

EXPERIMENTS ON USAGE OF THE POPLAR CUTTINGS IN PLANTATIONS

MIHAI FILAT

Forest Research and Management Institute, Tulcea Station, Romania

ABSTRACT

There has been noticed drying phenomena in the cultures of hybrid poplars, especially during 1985-2000. The main causes were the decrease of the ground waters due to the important hidrotechnical works carried out on the Danube River and the interior rivers and also due to the long drought in the previous years.

In order to prevent the effects of the variations of the ground waters level, we experimented the plantation of the poplar cuttings of big dimensions, at the depth of 1.5 and 2.0 m, in hollows with diameter of 15 and 20 cm. The cutting were made out of one year offshoots, harvested from mother plant cultures, using the all length of the offshoots from the base to the terminal bud. The base diameter of the cuttings was at least 3 cm and the length of the cutting was over 4 m.

We used the most popular poplar clones in the Romanian practice - *P. x canadensis* 'I-214', 'Sacrau 79', 'I-45/51', 'I-69/55' and a "candidate" clone for production *P. x interamericana* 'Rap'.

The plants obtained recorded important increases and developed roots along all length of the cutting in the ground.

The results recorded after 4 years showed that there is a real potential that the cuttings could be used in the next future in plantations with positive effects.

Keywords: *P. x canadensis*, *P. x interamericana*, cuttings of big dimensions, plantations