

Some Aspects of **Tree Planting** & Aftercare

Poor stock, poor staking, no watering, no mulching "Cynical Tokenism" (Alan Simson) Plonking by Plonkers Poor Positioning?

Right tree Right place?





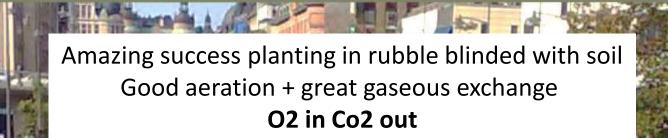
Clay soil - Smearing – **Gypsum** may help [Calcium sulphate]



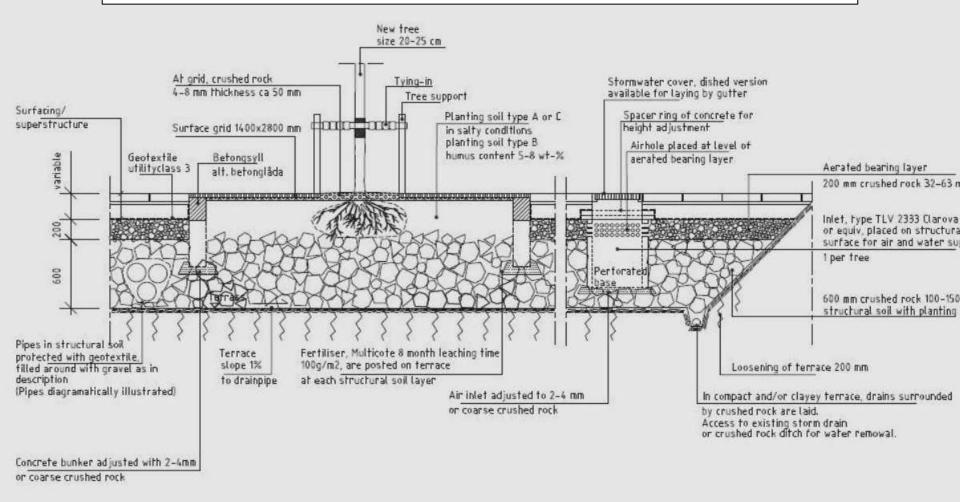
PLANTING BEDS IN THE CITY OF STOCKHOLM A HANDBOOK 2009.02.23 GH100322

THE REAL PROPERTY AND

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Stockholm – Structural soil + crushed rock + nutrients + Biochar + aeration



NEW PLANTING - TREE IN PAVED AREA WITH SURFACE GRID Principle section SCALE 1:20 (A2), 1:40 (A4)

NOTES

Soil equipment such as gratings, trunk guards, tree support are specifically adapted to the project.

Fine crushed rock must not be used in structural soil profile for adjusting air inlet or concrete bunker.

In specially constructed tree holes with narrow dimensions tree root diameter must be observed.

With increasing trunk circumterence clump diameter increases, see Quality regulations for nursery plants,

NOTESANMÄRK All data in mm specified.



Trees in hard surfaces Using load-bearing 'crates' to increase rooting space

- 1. Selected surfacing
- 2. Upper sub base minimum 300mm
- 3. Root directors
- 4. Aeration and irrigation inlet cover
- 5. Rootball
- 6. Treebunker posts
- 7. Soil infill

1-1

11

(10)

- 8. Irrigation pipe
- 9. Geotextile
- 10. Lower sub base usually 100mm deep.

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Nursery Stock Quality A good bare-rooted tree



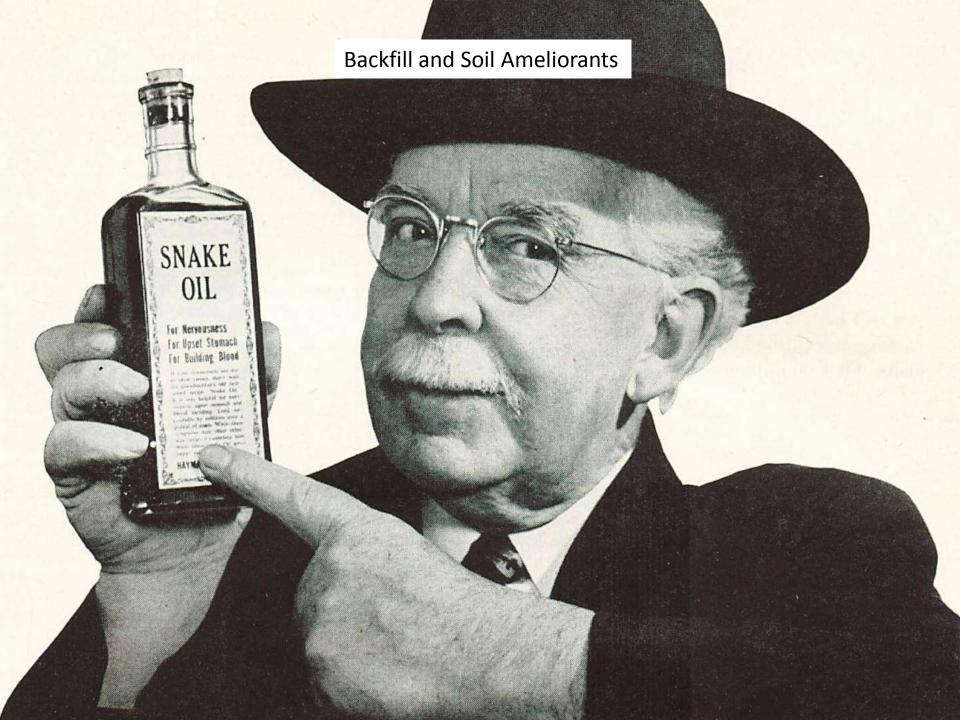
Pot-bound root systems are OK – but you must damage them!



Planting pits – square? As wide as possible and only as deep as the root system.

Mound Planting On heavy clay or shallow soils. But is this proper mound planting?

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Snake Oil?:

- Mycorrhizal inoculants
- Seaweed extract
- Planting compost?
- Auxins
- Hydro gels

Worth considering?:

- Organic matter [10% max] and/or grit
- Sugar
- Probiotics
- Rigel-G
- Biochar
- Bark & wood chips [mulch]



'Garden' Placenta

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Aftercare

Weed control Glyphosate?



Strimmer/Mower damage

© 2009 GCMGA Inc., All Rights Reserved http://aggie-horticulture.tamu.edu/galveston Let's just forget about it...

Resta



<u>Case Study</u> - Dead Maple in Richmond, Surrey – Summer 2012 One of the wettest on record

Formative Pruning – Eliminating future Defects



Non Bio-degradable Plastic-Coated Galvanised Wire on root ball and slow degradable plastic mesh

2010

Beware!

Many landscape and planting contractors do not know how to plant a tree properly



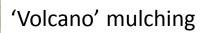
Galvanised wire won't degrade? Hole too small? Stem not vertical? Smeared sides to hole? Hessian not undone around stem? White nylon rope won't degrade? Too much OM and not mixed with soil?



Mulches:

- □ Improve soil structure and aeration
- Combat decay fungi
- □ Increase microbial activity
- □ Feed the tree on breakdown
- Winter blanket
- □ Help with moisture retention
- Cools in the summer
- Suppress weeds
- □ Reduce weed seed germination
- □ Reduce soil compaction
- **G** Reduce soil erosion in heavy rains
- □ Regulate pH and cation exchange capacity
- □ Reduce mower/strimmer damage

Hawthorn and Cherry chips are especially good as fertilizer. Tree of Heaven chips are toxic Willow chips = Aspirin





Some trees to avoid...?

Gleditsia triacanthos Honey Locust Central N. America

and the second second

Rapid growth & invasiveness [and toxic mulch chips] *Ailanthus altissima*

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Weak branch attachments Fraxinus angustifolia oxycarpa 'Raywood' Ulmus 'Princeton' – DED Resistant but...

Reversion - Acer platanoides 'Drummondii'

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Purple leafed trees – a Black hole?

Horse chestnut Aesculus hippocastanum

Bleeding Canker Leaf fungus Leaf minor



Trees to Consider for the Future?

Resilient Trees for the Future – Tough and Adaptable?



The work of <u>Henrik Sjöman</u>

- Carpinus orientalis (Oriental Hornbeam)
- Ostrya japonica (Japanese Hop-hornbeam)
- □ Quercus pubescens (Downy Oak)
- □ Acer x freemanii (Freeman Maple)
- □ Sorbus torminalis (Wild Service Tree)









Celtis australis – S Europe, N Africa & Asia minor – introduced to England in 16th C





Acer monspessulanum "Montpelier maple" S. Europe & W. Asia



Small Trees & Clipped Trees

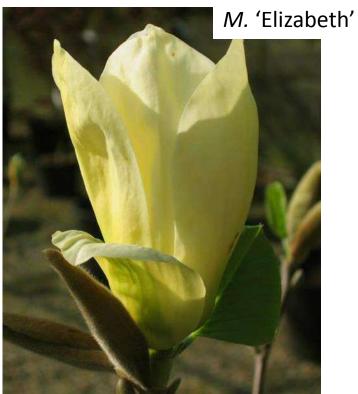
"Head Turners?"



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Shrubs trained as trees? – Magnolia Susan

(Internet







Nerium oleander – "Oleander"

Mediterranean, N. Africa, Arabian peninsula, southern Asia, and as far east as Yunnan.

Now growing well in central London and on the East Coast of the US, it grows as far north as Washington DC





Cercis canadensis 'Forest Pansy'







Pleached *Pyrus calleryana* 'Chanticleer'



Productive screening and space division - espalier [pear] trees

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Paulownia tomentosa "Foxglove tree" from China Stooled *Salix alba* 'Britzensis' Pollarded

Salix alba vitellina Stooled [also known as coppicing}



A distinctively pruned plant – Japanese Niwaki or 'cloud' pruning



Morus alba 'Platanifolia'

Aesculus parviflora – Dwarf or Bottlebrush buckeye – SE USA







Pterostyrax hispida – The "Epaulette tree" Japan & China



Eucalyptus pauciflora subsp. *debeuzevillei* "Jounama snow gum"



Prunus rufa – Himalayan cherry

Acer davidii



The Snake-Bark Maples

Acer pensylvanicum 'Erythrocladum'



Acer capillipes



Polylepis australis – Rosaceae family. Native of C & N Argentina Growing up to 3000m above sea level Broussonetia papyrifera

"Paper mulberry"

East Asia Korea to Cambodia

> Dioecious "two homes"





Fruits on a female tree



Lagerstroemia indica "Crape myrtle" Lythraceae. China, Korea, Japan and India Very popular in the USA









Chionanthus retusus – Chinese fringe tree – tolerant of many climates







Melia azedarach

"Persian Lilac" or "Bead Tree"

Mahogany family native to Indomalaya & Australasia.

Growing well in northern Italy and lowland and sheltered parts of Switzerland







Medium sized trees

For structure?

Tetradium danielii – [*Euodia*] – "Bee-Bee Tree" – *Rutaceae* family Scented flowers late summer followed by red fruits - China & Korea



Tilia henryana – "Henry's lime" – C. China

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Female flowers – later to be walnuts Male flowers are green catkins

Sorbus thibetica 'John Mitchell'



Halesia carolina "Snowdrop tree" – SE USA Aesculus californica

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Kennington Park, London

Lyonothamnus floribundus aspleniifolius "Catalina Ironwood " native of California Rosaceae family





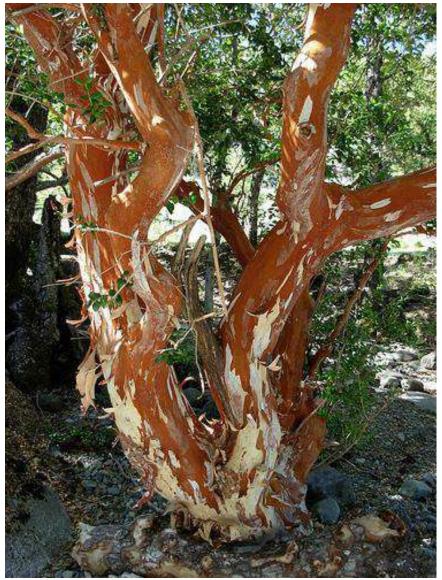






Luma apiculata

Myrtle family, native to the central Andes between Chile and Argentina. Grows well throughout Ireland including near Belfast and in the west of England and Scotland



Where will it grow with climate change?



Paulownia kawakamii – the "Sapphire dragon tree" Native to Taiwan & S. China. Introduced 1992 – endangered in the wild





Zelkova serrata – Japan, China and Korea





Quercus rysophylla 'Maya'

Evergreen Mexican oak Introduced in 1978

Now over 20m at Hilliers



Oxydendrum arboreum - "The Sorrel tree" – E. USA Acid soil needed

Sumit



