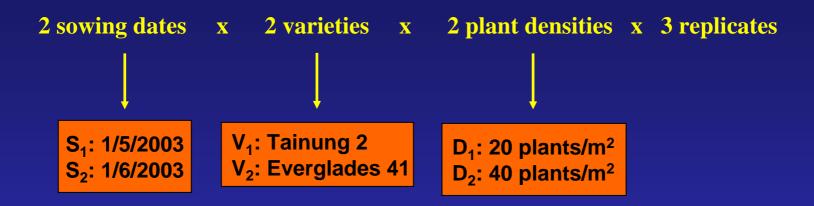
1st year - 2003

2nd year - 2004

3rd year - 2005

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Task 2.2 – Effect of different sowing dates and plant populations on biomass yields



Task 2.3 – Effect of irrigation and nitrogen fertilization on biomass yields



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## Along the growing period, for all the fields

### Plants

- record of 50% emergence, flowering and maturity dates
- measurement of photosyntesis with CO<sub>2</sub> exchange chambers
- harvest of plant material, 7/8 times during the growing period
- separation of leaf blades, leaf sheaths, stalks, cobs+husks
- measurement of area of the leaves
- dry leaf weight produced
- measurement of the height of the crop

#### Plants (cont.)

determination of the moisture content of the harvested material,
(determined separately for leaves, stalks, cobs+husks)

- determination of the dry matter harvested, to determinate productivities of the fields, along the growing period (determined separately for leaves, stalks, cobs+husks)

- chemical analysis of the harvested material, determined separately for leaves, stalks, cobs+husks

- total N, total P, total P, total K, % ash
- total fiber, calorific value, Ca, Mg, Na, at the last harvest



#### Soils

- determination before the establishment of the crops and at the last harvest

- texture, bulk density,

- organic matter content, pH, CaCO3, P-Olsen, exchan. K, total N, NO3, NO2, NH4

#### Meteorological data

- daily maximum and minimum temperature
- global radiation
- precipitation
- evaporation
- air humidity and wind speed