

Mendel University in Brno
Faculty of Forestry and Wood Technology
Department of Wood Science

Wood Anatomy

WAEF-pra01

The identification of wood according to macroscopic features

working sheet for practice

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INVESTMENTS IN EDUCATION DEVELOPMENT

(WAEF-pr01) The identification of wood according to macroscopic features

1 The Goal

- To get skill of identification of principal planes
- To get skill of identification of particular features of macroscopic wood structure
- To get skill to sort kind of woods to particular groups of woods

2 Theoretical knowledge for practice

- Principal planes in wood – definition
- Features of macroscopic wood structure

Questions on theoretical knowledge

1. *Ring boundaries visible quite well in all species. What group of woods fulfils this statement?* _____
2. *Woods of which group are without vessels?* _____
3. *What feature can you observe in the longitudinal (R, T) planes as grooves.*

4. *What group of woods does have macrovessels in earlywood only?*

5. *What group of woods does have rays invisible in all wood species?*

3 Tools & equipment

- working sheet
- set of 16 macroscopic samples of woods
- magnifying glass (optional)

4 Procedure

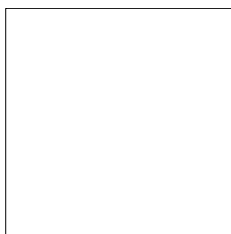
Observe macroscopic features of wood on particular samples as it is required in following tasks. Results of observations must be written down or drawn as required. Ask teacher to check each finished task. If any errors occurred, correct them.

Making damage on samples is prohibited!

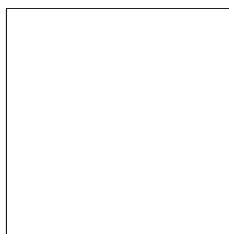
Task 1

Find out the following features on samples and draw them (describe them if required):

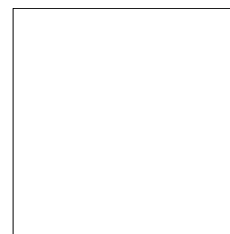
a) rings



X

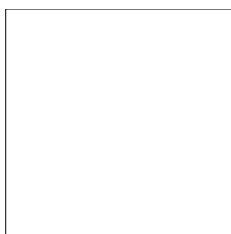


R

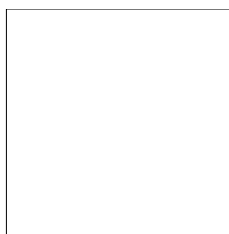


T

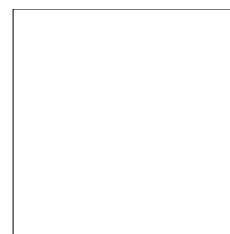
b) rays



X

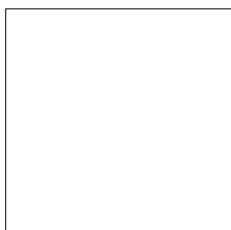
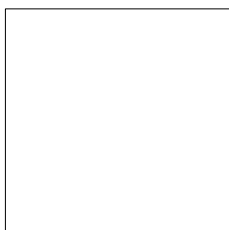


R

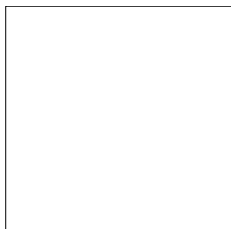
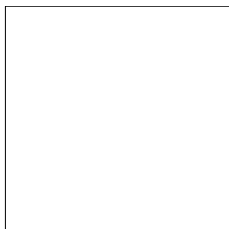
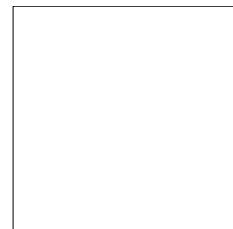


T

c) resin canals

*X**R**T*

d) pith flecks

*X**R**T***Task 2**

Separate samples to particular groups of woods and their numbers write down to the working sheet:

a) softwoods: _____

b) ring-porous hardwoods: _____

c) semi ring-porous hardwoods: _____

d) diffuse-porous hardwoods: _____