



WORKSHOP 9: Environmental stress and wood quality

Estoril, 21 October 2014

Organisers: Manuela Romagnoli, Bilgin Icel, Jorge Paiva

Short description – The focus of this Topic Group is the effect of environmental stress on wood quality and wood production. The aim is to provide information to an important stakeholder – the wood industry. While obviously linked to other TGs (e.g. TG 5 and TG 6) TG 9 concentrates on those wood traits/properties which are important for the end user.

Wood quality is a general concept which relates to wood characteristics at the morphological/anatomical level, but also on physical, chemical and mechanical wood properties.

Yet, it is difficult to generate a clear picture from the variety of publications on effects of environmental factors, including stress, on wood quality. This is because the definition of **wood quality** is often vague, indicators for wood quality vary and time scales used to quantify effects largely vary. TG 9 will systematically screen available information and come up with two review articles on (1) The effect of environmental stress on wood quality and (2) on the effect of wood anatomical characters - with special focus on density- on the characteristics of wood product and its physical and mechanical properties.

In parallel TG9 is seeking for interaction with stakeholders from wood industry (wood quality) and forestry (forest management) to finally the experts involved in different areas. The challenge is to understand how our research can be used by the stakeholders and how some techniques like biotechnology may help to improve wood characteristics.

Agenda Tuesday, October 21, 9.00 -17.30 hours

9.00 – 9.30 Aims of the group, state of the art, draft of the review article, new inputs in the topic group

9.30 – 13.00 Talks

9.30 – 10.00 “Wood quality from dream to the reality”. Pekka Saraanpa (INVITED SPEAKER – Metla Finland)

10.00 – 10.30 “The Industrial perspective” Luis Leal (INVITED SPEAKER FROM INDUSTRY)

10.30 – 11.00 “Patterns of wood formation in tree stems.” Damien Sellier

11.00 – 11.30 Coffee break

11.30 – 12.00 “Wood quality and wood anatomy “ (Ignazio Garcia)

12.00 – 12.30 “The effect of environmental stress on wood quality: climate on wood density “(Michael Grabner)

12.30 – 13.00 How to assess wood quality in standing trees (Bilgin Icel).

13.00 - 14.30 Lunch time

14.30 – 15.00 Wood treatments and wood products as affected by morphological and chemical wood structure (Manuela Romagnoli)

15.00 – 15.30 Biotechnology and wood quality (Jorge Paiva)

15.30 – 16.30

- Outreach of the group (Manuela Romagnoli)

- Possible integration in the review paper (n. 1 wood quality and environmental stress - Michael)

- Integration in WG3 – Horizon (Achim)

- Deliverables (free discussion)

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