

Basic Information:

Installation Name:	Root-DISTAL-UNIBO
Installation Location:	Università di Bologna, DISTAL, Viale Fanin 44, 40127 - Bologna
Installation location MAP	https://www.google.com/maps/d/edit?mid=13hasa5ACAj6v93I5ItAywK8AJCz8ivv0&usp=sharing
Installation Category:	Growth Chamber
Traits analysed	Below ground
Environmental Manipulation:	Temperature, Nutrients concentration, Light quality
Stress applicable	Drought, Heat stress
Capacity	100 rhizotrons
Status	Operational
Trait Measurements:	Root properties, Root architecture
Equipment and sensors available (in particular for field activities)	RGB camera

References: Maccaferri et al. (2016). Prioritizing quantitative trait loci for root system architecture in tetraploid wheat. *Journal of Experimental Botany*, 67(4), 1161

URL <https://www.unibo.it/sitoweb/roberto.tuberosa>

Contact person:

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Description of the infrastructure:

The infrastructure includes 100 rhizotrons in which homogeneously sprouting seedlings of wheat, or barely are grown in moist filter paper sheets in vertical black polycarbonate screening plates (42.5 × 38.5 cm). Seedlings are grown for 7-9 d at 22 °C (day)/18 °C (night) under a 16 h light photoperiod and light intensity of 400 $\mu\text{mol m}^{-2} \text{s}^{-1}$ photosynthetically active radiation (PAR). Experiments are conducted according to a randomized complete block design with independent replications (=experiments) grown consecutively in the same growth chamber. Each experimental unit includes a 60 cm wide screening plate allotting eight seedlings of the same genotype, so that one screening plate corresponded to one genotype. To avoid border effects, root seminal architecture traits are measured from the six central seedlings only.