Descriptors and DUS Testing Guidelines for Casuarinas

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Abstract

Domestication and breeding of crops lead to releasing of high yielding varieties for commercial cultivation. These new varieties have to be suitably described for easy identification and to protect the intellectual property rights (IPR) of the breeders and institutions. In order to protect the intellectual rights of the breeders, Government of India enacted the "Protection of Plant Varieties and Farmer's Rights Act 2001". All the new and existing agricultural and tree varieties can be protected under this Act. They will be subjected to a test of Distinctiveness, Uniformity and Stability (DUS) using mainly morphological descriptors before their registration for IPR protection. The Institute of Forest Genetics and Tree Breeding has developed DUS testing procedures for Eucalyptus and Casuarinas and these guidelines have been published in the *Plant Variety Journal of India* in February, 2013. A total of 34 descriptors have been developed to discriminate varieties and clones of *Casuarina equisetifolia, C. junghuniana* and their hybrids. They consist of bark, branchlet, crown, branch, sexual system and cone characters. The DUS tests are normally conducted at two locations and observed in two flowering seasons. One out of nine plants can be an off-type. The descriptor-based discrimination of clones and varieties will help in efficient field identification of varieties and by protecting the IPR of breeders and institutions increase investments in breeding and varietal development programmes.