

Douglas fir needle midge (*Contarinia pseudotsugae*): a potential threat to Douglas fir in the UK and Ireland

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Douglas fir



Dodd Wood, Cumbria, England

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- High value timber
- Resilient
- Larch replacement
- Suitable for CCF
- Silviculture issues – see **Ligot et al 2020**

Damage to Douglas fir shoots



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Wilson, E. R., G. San Martin and G. Ligot. 2020. The Douglas fir needle midge (*Contarinia pseudotsugae*): a potential threat to Douglas fir in the United Kingdom and Ireland? *Quarterly Journal of Forestry* 114 (4): 244-250

Current status

Distribution show / hide		
Country	Status	Notes
Europe		
Belgium	Present	
Germany	Present	
Netherlands	Present	
United Kingdom	Absent	
France	Present	
North America		
Canada	Present	
United States	Present	

Source: UK Plant Health Risk Register, 08 12 2020



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Mode of transport from native range/infected areas:

1. Douglas fir **planting stock**
2. **Cut branches** (including Christmas trees) of Douglas fir
3. **Soil** from areas where *C. pseudotsugae* is present

Risk ratings and current mitigations

Unmitigated Risks		 show / hide				
Likelihood [1 - 5] 				3		
Entry [1 - 5]				3		
Establishment [1 - 5]						5
Spread [1 - 5]			2			
Impact [1 - 5] 				3		
Impact - Economic [1 - 5]				3		
Impact - Environmental [1 - 5]		1				
Impact - Social [1 - 5]		1				
Value at Risk [1 - 5]					4	
Likelihood x Impact [1 - 25]		9				
UK Relative Risk Rating [1 - 125]		36				

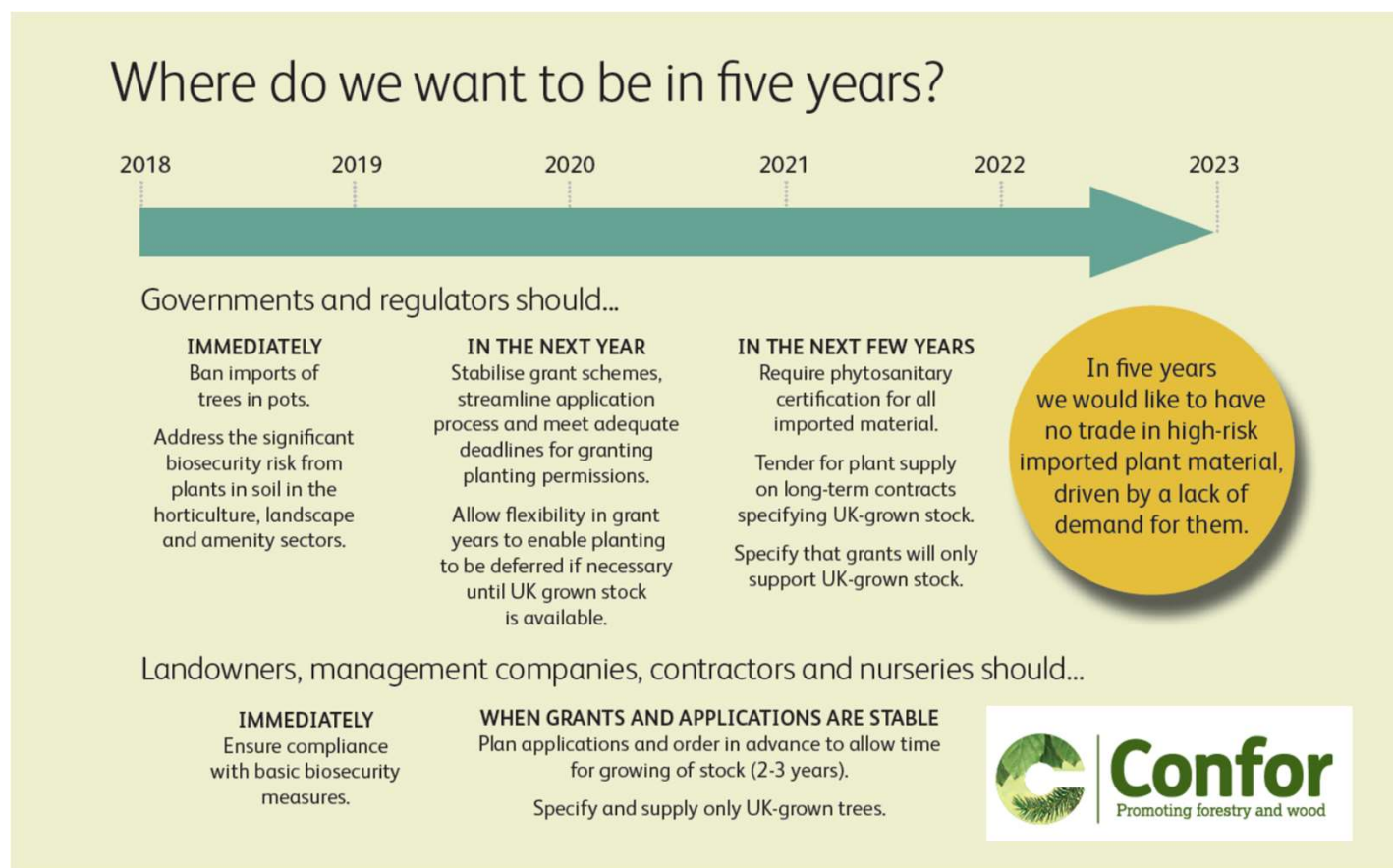
Unmitigated Risks: What risks would be without any co-ordinated action. Ratings do take into account how normal grower practises (such as pesticide treatments) would affect risks.

Current Mitigations		show / hide
Key mitigation for pest		
Regulation		✗
Surveillance		✗
Industry Scheme		✗
Contingency Plan		✗
Awareness		✗
Research		✗

Current Mitigations: All mitigations currently in place for a pest.

Source: UK Plant Health Risk Register, 08 12 2020

Confor – biosecurity strategy (2018)



Source: Confor 2018

Recommended actions

- **Identify** – identification, life cycle, signs and symptoms of damage
- **Report** – use Tree Alert to report suspected infestation
- **Trusted suppliers** – discuss with nursery, specify UK grown, document
- **Traceability** – maintain detailed records for destination of all stock
- **Awareness** – peer awareness, extension information, citizen science
- **Research** – primary research, monitor, collaboration, systematic review
- **Strategy** – consider published strategy for resilience of Douglas fir to highlight risks and threats

Source: Wilson et al. 2020

References

Publications

- Ligot, G., P. Balandier, S. Schmitz and H. Claessens. 2020. Transforming even-aged coniferous stands to multi-aged stands: an opportunity to increase tree species diversity? *Forestry* 93(5): 616-629
URL: <https://doi.org/10.1093/forestry/cpaa004>
- Wilson, E. R., G. San Martin and G. Ligot. 2020. The Douglas fir needle midge (*Contarinia pseudotsugae*): a potential threat to Douglas fir in the United Kingdom and Ireland? *Quarterly Journal of Forestry* 114 (4): 244-250 URL: <https://www.researchgate.net/publication/344523963>

Websites

- European and Mediterranean Plant Protection Organization (EPPO): *Contarinia pseudotsugae* (CONTPS). URL: <https://gd.eppo.int/taxon/CONTPS>
- Forest Research - Tree Alert. URL: <https://www.forestresearch.gov.uk/tools-and-resources/tree-alert/>
- Defra – UK Plant Health Risk Register. URL: <https://secure.fera.defra.gov.uk/phiw/riskRegister/index.cfm>