

# Trees for Places



What is a tree?

What do Trees provide in the  
Landscape?





# Types of Trees

- Evergreen
- Deciduous
- Gymnosperms-cone bearing, eg conifers
- Angiosperms-flowering trees



# Tree form

its overall shape when in leaf, this has the most visual impact and plays a much more significant role in planting composition than any individual feature such as leaf shape or colour.

# Columnar/cylindrical forms-thuja





# spiky form-dragon tree





# Trained/clipped Forms-box, acmena













Habit-the way a tree or shrub develops its woody framework,the arrangement of branches.

- Fastigate-all branches grow upwards
- Tortuous- contorted hazel/tortured willow
- weeping/pendulous-all branches droop from main stem- rimu
- Horizontal branches held at right angle to stem-dogwood
- Architectural/sculptural-very strong forms/textures-banana, ponga, chusan palm

# Plant adaptations



# What tree characteristics need to be considered when selecting tree species?

- Size-height, spread
- Shape/Form-overall shape, habit (branching pattern)
- Characteristics-leaves, trunk, flowers/fruit
- Growth Requirements-sun, wind, temperature, soil, water
- Particular use/function



# Trees for particular uses

- Environmental –sun/shade, clay, coastal
- Spring/autumn colour
- Edible/fruiting
- Subtropical
- Small spaces
- natives

## Growth rates of three Magnolia 'Little Gem' in a row



Growth rates of three melia on opposites sides of the road







Evergreen or deciduous?



























# Small evergreen trees

*Magnolia grandiflora* 'Little Gem'

- North Carolina, USA
- Small compact plant
- Large white fragrant flowers
- 8m x 5m
- Sun, part shade
- Well-drained soil
- Frost tolerant once est.
- Relatively disease and pest free













## *Gordonia axillaris* fried egg tree

- USA and South East Asia
- Multi stemmed shrubby tree with prolific creamy white and yellow flowers
- Sun, part shade
- Moisture retentive, slightly acidic soil
- Tolerant wide range of temperatures
- Prune to shape
- 8mx 4m









*Alectryon excelsus* NZ oak,  
titoki

- Nth Cape to Banks Pen
- Single leader, spreading canopy
- 15+m x 8m
- Specimen, pleached hedge
- Sun, part shade
- Intolerant wet soil
- Med to heavy soil
- Food native birds



*Alectryon excelsa* - titoki





*Cordyline australis*, cabbage tree, ti kouka

- New Zealand
- Strong vertical element
- Spiky in youth
- Branches after producing fragrant flower spikes
- Tolerates poor and sandy soils
- Tolerates coastal salt spray and winds
- Susceptible to cabbage tree caterpillar and cabbage tree decline disease







*Cordyline australis* -  
cabbage tree





*Cordyline 'Kaspar'*  
3 kings cabbage tree

- 3 Kings Island
- 5m x 3m
- Moist, deep soil
- Protect from heavy frosts
- Small, sub-tropical appearance





*Cussonia paniculata*  
S. African mountain  
cabbage tree

- South Africa
- 6m x 4m
- Interesting gnarled bark
- Large gray/green leaves
- Light green flowers
- Slow growing
- Sun
- Rich soil
- Medium amount of water
- Copes with light frosts





*Cussonia paniculata*





## *Olea europaea* olive

- Africa, Arabia,
- Himalayan Asia
- 9m tall 6m wide
- Slow growing long lived
- Grey green foliage
- Fruits after 10yrs, needs cool winter, long hot summer
- J5 good cropper
- Prunes well
- Self seeds easily
- Copes with poor soil
- Good drainage





*Backhousia citriodora*  
lemon scented myrtle

- Queensland, Australia
- 20m x 8m
- Creamy flowers, summer to autumn
- Strong lemon scented leaves
- Tropical to warm temperate climates
- May handle cooler districts with frost protection when young
- Tolerates all but the poorest drained soils
- Slow growing









*Pseudopanax ferox*  
horeka, lancewood

- New Zealand sea level to 750m
- Juvenile form 15-20 years
- Stiff leathery leaves with serrated teeth all growing downwards from central stem
- Stem begins to branch, producing a bushy top and leaves become wider and shorter
- 6m
- Sun, semi-shade
- Drought tolerant
- Intolerant wet soils-root rots
- Wind tolerant
- Food for native birds







*Pseudopanax crassifolius*

lancewood, horoeka

- Throughout NZ
- Up to 9m tall
- Juvenile form 10-20yrs
- Dark green , orange mibrib
- Branches begin to develop
- leaves shorten, become more upright
- Free draining soil
- Wind tolerant
- Sun















*Knightia excelsa rewarewa*

- North Is NZ
  - Up to 30m, 8m in cultivation
  - Narrow, slightly conical shape
  - Dark green, narrow, serrated leaves
  - Red, bottle brush like flowers, spring
  - Long brown seed pods
  - Hardy
  - Sun or part shade
  - Prefers good drainage
- 
- Copes with most soils
  - May be susceptible to thrips





*Meryta sinclairii* puka, pukanui, 3 Kings, Hen + Chick Is.

- 5-8m tall + wide,
- tropical appearance with big, glossy leaves, female trees have yellow green flowers + black fruit
- Sun, frost tender, good drainage, reasonable soil, wind tolerant
- Can be pruned, will grow in containers







*Metorsideros excelsa* 'Maori princess'  
pohutukawa dwarf cultivar

- North Cape to Poverty Bay
- Small vertical cultivar
- Highly drought resistance once established, but respond well to mulching and watering
- Branch from ground level
- Orange to scarlet flowers December
- 8+m x 4m
- Any soil, sandy to heavy clay
- Tolerant salt spray and winds







*Metrosideros excelsa* x *M. collina*











*Dracena drago*,  
dragon tree

- Canary Islands
- Free draining stony or sandy soil
- Frost free

- 3m x 2m
- Juvenile single stem with single rosette of leaves, branching after flowering







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*Radermacheria sinica* asian bell, canton lace, Asia

9m tall 4.5m wide, dark green, glossy foliage, fragrant small yellow/whitish flowers spring, summer. Sun/part shade, good drainage, some wind protection, clips well, pleached hedge





*Brugmansia x candida* angel's trumpet, Ecuador

- 3m tall, 4.5m wide
- All parts poisonous
- Lime green leaves, drooping spectacular, fragrant, trumpet flowers- greenish white
- Frost tender, sun, protect from wind, prune in late winter to maintain bushiness



*Citrus* spp. Eg *Citrus limon* 'Meyer' lemon  
*Citrus sinensis* orange

- Southeast Asia
- Up to 8m, can get dwarf rootstock
- Glossy bright green leaves
- Fragrant flowers, fruit
- prune out dead, diseased wood
- Prone to a range of pests and disease
- -borer, scale, leaf miner
- Full sun
- Wind protection
- Watering and feeding
- Slightly acidic loam soil
- Good drainage







*Feijoa sellowiana* – pineapple guava, feijoa South America

- Dense, hardy, pruned as tree or hedge
- Tolerant coastal exposure
- Cross pollination for good fruit set cultivars Ramsey, Triumph and Coolidgei



*Alnus jorullensis* evergreen alder

- Mexico central America, related to birches
- 10m tall 4m wide
- Very fast growing-good screen tree or pleached hedge needs clipping regularly
- Roots invasive
- Do best in soils which are permanently wet, good in clay soils





*Thuja occidentalis* 'Smaragd' white cedar

- N. America
- 9-21m tall, 4.5m wide
- Dense, conical dependable form
- Bright green, scale like foliage
- Full sun/semi shade
- Plenty of moisture but free draining soil
- Shelter from cold winds
- Prune from within with secateurs







*Thuja occidentalis* 'Smaragd'





*Thuja occidentalis* 'Smaragd'







*Juniperus chinensis* 'kaizuka' –  
Hollywood juniper

- China, Japan
- Sculptural tree with twisted branches
- 9m x 5m
- Hardy and tolerant of extremes
- Sun





# Small deciduous trees

## *Cercis canadensis* 'Forest Pansy'

- Understory tree spreading flat to rounded crown
- Purple leaves with showy pink flowers in spring before leaves emerge
- 3m x 3m
- Sun, part shade
- Sheltered position
- Canker can be significant problem





*Betula utilis* var. *jacquemontii*,  
Kashmir, Himalayan birch

- Himalayas
- Fast growing broadly conical tree
- Creamy white bark
- Glossy green leaves
- Hardy
- 18m x 10 m
- Full sun, part shade
- Tolerant of most soils including heavy clay











*Sophora tetraptera* kowhai, 3-7m, throughout NI NZ

- Semi deciduous
- large yellow flowers early spring-nectar, long brown seedpods
- Delicate lacy foliage
- Full sun or part shade, prefer good drainage, susceptible to kowhai moth caterpillar damage



*Cydonia oblonga*

- Iran, Turkey
- Rounded umbrella like crown
- 7m x 5m
- Sun
- Protect from wind
- Most soils
- Frost hardy but still fruit in subtropical areas
- Fruit early to mid winter
- Selected clones Champion, Lusitanica, Smyrna





*Fagus sylvatica* 'dawyck purple'  
copper beech cultivar

- Upright, narrow cultivar
- Dark purple leaves
- Green flowers
- 15m x 8m
- Hardy
- Tolerant of most soil types, not waterlogged
- Sun, part shade
- Exposed, sheltered
- Beech bark scale, aphids, root rots











*Magnolia* 'Black Tulip' NZ Mark Jury hybrid-  
Vulcan x

- 3.5m tall
- Slow growing compact form
- Magnificent black red flowers in spring
- Reasonably wind tolerant
- Frost hardy
- Mulch annually





- Acer palmatum* 'Red Emperor'  
Red emperor Japanese maple
- Japan, Korea
  - Open airy tree
  - Bright red young spring becoming darker red as summer progresses
  - 6m x 8m
  - Protect from wind
  - Shade, part sun
  - Cool, moist soils in summer
  - Lime free





*Acer palmatum* 'Bloodleaf'





*Acer palmatum* 'Bloodleaf'



*Acer palmatum* 'Bloodgood'

- Holds colour all season
- Comes into leaf 2 weeks before red emperor



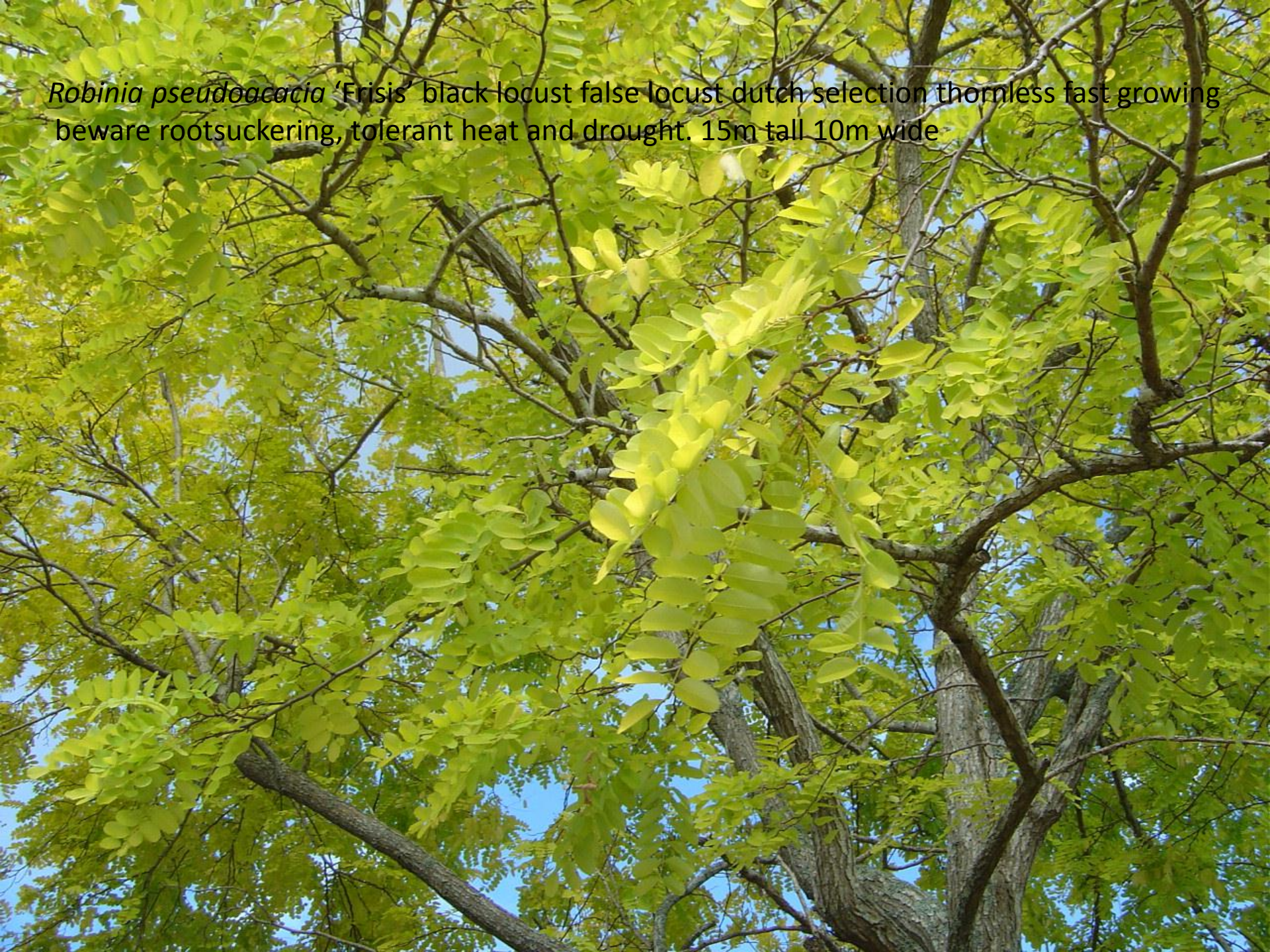




*Acer palmatum* var. *dissectum* forma  
*atropurpureum* 'Crimson Queen'  
weeping redlace, cutleaf, threadleaf Japanese  
maple



*Robinia pseudacacia* 'Frisis' black locust false locust dutch selection thornless fast growing  
beware rootsuckering, tolerant heat and drought. 15m tall 10m wide





*Prunus yedoensis* 'Awanui'  
flowering cherry

- NZ selected cultivar
- Good vigorous disease resistant
- Generally hardy
- Sheltered site to prolong flowering
- Don't allow to dry out during hot periods
- Sun, part shade
- 2 forms, bottom worked or top worked to create standard
- 5m x 8m







*Prunus campanulata* Taiwan cherry Taiwan, South China

- Can grow to 9m but usually smaller in cultivation
- Carmine red flowers in late winter, bronze/red foliage autumn
- Warm temperate climate, full sun, wind protection for spring blossom, moist well drained soil, responds poorly to pruning













Weeping cherry



*Albizzia julibrissin* silk tree,

- South Asia, Iran to Japan
- 5m tall 4m wide
- Wide spreading, slightly weeping canopy
- Smooth attractive bark
- Bipinnate bright green leaves
- Soft whitish flowers with pink stamens
- Tolerant heavy clay soils
- Tolerant wind









# Large evergreen trees

*Magnolia grandiflora*

- North Carolina, USA
- Broad dome shaped tree
- Dense canopy
- Large white fragrant flowers
- 15+m x 10+m
- Sun, part shade
- Well-drained soil
- Frost tolerant once est.
- Relatively disease and pest free
- Note: Smaller cultivar *Magnolia* 'Ferruginea'













*Corynocarpus laevigatus*  
karaka

- Coastal Forest, North Island, NZ
- Handsome canopy tree
- Large, leathery, glossy leaves
- Bright orange fruits – poisonous
- 15+m x 10+m
- Sun, part shade
- Tolerant of wind and salt spray
- Tolerant mild drought
- Sensitive to frost when young
- Food for native birds





karaka







karaka



*Agathis australis*  
kauri

- Northland to Bay of Plenty, NZ
- Slow growing pyramidal shaped tree with slender trunk
- Juvenile form bronze coloured foliage
- 30-60m (30 years to reach 10m)
- Sun or shade
- Rich, moist soil
- Protect from wind when planting
- Stake well
- Female cones Sept. to Dec.
- Male cones throughout the year









*Aloe bainesii*  
tree aloe

- East Africa and South Africa
- Succulent
- Yellow flowers mid winter to early spring
- 18m x 8m
- Full sun, part shade
- Dry, free-draining soils





*Cypressus sempervirens*  
Italian cypress

- Tall, narrow conifer
- Scale like leaves
- Fast growing when young
- 20-30m tall
- Tolerant drought, frost, wind, sleight, atmospheric gases
- Adaptable to most soils
- Other cultivars include
  - C. Sempervirens, 'Swanes Gold'
  - C. 'Gracilis'
  - C. 'Stricta'
  - C. 'Totem'







Italian cypress



*Cypressus sempervirens* 'Swanes Golden'







*Podocarpus totara* 'Matapouri Blue' blue totara NZ Graeme Platt selection

- 6m tall - 4m wide, upright pyramidal form
- Blue grey foliage in winter, lime green in spring
- Can be pruned and hedged
- Copes with wide range soil conditions
- Wind and coast tolerant
- Sun
- Female trees have red berry like fruit in autumn



# Large deciduous trees

*Quercus rober*, English oak tree

- Large, wide-spreading crown with gray trunk
- Medium growth rate
- Long-lived
- Up to 50 m tall
- Tolerant wide range of conditions including wet soil, dry clay







Oak Tree



## *Melia azederach*

- India and China
- Prefers full sun
- Tolerant to wind and drought
- Protect from frost when young
- Train early for single stem
- Lilac flowers and panicles in spring
- Yellow poisonous fruit in autumn
- 9m x 8m









*Diospyros kaki* –  
persimmon

- Japan
- Best cultivars 'Fuyu', low tannin variety needs ample warmth, 'Hachiya', large tenderskinned fruit
- Tolerate prolonged drought, but most prefer well drained soil
- Several trees for cross pollination produce best fruit seed
- Colourful autumn foliage











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- China
- Broad spreading tree
- 10-25m tall
- Showy flowers in spring

- Tolerates wide range of soils but doesn't like high water table or shade
- Tolerant pollution

*Paulownia tomentosa*,  
empress tree







*Jacaranda momosifolia* jacaranda, Central America

- Large specimen tree, deciduous in cooler climate
- Fern like foliage mauve flowers, big seed pods
- Warm sunny spot away from winds
- Shallow rooted, heavy feeders, free draining, moisture retentive soil, prune for sturdy trunk

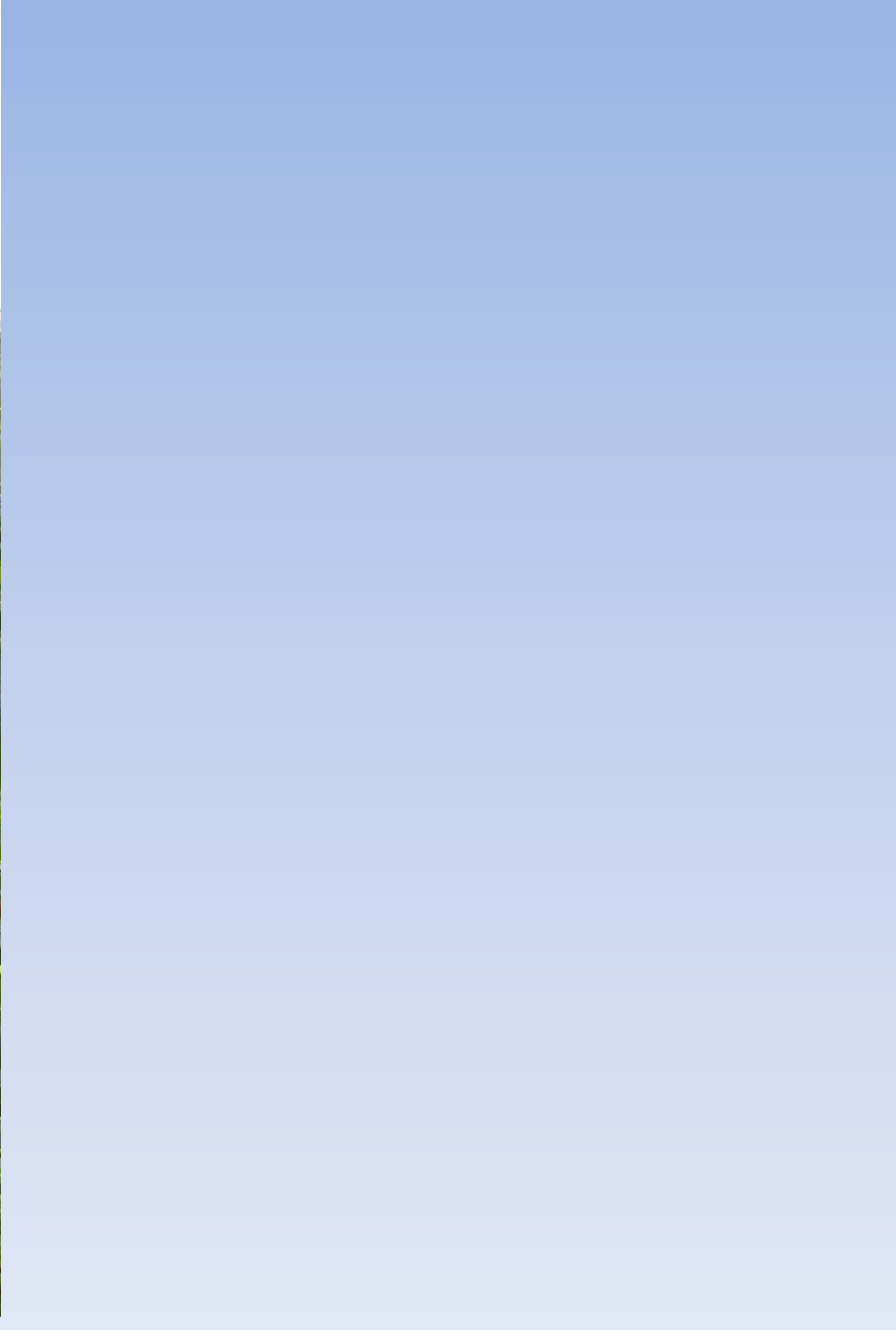




*Aesculus flava* sweet buckeye

- Related to common horse chestnut
- Central/eastern USA
- 30m tall 10m wide
- Bold foliage
- Yellow flowers
- Inedible fruits held in big seed capsules
- Rich, moist soil
- Sun, part shade
- Protect from severe winds
- Tolerant pollution







*Chorisia speciosa*  
floss silk tree

- Brazil, Argentina
- Mainly evergreen, but may be deciduous when flowering
- Pink, lily-like flowers
- Stout, green trunk with spines
- Well-drained soil
- Summer watering
- Half-hardy
- 20m x 15m

