Imports of Ash from Europe will be banned on Monday in an attempt stop a deadly disease wiping out most of the species' 80m trees in the UK, despite the fungus behind ash dieback first being discovered in the country eight months ago.

Chalara fraxinea has already killed 90% of Denmark's ash, and on Wednesday it was confirmed the disease had spread beyond plantations and nurseries into trees in the wild in Norfolk and Suffolk. The find has raised fears of a repeat of the epidemic of Dutch elm disease in the 1970s, which wiped out virtually the entire mature population of elm trees – 25m – by the 1990s.

On Thursday, the environment secretary, Owen Paterson, told the Commons that a ban on Ash imports would be introduced on Monday: "on the basis of the evidence that we have seen so far, I intend to introduce a ban on imports and tight restrictions on ash movements in Great Britain on Monday."

The Department for Environment, Food and Rural Affairs (Defra) launched a consultation on a ban on 4 October, and Paterson said he would be discussing the results of it over the weekend with the head of the Forestry Commission.

But ecologists and countryside associations have been critical of the speed with which the government has taken action, with the president of the Country Land and Business Association, Harry Cotterell, warning that now the fungus is in the wild, "it is going to be very hard to stop the disease now." The environment commentator George Monbiot wrote on Thursday: "You couldn't satirise this decision. The government waits until the disease is established to take the measures required to prevent its establishment."

One option for containing the disease being considered by the Forestry Commission is destroying trees for over a thousand sq km next to infected sites. "That's one option that we've got," Roger Coppock, head of analysts at the commission, told the Times newspaper.

The disease causes the leaves of the tree to turn brown and fall off, while the crown and branches die back.