



FIELD TRIALS NETWORK – PIRINOBLE PROJECT (www.pirinoble.eu)

Work Package C: Innovation on valuable broadleaves plantation management – Mixed plantation poplar + walnut

Tordera (Barcelone) – March 2010

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Field trial aim: To study the functioning of a combined system with poplar and hybrid walnut vs. pure poplar and hybrid walnut plantations.

Experimental design: Randomized block design, 3 treatments: (1) Poplar 6x6 m, (2) Hybrid walnut 6x6 m, (3) Poplar + Hybrid walnut 6x7 m; 30 trees per treatment, 3 repetitions. Total: 270 trees, 144 walnuts (99 of which experimental, 45 buffer); 126 poplars (all experimental).

Total area: 1.2 ha



Field trial at planting time

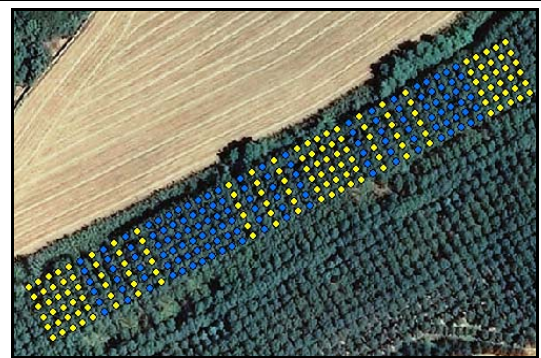


Field trial location in Catalonia

Vegetative material

Hybrid walnut (*Juglans x intermedia*)
 MJ-209xRa 1+0 40/60 cm
 Yellow

Euramerican poplar (*Populus x euramericana*) I-MC R2T1 450-500 cm, deep root plantation
 Blue



Site features

UTM coordinates (N31)	Altitude	Temperatures: coldest month / annual / warmest month	Annual precipitation
473 075; 4 616 335	80 m	7.9 / 14.9 / 23.1 °C	774 mm

Soil type	Previous land use
Loam - sandy; o.m. 1.3 %; pH 6,5; not saline	Poplar

Plantation techniques and tending operations

Soil preparation	Stump elimination, backhoe excavator hole digging (30x30 cm walnut, 1.8 m poplar), debris chipping
Planting scheme	6x6 (pure poplar, pure walnut); 6x7 (poplar + walnut)
Plantation techniques	Plastic mulching (1 m ²), tree shelter (60 cm)
Tending operations	Tilling between rows, grinding between trees, in Spring Annual pruning
Incidences	