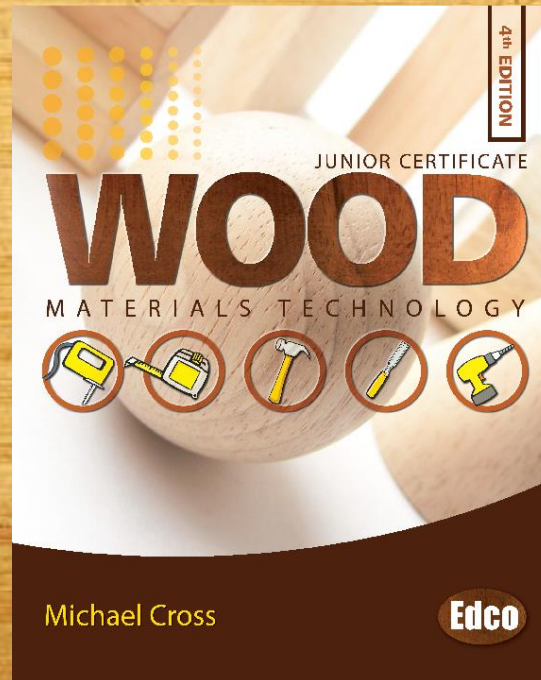


WOOD MATERIALS TECHNOLOGY

4th Edition



Chapter 8

Types of Tree



Trees – 2 groups

- Coniferous
- Softwood
- Needle-like leaves



- Deciduous
- Hardwood
- Broad leaves

Deciduous trees (hardwoods)

- Produce hardwood timber
- Lose their leaves in autumn (except holly)
- Trunk divides to develop large branches
- Branches are larger and more irregular
- Broad leaves
- Seeds borne in nuts/berries
- Slow growing
- Wood is more valuable
- Wood is harder and more durable



Coniferous trees (softwoods)

- Produce softwood timber
- Evergreen (except larch)
- Straight trunk
- Smaller branches
- Needle-like leaves
- Seeds borne in pine cones
- Symmetrical in shape
- Grow quickly
- Wood is usually cheaper
- Wood is usually softer and less durable



Deciduous trees



Oak (hardwood)

- Seed called an acorn
- Hard, durable wood
- Finishes well
- Silver grain when cut radially
- Corrosive to steel – use brass fittings



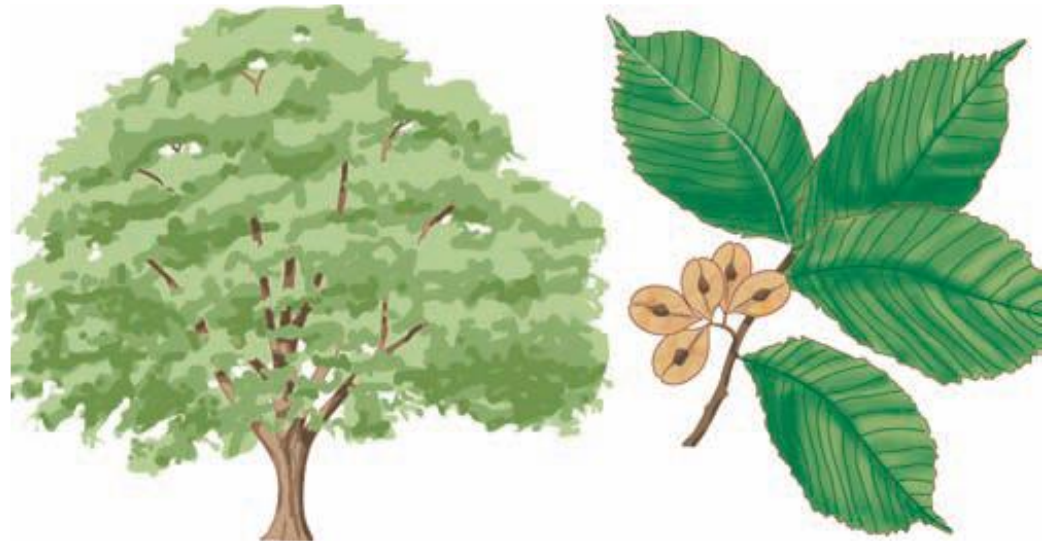
- Uses
 - Furniture
 - Doors
 - Flooring
 - Boats
 - Barrels



Elm (hardwood)

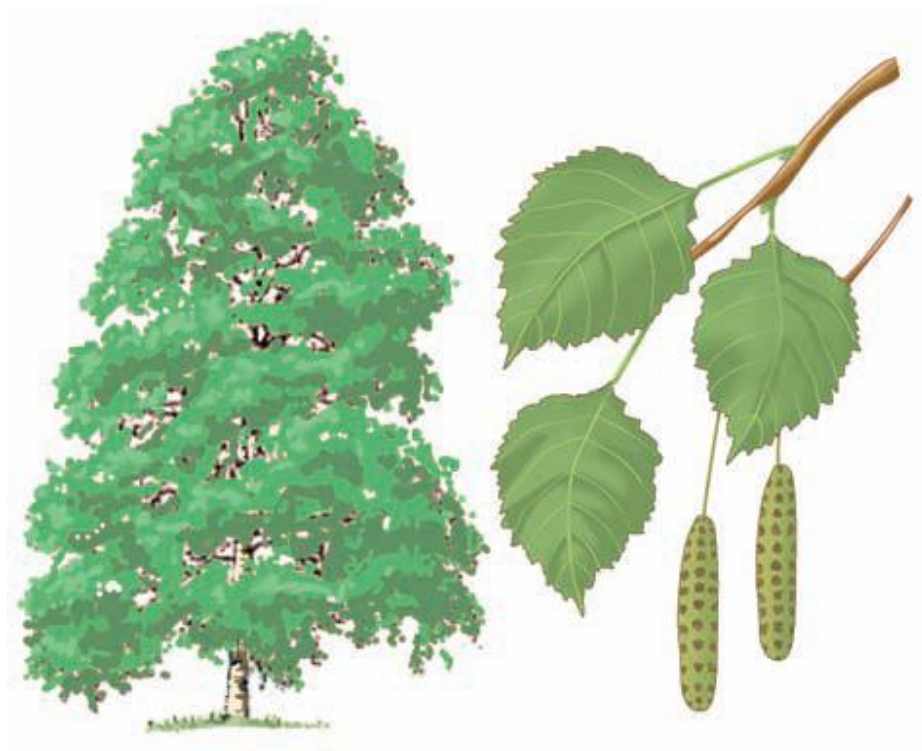
- Attractive grain
- Resists splitting
- Moisture resistant

- Uses
 - Woodturning
 - Garden furniture
 - Outdoor projects



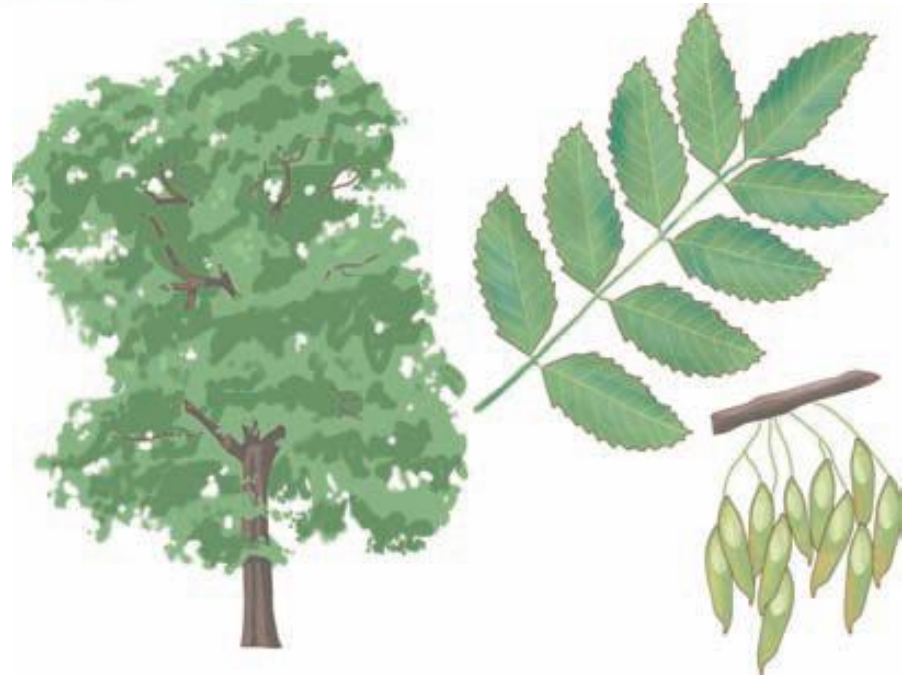
Birch (hardwood)

- Not a large tree
- Common in Ireland
- Light-coloured wood
- Uses
 - Making plywood
 - Furniture
 - Flooring



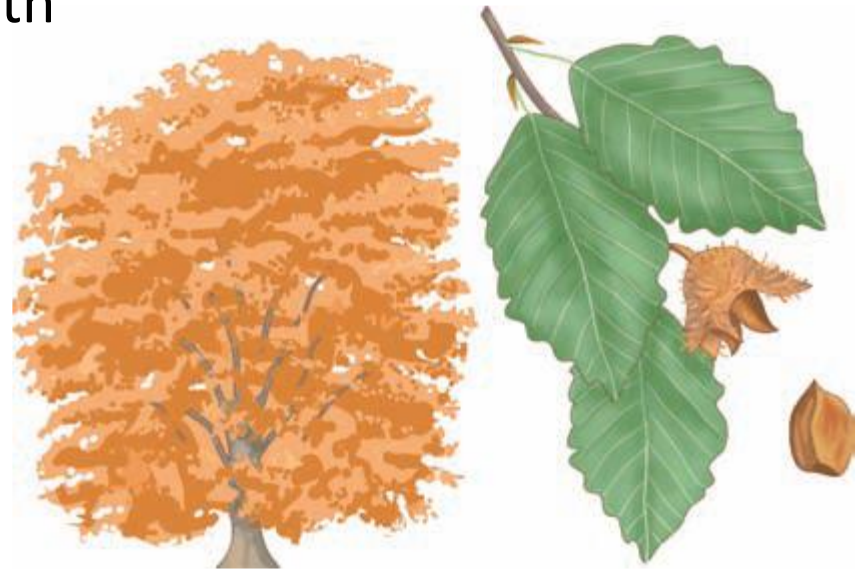
Ash (hardwood)

- Very common tree
- Grows quickly
- Hard, durable wood
- Wood is light-coloured
- Distinctive grain
- Elastic properties
- Uses
 - Hurleys
 - Furniture
 - Tool handles
 - Laminating



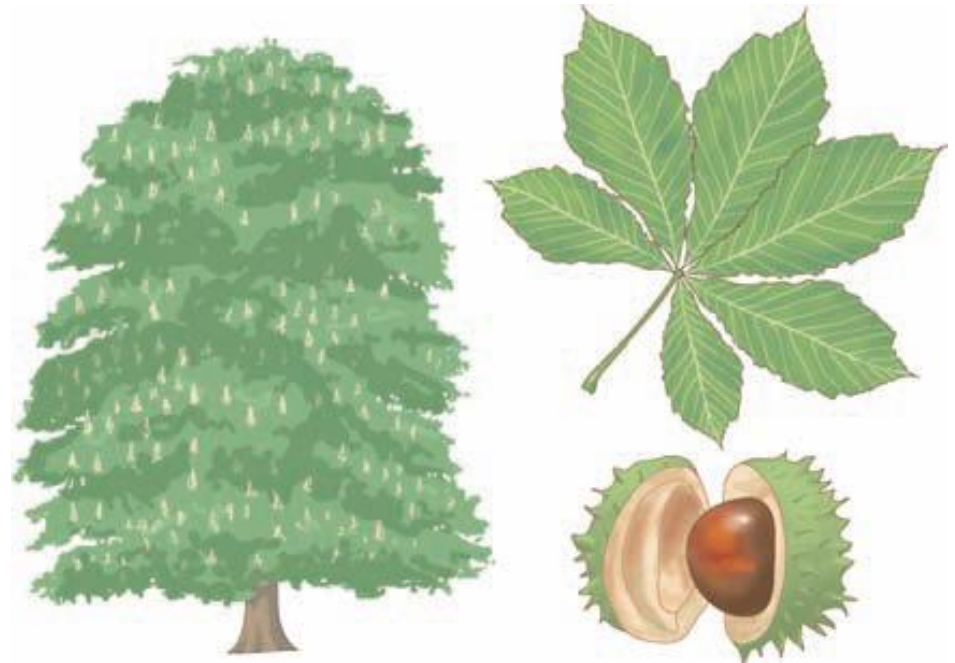
Beech (hardwood)

- Common slow growing tree with smooth grey bark
- Light-coloured wood
- Close-grained
- Durable and hard-wearing
- Uses
 - Furniture and flooring
 - Mallets, bench hooks, gauges
 - Kitchen utensils



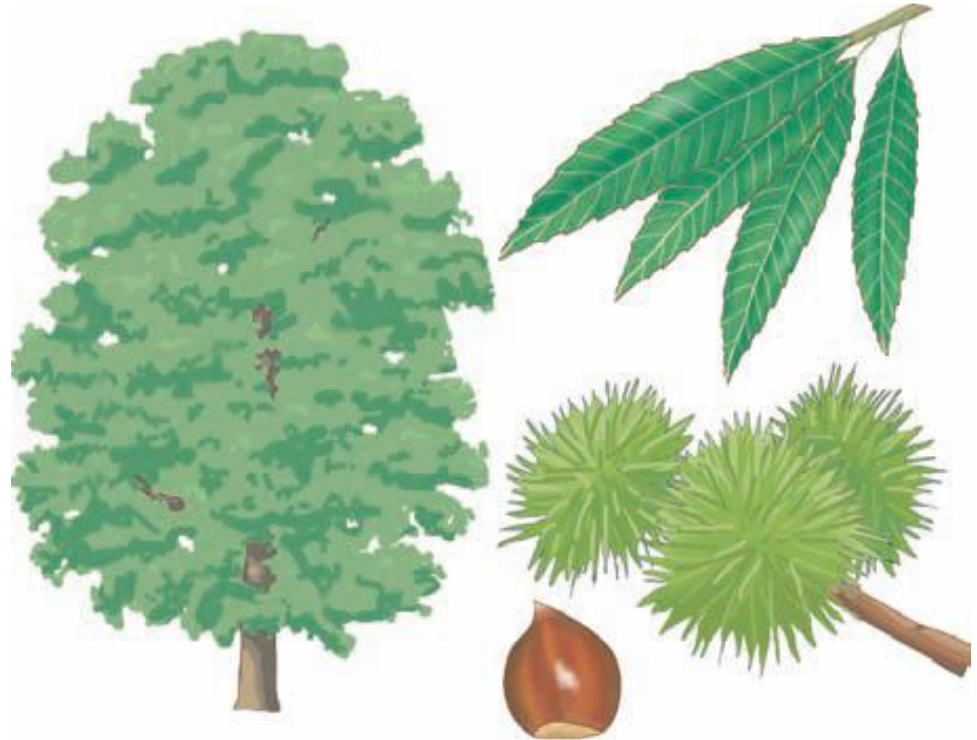
Horse chestnut (hardwood)

- Seeds – conkers
- Light-coloured wood
- Not durable
- Uses
 - Packing cases
 - Wood pulp



Spanish chestnut (hardwood)

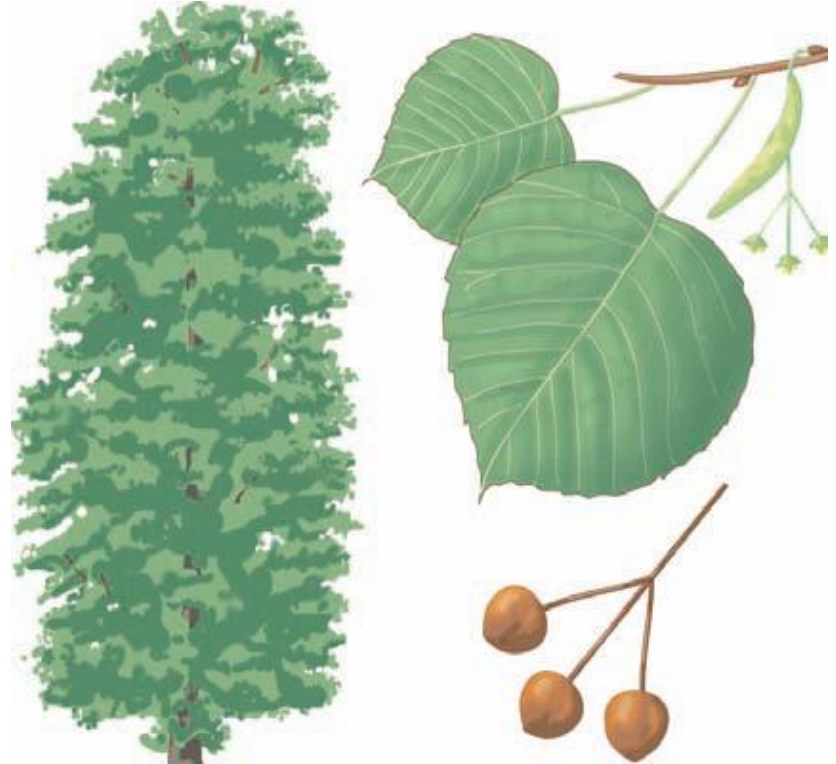
- Wood similar to oak
- Light brown colour
- Uses
 - Flooring
 - Kitchen units
 - Furniture



Lime (hardwood)

- Fast growing tree
- Absorbs air pollution
- Pale cream-coloured wood
- Easy to work with

- Uses
 - Carving
 - Musical instruments



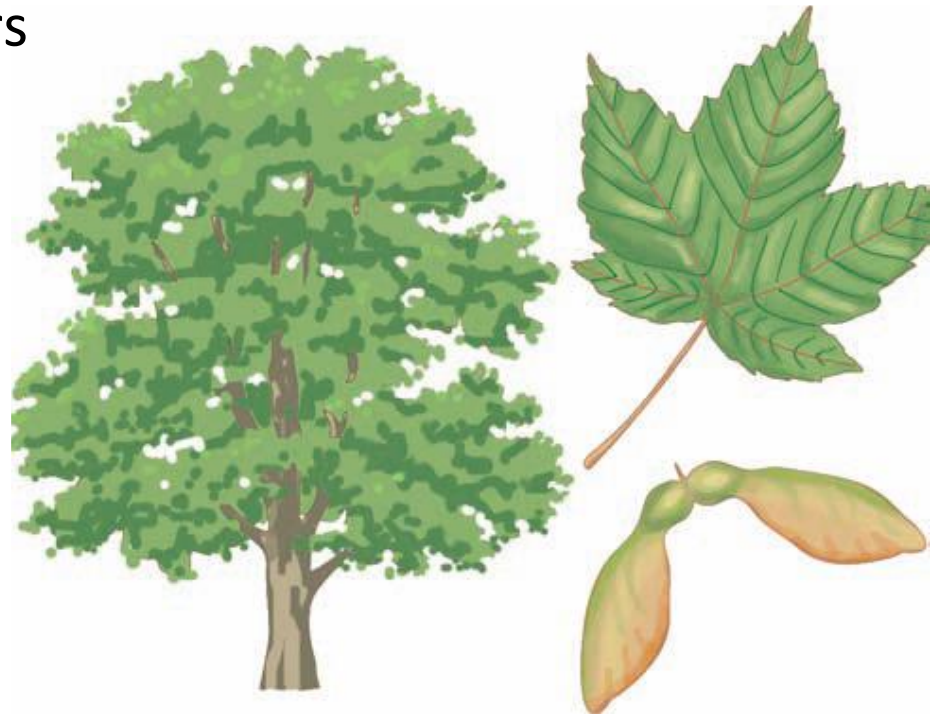
Cherry (hardwood)

- Small decorative tree
- Expensive wood
- Rich brown colour
- Uses
 - High-quality furniture
 - Flooring
 - Cabinets
 - Veneers



Sycamore (hardwood)

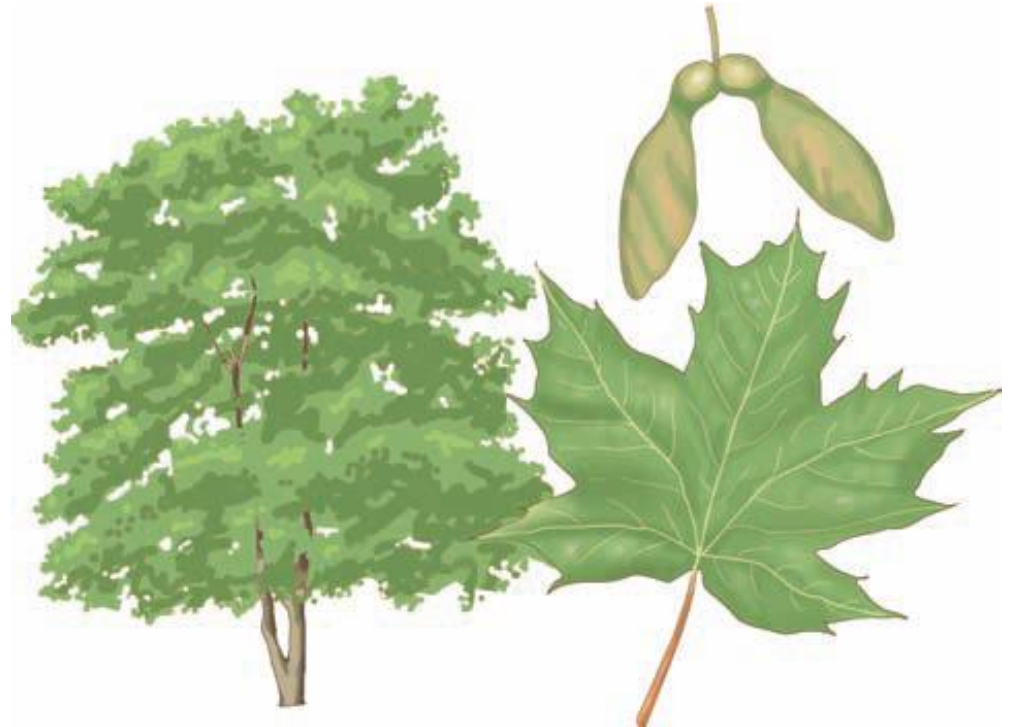
- Very common in Ireland
- Winged seeds – helicopters
- Light-coloured wood
- Uses
 - Carving
 - Veneering
 - Woodturning
 - Violin making



Maple (hardwood)

- Hard-wearing wood
- Light-coloured
- Durable

- Uses
 - Kitchen units
 - Maple flooring
 - Veneers
 - Furniture making

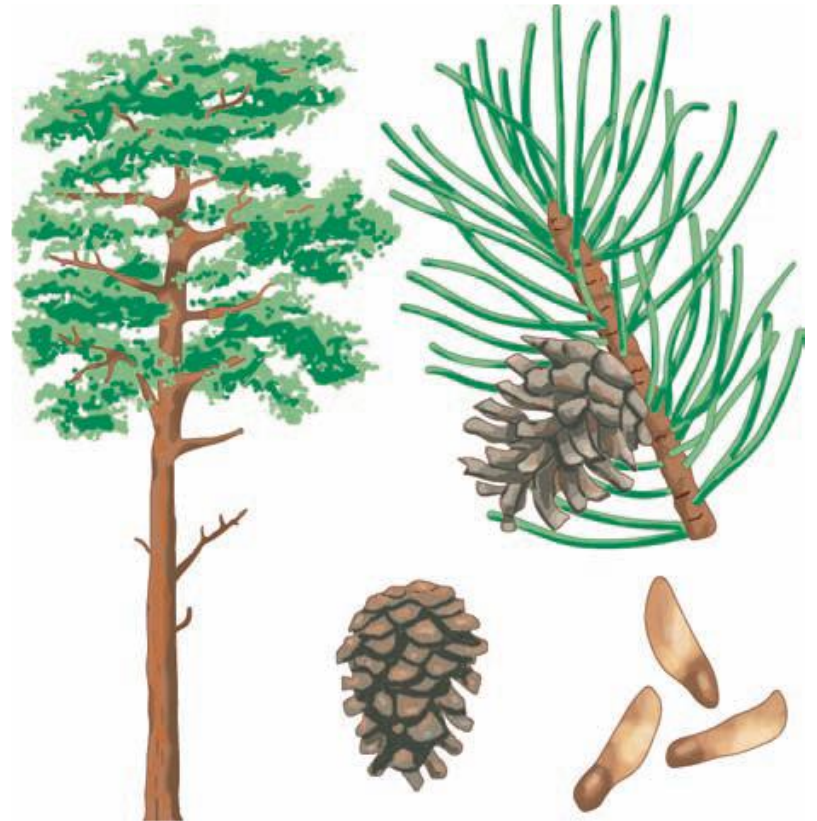


Coniferous trees



Scots pine (softwood)

- Tall tree – few branches
- Wood is light-coloured with a distinct grain
- Wood is called red deal
- Easy to work with
- Finishes well
- Uses
 - School project work
 - Construction timber
 - Doors and furniture



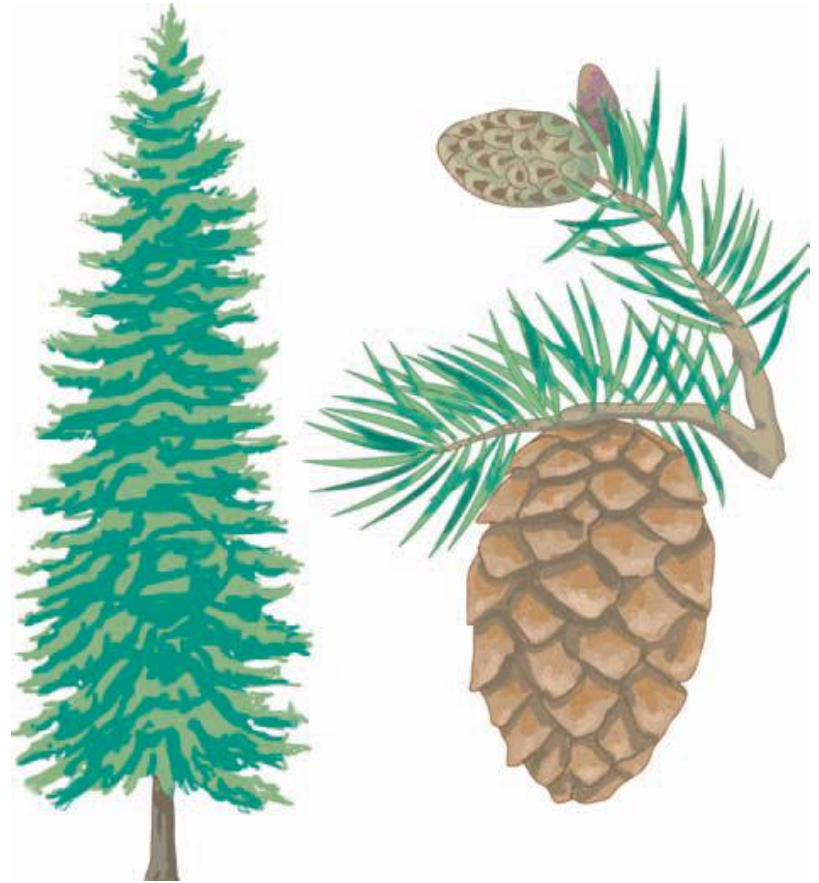
Douglas fir (softwood)

- Needles grow all the way around the twig
- Wood is reddish brown
- Decorative grain
- Light-weight and strong
- Tough, durable wood
- Resistant to decay
- Uses
 - Outdoor furniture
 - Gates
 - Railway sleepers



Sitka spruce (softwood)

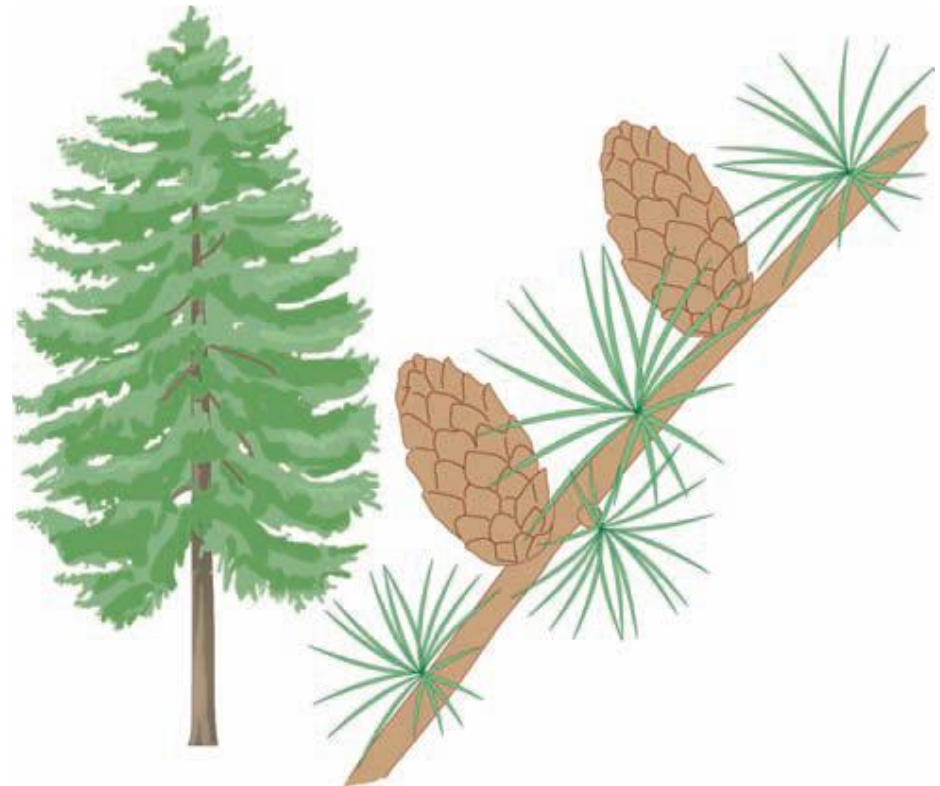
- Most common in Irish forestry – likes wet soil
- Strong wood
- Straight-grained
- Uses
 - Structural timber
 - Paper-making
 - Flooring
 - Fibreboard and chipboard manufacture



Larch (softwood)

- Only conifer to lose needles in winter
- Fast-growing, attractive tree
- Wood is reddish colour
- Wood tends to warp

- Uses
 - Boat building
 - Light furniture
 - Exterior joinery
 - Fence posts

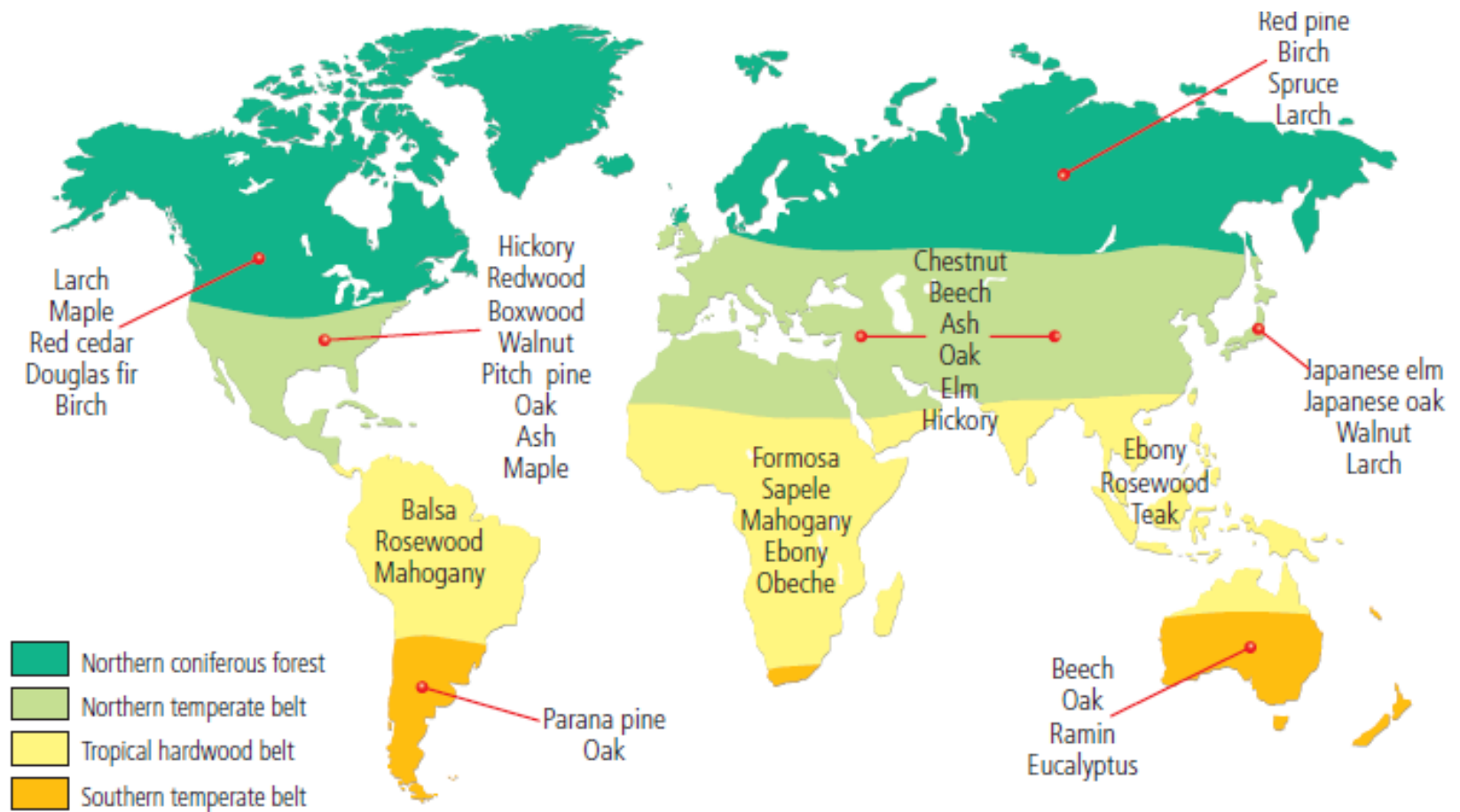


Lodgepole pine (softwood)

- Needles in pairs and densely grouped
- Attractive wood – reddish brown colour
- Wood tends to have a lot of knots
- Uses
 - Internal joinery
 - Chipboard and fibreboard manufacture



Timber regions of the world

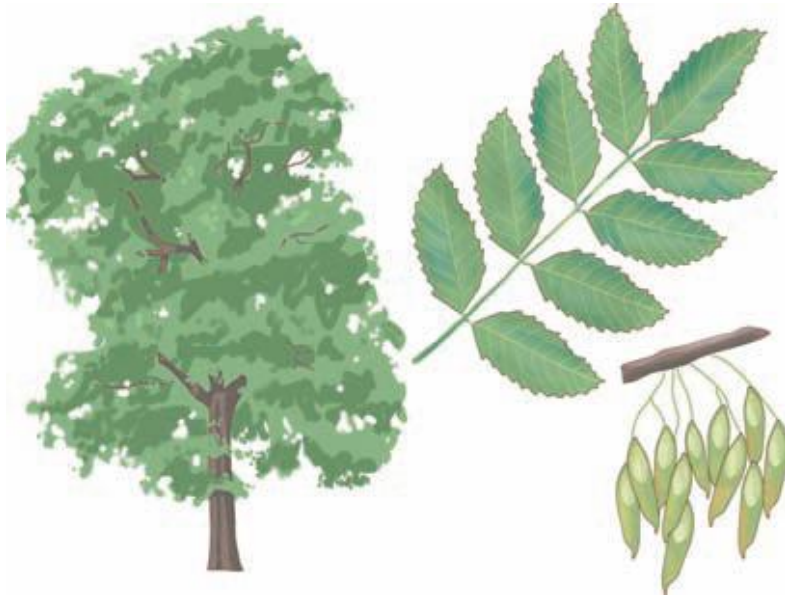


Quiz

Do you know your trees?

- Name the trees pictured below

- Ash



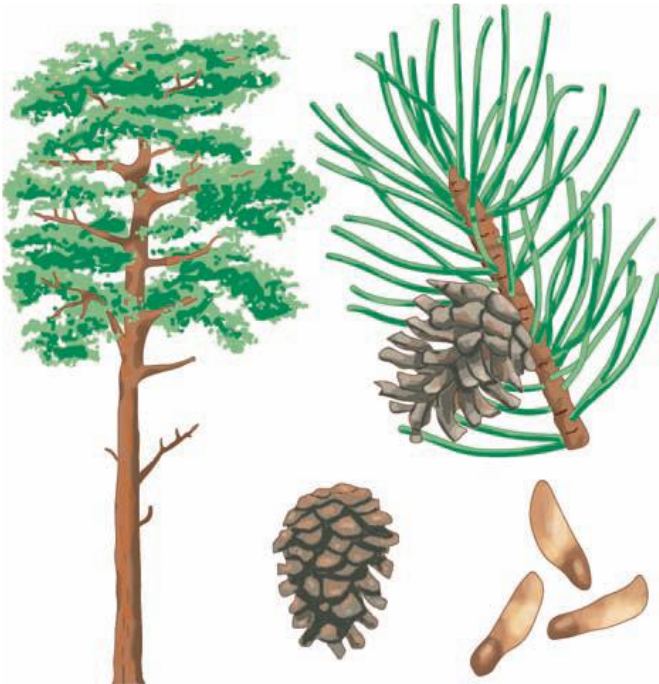
- Beech



- Name the trees pictured below

- Scots pine

- Oak



- What tree is shown on the Canadian flag?
 - Maple tree

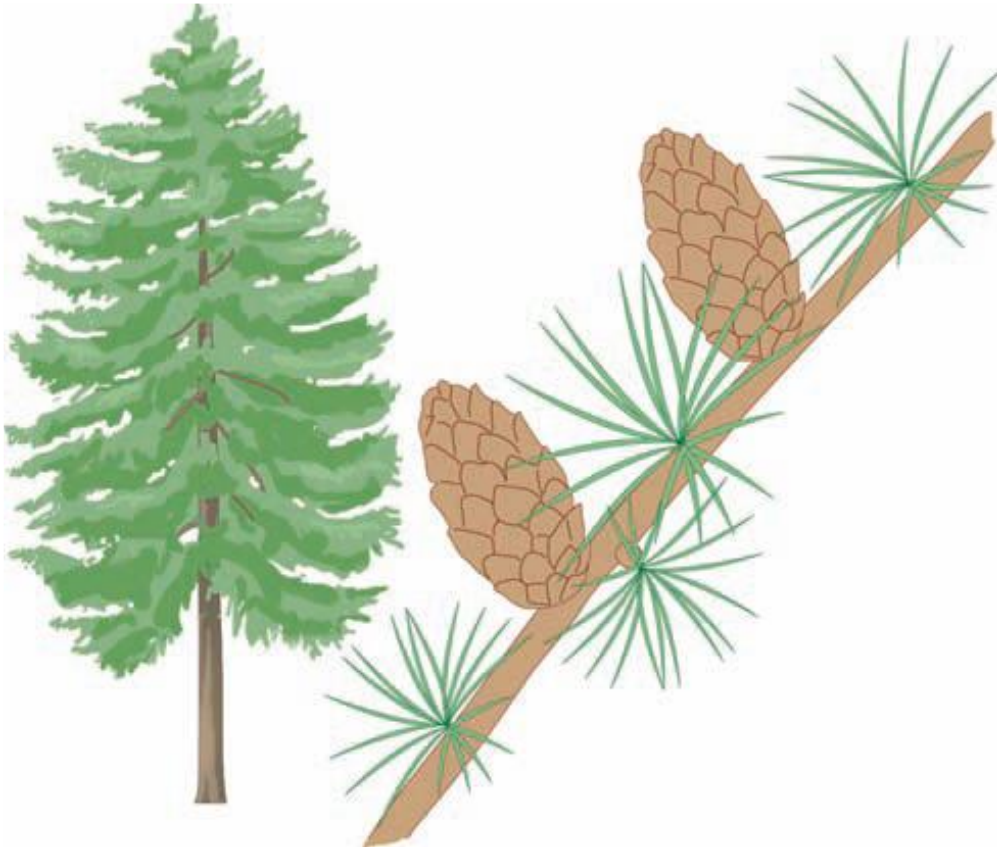


- Which conifer tree is the most common in Irish forestry plantations?



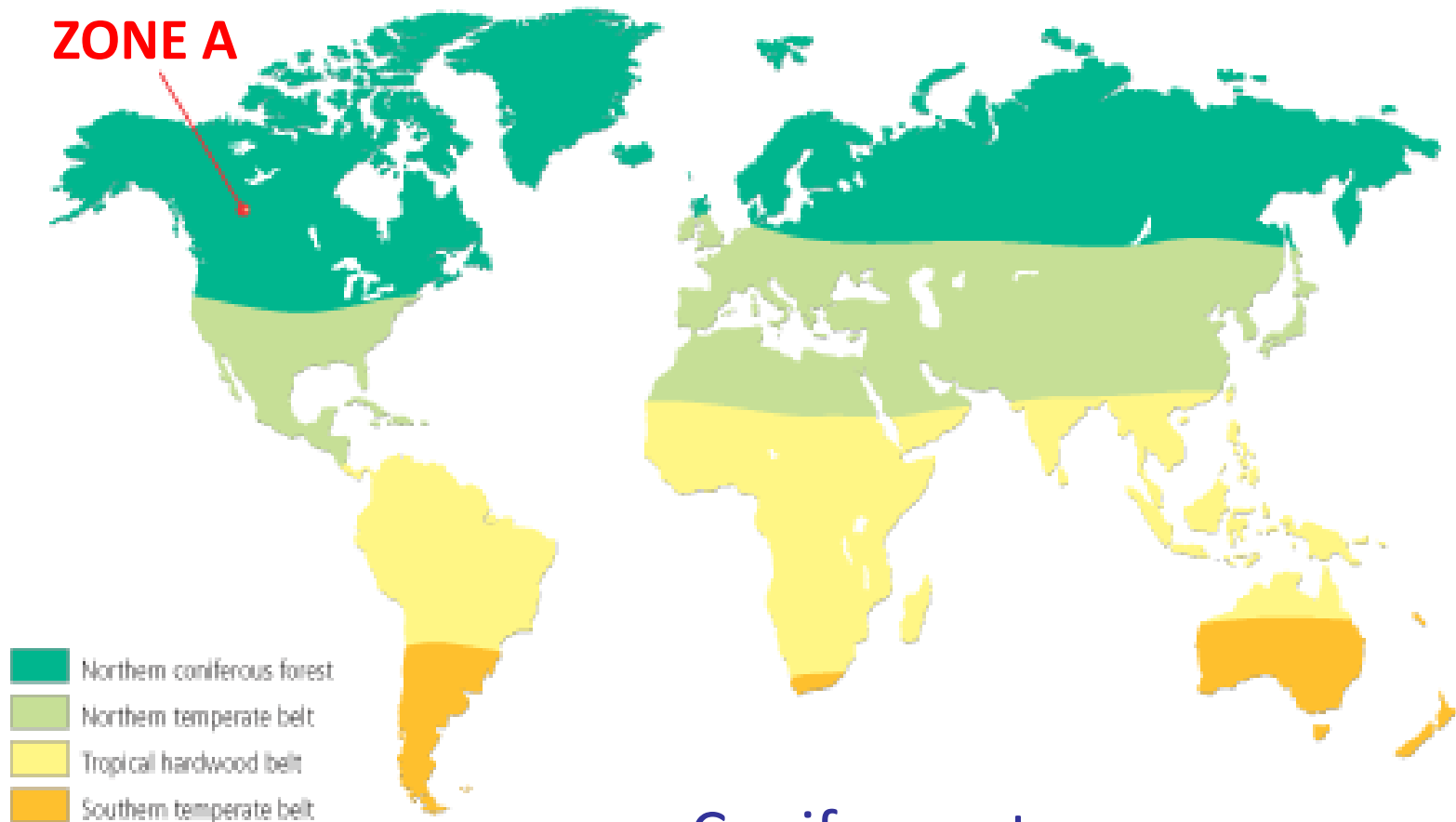
— Sitka spruce

- Name a conifer tree that is deciduous



- The larch tree loses its leaves in winter

- What type of trees grow in Zone A on the map?



— Coniferous trees