

Determining Invasiveness And Risk of Dothistroma

DIAROD

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Why the need for this COST Action?

- Dothistroma needle blight (DNB) is a devastating foliar pathogen of conifers, whose distribution and intensity is increasing dramatically across Europe on a range of species.
- In 2006, a group of six scientists established an informal group, the International Dothistroma Alliance (IDA), in order to open dialogue between like-minded researchers trying to tackle issues surrounding this disease.
- By 2011 the IDA had over 50 members, demonstrating the high level of interest in this serious disease and it was widely recognised that a more structured approach is needed to aid networking and thus encourage knowledge transfer, collaborative research and the production of National and European guidance.

Objectives of DIAROD

Using DNB as a case study identify both the biosecurity implications and risk of changed behaviour of forest pathogens

- Identify the range and severity of DNB in Europe
- Determine whether new *Dothistroma* species or strains, are likely to be recent introductions to parts of Europe, and if they are spreading
- Gain greater a understanding of the drivers behind the upsurge of DNB across Europe including pathogen virulence, epidemiology, species susceptibility and related host resistance mechanisms to assess
- Risk under current and future management and climatic scenarios



Working Groups

WG 1 - The pathogen: defining the current disease situation

Task 1: Distribution and severity of DNB in Europe

Task 2: Genetic diversity of DNB in Europe

WG 2 - The Environment: Determining the risk of DNB

Task 3: Influence of environment on DNB

WG 3 - The host: Resistance and susceptibility

Task 4: Host defence resistance studies

Task 5: Susceptibility of alternative hosts and changes in susceptibility

WG 4 - Identify knowledge gaps, disseminate findings and provide best practice guidance for management of DNB

Task 6: Identification of future research needs

Task 7: Dissemination of results

How will the Action achieve its objectives?

- DIAROD will **synthesize the state of knowledge of DNB in Europe** through utilising
 - past and ongoing research in countries across the world
 - international expertise of the DIAROD participants
 - published, unpublished and grey literature
- Through this and interactions (e.g. seminars, workshops, internet, publications) with stakeholders and interested parties DIAROD will **identify research needs and knowledge gaps**
- The synthesis will lead to a **decision support systems** for practitioners and regulators
- **Networking between participants**, in particular, providing opportunities for Early Stage Researchers, will maximise the benefits from networks between the COST countries and also non-COST partners