

First finding of Dothistroma Needle Blight (DNB) in Ireland – Forest Service

Background

In September 2016 Dothistroma Needle Blight (DNB) was found in Ireland for the first time. The disease, also referred to as 'Red Band Needle Blight', was identified on Scots pine trees at two privately owned forests: one in Limerick and the other in Cork by the Forest Service and confirmed by laboratory analysis. DNB was recorded for the first time in Northern Ireland in 2011, when it was found on Corsican pine.

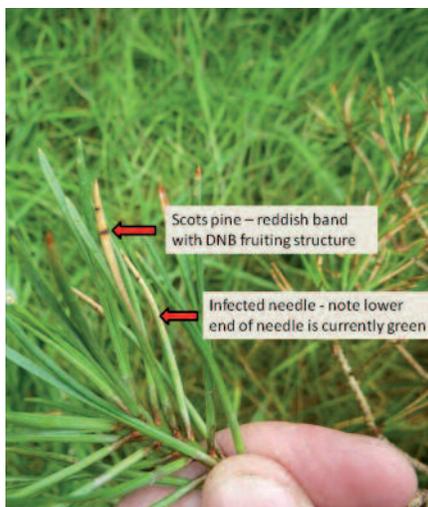
DNB can be caused by one of two fungal pathogens *Dothistroma septosporum* and *Dothistroma pini*. *D. septosporum*, the fungal pathogen causing DNB on the two sites in the southwest, is regulated under the EU Plant Health Directive 2000/29/EC where it is listed under the name *Scirrhia pini*. Where *D. septosporum* is found, Member States are required to take measures to eradicate, or where that is impossible, to inhibit the spread of this harmful organism. These include specific requirements on if, how, or when pine plants can be authorised for movement under the EU plant passport system from a nursery or an area where DNB has been found to be present.

Potential Impact

DNB is a windborne and economically important disease. The disease has a number of potential conifer hosts, many of which are only slightly susceptible, but a number of pine species are known to be particularly prone. Until recently the disease was considered to be mainly a problem of the southern hemisphere, especially in plantations of *Pinus radiata*. However, since the 1990s a notable expansion in the range of the disease globally has been observed as well as a significant increase in incidence of the disease in both Europe and in Canada.

In Great Britain, Corsican pine has been the most severely affected pine species but severe damage to lodgepole pine has also been reported. To date Scots pine has been less severely affected. Pine trees with DNB shed the previous season's needles (retaining the current year's needles). The defoliation of previous season's needles continues yearly, with the effect of reducing timber yields and weakening the tree which predisposes the forest to increased tree mortality. There is a significant economic impact on severely infected forests due to this reduction in timber yield. Most Corsican pine plantations in Great Britain now have some level of DNB infection, with lodgepole pine stands being severely affected in north and east Scotland. Generally the disease will only cause mortality where the infections levels are high for successive years.

In Ireland approximately 11% of the forests are pine, mostly lodgepole pine (8%) with the other 3% being made up of Scots pine,



Monterey pine and Corsican pine. In 2015 1.5% of the planting programme was made up of pine mostly Scots pine. Sitka spruce is deemed to have a low susceptibility to the disease.

Initial actions

Following the confirmation of the finding of DNB, as required, a number of actions were immediately taken by the Department.

Following the confirmation of the finding of DNB in Ireland, and as required by the Plant Health Directive, an official notification of the finding was sent to the European Commission and to other EU Member States. Activities within the infected forests were suspended until further notice. In order to investigate potential sources of the infection and where plants from the original batches may have been used elsewhere, holding notices were issued to the forest nurseries that supplied the Scots pine plants.

In addition to the existing national forest health surveys DAFM commenced targeted surveys for the presence of DNB in other forests with pine. The initial focus of the targeted surveys was forests nearest to the two private forests where the first findings were made. This was followed by surveys in the wider environs of the two locations and then by a systematic survey nationally in other selected forests. In the latter case a particular focus is forests where ill-health in pine has been reported. Jointly the Horticulture Plant Health Division of DAFM and the Forest Service also initiated surveys for DNB in pine producing nurseries and in pine forests within the immediate and wider environs of pine producing nurseries.

Managing the disease

Whilst the initial actions required of national authorities in relation to a first finding of DNB on their territories are prescribed by the EU Plant Health Directive, longer term policy and strategies for the management of

DNB in Ireland will only be fully determined once targeted and systematic surveys are completed and the likely extent and severity of the disease is known. Consultation around best practice in dealing with the disease will also be undertaken with other EU Member State's plant health authorities. It is known that reducing humidity levels can reduce the level of infection, so good weed control in young crops and thinning in older crops are some of the main management options.

Report suspect cases

Forest owners, forest nursery staff, and members of the public are asked to be vigilant for the disease and report (with photographs, if possible) any sites where there are concerns about possible DNB symptoms in pine, to the Forest Service, Department of Agriculture, Food & the Marine, by e-mail forestprotection@agriculture.gov.ie, by phoning 01-607 2651 or by using the Treecheck App.

For the most up-to-date information on the situation with DNB in Ireland please visit the Department's Dothistroma webpage.

<http://www.agriculture.gov.ie/forests/service/treediseases/dothistromaneedleblight>

