ARUNDO DONAX L. PROPAGATION TRIALS

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ABSTRACT
Establishment of perennial plantations may constitute the most important factor of the cultivation cost of energy crops. So far propagation of giant reed has not studied scrupulously. An initial attempt to reveal the important factors that determine several aspects of the establishment of giant reed has recently finished. In total four experimental fields were establishment in Greece and Italy. The factors studied in the experiment consisted of three types of propagation material (rhizomes, stem cuttings and whole stems) and two planting densities (12,500 and 25,000 propagules/ha). Rhizomes exhibited very high sprouting capacity in all the experimental sites. On the contrary, stem cutting failed completely in establishing plantations.
Whole stems exhibited low survival rate resulting in very poor coverage of the field in the first year. However, in the subsequent growing periods the relevant plots managed to achieve similar growth and yield performances to the respective ones of rhizomes. Considering the two tested planting densities, no significant differences were depicted indicating that it may be more economical, to plant in lower densities.

Keywords: energy crops, giant reed, crop cultivation, biomass production