

Assessing Plant Quality for Afforestation and Reforestation in Lombardy

E. Calvo¹, L. Ciccarese², P. Nastasio¹

¹ Ente Regionale per i Servizi all'Agricoltura e alle Foreste (ERSAF) della Lombardia, via Ponchielli 38, 20125 Milano, Italy

² Agenzia per la protezione dell'ambiente e per i servizi tecnici, via V. Brancati 48, 00144 Roma, Italy

Over the latest decade, an average of 11,000 hectares of new stands, mostly broadleaves, have been established in Italy. In the near future a new momentum for forest tree stand establishment is expected. In fact, as attention on 'conventional' afforestation and reforestation programs is put in place by the regional Administration remains high, several thousand hectares of new plantations are expected to be established in the next decade, as compensation and mitigation means for the impacts of ongoing large strategic infrastructures in northern Italy (including Turin's 2006 Winter Olympics works, new fast trains, railways, and motorways).

In Italy, poor quality planting stock is recognized as one of the main reasons for failure of forest tree plantations intended for timber production, site reclamation and landscape enhancement.

The focus on plant quality assessment has become more intense after the disappointing performance of a significant part of the forest stands established within the European Commission 2080/92 Regulation, which introduced a grant scheme for farmers willing to change the use of their lands from agriculture to forestry.

The Council Directive (EEC) No 105/99, which entered

into force in 2003 in all EU countries, lays down the conditions governing the marketing of forest reproductive materials in the Community. The Directive relates to the certification of genetic quality of reproductive material, as well as their physical features.

With the aim of improving planting stock quality of the tree nurseries run by the *Ente Regionale per i Servizi all'Agricoltura e alle Foreste* (ERSAF), an extension agency for Agriculture and Forestry of *Regione Lombardia*, a document containing procedures and standards for producing forest reproductive material was given out.

This document establishes the main methods and instruments for assessing plant quality through morphological and physiological performance tests. The document also provides protocols used by the tree nurseries run by ERSAF to produce planting stock, from seed procurement to handling and dispatching. An Appendix of the document contains the *modus operandi* for carrying out plant quality control and certification. It represents the first case in Italy of an operationally plant quality assessment program and, if successful, will most likely be extended to the whole tree nursery system in Italy.