Notes on the Propagation of Nicot. orders. R.
General note on Ranunculaceae.

The plants of the Ranunculaceae being mainly annuals and perennials are wellknown as border and rock plants. The order is allied to the Magnoliaceae and Anonaceae and is found essentially in north temperate regions, though some species of Anemone &c are distributed in tropical and southern regions. While the lowgrowing species are suitable for border and rockery e.g. Aconites, Hellebores many from their free and tall growing habit are more suitable for the wild garden e.g. Larkspur & Talictrum. Xanthorrhiza apicifolia is a hardy shrub in the order. Many of the plants in this order were more cultivated than they now are, especially the many species of Ranunculus, Helleborus &c but the many single and double varieties of the freely flowering plants in the order are well worth cultivation.

Seed is freely produced and propagation is often effected by this method. For annuals such as Nigella it is the only method.

Vegetative propagation by means of division is the common method of increase as the plants are nearly all herbaceous. Where shrubby forms occur as in the Paeonia, Xanthorrhiza, Tree mignonettes &c stem cuttings are a mode of increase. Cuttings of the rhizome can be used in those species which have a thickened rhizome e.g. sp. Anemone, Hepatica, Helleborus &c.

Root cuttings are also employed with advantage in various species of Anemone notably sylvestris and japonica in the Tree Paeonias &c.
Grafting is mainly used for the Japanese *Paeonia* (for disadvantages of the method see arts. under *Paeonia*.) Layering is also a method of increase for *Paeonia* and others.
ADONIS, LINN.

Ranunculaceae.

Adonis. hardy herb (useful for rockery).

I. division.

2. See the usual methods.

a. amurensis
   Pot. 74.90
   7.7.96
   9.20.2.97
   9.3.7.97 (Plate).

b. autumnalis (ann.) 8.27.8.81.

   pyrenaica
   8.30.5.84
   9.30.8.85
   9.17.2.94.

   vernalis
   8.17.8.81
   8.15.8.86
   9.31.3.91
   9.24.3.91 (Plate)
   9.24.11.94
   10.10.96.

ACONITUM

for other species see genus Arth.

The Adonis 8.20.6.74.

Alpine Adonis 8.21.3.91.

Adonis 8.23.7.97.
**ACTAEA** Linn.  
Perennial herb.

1. Division hybrids
2. Seed also
3. *macrantha*  921.9.78
   (very offensive odour)
4. *spicata*  928.7.99
   95.10.89
   929.8.96
5. *s. alba*

The Baneberry  927.8.81.
   98.3.89.

**aconitum** Linn.  
Hardy perennial.

1. Division easy. *A. lycocoronum* sometimes difficult; tuberous roots. for tub. sfr. (roots poisonous.)
2. Seed: easy. freely produced: results variable
3. Album  94.9.80
   Browni  919.9.91.

Chinense  Rom. 3852.
   = *Fortunei*  922.10.87

Franchei  Rom. 9130. 931.10.96
   = *annuus*  97.10.82
   926.10.89.
**Ranunculaceae**

**Aconitum contd.**

- *heterophyllum* Pom. 6092.
  - 9.21.8.80
  - 9.27.8.81

- *napellus* 9.4.12.86.
- *orientale* 9.3.7.97.

- *Aconitum* 9.18.12.97
- *Aconite* 9.28.7.79
  - 9.27.8.81
  - 9.14.8.88

Autumnal Monksheets 9.19.10.89.

**Anemone** Lin."
ANEMONE.

alba 96.10.88.

aphrodisia 92.7.92.

angulosa 91.7.93.

baldensis 98.8.91

blanda 92.7.97

bavarica 91.7.97

caevensis 91.4.81

cecrulea 92.8.81

coronaria 916.2.95

vannini 92.4.89

vulgus 91.2.95

914.9.95

917.3.83

917.3.89

31.3.89

919.10.89

924.4.99
Astrantia

Hepatica
- Hepatica

L. rosea 8.20.2.99.
- see gen. arb. under Hepatica

Conversio 8.26.2.93

Stellata 8.24.5.84

Utterwia 9.27.3.97

japonica - see gen. arb.

narcissifolia 9.11.8.83
9.26.99

rhexomorosa rosea fl.pl. 9.29.4.99

robinsoniana 9.8.12.77

trigona 9.17.3.84

vernalis 9.29.4.97

rhexomorosa 9.5.6.86
9.13.6.88

palmaria 9.2.6.86

alba 9.13.8.82
9.9.5.96

palen 9.4.4.91
9.2.4.92
9.1.4.93

rhexatilla 9.8.4.76
9.7.3.92
9.4.11.99
9.11.11.99
9.27.1.00.
<table>
<thead>
<tr>
<th>Species</th>
<th>Date</th>
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<tr>
<td>Ranunculaceae 6</td>
<td>6.2.96</td>
<td>17.5.99</td>
<td>23.6.99</td>
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<tr>
<td>Aconitum</td>
<td>13.11.88</td>
<td>8.8.99</td>
<td>12.10.00</td>
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<td>S. J.</td>
<td>26.13.6.96</td>
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<td>Trifolium</td>
<td>14.3.87</td>
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<td>16.9.79</td>
<td>10.9.81</td>
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<td>Wind flowers</td>
<td>22.3.78</td>
<td>25.11.82</td>
<td>28.6.84</td>
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<td>Alpine wind flowers</td>
<td>22.7.76</td>
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<tr>
<td>Tall growing windflowers</td>
<td>21.8.86</td>
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</tbody>
</table>
Ranunculaceae
Anemone contd.

Wood Windflowers 7/18.10.87
Why 'Windflowers' 7/14.12.89
7/4.1.90
7/4.6.92
7/16.7.92

Anemones 7/3.9.81
7/10.9.81
7/19.6.86
7/10.12.87
7/13.8.93

Double Hepatica 7/18.5.82

Poppy Anemones 7/4.7.96
7/13.8.98

Crown Anemones 7/3.10.86
7/27.10.94
7/3.6.99

Japanese Anemones 7/2.10.80
7/13.11.86
7/1.10.87
7/8.3.89
7/30.3.98
7/28.11.96

Blue flowers Anemones 7/18.8.94
Single Anemones 7/20.1.83
Garden Anemones 7/18.8.85
Chrysanthemum flowered Anemones 7/2.10.86
ANEMONE Contd.

Aconites during winter 99.7.84
Pasque flowers 919.4.87

Hepaticas
911.3.82
910.3.83
912.7.84
918.4.85
919.10.85
924.4.91
918.4.91
929.4.94

Double Hepaticas 918.3.82
927.6.89
929.5.91

Cochlearia
915.3.79
933.3.77
91.2.90
916.6.92

Anemopsis

NO

division in spring
Seed

Californica 917.9.92
Macrophylla
= japonica

rare

Anemone (Pheas.) 923.8.91
handy herb.
AQUILEGIA Linn.

Division for tree varieties only.

Seed for all yr.
also for bgs. if carefully selected & kept apart.

AQUILEGIA

C. xui 91-6-78
918-6-78
921-2-80
922-8-86

AQUILEGIA

C. caerulea 913-9-73
98-7-82
94-7-91

C. formosa 918-8-77
91-2-90
918-6-92

C. fragrans 917-8-72

C. glandulosa 924-1-80
924-9-81
99-8-85
921-6-90
930-5-91

C. kitaibelii 94-9-86
= viscosa

C. longissima 926-8-88

C. pyrenaica 919-3-92
96-1-94
Ranunculaceae 10.
Aconitum contd.

Sibirica alba 514.6.90.
Siberica 538.8.86
5C 18.1.96.
S. fl. fl. 513.12.83.
Stuarti 513.10.86
530.7.98
510.6.99.

Trinidens nivio 512.6.80.

Aquilegia

G17.9.81
51.6.98
5C 18.5.97
5C 29.9.97.

Columbines or Aquilegias 57.7.77.
The Columbines 522.4.76.
The Garden Columbines 56.6.83.

Columbines as Cut Flowers 539.5.97
Hybrid Columbines 590.1.77
524.6.78
530.7.81
50.10.84
527.6.85.
CARTHACA. Linn.

1. division

2. seed.

3. leptosepala £9.10.86
   palustris £9.9.86
   pal. fl.pl. £8.10.85
   £23.5.85
   £17.5.79.

10. Calthas 91.5.80
    Marsh Marigold £15.7.74
    £9.10.86.

CIMICIFUGA. Linn.

1. division

2. seed.

3. Cornifolia £5.9.96 B.M. 2069
   relata £38.8.80
   japonica £3.11.94
   racemosa £6.10.83
   simplex £7.12.95
   palustris B.M. 1630 = Atractoecce palustris.

N. Cimicifuga (Anise Root) £3219.96
**Clematis** (hardy + greenhouse climbers)

- Stem cutting, at internodes, for greenhouse
- Root cutting for C. coronaria
- Layering for *Vaccinium* see **523.1.75.
- Division
- Graphing on to *C. vitifolia* see **90.71.11.96.

- Cirrhosa **516.2.84**
  **518.2.93**
  **59.10.99**

- *C. acutangula* **90.8.57**
- *C. vitifolia* **9.9.84.91.99.99.
- *C. crispa* **59.7.11.96.**
- *C. cocinea* **53.4.79**
  = Viorna **926.7.90.**
  **923.7.92.7.90.**

(Hybrid *cocinea* **516.10.97.**

- *Hamula* **516.10.80.**
  **926.10.82.**
  **93.7.87.**

- *Graveolens* **95.11.81.**
  **910.12.81.**
  **9.10.86.**
  **924.10.91.**
  **527.10.94.**

- *Henryi* **930.6.77.**
Ranunculaceae 18.
Clematis contd.

- heracleifolia 931. 8.97.
  L. Davidiana 938. 9.90
  912. 9. 91.
  94. 9. 97.

- indirisa lobata 916.3.78
  928. 3.88
  916.4. 87

- integrifolia 912.9. 91.
  99. 9.99.

- Jackmanni 91. 9. 83
  98. 8.85
  912. 9. 91.

- J. var. alba 924. 8.89
  921. 9.89
  941.11. 90.

- lanuginosa 914. 8. 80
  99. 6.90.

- montana 931. 6.90
  912. 8.94
  912. 27. 6.96
  90. 14. 11.96.
  9 13. 3. 97
  9 5. 6.97.

- orientalis 912.10. 89
  916. 11.89.

- paniculata 930. 3.89.
- patens
  - monstruosa 97.7. 94.
Clematis contd.

Pitcheri 916.2.78
923.11.78
929.7.82

reeea 914.7.83
- screee 929.7.93

Stanleyi 912.7.66.
924.1.91
919.8.93.

Virginiana 9.28.10.79
9.6.9.84

V. alba 9.12.17.89
9.12.5.94
9.21.11.96
911.9.97

V. chelsea 93.9.81
9.28.1.93

v. fl. pl. 93.9.91

v. alba 912.8.93
921.8.97

v. purpurea 910.1.91

Caroleu Vars: Fairy Queen, John Murray, Duchess of Edinburgh
Princess of Wales' k.d.

See general article.
New Arts on Clematis.

The Clematis from 930-7.98
(Dr. Jules de Bele) 10 98-10.98.

The Hardy Species of Clematis 925-12.97.
(W. J. Bean)

Grafting Clematises
991.1.96
912.12.96.

Garden Vars. of Clematises
9914.7-94.
973.11.95.

Clematises
921.12.72
917.8-82
729.7.93

Double Clematises 936.6.91.
Hybrid Clematises 93.7.82.

Herbaeae non climbing Clematis 914.3.96
Varieties of Hardy Clematis 5.6. 26-10.12.
Clematises for the Garden.
A.G. 1900. p.313.

COP 18. Salix.

1. division
2. seed.

orientalis 916.3.78.
Trifolia Bt. 173.
Delphinium Linna.

1. Division for green. Steer Culture also e.g. grandiflorum, Bracken
   Varieties.

2. Seeds not for belladonna which is sterile. See 9/4/79.
   But D. formosum lines from seeds.

   The best method usually.

   9/2/79.
   9/10/79.

   Breckei  9/19/86.

   Brunonianum  B.M. 5461  9/2/79
   9/28/86.
   Cantab.  9/10/79.

   Cardinale  P.M. 4887  9/7/87  9/7/89.
   9/2/89.


   decorum  B.M. 64  9/2/479.
   fomentum  9/2/472.
   929/1/76

   grandiflorum  7/27/79.
   9/12/79.
   9/2/81.
   9/6/79.
Ranunculaceae
Delpinium contd.

grandiflorum
Brecki
924.8.88
928.6.88
914.93

Retebeccii
911.4.74 (nov).

modicale
Bm. 5819
915.6.89
917.2.94
916.10.97

ranunculodes
968.61
Sineax fl. pl. Part. mag. Bot. 171
Speciosum
var. glabrum
918.30.10.97

tricorne
95.6.80
912.6.80

trolliefolium
92.6.88
94.6.92
910.7.97

Vestitum
915.8.91
920.9.90

Vorticone
Wildlenssi
97118.97

Zalil
Ge. 24.10.96
9.28.5.89
9.38.11.96
9.23.8.89
9.29.11.98

Sulphureum
915.11.98
**Ranunculaceae 18.**

**IV. Sea-Arb. on Larkspurs.**

Larkspurs. 94. 9. 78. 97. 15. 12. 94. 99. 7. 87.

The Annual Larkspur. 93. 6. 78.

Pérennial Larkspur. 98. 10. 96. 923. 7. 67. 927. 7. 78.

Tall Larkspur in the Wild Garden 917. 1. 80.

Leaved Deephiniums 96. 8. 81.

Double Deephiniums 913. 9. 84.

Deephiniums 923. 4. 87. 97. 10. 93. 936. 11. 96.

911. 8. 88. 924. 6. 98. 931. 10. 96.

918. 7. 91. 525. 4. 94.

Deephiniums from Seed 918. 4. 90.

Hybrid Deephiniums 97. 3. 91.

**Eranthis Lälleb.**

1. Division of Eranthis

2. Seed:

- ciliácea + hypemális 911. 3. 93
- hypemális 97. 3. 94
- (Winter Azént) 94. 2. 94
HELLEBORUS

Hardy herb, perennial

1. circinatus - in spring and autumn see Fig. 2-81.
   even quite small pieces grown will propagate.

2. Feed in spring - not common because you:
   must be grown over winter.

3. Abscisicus
   Fig. 2-83.
   21-2-83.
   4-4-83.

Caucasicus
   Fig. 2-81.
   21-2-83.
   4-4-83.

Guttatus
   Fig. 2-3-79.
   20-3-97.

Lividus
   Fig. 2-3-79.
   21-2-83.
   4-4-83.

= argyrophytos
   1-9-83.

= corneus
   21-3-96.

= opolaticus
   12-11-85.

= major (The Christmas Rose)
   14-1-99 see general

n. major
   23-4-74.

n. lacteus
   21-8-99.

n. maximus
   17-4-77, 27-3-88, 38-2-84.
Ranunculaceae 30.
Hellebores contd.

H. ruber 913.7.89.
H. alboatrum 922.12.83.
97.2.85.
981.2.85.
+923.1.86.
H. alboatrum 915.12.83.
921.12.85.

H. anquet-folium 9.20.1.83 92.2.95.
97.2.83.
924.3.83.
91.4.83.
97.4.83.

Odor 930. 931. 938.
(abortus) 910.3.88 (gramen).

Olympicus 96.3.92.
Orientalis 918.3.93.
923.2.95.
910.12.98.

Vesicarius 913.3.80.
Viridis 98.2.79.
98.1.87.

for Garden Vars: see under general articles.

Hellebores 97.4.00. 918.2.86.
915.3.90 922.2.90.
912.12.91.

New Christmas Roses 979.3.74.
923.1.76.

Hybrid Hellebores 97.6.78. 96.4.89.
924.1.85.
Christmas Roses
824.8-78.
922.2-79 (in photo)
96.12.79
715.11.81 (in photo)
719.12.81
96.10.83 (in photo)
826.4.85
922.10.86
911.3.89
828.2.88
916.3.89
911.5.89
829.11.81

Notes on Helleborus
78.9.84
974.1.76
872.7.81

NARAVELIA, DC.

HYDRASTIS, Linn.

division

NICELLA, Canadensis B.M. 3019 + 3332.

ISOPYRUM, Linn.

division of rhizome.

f. sp. 

Sterilis, Zane's Conn. 978.2-90

thamnairum 98.3.84

thamnoides 94.4.96
916.4.96
918.4.96
Ranunculaceae

**KNO CITY.** Salix

1. Division?
2. Seeds?
3. Desiccator 13th 776.

---

**MYOSURUS.** Lin. Brit.

No value in garden.

Minimum male Brit. wild plant.

---

**NARAVELIA.** Sc.

1. Stem cuttings halfripe in heat.
2. Seed?
3. zeylanica = Atragene zeylanica.

---

**NICELLA.** Lin.

1. Seed in spring.
2. Damascena (love of mist) 930.10.88.
3. Hispanica.
   indica = sativa.
4. The Fennel flowers 98.2.90.
5. The Mujellas 933.2.90.
PARONIA. Lin.
Ranunculaceae 94.

Ranunculus

Japanese Paonies

Chinese herb. Paonies 5.25.12.86.

11th

albiflora. Whitleyi 933.5.03-1933.1.87.

Bromii 9.20.10.77.

Corallina 9.20.5.00.

Emodi 5.7.19.

Cutea 7.17.5.04.

alpina 11.6.04.

Montana see gen. act. on tree Paonies

officinalis 9.20.10.83

18.6.98

triangular 9.17.8.95

anemonei 9.25.5.00
RANTICULUS. Linn.

I division - in Spring.
II division of tubes for hibernation roots.

= Ranunculus = 79. 1075
In 1905.

= aconitophorus = 923. 6. 89.
(Fair Maids of France).

= amplexicaulis = 936. 6. 88.

= montana = 775. 94.

= aquaticus = 736. 7. 79.

= asiaticus = 928. 12. 98.

= trilobus = 98. 9. 94.
Ranunculaceae

**RANUNCULUS** cont'd.

Buchanani 78 - 8 - 85
Bulboidea Post lab
Glaucatus 79 - 11 - 78
Campanulaceae 72 - 5 - 76
Corpus aequinoctis 71 - 3 - 95
Crenatus 71 - 7 - 97

cicaria
f. alba 72 - 3 - 96
f. grandiflora 72 - 3 - 82

Glacialis 728 - 12 - 99
Lingua 728 - 12 - 98

Lycali 712 - 7 - 88
(Rockwood lab) 724 - 4 - 86 728 - 9 - 88
724 - 6 - 92 724 - 7 - 88
727 - 10 - 99 724 - 11 - 88
728 - 12 - 98

Macaulayi 711 - 8 - 94
79 - 7 - 98
721 - 12 - 98

Macrophylleus 720 - 6 - 91 717 - 3 - 94

Montanus 727 - 3 - 91
79 - 5 - 91
721 - 3 - 92

Tamassoffii 726 - 6 - 36
728 - 12 - 98

Vallanifolius 724 - 7 - 75
724 - 9 - 86
Ranunculaceae contd.

- <i>Ranunculus</i> f. f. 196.83
  - 916.6.83
  - 928.2.83

- <i>Ranunculus flabiolcis</i> 916.2.89
  - 98.2.90

- <i>Ranunculus sequinis</i> 928.3.81

- <i>Ranunculus speciosus</i> f. f. 196.83

- <i>Ranunculus thora</i> 916.2.89
  - 928.12.89

The <i>Ranunculus</i>:

- 911.3.82
- 928.7.82
- 931.7.83
- 923.3.96
- 918.2.86

Double Buttercups 923.7.82

Alpine Cowfoot 916.9.82 / 94.1.96

The Persian <i>Ranunculus</i> 917.8.86

The Cowfoot 928.12.96

The <i>Ranunculi</i> 92.10.97

TROLLIUS. From an imported form.
THALICTRUM

Division in spring, best mode quiescence
Seeds will germinate

aequilabiata 7/4/83
anemonoides 7/4/83
7/10/83
st.pr. 7/2/98
7/10/94

Aquilegia folium 7/16/96
7/26/97

Stevia 5/12/70

XANTHORHIZA Z/4/52

TROLLIUS Lin.

Division spring or autumn best method
Seeds will often rise
Ranunculaceae

Cn. americanus  Led. 80. 36

Asialesus  Bum. 235.
74. 6. 94.

a. superbus

- Fortunei  727. 5. 93.
924. 2. 77

Canolascus  710. 6. 99.

Europaeus  728. 6. 81.
99. 7. 81.

Trifolius  736. 6. 97.

Gibsoni  736. 6. 92.

Giganteus  710. 6. 92.

Tr. Globe flowers

- 12. 2. 91.
110. 10. 92. 927. 11. 78.
95. 8. 94. 927. 12. 86.

Trollus  927. 5. 93.
730. 12. 93.

XANTHORHIZA. R. Herbr.

Hardy evergreen shrub.

I. bright yellow creeping roseti (hence name Yellow Root).

II. Root cutting?

III. Seeds?

IV. a p.w.  93. 4. 97. 929. 9. 94.
General note on the Rafflesiaceae. (Cytinaceae).

The Rafflesiaceae comprise a group of typical parasites which are interesting theoretically but of no value in practice. Some of the parasites have enormous flowers e.g. Rafflesia Arnoldii they are from 1 ft. to a yard in diameter with a horrible odour like tainted meat.(1) Another species is R. patina (2). The flowers are the only vegetative organs produced in this genus, which gets its nourishment from the roots of the host other plants. Other genera in the order Cytinus Hydnora (known as the Madagascar Christmas rose) because they have footed-smelling flowers bloom on or near Christmas. Hydnora possesses funguslike roots in addition to its flowers.

(1) 9 24. 3. 77.
(2) 9 31. 3. 77
and 9. 13. 2. 97.
(3) 9 13. 10. 77.
General note on the Resedaceae

The Resedaceae contains but one cultivated genus, Reseda (the Mexican or wild mignonette) which is an old favourite on account of its sweet fragrance. The genus is native to northern regions such as Russia, Germany, Scandinavia, and the northwestern regions of the Mediterranean. The other genera are found in the southern regions such as the Cape of Good Hope. The alliances of the order are close with the Cruciferae and Capparidaceae.

Seed is the usual method of propagation. Cuttings of the stem are employed for the shrubbier species. Root cuttings have not been investigated. Leaf cuttings of Reseda alba were inserted by Lindemuth (1) but no shoots were obtained.

(1) Lindemuth.
RESEDA. Linnaeus. Hardy herb.

The Resedaceae are a small order but distinct order mainly composed of epipelous stamens which distinguish it from the nearly alligeral Order Calceolarias. The order also

**Reseda Linn.**

<table>
<thead>
<tr>
<th>Species</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>alba</strong></td>
<td>28.8.84</td>
</tr>
<tr>
<td><strong>fruticulosa</strong></td>
<td>14.10.84</td>
</tr>
<tr>
<td><strong>macracta</strong></td>
<td>17.10.03</td>
</tr>
<tr>
<td><strong>var hybrid</strong></td>
<td>20.5.82</td>
</tr>
</tbody>
</table>

**Mignonette**

<table>
<thead>
<tr>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>21.2.88</td>
</tr>
<tr>
<td>21.2.90</td>
</tr>
<tr>
<td>21.6.90</td>
</tr>
<tr>
<td>26.9.03</td>
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**Mignonette in Pots**

<table>
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<tr>
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<tr>
<td>21.1.94</td>
</tr>
<tr>
<td>23.3.91</td>
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<tr>
<td>16.8.92</td>
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</table>

**Specimen Mignonette**

<table>
<thead>
<tr>
<th>Date</th>
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<tbody>
<tr>
<td>18.7.83</td>
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</table>

**Winter Culture of Mignonette**

<table>
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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>6.9.84</td>
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</table>

**Giant Mignonette**

<table>
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<th>Date</th>
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<tbody>
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<td>24.7.00</td>
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</table>

**Free Mignonette**

<table>
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<th>Date</th>
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<tbody>
<tr>
<td>28.4.94</td>
</tr>
<tr>
<td>12.5.94</td>
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<tr>
<td>24.6.94</td>
</tr>
</tbody>
</table>

**Mignonette all the year round**

<table>
<thead>
<tr>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>25.11.96</td>
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</tbody>
</table>
General note on the Rhamnaceae.

The Rhamnaceae are a small but distinct order mainly composed of shrubs with the characteristic of epipetalous stamens which distinguishes them from the nearly allied order Celastraceae. The order also is alluded to the Vitaceae (Ampelidaceae). The distribution of the Rhamnaceae is wide. Rhamnus itself is found in all parts, but the other genera are usually limited e.g. Ceanothus is found particularly in N. America, Physlica in the Cape &c. The plants in the order furnish hardy shrubs such as the ornamental Mountain Heliotropes (sp. of Ceanothus & particularly azureus divaricatus & thyrsiflorus) &c. The bristling Colletias (spinosa and cruciata) and various sp. of Rhamnus (alaternus, frangula) are also hardy. Even Discaria longispina, Hovenia dulcis and the climber Berchemia volubilis may be planted outside if given the shelter of a wall. The greenhouse and stove species e.g. the ericoid Physlica as the climbing Ventilaga madraspatana Gouania are not so often seen in cultivation at the present day as they used to be. The plants in the order are xerophilous in type and characterised in the main by smallish leaves and the presence of thorns e.g. Colletias, Paliurus, Zizyphus.

Propagation is effected mainly by vegetative means. Stem cuttings for many of the hardy species are slow. Thus while layering is usually employed for the hardy species, stem cuttings is the usual mode for the greenhouse and stove genera. Root cuttings are used for sp. of Zizyphus. They have not been investigated for the other genera.
Rhamnaceae

Ceanothus

Berchemia

Weeds

- Stem cutting: autumn
- Division
- Read

- floribunda (hardy)
- lineata (hardy)
- Volubilis (hardy)
- Racemosa (hardy)

van praestum: 92.9
Praestum: 92.8

Ceanothus: 90.9
Patentia: 73.5
Praestum: 3.9

Dianthus: 1.9
Early: 3.4
Late: 2.1

Flowers

flores

stigma

infrutescence

ovaries

papillosum: 9.10.91
Gale: 9.9.90
Rhamnaeae.

CEANOTHUS—contd.

CEANOTHUS


2. Seed not freely borne.

3. Americana
   var. americana: 920.9.79
      94.8.88

   var. pseudocampanulata: 934.8.95
      95.1.8.97
      927.9.00

4. Azurreus
   var. grandiflorus: 929.9.82
      94.8.86.

5. Barbellion: 81.4.10.

6. Denaisii: 93.5.90
      928.3.96.

7. Divaricatus
   var. divaricatus: 916.6.89
      928.7.03
      927.0.04.

   var. floribundus: 918.9.04.

   var. indigo: 917.9.04.

   var. nigricans: 94.9.04.

   var. ovoides: 917.9.04.

   var. papillosus: 915.10.81.
      925.6.94.

   var. pinnatum.
CEANOTHUS Contd.

Sanguineus  
- oreganus.  
- cordatus.  
- callix.  

thyrsiflorus.  
- villosus.  
- velutinus (white)  

IV. Gen. Arts. on Ceanothus.

Ceanothus 212.02.01.

(Names by B. & B. Bean) 210.09.09.

The different kinds of Ceanothus 217.11.74.
- Californian lilacs 210.07.89.
- New Ceanothuses 212.04.82.

Revision of the genus Ceanothus 210.07.75.


Varieties of Ceanothus 210.06.06.

Mountain Heliotrope  
( Ceanothus ) 210.07.4.97.

Hardy Ceanothus 211.11.93.
COLLETIA. Comm.

1. stem cutting: strike readily except Crucicata
   half ripe wood.

2. seed: not usual; does not germinate well: for Crucicata = spinoza.

Crucicata
- 128.11.85
- 530.3.03
- 518.1.04
- 527.2.04.

Gouania

- Bicenonensis 910.8.88
- 929.4.99.

Lovisca 81.17.76.

Repinosa
- 912.9.91
- 976.19.03.

Ferratifolia = Diecana.

Tu Colletia 912.6.97

The Colletcia 94.10.82.

COLUMBINA. L.C. Rich.

1. stem cutting: young shoots rhizome.

2. asiatica.
DISCARIA. Hook.

1. Stem cutting - half ripe shoots
2. Seeds

longissima.
(Shelford Wall)
922.12.83.
946.5.84.
956.94.

GOVANIA. Jacq.

Phyllanthus

1. Stem cutting - half ripe shoots
2. Seeds?
3. Captostachya
   microcarpa - to

HOVENIA. Thumb.

1. Stem cutting - ripe shoots
2. ?
   = acerba. (hardy)

Greenhouse or keep hardy shoots.

evergreen slow climber
(Greenhouse evergreen)

Large hardy - greenhouse
+ evergreen shoots.
Rhamnaeae 3

PALIURUS, Juss.

1. suckers, freely produced. (layers)

2. seed.

3. acumlnata. 9.2.17.94.
   Vergatio. B. no. 2533.
   = aculeata

PHYLICA, Linnae

( Greenhouse evergreens)

1. stem cutting. young wood. slow layers also slow, generally require 3 yrs. to form plant.
2. seed. sometimes produced, e.g. spicata.

11. ericoides. P. no. 224.
   26.5.93.

Squarrosa. B. no. 36.
   = nereyi

Acantholea.
   = Spicata. B. no. 323.

Humora. B. no. 253.
   9.7.1.91.

Sp. all more or less ericoid. now seldom seen in gardens.
POMADERGIS

Greenhouse
to green shrub

1. Stem bushy

ANDROMEDA

SAGITARIA

cambrica

ELTICIA

LANGEA

Phyllicae foliis

Phillyreae

= androm.

TRYMAIUM

= POMADERGIS

RHAMNUS

Lauraceae

Greenhouse

1. Stem bushy - free for stone & greenhouse

Grae - for R. a. variegata, h

usual method. for hedges

2. decus also for hedges

alaternus. G. 13. 1. 87

var. foliis argentibus G. 3. 3. 88

var. variegata G. 13. 02

R. 26. 1. 01

cantharicus G. 9. 20. 12. 02

Fragala G. 27. 8. 81

inermis G. 15. 8. 96

= androm.
SAGERETIA

S. stem cutting
?
Lamona.

oppositifolia = Persicaria parviflora.

TRYMALIUM

S. pomaderkis.

LIHYPHUS. Sowm

? stem cutting
root cutting
shoots

LIHYPHUS. Sowm

jubus 926.5.77.
52.3.70.
(The Jujube tree).

Pectoral.
General note on the Rhizophoraceae.

The plants in the order Rhizophoraceae are rarely cultivated except in gardens, but they are interesting as being the plants inhabiting the mangrove swamps, estuaries and swampy coasts of tropical regions (Madagascar, Polynesia, America.) The order is closely allied to the Combretaceae, another order allied to of mangrove plants, and the Lythraceae. The plants are mainly shrubs and trees, sometimes of considerable dimensions as in Brugiera gymnorrhiza. Characteristic of this order and constituting adaptations to their swampy environment are the prop roots for anchoring, the aerial roots and the pneumatodes for breathing purposes, and the germination of the embryo before it leaves the plant. This is the natural mode of increase in the plant. The hypocotyl projects from the micropyle, elongates to some considerable length before the embryo falls into the swamp, and acts as an organ for fixing the young plant in the mud.
BRUGUIERA  Lam
mangrove plant

Gymnostigma

The Rosaceae an order allied to the Saxifragaceae Calycanthaceae and
mean the begoniaceae through the irregularly flowered section Chrysobalanoides
are scattered all over the earth. The regular flowered
stems are found mainly in the temperate regions; the Chrysobalanoides
on the other hand is essentially tropical. The growth forms of the
Rosaceae are varied, and comprise creeping herbaceous plants e.g.

teeth to traces of some dimensions e.g. Prunus, Pyrus &c. The

CASSIPUREA  Rubl

The beautiful hardy and freely flowering plants in this order render

elliptica

For ornamental effect in spring such

Rhizophora

salt water marsh

leaves in nature, which germinate on the floor plant.
mangle  92.3.72
Muconata

seed in nature, which germinate on the floor plant.

Notes on the Rosaceae:

A. They are particularly suitable for the rocky or improving genera such

B. They are particularly suitable for the rocky or improving genera such
General note on the Rosaceae.

The Rosaceae an order allied to the Saxifragaceae Calycanthaceae and near the Leguminosae though the irregularly flowered section Chrysobalanoideae are scattered all over the earth. The regular flowered genera are found mainly in the temperate regions; the Chrysobalanoideae on the other hand is essentially tropical. The growth forms of the Rosaceae are very varied, and comprise creeping herbaceous plants e.g. Potentilla, &c. to trees of some dimensions e.g. Prunus, Pyrus &c. The many beautiful hardy and freely flowering plants in this order render it important in cultivation. For ornamental effect in spring such genera as Crataegus, Prunus, Pyrus, can scarcely be surpassed. A number of beautiful flowering shrubs such as Exochorda, Eucryphia, Spiraea, also belong to this order. The plants are cultivated no less for their bright berries. These are very attractive in species of Cotoneaster (affinis, Microphylla, &c.) and various shades of red and yellow of the Hawthorn berries combined with with their freely flowering habit in early spring and even in winter (e.g. Glastonbury Thorn) make them most desirable for cultivation. For the rockery too, lowgrowing genera such as Potentilla, Geum &c are particularly suitable.

Propagation is effected in various ways, but vegetative methods are the most common. Seed is used for obtaining new varieties, and when it
is obtainable for the shrubs, but it is a slow method. Stem cuttings are the usual means of propagation. Root cuttings are also used with success in species of Amygdalus, Cydonia, Eucryphia &c. Leaf cuttings have not been investigated to any extent.

Grafting is a very common method of increase, particularly for the fruit trees, Pyrus, Prunus as well as for the Thorns, Crabs, Medlars &c. the common variety of Crataegus being used for the stock.

Layering is common also, where stem cuttings are somewhat difficult e.g. Eucryphia but the method is usually slow.
Acantha, Vahl.

Buchanani 91.10.98
915.11.07.

Microphylla 919.8.82.
915.9.83.
94.9.97.

Novae-Zelandiae 73.9.81.
= microphylla 81.7.88.
96.10.88.

Buchella 918.11.76.

Primatifolia Bos. 1271.

ACANTHUS

Acantha 932.2.90.
94.15.1.98.

Acantha + Sc. 7.3.03. (J. Arnett)
(NEW ZEALAND BUS).

mixt. ADENOSTOMA, see after Cydonia.

Agrimonia Lini.

Division 1

Seed:
77.7.88.
326.9.87.

Eupatorium: odora 916.9.92.
8t. It is of much value—outside botanical gardens.

The Agrimonia: 930. 94. (o. shrub.)
ALCHEMILLA Linn.

1. Division 1
3. Veronica 921.7.83
   923.8.83
   91.9.93.

AMELANCHIER, Mede.

suckers for Canadensis in Summer.
layers, or cuttings in autumn, also root cuttings.
grafting on Crabapple - or quince. See Conifers Thimble II. 92.

Seeds also for Canadensis - keeping till next spring.

Botan. prin. 98.4.82
10.1.8.03

Canadensis
  var. oblongifolia  98.22.3.97
  97.8.98

Florida  97.6.88
  9.9.6.00

Canadensis
  98.12.00  97.5.90
  99.4.94  922.4.93
  922.5.04

var. Alnifoila  97.7.88
  924.9.92
  97.6.90  98.8.97

To, The Oligocene

Amelanchiers  98.24.4.97 (L. Bacon).
Amygdalus

= Prunus amygdalnus.

Stem-cultiv. = Prunus amygdalnus.

Root-cultiv. for A. nana.

Budding & grafting the usual methods.


Stones down in Oct.

Communio:

= A. nana.

P. alba R.R. 1886.

Almond Trees.

See under Prunus amygdalnus.

The Almonds 928. 5.92.

Armeniaca

= Prunus.

A. communio = the Apricot.

Chamaebatia

Stem-cultiv. in cool house.

Seed?

= P. foliosa, 1871. 918. 11.76.

(Handy, strong odour).

Tan seed.

Chrysobalanus.

Cerasus (Cherry) see Prunus Cerasus.
CLIFFORTIA, Linn.

1. cuttings.
2. ?
3. arachnoidea Bge. 1860.
   ruccifolia.

COTONEASTER, Medic.

1. Layzer. Easy - in mild climate, especially the warmer parts. Buds or autumn cuttings. Hardy - half grown wood - autumn. They are generally planted in March.
2. Seeds - through somewhat variable in spring.
3. affinis - 22.11.84.
   + bruxifolia 26.10.89.
   + cuspidata
4. frigidus - 17.11.83.
   16.10.96.
   10.10.03. + horizontalis 21.9.89.
   27.9.90.
   7.10.91.
   16.10.96.
   10.10.07.
   9.10.02.

5. Cotoneaster (C. Hallenst.) 916.11.01.
7. Cotoneaster (S. Condon) 29.7.76.

Cotoneaster 29.10.81.
Large Cotoneaster 23.3.89.
The Smaller Cotoneaster 12.12.91.
COTONEASTER Medik.

Contd

Order & Sp. - see back.

Affinis

bacillaris 921.6.90.
94.1.90.

congesta

frigida

fortunarinii

alpine 925-12.80.

Hookeri - buxifolia 914.1.82.
horizontalis integerrima 90.6.89.

Lax Flora Bot. Reg. 13.05.

microphylla

915.8.82.
921.10.87.
926.9.01.

montana 925.5.01.

nummulariifolia 973.12.90

pannonica 979.7.98.

rotundifolia 906.12.96.
910 11 00.
911 11 07.

Smi onsi

95.12.85.
96.11.86.
913.11.86.
912.11.86.

Thymipollia

Vulgaris

COWANIA

Don.

Greenhouse Evergreen Shrub.

1. Slow, Culture - not easy
   g. Leaves?
COTONEASTER
CRATAEGUS

Reddy, Shrub Trees

1. Budding on C. oxyacantha for varietals. Good for Pyr. Kalandii are 7.0.3.94. to 5.5.12.94. Stem cutting q. Carrières (hybrid) Pyracantha Kalandii. E

2. Seed in spring. Cary

but only for well-watered plains. See Oct. II. 20.

3. affinis 712.1.89.

Arbutus 919.12.87.

A. celsiana 710.8.72.

Cordata 724.4.72. B.C. 1181.

(Washington Thorn) 723.12.85.

524.7.97.

lobata 717.4.95.

Crassifolia 719.10.86.

Salieifolia 71.12.88.

Vas. crassifolia 58.12.81.

4. oxyacantha 716.11.79.

724.11.83.

5.2.2.89.

Pers. crenulata 719.6.71.

722.11.74.

Pers. alba 911.17.6.

Oxyacantha

O. praemorsens 58.5.86.

722.6.89.

Punctata 72.17.10.96.

Carrières 725.11.82.

710.3.83.

77.7.94.

Parvifolia 73.4.86.
Cocaïna
916.2.89
92.3.98.

Arónia 93.8.72.
Oleasterina 72.7.72.
Orientalis 53.11.81.

Mesepilòfla 73.5.93.
Flava G.C. 23.6.00 layi 83.1.8.72.
Maxima 5.28.5.98.

Oxyacantha var. Palaeox
(Platanus Brien Thorn).

Var. hornida. G.C. 2.7.98.

Oxyacantha var. poaceiflora 99.4.98.
P. bellandii
913.10.88.
92.1.2.01.
92.25.8.01.

Succinifolia
51.3.86.
74.6.87.
92.10.96.

P. var. maior 91.11.00.
98.12.00. < Sanguinea 83.9.86.

Tanacetifolia
96.11.86. 912.12.03.
92.9.10.97.
92.15.2.96.
CRATAEGUS, Contd.

IV. Gen. Articles, on Hawthorns.

The Hawthorn $24.6.99.$

Crataegus $8.8.6.2.97.$

Crataegus $8.8.6.2.97$ < 8.8.20.2.97.

Some of the Best Hawthorns:

Large flowered Hawthorns $79.12.83.$

The American Hawthorns $74.6.92.$

North American Thorns $74.8.94.$

Double Thorns. $74.8.89$ (in pots) $72.8.89.$

Haw Thorns $79.8.78.$

Select Thorns $712.8.82.$

Thorns $717.8.90.$

Pink & White Hawthorns $79.6.86.$

Propagating Thorns $712.6.86.$
Rosaceae, Pa.

**Cydonia.**

1. Stem cutting - 1 year's shoots.
2. Layering in autumn - remain 1 yr. before take-off.
3. Seeds - in November, fruit having been pulped in Dec. and stored till yellow.

**japonica.**

(The Quince -)

Deciduous in spring.

**Adenostoma.** Hook. & Arn.

1. Stem cutting, spring & autumn.
2. Division.

**Eriobotrya.** Pyrastrole.

1. **fasciculata.**

*Phlox.*

2. Grafting on to Quince.

For some fruits information differs in this country in the open.
DARIBARDA

I. division
II. seed?
III. refeno S 4 8 94.

DYNAS, LINN.

I. division in spring.
     Shown cuttings, runners, or spring for Drummondii.
II. seed.
III. Drummondii 9 8 94
     lanata 9 8 93
     9 8 0 3
     octopetala 9 7 9 8
     (Mountain Ash) 9 7 3 9 4
     (rock garden) 9 7 3 0 0
     c. minor 9 7 3 0 0

EXOCHORDA LINN

ERIOBOTRYA LINN

= Photinia
I. grafting on to Quince.
II. seed. Fruit not usually ripened in this country in the open.
III. pruning (See normal).
**Rosaeeae 10.**

**I. ROSOTRYA A. Lindl.**

<table>
<thead>
<tr>
<th>Variety</th>
<th>Sowing Date</th>
<th>Germination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>japonica</em></td>
<td>23.07.81</td>
<td>9.4.288</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26.10.99</td>
</tr>
</tbody>
</table>

= *Prostanthera japonica*

---

**EUCRYPHIA** Cav.

- Stem cuttings: half-ripe not very easily (old shoots very difficult)
- Layering in October, root cutting above (Hodges)
- Seed: *Billardiera* ssp. 7200

<table>
<thead>
<tr>
<th>Variety</th>
<th>Sowing Date</th>
<th>Germination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>cordifolia</em></td>
<td>9.10.97</td>
<td>9.6.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.11.12</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Variety</th>
<th>Sowing Date</th>
<th>Germination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>pinnatifolia</em></td>
<td>8.9.96</td>
<td>9.12.97</td>
</tr>
<tr>
<td>(Brush Bush)</td>
<td>9.8.97</td>
<td>9.20.98</td>
</tr>
<tr>
<td></td>
<td>9.28.4.03</td>
<td>9.13.9.02</td>
</tr>
</tbody>
</table>

*Billardiera* 7067

- Stem cuttings: half-ripe not very easily
- Seed: *Billardiera* ssp. 7200

---

**FRAGINIA**

**EXOCHORDA** Lindl.

- Stem cuttings: young shoots; suckers also
- Layering in October, root cutting above
- Seed: best; ready germinate

<table>
<thead>
<tr>
<th>Variety</th>
<th>Sowing Date</th>
<th>Germination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Alberti</em></td>
<td>9.19.91</td>
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<tr>
<td></td>
<td>9.20.9.02</td>
<td></td>
</tr>
<tr>
<td><em>grandiflora</em></td>
<td>9.24.297</td>
<td></td>
</tr>
</tbody>
</table>

= *Deciduous shrub*
EXOCHORDA, contd

Grandiflora. 95.8.83
(Pearl Bush) 923.8.85
96.4.02.
928.5.04.
927.8.04.

The two Exochordas 9c.1.6.01.

FALLUGIA, endl.

1. Stem cutting - 16.7.80
2. Seed
3. "paradoxa." 97.7.81
921.8.89.
Rm. 6660.

FRAGARIA, Lin,.
1. Nursery usual method 921.12.77
2. Also seed
3. "indica" 97.6.80
93.6.82.
Collina 94.9.86.

IV. Old & New Strawberries 9c.4.7.96
New Strawberries 9c.25.7.

Walter's Fruit under Strawberry
Rosaceae

GEUM

Linnaeus

Stregoria

division in spring

Leaves in spring

Chiloense 7/7/92

Atherosanguineum fl. fl. 7/6/99

Hybridum 7/28/92

Coccineum fl. fl. 7/28/92

9/29/99

Heldreichii superba 7/11/03 / 5/16/03

Moenchii Rumphi

Hybridum 8/29/97

Montanum

Coccineum fl. fl. 8/30/97

9/30/97

Reptans

Miniatum 8/3/04

9/12/04

Triflorum 8/12/04

9/15/04

Gleum 7/12/04

9/30/01

The Creeping Gleum 7/22/04

(2. reptans)

3. reptans

Hybrid Gleum 7/30/04

7/10/96

The Gleum

9/30/96

(M. Coccineum)

Scarlet Gleum 8/27/90

Double Scarlet Gleum 8/21/90

The Gillenia

9/7/94

Gillenia 9/7/94

9/29/99

9/3/95

Gillenia trifoliata = Spiraea trifoliata

The Gillenia 7/24/82
GRIELUM. Linn.

1. Division in spring.
2. Seed?

HORKELIA. Cham. & Schldl.

1. Division in spring.
2. Seed.
3. congesta B.M. 2880.

KAGENECKIA. R.P.

1. stem cutting: "the shoots" grafting on Catalpa?
2. Seed?

KERRIA. R.P.

1. stem cutting: "young shoots" usual early
2. seed: not usual autumn
3. division: usual
4. Herbaceous Perennials.
**KERRIA contd**

<table>
<thead>
<tr>
<th>Variety</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>japonica</em></td>
<td>£2.5.94</td>
</tr>
<tr>
<td><em>japonica</em> fl. pl.</td>
<td>£3.6.99</td>
</tr>
<tr>
<td><em>japonica</em> variegata</td>
<td>£28.8.85</td>
</tr>
</tbody>
</table>

**LINDELEYA. H.B.K.**

<table>
<thead>
<tr>
<th>Variety</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>mesniliana</em> BR. 1844 t. 27</td>
<td>£8.8.85</td>
</tr>
</tbody>
</table>

**MARGYRIFICARPSUS. R.T.P.**

<table>
<thead>
<tr>
<th>Variety</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>setosus</em></td>
<td>£2.2.98, 911.1.02</td>
</tr>
</tbody>
</table>
**MESPILUS**. Linn.

1. Grafting on Chatagoos, usual.
   Stem cuttings will succeed.

2. Seed usual method. 2 yrs. before vegetate.

**Grandiflora**

(from Mespilus)

\[ \begin{align*}
9.19.8.82. \\
11.8.89. \\
9.2.6.94. \\
11.5.92. \\
9.4.12.10.12.
\end{align*} \]

**Smithi**

\[ \begin{align*}
9.20.6.85. \\
9.13.8.93.
\end{align*} \]

**Germanica.** See gen. articles.

**Ornamental Medlars & Quinces.** 9.17.8.84.

**The Medlar.**

(M. germanica)

\[ \begin{align*}
9.7.11.88. \\
9.19.11.89. \\
9.30.11.89. \\
9.21.5.92.
\end{align*} \]

**MOQUILEA.** Aubl.

1. Moquiulea utiliss. 9.22.8.74. (Pottery tree in Para)
NEILLIA. Don.

1. Cutting in winter or spring.
2. Sow in spring, or autumn.

In

var. aurea 930-5. 85. = Sp. aurea op. aurea 94-4. 88.
Saggyo Bom. 4738

NEVIUSA. A. Gray.

1. Stem cutting strike readily in spring. Young shoots can also be detached.
2. Seed?

In

alabamensis 94-4. 80.
516-5. 80.
92-9. 93.
74-8. 80.
94-8. 00.

NUTTALIA. Tour. & Gr.

1. Cutting
2. Seeds, not so usual in spring or autumn.
3. Division + layers also.
NUTTALIA. For. + Fr.

Cerasiformis (fragrant) 9/8/76.
      9/28/03.
      9/28/00.
      9/2/04.
      C + W. T. 98.

PHOTINIA. Small.

OSTEOMELES. Lindl.

I. After cutting, half-ripe should succeed, but nurseries plants never
   doing very well. Stronger. 9/6/99.
   Read usual.

I. Anthea. 9/6/94.
   Or 9/6/97.
   Pm. 9/354.

PARINARIUM. Aubl. Juss.

I. Cutting: half-ripe shoots.

I. .

I. superbum (The Grey Palm).

PEREPHYLLUM. Nutt.

I. .

I. "

I. "

POTENTILLA. 

ROSEAEE 17.

Stout, hardy deciduous.
PERSICA

see APII PRUNUS persica

PHOTINIA

1. Budding on Catalpas
   Stem cuttings side shoots in autumn or spring

2. Seeds when obtainable

3. japonica - Proscotia japonica (Japanese meadows)

POTENTILLA

1. Stem cuttings ripe wood autumn or summer, division in spring or autumn, e.g. erythroscenta

2. Seeds freely planted in Thunberi

3. formosa  90. 7. 99
   ferruginea  Punchev  910. 6. 04 — 929. 8. 91
   hoppeoides  939. 9. 94
   Alchemilloides  950. 14. 1. 99
   90. 18. 10. 02
POTENTILLA

I. lanuginosa       93.11.00  95.11.02

II. nepalensis      92.9.97   97.8.01  98.7.11.03

   n. var. Willmottiae. 98.23.7.04.  91.7.99.

III. puchotensis     919.7.07.

for: Harkness 90.6.8.98.

IV. apiata concolor  Apr.81.80

   daurica       92.7.11.03.

   Julia         94.7.91.

   floribunda    96.7.90.

V. nitida         918.7.93.

   916.8.81.

   920.7.87.

PRUNUS

Alpine Cuquefoils  921.6.84.

Garden Cuquefoils  919.3.92.

The Shrubbery Potentillas  924.8.95.

Double flowering Potentillas  94.9.76.

Double hybrid Potentillas  96.4.4.96.
Poterium. Linna

I. Division in spring

II. Seeds in spring

III. Decandrum = Sanguis; seeds: 9.24.8.89.
   officinalis
   Sikkim: 7.9.10.97.

Prunus. Linna

I. Suikers: grafting: on sloe for triploba normal but better on own roots: see 9.9.89.
   budding: see general on Prunus: 9.9.10.96; but disadvantage of suikers.
   Sten. cult: from wild growth: 9.24.7.90: for damasceni damasceni
   Laying: also shoots: P. tomentosa fc.

II. Seeds: for Amygdalus nazarete.

III. Amygdalus: (The Almond)
Pomaceae 21.

P Ronus. contd.

amygdalus var. makalib (HuwYang) 97.10.76

Communis hirsutissima 73.3.82
Pyramidalata 71.10.80

Acer carinii

nana 93.4.72

Cerasus

Cerasus var. (Cherry)

Agarica 91.3.78

Var. ostheim 93.0.74

Cerisifera 74.2.88

Prunifolia 74.2.88

Prunus persica var. rosc 93.10.76

P. persicaefolia 98.8.44

Cocumilla 91.5.4.82

Davidianna

Alba 91.2.77

Orange 93.0.77

Japonica 98.3.4.97

= Sinensis 98.2.96 97.8.79.78

Lannesiana 94.10.73

= Cerasus laurocerasus

Laurocerasus (Cherry Laurel)

S10.8.72 (Varieties of the Laurel)

Cotonica 71.6.86

Frisbie 73.1.87
PRUNUS contd.

mahaleb = Ceratoceras mahaleb. (Varnégata) 7.10.76.
928, 5.77
925, 5.93

maritima 7.12.72.
7.6.88.

Mume. (Japanese Mume) E.C. 4.4.96
E.C. 3.4.97.

Myrtifolia (Portuguese Laurel) 7.4.84
- lucitanica 7.11.82.
7.28.5.87.

Myrobalana = cerasygra, 7.1.3.88.
7.21.1.91.
7.28.3.96.

orientalis 7.4.8.94.

paulus (Bird Cherry).

hastata cornuta.

persica = Persica sp.

pendula 7.14.7.88.
7.5.12.96.

pissardi 7.10.9.84.
7.7.3.96.
7.19.7.40.
7.4.3.97.
7.39.3.98.

plumerry plena 7.8.3.97.

Superflora = 7.10.3.88
7.24.6.93.

Serotina (Wild Black Cherry) 7.20.4.78
7.28.4.86.
7.18.4.86. (a profitable Timber Tree)

Sinecasis h. P. 7.6.12.90.
7.18.2.01.

Simonia 7.10.81, 7.90.11.99.

Suberella.
PRUNUS cont'd

P. Tenerrima. 126.9.74.

Triandra, (Chinesé Plum) 2.5.88. 25.3.99.

Tomentosa. 9.4.97.

Watsoni.

The Cherries. 9.10.90.

Double Flowered Cherries. 5.18.14.76.

Genus Prunus (W. J. Bean). 9.17.10.96.

Different Kinds of Laurels. 7.28.2.82.

Laurels. 9.31.10.96. / 9.2.3.89. / 9.7.10.88.

Cherries as Ornamental Flowering Trees 9.10.12.92.

The Almond. 9.12.5.88.

Tree 9.7.8.89.

9.19.7.90.


Amygdalus (Almond). 9.31.3.88.
PRUNUS

Double flowered Peaches. 91. 5. 89.

Ornamental Prunus (P. Gordon) see 70s.

Some flowering Cherries.

See also later Add.

F.M. 26.10.02. Flowering Shrubs for Specimens.

Flowering Tree

Hardy Shrubs of Great Britain. Conifer & Westell Vol. 1. p. 11

Aria (Whitebeam). 93. 3. 84. andipsioides 931 8. 90.

Barbata (Siberian Crab). 91. 9. 84. 92. 10. 87.

Penunks. 92. 5. 95.

Cepodina (The Cherry). 92. 7. 2. 93. 92.

White pear. 93. 8. 83.

Coronaria (American Crab). 91. 9. 86.

Cepodina = Cepodina japonica.

Lochi. 93. 8. 81.

Malus

Manxii. 89. 7. 9. 88.

Umbellata. 91. 12. 77.

Mamula. 92. 10. 87.
**Purshia**

1. stem cutting. summer.
2. seeds.

**Pyrus**

beget. methods best for particular species.
part. grafting on quince. *Catalpa*, *h. hyster.*

seeds. *J. St. Hook.*

**Arbor-(White Beam)**

- *aurantifolia*. 7/14/07.
- *3.12.87*.

**Pumila**


**Cymo**


**S. Quince**

- *triumphus*. 7/18/82.

**Japonica**

- *japonica*. 7/18/82.

**Malus**

- *s. floribunda*. 7/6/79.
- *s. 8.15.97.*
- *s. b. 8.20.97.
- *s. s. 8.20.97.*

**V. Malus**

- *s. 9.15.89.*
- *s. s. 8.20.89.*
PYRUS contd

Pyrenaea 74. 12. 81.

pubens 94. 6. 81.

prunifolia 94. 6. 81
913. 10. 81.

Sinensica 913. 6. 91.

= Cydonia sinensis 912. 10. 01.

Spectabilis (Chinese apple) 928. 6. 87 978. 98
916. 6. 89 926. 8. 04.

Salicifolia 916. 6. 98
914. 4. 85.

Sorbus.

s. maliformis 918. 2. 88.
S. pyriformalis

Sargentii 95. 13. 9. 02.

= Pyrus or Cydonia pygmaea 924. 8. 02
921. 8. 04.

Sinaica 919. 7. 02.

toringa 910. 10. 74.

Schneideri 917. 5. 00
98. 12. 00.

Cianchamica 95. 17. 6. 99.

Vestita 99. 3. 72.
913. 11. 86.
Rosaceae 27

PYRUS. Contd.

The Pyrus 9/14.10.76 / 9/28.10.82
The White Pear, the Roman Pear & their allies 9/8.10.81.

Apples as ornamental trees 9/10.5.84

The Quince 9/13.2.86 / 9/13.4.89 / 9/8.8.96.
Quinces & Medlars for Lawns 9/26.4.87.

Ornamental Pears 9/14.3.89.

The Service Trees (P. sylvestris var.) 9/14.7.94.

The American Crab 9/16.4.81.

The Pydianic 9/16.26.12.03.

True & Wild Service Trees, 9/20.2.86.

Mountain Ash Berries 9/3.11.88.

QUILLATE. Mol.

1. Stem cuttings: ripe wood, layers?

2. Seed?

3. Saponaria Pm. 7568.

RAPHIOLEPIS. Lindl. 

1. Stem cuttings: half ripe shoots.

2. Rosa.

3. Stem cuttings for indoor plants.

- Jogotica. 93-7-02. Bm. 0510. 95-7-02.
- Jogotica. 710-6-82. 913-6-96.

Japonica.

The genus Raphiolepis. 724-6-76.
Rosa. Lin.

Hardy & green house.

   - Cuttings
   - Layers

2. Seeds often ripened.

iii. Kerriodes. Ron. 5805. 
   (Jamakiki) 
   98.9.74. 
   96.9.79. 
   915.6.89. 
   96.6.96.

Rhoipterus. Sub & zone. 
Hardy shrub.

   - Cuttings
   - Layers

2. Seeds often ripened.

Vegetative methods almost invariably employed.
Rosaceae 30

W. Lilium on Rose: on Rose: could
for species:
see Journ. of Botany 1889 p. 281.
Species of Rose. (J. C. Baker).

General notes on Roses, contd.

- Churchill (1893) - described as a fine plant, rare, of interest, but short-lived, needing much care and attention.
- Delphine - a notable variety with slender flowers.
- Van Cortman - a vanishing variety described in detail.

Species:
- Spectablis (1908) - 940.8.92
- Thebes - 930.6.52

Blackberry:
- Faber - 931.10.93

The species of Rubus:
- 93.10.98
- "The White Stemmy Brambles" - 94.0.94
- "Ornamental Brambles" - 92.7.91 / 92.5.84
- "The White Raspberry" - 94.0.94
- Brambles in Rubus - 94.0.94
Rosaceae 33.

RUBUS Linnaeus

Suckers usual, for erect kind, e.g. spectabilis, odorata in.
Root cuttings also.
Sow cuttings in pant. bars, st. rosea foliis (young shoots in young).
Eating fruits often thorns, e.g. deliciuosus, etc.
Seed for obtaining new varieties.

Arcticus
918.80
928.97

Deliciuosus
Pm. 6062
915.93
936.92
94.98
924.92

Biflora - leuodermis
66.1.01
7 11.10.02

rubus

rosa folio
var. coronarius

specabilis
99.8.85
930.9.92

nolucanus
916.5.03

climber
913.6.03

reflexus var. mol. rose
91.4.7.03

Blackberries
91.31.10.03

The species of Rubus 91.25.7.03

The White stemmed Brambles 93.12.98

Ornamental Brambles 925.7.91 / 924.5.84

The Northa Raspberry others 927.1.94

Brambles or Rubus 99.10.80
Rosaeae 33.

RUBUS. contd.

III. *phoenicotaenia*  
(Japanese Wineberry)  
56.8.82.  
95.4.90.  
92.2.8.96.

- *laciniatus*  
528.9.72  
538.1.82  
(Cut-leafed Bramble)

- *Chamaemorus*  
(Cloudberry)  
916.8.78.  
928.8.92.

- *odoratus*  
913.4.72.  
54.10.90.

- *australis*  
919.2.98  
923.2.95.

- *rosaefolia* f. pl.  
917.4.83.  
95.1.95.

- *contd.*  
913.10.83  
97.8.86  
917.8.89  
916.9.92  
929.7.96

Brambles & Briars  
922.6.78.
SPIRAEA

Reseae 3H

handy, herb. ± tub. ± shrubbery ± rocky

Stem cuttings: towards end of summer for Thunbergii. It layers. best for Arquata as stems thin for cuttings. Suckers.
Division of plant ± tubers. In spring.

Seeds not usual.

A. delichoni £0.16.10.00
£3.11.00.

Arborea £27.11.97.

Arquata £11.5.95.
(£0.3.7.97.
£29.5.00.
£0.1.6.01.

Aruncus
£7.2.85.
£9.7.92.
a. asilboides £7.6.82.

asilboides
£2.5.91.
£26.2.92.
£4.9.97.
£24.3.00.

Bella £9.3.72
£113.11.86.

bellei folia = splendens £8.8.85.
£24.6.93.

Caucasica £17.6.04. £44.5.04.
SPIRHEA. Contd.

bulla. 97.8.86.
         98.11.8.00.

= Crispifolia 93.7.87.
         91.8.94.

bunalska 9.10.11.94.
         93.12.92.
         91.8.90.

Caespitosa. 96.12.76.
         92.8.84.

= flagelliformis. 92.7.83
     = Caespitosa.
         93.2.83
         96.6.96.
         91.0.7.97.
         91.6.7.98.

canoniensis = Reeveiana 92.1.4.88.
         var. ft. 10. 93.6.7.90.

Chaenandrifolia 98.3.89.
     = ulmifolia.

Aricefolia 96.8.81.
     = discolor.
         92.5.8.88.
         92.0.8.98.
         92.8.7.00.
         92.1.3.03.

Douglasii 92.9.1.87.
         93.1.8.95.

filipendula fl. pl. 92.6.3.04.
Rosaeeae 36.

I. Hypericifolia 9/10.9.84.
    9/10.6.99.

    japonica
    = callosa. 9/21.5.92
    = alba 9/13.8.92

    9/3.10.03

    j. glabra 9/24.7.97
    9/21.7.94

(Astilbe japonica)

Hoteia japonica 9/29.1.87
K. = sub gen. act. under Hoteia japonica

Ludlowana 9/29.5.97

L. 9/18.2.99
12.9.03
9/28.8.04

Kamtschaticus
= gigantea 9/10.8.89
9/17.8.89

media
= Confusa 9/12.4.92
9/3.3.94

Opulus folia
= Neillia opulus folia

aurea 9/5.6.86
9/23.4.87
9/24.6.97
SPIRACEAE Contd.

Palmata - 78-9-88.
    Alba - 712-8-93.
    Elegans - 910-8-78.
    923-3-78.

Palmata (red Spiraea) - 914-11-91. 930-4-87.
    930-12-93. 919-5-88.

brunifolia

S. p. 75-3-98.
    919-3-98.
    924-3-00.
    924-3-00.

Sorbiololia - 930-7-87.

Thunbergii - 7-5-92.
    930-4-92.
    114-6-02.

Trilobata - 914-6-90.

= Tellenia trifoliata - 75-1-93. See under Tellenia - 929-7-99.

- Trifoliata - 92-7-81.

ulmaria aurea - 912-6-80.
    918-6-92.

Van Houttei - 923-6-94.
    926-3-98.
    930-4-98.

Venusta - 927-6-89.
Spiraea Japonica in front of Doors 5/8/81
Grown home-grown Spiraea japonica 9/30/81

The Herbaceous Spiraeas
- Select shrubby Spiraeas
  5/24/87, 6/3/88, 6/26/88
  7/26/91, 7/28/92

Shrubby Spiraeas for cutting 9/12/02

The Bush Spiraeas 9/20/94

Spiraeas in Flower 8/8/91, 10/7/86

The Spiraea
G. Gordon

STANVAESIA Small

1. grafting on G. to G. to G.

To glasshouse F.R. 1984
**Stephanandra** Lindl.

1. Stem cuttings in spring hamamelis can be handled in the same way as those of previous years. Suckers.
2. Seeds.
3. *B. flexuosa* 912-8-93, 913-12-02.
4. *Tanaka* 917-1-03.

**Stranvaesia** Lindl.

1. Grafting on *Galega*
2. Seeds?
MALDSTEINIA. Willd.

1. Division of roots. Spring, autumn, early.

II. Seed?

Pacariodes

 trifolia

73.3.99

18.6.96

Hardy herb, perenn.
General note on the Rubiaceae.

The Rubiaceae are essentially a tropical order, allied to the Caprifoliaceae. The plants in cultivation are therefore mainly stove plants. The species of Galium, Anthospermum, Oldenlandia are also found in temperate regions, and species of Galium even in colder regions. The plants in this order are mainly trees and shrubs though herbaceous forms do occur. These latter being usually freely flowering and hardy are suitable for the rockery, e.g. Houstonia coerulea, Mitchellia repens, Nertera depressa, species of Galium and Rubia. Aquatic plants are uncommon. Hydrophyllax maritima is an exception. The Rubiaceae supply many plants of economical value, such as Cinchona, Cephaelis, Coffea, Coutarea, Chiococca &c. and the fruits are edible in Vangueria edulis, Sarcococca, sculentus, Alibertia edulis. The Rubiaceae generally are however cultivated in gardens more for their interest than for their utility.

Ornamental foliage occurs in Hoffmannia species, Pavetta borbonica, Pentagonia Wendlandi, Palicourea jugosa &c. The leaves of these plants are satiny and well coloured the ribs projecting and well marked. The fragrant perfume of the flowers of Pogoquiera longiflora, Rondeletia Purdeii make them common in cultivation. An additional feature occurs in the coloured bracts occurs in Howardia (Pogonopus) carencis, Mussaenda frondosa and luteola. Plants with curious adaptations to
Myrmecophily (such as the holes on the leaf stalks in Duroia, Cuviera &c. and the tubers in Myrmecodia) are somewhat cultivated as curiosities.

Propagation is effected almost invariably by vegetative means. Seeds are rarely produced in cultivation (except in the hardy genera) unless artificial fertilization is resorted to.

Stem cuttings, however, strike so easily for most Rubiaceae that this is the most usual mode of increase. Half-ripe shoots are those usually chosen. These may be struck at any season in heat.

Root and leaf cuttings have not been investigated to any extent, though leaf cuttings have been found an economical mode of increase for Cephaelis.
ADINA. Sab.  

1. stem cutting, ripe  
2.  
3.  
4.  
5. globosa  

Galepinia b. Hook. 108 Fr. 2386.

ALBERTIA. S. Mey.  

1. cutting: best from weaker shoots  
2. from seed  
3. magna  9/11/95  Rom. 7/4 54  
4. 921.5.98  
5. 1/12.02  

long-lived 9/10.02.

ALBERTIA. A. Rich.  

1. cutting:  
2.  
3.  
4. could only 8f  

BOUVARDIA.

Raben. cutting  

the plant cut back. New shoots produced from 3. cutting  

also coming from young shoots. 1 year old on propagation  

not seed in 3. week used as forming  

flowers evergreen shrub.
ANTHOSPERNUM. Lin.

1. cuttings.
2. ?
3. aethiopicum. (Amber Tree).

ASPERULA. Lin.

1. division
2. seeds. e.g. frieze
3.

hirta
longiflora 911.10.02.

odorata
925.3.76.
717.9.81.
719.6.86.

BOUVARDIA.

1. Stem: cuttings
Old plants cut back: new shoots produced serve as cuttings.
early in spring - 15-12-88
- also cuttings from youngest branches. 
- leaf cuttings now used as formerly
- Not used for double variety.

greenhouse evergreen shrub.
Bouvardia

flava 925.12.89
Humboldtii comynflora 911.12.97, 96.4.86
jasminoides 912.11.98
Leiantha 920.8.98
Longiflora 911.7.98
C. cinnabarina 930.5.88

Odorata alba 926.11.98 923.12.99
Roezlii 922.12.83

Garden Vars
Perry, Payfield 911.11.99
President Cleveland 926.11.87

King of scarlet 931.1.03

(Inc) Alfred Neuner 917.4.86
926.9.85

Prim Beutel 930.12.82
BURCHELLIA.

1. stem cutting: half-ripe shoots easy.
2. ?
3. Capensis, 92.8.96.
   (Porphalo-horn), 97.3.03.
   parasitica BR. 891.

CATESBAEA, Linn.

1. stem cuttings more usual.
2. seeds.
3. spinaea, Pom. 131 (the Lily Spine).
   Californica BR. 858.

CEPHAELIS, Sw.

1. firm shoots, but only rarely obtained.
   rhizomes, cuttings also leaf cuttings. 916.8.73.
2. seeds.
3. jasminiflora = Gloriosa jasminiflora 930.4.98
   Pachypodium, 920.4.01.
   Fasciculata, Maui, 923.4.04.
CEPHALANTHUS, Linn.

1. Stem cuttings, in autumn, layers.
2. Seeds?

1. (occidentalis), natalensis, P.M., 7460.

CINCHONA, Linn.

1. Cultivare, ripe wood.
2. ?

1. Eucalyptus camaldulensis, P.M., 6239.
2. Many shrubs not much seen in cultivation, Lee P.M.

2. Wall's Econ. Products.

CHIROLEA, Linn.

1. Stem cuttings.
2. Roots, cuttings, these roots.

1. Anguina, P.M. 7492.
COCCOCYPSELUM P.Bra.

1. Seed
2. Seeds.
3. Campanuliformum BM. 284.8
4. Primatum BM. 7278.

COFFEA Lin.

2. 

1. Arabica 9/15.4.82
9/29.3.84
9/3.4.86

1. Tanganaensis
2. Laurentii (robusta) 9/16.5.03
9/22.6.01

1. Liberica 9/4.9.78
9/4.9.80

1. Stenophylla 9/16.6.98
9/16.5.96
BM. 74.75

1. Kaheanodensis BM. 6749

2. The Coffee Shrub 9/26.4.79
21.2.86

Rubiacceae

COPROSMA. Forrest.

steam cuttings (flag very quickly; see genus
under prop. of baueriana variegata)

acerosa $3.9.98

(Puca $12.3.81
$17.12.81

baueriana variegata $16.11.95 $9.8.84 $9.17.84 $90.19.96 $9.8.84 also $9.8.84

ERNODEND

COSMIBUENA. R.P.

steam cuttings: ripe wood

EXOSTEMMA. Benth.

seed

obstipilolca latifolia BM. 6239

COITAREA. Aubl.

steam cuttings 8234


seberffiana 93.8.93
CRUCIANELLA. Linnaeus.

1. division for hardy perennials.
   stem cuttings for greenhouse & for Stylora coronaea; very easy.
   seeds also for hardy.

II. Stylora coronaea. 916.2.98.
   (Rockery).

ERNODEA. Labill.

1. division:

2. seed?

3. montana.

EXOSTEMMA. Benth.

1. Culture: will need.

2. ?

GARDENIA. Ellis.

1. longiflorum. Bum. 4186.


Stones Evergreen
**FERNELIA** Comm.

2. Seed?

**GALIUM** Linna.

1. Division in sprout.
2. Seed also. for annuals e. g. P. maraolens.

**Verum**.

- 29.8.03
- S. 6.9.77 (for cut flower)
- 913.7.78 (note)

**GARDENIA** Ellis.

2. Permanent as all hybrids.
3. Cypripedium form 5410.
Rubiaceae II.

decomiana 92.8.1.98, BM. 63.
citriodora 918.8.74, BM. 4987.

Stanleyana 925.3.82, BM. 4185.
91.3.84.

rothmannia 929.6.01, BM. 690.
96.3.86.
93.3.94.

Humberti 927.9.02.
918.6.81.

Gardenias for cutting 918.3.99.
Gardenia Culture 90.96.3.98, 97.3.85.
Gardenia for Market 94.6.98, 92.2.80, 920.3.80, 930.4.78.
Gardenias failing 99.4.04, 922.4.73, 923.5.85.
Gardenias 92.10.97, 914.7.85.
African Gardenias 94.10.90.
Double flowered Gardenias 928.8.86.
Gardenia at all decays 925.4.86.
HAMELIA. Jacq.

I. Stem cuttings. Rifle shoots.

II. Seeds.

IV. Ventricosa Pm. 1149.

IV. tetrapoda Pm. 7388.

HAMILTONIA. Roxb.

I. Leaf, rifle cuttings.

IV. Stem cuttings.

IV. canecolata 920-10-89.

IV. Spectabilis 928-12-89.

HIGGINSIA R.T.P.

I. Stem cuttings.

HOLCOTONIA Lam.

IV. (refugens Pm. 5346.

I. Sternberghii Pm. 5383 = Hoffmannia.

I. regalis Pm. 5280.

Hoffmannia:

I. alba 123-7-99.

I. alba 923-9-99.
**HILLIA**, Jacq.

1. Stem cutting.
2. ?
3. longiflora B.m. 721.
4. tetrantha B.m. 7385.

**HYMENODICTYON**, Loev.

**HOFFMANNIA**, Sw.

1. Stem cutting.
2. ?
3. discolor - Camphylobotrys discolor.

**HOUSTONIA**, Desm.

1. Division in spring.
2. ?
4. purpurea 9/10/98.
Rubiaceae 14

HYDINOPHYTUM

I. division & tuberous roots?
   Stem cuttings?

II. Forbecki Ros. 7218 (1867)
    Longiflorum Ros. 7343,

HYMENODICTYON Wall.

I. stem cutting only.

II. ?

II. Excelsum.

IXORA Linn.

Strong half shade, character are in cuttings of the wood. Early spring.

II. seeds e.g. grandiflora, but slow to bloom.

III. Cocinea 9/23/5-03.
    Frasern 9/6/5-75.
    Colt 9/3-9/91.
    9/3-8-92.

Westj 9/18/2-93.
   for plate 9/3-12-92.

Macrotus 9/2-12-93.
   Ruffi 9/1-12-00.
I XORA - Control

KINDEMA - Black

parviflora 5.14.83

\textit{Duffsii} 9.16.83

30.8.84

\textit{Melani} 8.5.85

22.12.81

2.10.99

LUCULIA - Steel

I Xoras x 5.13.92 9.2.10.86

9.10.94 9.29.10.92

I Xoras (T. Baines) 5.6.1978

Grahame 5.23.12.99 9.6.8.79

5.4.1.78 13.1.78

5.26.12.03 5.8.86

Lycium 9.12.81

5.27.2.80 9.17.9.99

Heb. Lycium 9.21.8.92

Lyciat as a winter plane 9.11.87

Lyciat in A. march 9.11.99
LINDENIA. Bent.

I. readily stem cutting: ripe shoots.

II. "

III. "nivalis. B.m. 5255.

24-12-81.

21-10-99.

LUCULIA. Sweet.

Greenhouse evergreen shrub.

I. Cutting of young shoots: young tips best. (Mr. R. Steward).

see E6.1-86 (propagating the Luculia).

also E8.5.91 to.

II. may be increased or

by fertilising flowers. - Seedlings will not bloom till 2nd year hence.

III. "graecinae. 23.12.99. 94.4.74.

4.1.02. 813.1.77.

26.12.03. 3.8.78.

28.8.86.

princeps. 27.3.80.

17.12.81.

IV. "L. luculias. 21.5.92. S.pn. as a wall plant 3.8.7.

5.7.94. / E8.10.3.86.
MANETTIA, Mut.

1. Stem cutting, young division of tuberous roots, e.g. M. cocoeiro.

2. Jasminoides
   Rom. 3.38.

3. Cordifolia
   G29. 4. 79.
   923. 2. 89.
   Means 94. 12. 75
   Lutea suba 5. 21. 4. 01.

4. Bicolor
   G23. 12. 93.
   Rom. 77. 76.
   711. 11. 96.
   G23. 2. 01.
   719. 12. 96.
   11. 3. 02.

R. The Manettiaco
   96. 10. 83.
   G2. 11. 89.
   928. 12. 89.
   91. 7. 99.

Capitulifera
92. 1. 00.
Rom. 76. 71.

MITCHELLIA, Lin.

1. Division
   Stem cutting

2. Layering
   9. 7. 99.

3. Rubra
   97. 13. 4. 89.
   Bc. 979.
   (Partridge Berry)
MORINDA

snow evergreen shrubs.

cutting half rhiz. shoots very easy.

juvenile plant

MUSSAENDA

snow evergreens.

cutting half rhiz. shoots very easy.

fondosa 9.22.12.83

(C. Davies)

Capsulifera 9.6.1.00. Pm 76.71.

Crythrostylis 8.22.2.

Luteola 9.13.11.80.

Kerifera 9.31.10.85.

MUSSAENDA 9.7.2.91.

hairy after

rhizome

Rhinefield

Rhinefield

Durham

Durham
Rubiaceae 19.

**MYMECODIA.**

- Division or tuberous portion?
- Stem cuttings - not possible - only 1 axis.
- Seed -
  - antonii Bm. 73/7
  - echinata ae 98.1.1.98
  - beccari

**Myrmecophilous Plants.** 98.1.1.98.

See also other lit. under Myrmecophilous

---

**NAUCLEA.** Linn.

- Stem cuttings - half the shoots.

---

**OXYANTHUS.** Dc

- adelina B.K. 895 - Adenia globifera

---

**NERtera.** Banks, Holand

- hardy, alpine, or half-hardy

- divisions in early spring
- stem cuttings in pots of young shoots
- seeds - best to open finds in sandy germinator

- depressa - 9.28.87, 9.1.4.97, Bm. 899
  - (rockery) - 9.20.4.81, 9.18.04.
OLDENLANDIA. Linn.

I. stem cuttings for O. deppeana.
II. seeds for annuals - e.g. Columbnea.
III. dolichantha B.M. 8165.
    deppeana 816.1.86.

OPERCUKARIA. Gärtn.

I. division in spring
II. stem cuttings of young shoots
III. seeds in spring

APERIA
hispida

[Other entries and notes not transcribed due to handwriting]
rubicaceae 31.

Palicourea  Auct.

Stem cuttings: young shoots in late summer

Passion

Nicotiana foliosa = discolor. BM. 7001

Kermesiana 12-10-80

Copypora 3-4-90

PAVETTA  Lin.

Stem cuttings: half-nude March spring

Protonopa  7-11-99

Caffra  BM. 3580

(Tease-hardy)

warm greenhouse 9-18-6-04

natalese

Pavetta  9-12-83

Tortlandia 1977

Pentagonia  Benth.

Stem cuttings

Wendlandi  BM. 5280
PENTAS. Bentsh.

1. stem cuttings: young shoots easy. any season.
2. Carnea. 4086. 9 Jan. 82.
   9 Feb. 83
   9 Mar. 83
   9 Apr. 83

v. Kerneiana. 9112 00.

longiflora. 914 4 90
purpurea. 910 3 90

K. Culture of Rosoquenia. 92. 1882.

POGONOPUS. Klotsch.

PSY - Howardia. Stein.

1. stem cuttings in heat. young.

v. Caracassia. Howardia caracassia. 96 8 81.

PORTLANDIA. P.Br.

1. stem cuttings easy.

N. Grandiflora. 930 9 99
   9 July 99
Sterosperma. 925 5 89
POSOQUIERA, Avell.

1. Cutting & young shoots.

2. fragrantissima 84.12.97.
   longiflora 52.7.98.
   726.1.99.
   926.6.00.

3. formosa 821.2.05.
   macropus 7c.9.8.96.

4. Culture of Posoquerias 93.11.03.

PSYCHOTRIA, Lin.

1. Stem cutting easy.

2. Also from seed.

3. jasminiflora Pom. 64.54. 918.4.91.
   = Gloriosa jasminiflora 928.2.82.
   Dendrantha 916.3.78.
   Cyanea 774.5.87.
   Cyanea 815.2.90.
   917.12.92.

RUBIACEAE 38

Culture & Posoquerias 93.11.03.

RUBIACEAE 38

Culture & Posoquerias 93.11.03.

RUBIACEAE 38

Culture & Posoquerias 93.11.03.
Rubiaceae 94.

RANDIA. Hook.

1. Cutting of young shoots in spring & summer.
   - Gowdiana Br. 300q.
   - Hemiispora Sc. 23.6.00.
   - macroandria Sc. 28.97.
   - Maculata Sc. 3.10.96
   - Sc. 16.10.96.

REMILIA. DC.

1. Cutting & grafting Sc. 13.4.89.
   - pseudoactinophyllum Sc. 13.4.89.

RHEUTINIPHYLLUM. Hamb. & Bonpl.

1. Cutting half-time shoots.

RICHARDSONIA. Lindl.

1. Cutting young shoots.
Rondeletia

Plum.

Slow evergreen shrubs.

Cordata 9.4.2.99
3.4.2.88

Gratissima 9.21.1.93
9.8.1.98

= Roqueria gratissima

Speciosa 9.14.8.97
9.18.11.99

Van, major

Speciosa

Strigosa 9.11.7.03

Rondeletia sphenaea 9.7.4.94
5.30.2.97

anomala 9.16.7.81
9.29.10.81

Rondeletia sphenaea

9.29.1.83
9.19.11.83

Rondeletia speciosa

9.11.27.1.83

(majo) 9.15.9.83
9.14.12.89

Roqueria 9.10.11.83

Rondeletia 9.15.4.93
Rubiaceae 26.

RUBIA, Linn.

1. Stem cuttings for greenhouses & division for hardy.

2. ?

3. H. victoriana
   (The Master)
   Fr. will young ornamental value.

4. The Master Plant 92.9.37.

RUDCEA, Salisb.

1. Stem cuttings: young shoots produced after cutting back.

2. Styloscopium Atkin

   mrrsinophilia. 91.4.83.
   macrophylla. 0,m.5653. 921.4.83.
   923.4.87.
   923.11.87.
   94.6.92.
   97.6.07.

SABICEA, Aubl.

1. Stem cuttings: half-ripe shoots

2. ?

3. Asphera & cana
   hirta.
SARCOCEPHALUS. A. afzel.

1. Stem cutting.
2. [Blank]

SPERMATOCOECE. Ell.

1. Division?
2. Stem cutting?
3. [Blank]
4. Heflida?

STYLOCORYNE. W. Arn.

1. Cutting of young shoots.
2. [Blank]

VANQUERIA. Juss.

1. Cutting half the shoots.
2. [Blank]
3. Edulis.
Rubiaceae 98.

**WEBERA.** Schreb.

I. Stem cuttings + half life.

II. Comptoniana A.R. 119.

**WENDLANDIA.** Bartl.

I. Cutting + young shoots.

II. Rotoniana paniculata.
General note on the Rutaceae.

The Rutaceae comprise plants of mainly shrubby and tree habit, though a few perennials and climbers occur. The plants are distributed chiefly in warm countries; Xanthoxyllum is however found in temperate East Asia and North America and East Australia. The alliances of the order are with the Zygophyllaceae and Meliaceae. Such plants as Aegle marmelos, species of Citrus, Clausenia, Casimora, are economically important for the edible fruits they produce. The plants in cultivation belong mainly to the greenhouse, and are, in general, heathlike evergreen shrubs with a characteristic odour e.g. Adenandra, Barosma, Coloonema, Cowea &c. Sometimes the fragrance is most exquisite as in Boronia megastigma &c. but usually the smell is strong and even offensive e.g. Diosma, Barosma &c. The length of time the little starlike flowers of the Eriostemons and those of other Rutaceae last, make them desirable plants for cultivation. The unusual combination of fragrant conspicuous flowers in summer, and bright berries in winter, in the hardy shrub Skimmia japonica renders it doubly attractive.

Propagation is effected vegetatively, and after the manner of
the heaths; half ripe cuttings are those usually chosen.

Root and leaf cuttings are not common. The latter as in the Eri-
Ericas are not suited for propagation.

Grafting is employed for Eriostemons and other genera, the
stock being a variety of Eriostemon, (usually intermedia or
neriifolia) or the common stock Correa alba.
ACMADENIA. Bartl. et Wendl.

1. Young Cuttings:

2. 

3. Tetragonia = Adenandra.

ACRADENSIA. Kiff.

1. Stem Cuttings.

2. Seeds.

3. Frankhianea 928-3-84. Long.

ACRONYCHIA. Ford.


2. Seeds.


ADENANDRA, Wild.

1. Cuttings of young Tops. & half-ripe Shoots after flowering 18-8-91.

2. Fragrans


AEGLE. Curr.

Ripe shoots: new cutting.

Marmelos:
(Bael of India)

AGATHOSMA Willd.

= Buceo.

Young cuttings: easily.


pubensis: regosa 912.4.90.

ALMEIDA. St. Hil.

Cutting > half ripe.

RUBRA Rom. 4548.

ANYRIS.
Rutaceae 3.

Atalantia, Comm.

1. Type cutting.
2. Membranacea.

Barosma, Wild.

2. Seeds rarely perfect.
3. 
   - granulata = D. citrodora, Pm. 279, BM. 3413.
   - ovata = Pm. 1616.
   - pulchella = Pm. 1357.
   - caesata = Diosma sem. 130. 373.
   - Pm. 456.

Boennninghausenia, Rich.

1. Cutting in spring early. 9.11.78.
2. 
   - albiflora = Ruta albiflora.
   - Hemlock Tree.

- 99.11.78.
- S. 12.79.
- 720.9.90.
- 31.10.03.
BORONIA. Smith.

1. Young or half ripe cuttings. Cut back plant in leaves. Take root cuttings re-observed in pots.

2. Grow. Also grafting for B. prinata.

3. S. A. Species plants

- Crenulata
- Storax

4. Collection notes:
- B. heterophylla: 926.4.84, 917.3.94, 923.3.98.
- B. megastigma: 927.2.96, 931.6.04.
- B. prinata: 928.7.00.
- B. pulchella: 917.3.94, 923.3.98.

5. Casimira, Choisya, Evergreen:
- C. F. Smith notes in hand
- Evergreen in hand. Fruit edible.
**Rutaceae s.**

**CHOISYA.** Kunze

<table>
<thead>
<tr>
<th>23.9.76.</th>
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<tbody>
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<tr>
<td>3.9.90.</td>
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<tr>
<td>27.2.97.</td>
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Sweet, scented Boroniae $10.4.86.$
Boronia in small pots $21.1.82.$
Boronia as greenhouse plants

---

**CALODENDRON.** Thunb.

1. Half-nip wood.

2. Spathia, on a tree, live $24.4.76.$


---

**CASIMIROA.**

**CHOISYA.**

**CASIMIROA.** La Klave.

1. Seed culture in heat.
2. Seed (poisonous) in heat. fruit edible

** Choisya: Le. 20.9.02. **
**Rutaceae**

**Choisyia** Kunth.

- Stem cutting - half ripe wood in mid to late summer.
- Propagation in soft plastic - 26.0.6
- Pupation - 928.3.98

**Kernata**

- 8: 9.77 < 827:10.83
- 9/13/02, 912.9.96
- 9/16/7.04

Some beautiful seasonal variations of the

**Citrus** Linn.

- Grafting on *C. trifoliata* lee 88.6.76
- Seed see 9/8.4.76

**Aurantiurn (The orange)**

- *japonica* (Kumquat) 9/10.8.72, 9/13.6.74
- *medica* var. *digitata* see 2.8.02
- Myrtifolia see 9/7.3.96, 9/7.3.87
CITRUS contd.

CORONA.  Poir.

  18. 3.11. 00.

= Aegle sepiniar  9.7.28.4.00.

= tripatica  9.28.5.98.

Some Useful & Peculiar Varieties of the
Genus Citrus  9.3.11.77.

- Reproduction of the Orange from seeds  9.0.27.5.96.
  9.0.4.7.96.

CORREA

- Products of the Citrus tree in Sicily  9.3.1.8.97.
  9.2.11.89.

- Orange Cultivation in Sicily
- Grape fruit & other Varieties of Citrus  9.0.4.4.03.

CLAUSENIA  Burm.

Steve Tsengreen

- Cultivation of the shoots

- Nambi  Cookeia junebata
  (Namboo Tree)
Rutaceae 8.

COLEONEMA. Barth.

1. Cutting young shoots

alba. 95.4.90.
pulchrum. 95.3.40.

COLODENDRON. ?

CORREA. Sm.

Cutting half-ripe shoots in sand; grafting on C. alba for cardinalis. Often used. See qn. 96.7.78.

alba.

Speciosa. 95.1746. Bc. 112.

= Cardinalis 98.6.95.
= bicolor 917.1.03.

Correas 96.7.78.
919.1.89
91.2.90.

Ericoid
Greenhouse Shade
**Rutaceae 9.**

**CROWEA, Sm.**

I. stem cuttings.

II. *A. artemisia* Poit. 78.20.

**Calyptria**

- saligna 72.4.83.
- 72.7.84.
- 72.9.99.

To: *The Crowea* 76.1.86.

78.1.90.

Crowea & their Culture 78.1.87.

**DIPLOLEA.**

**Plectranthus.**

- division but difficult.
- bed in winter. see 72.9.6.01.
- easy from seed. as soon.

**EROSPERON.**

**DICTAMNUS.**

- **Lin.**
  - hardy border plant.

I. division but difficult.

II. *F. armeniaca* 73.8.90. Caryacanum 72.9.6.01

- 76.6.97.

- see longicaulis. giganteus

- 74.7.87.

- albus 71.6.89.

- 78.6.89.

- 79.6.89.

- The Fraxinella in the inflammable bars. 72.9.6.89.

- Diccionarius Fraxinella 77.7.90.

- 72.6.01.

- The Fraxinella 79.2.76.1 71.8.5.89.
Kuraceae 10.

Diosma. Sm.

1. stem cutting.

II. Aurea B.R. 583.
   B.R. 161.
   Cupressina B.R. 303.
   Ericoides 9/3-2-84.


Diplolaena. R.Br.


II. Rampieri Pom. 4059.

Feronia. Curr.

Eriostemon. Sm.

1. stem cutting: young shoots half in
   or growing on Cotonea aetna - also E. intermedia nervifolia

II. extr.

bifolium
Corinbovum.
Fennifolium 9/1-2-82.
9/17-3-88
9/10-2-96.
9/10-2-00.

Euphleftis.
Eriostemon. Sm. contd.

Culture of Eriostemon 9.3.78.

Erythrociton. Nees & Mant.

1. stem cutting
2. seeds
3. brasiiliensis B.R. 1843 E.47. BM. 4742.
   Hypophyllanthus BM. 5824


1. stem cutting: the yönelik.
2. Cleopatranum (Wood Apple).
**LIMONIA**

1. Stem cutting - young 1 ft. graft on seedling for size variation.
2. Seeds.
3. *alata*.
   - *Scandens* - *Lavunga scandens*.

**MELICORE**

- Cutting of Small side shoots.
- *ternata* Dr. Fl. 603

**MICROMELUM**

- Stem cutting, layers - advance 9/12/97.
- *pubescens* - *Bergera integra* 
  - *PHILOTHECA* Range.

- Stem cutting, short side shoots.
Pithecanthus. Linn.

Pithecanthus: exotica For. 7433

Pithecanthus: paniculata

Pithecanthus Koenigii: Bergera Koenigii.

FTELEA. Linn.

PHERALIUM. Ven.

cutting half of shoots - side shoots also.

PHELLODENDRON

amurensis. 91.12.77

PHILOTHECA. Rudge.

cutting of short side shoots.

australis. Banks. Kubota 31

Pome Evergreen trees.
**Rutaceae 14.**

**Pilocarpus.** Vahl.

1. Cinnamomum umb. wood.


3. pennti-folius Bow. 7235.

**Ptelea.** Linn.

1. Stem cutting for trifoliata. 1 var.
2. layers for trifoliata. 2 var.
3. cuttings, and ripe seeds for prinata (greenhouse).

4. seeds in spring.

**P. trifoliata.**

(Shrubby Trefoil. or Hop Plant)

5. var. aurea 920-9-79.
6. heterophylla 912-7-0.
7. variegata 92-10-86.

prinata = Polackburnia prinata.

**Ruta.** Linn.

1. Division
2. Stem cutting

**fruticulosa**

hardy hardy shrub.
### Ruta

**Ruta**

- *rataevia* 9.7.00, 9.23.7.81.
- *arpa in* 9.20.9.84.

### Skimmia

- **Skimmia**
  - **Japonica**
    - 9.31.1.80.
    - 9.19.11.85.
    - 9.2.10.86.
    - 9.17.12.87.
    - **fragrans** 9.18.6.87.
    - **obtata** 9.2.2.89.
    - 9.5.10.89.
  - **Forewanga**
    - 9.3.3.00.
    - 9.8.3.02.

### Notes

- *Jasminum quadricorne* 9.25.5.89.
- *Jasminum* 9.12.4.02, 9.4.11.93.

TODDARIA, Juss.

- cuttings: young side shoots
- aculeata
- paniculata
- Pinn. 13. 91

TRIPHASIA, Tour.

- cuttings in summer or early autumn, grafting on Citrus

TRIFOLIATA = Rhamnia trifoliata
- auriculata

LANTHOXYLUM, Lin.

- cuttings of ripe shoots
- root cuttings for hardy
- seed, for hardy gloxinia
- alatum (hardy)
- fraxinum
ZIERIA. Sm.

Greenhouse evergreen.

I. New cutting.

II. Macrophylla Rm. 4451.

Smithii Anborescens Rm. 1395.
Notes on the Propagation of Diet: Orders.
General note on the Sabiaceae.

The Sabiaceae are a tropical order of some seventy species, many of which are climbers, but are rarely seen in cultivation. The order has alliances with the Sapindaceae and Rhamnaceae. Sabia and Meliosma are among the chief genera.

General note on the Salicineae.

The Salicineae are a small order of trees comprising but two genera, Salix and Populus. They are usually allied with the Juglandaceae and Myricaceae and placed in the Amentiflorae, though from the flower relations, the structure of the fruit and seed, they are sometimes placed near the Tamariscineae (1). The species are distributed mainly in the temperate regions, though one or two species are to be found in tropical and subtropical regions. The willows and Poplars are very extensively planted, especially the former, for the industry of basket-making.

Increase by seed is rarely employed, since vegetative propagation naturally by layering and suckers, and artificially by slips and cuttings is so easily effected. The tenacity of life in the willows and poplars is so great, (though the trees are not long-lived),

(1). Engler-Prantl.
(though the trees are relatively shortlived) that reproduction is effected by any vegetative portion from a mere slip to a large stump. The two genera (Salix and Populus) are thus continually employed in botanical investigations of regeneration phenomena (callus root and shoot formation) (1).

Root cuttings reproduce naturally, giving rise to young shoots (2). Leaf cuttings have not been investigated.

(1) see under Goebel, Vöhling, Simon &c.

(2) cf. Chap. III, Part I.
MELIOSMA. Be. = Milligetonia

Herberti 90. 29.3.02.

Myriantha 90. 11.1.02.

Species for the Cushan area

in C. (Algi)

a var. bullata, 916. 10.1916

a. pyriformis: 910. 12. 1907

argentea: 710. 6.79

Cariana: 719. 7.79

Saxicola: 719. 7.79

Parasol 4.44

Saliepola

Tinctoria: 510. 6.97

granatina: 510. 6.97
POPLULUS Linne

Layers for Those Popular w.
Skin cultip. - Easy for Most Popular. autumn.
- e.g. balsamifera 913.5.97

Suckers - e.g. alba,

grafting - for varieties like tremula pendula, which does not root so freely as other poplars.

Seed for sp. such as alba.

but not for spm. varieties such as tremula pendula.

alba - (Abela)
- var. bolleana 916.3.85 931.12.87
- a. pyramidalis 910.12.87 < angulata var. cordata 913.8.98

argentea - 930.6.77

canadensis - 918.1.79
- var. var. 910.8.89 920.9.86
- 917.10.89 916.11.93

fastigiata (Bombay Poplar) 917.1.91 924.1.91

monilifera var. auso 93.3.0 93.9.68

pendula - 913.3.97

parasol de St. Fiacre - 921.1.88

salicifolia

v. 94.12.97

grandidentata 93.10.88 var. pendula 936.9.91
Gen. Arts on Poplars.

The Poplars  £29.5.86
              £9.1.87
              £11.6.92
              £13.4.95.

Notes on the Poplars  £32.5.86
                     £14.5.92.

Poplars, Aspen, Cottonwoods  £13.4.78.

The Future of the Poplar  £6.2.86.
The Aspen & its uses  £10.4.97.

Diseases afflicting Poplars  £36.12.85.
Poplars and their Trees  £34.4.78.
Trees for Marsh & Mountain  £10.3.88.

Swedish Poplar Plantations & the Match Industry £5.1.6.01.

also

Un autre arbre de Peuplier. (L. Breton-Bonnard.) Paris. Rosinly
(review in £2.13.6.04).
SALIX

1. Sow cuttings in autumn very easy (from small slips up to large stumps.)

2. Root cuttings also.

3. Vegetative: very easy, because willows though short-lived have a tremendous capacity of life as S. ×iminalis, but not to be recommended S. × 1.3.8.78

4. Seed as usual.

ɔeba 9.9.89
9.28.6.92.

amplexicaulis — 9.2.12.93.  babyonica — weaving willow

Capnaca 9.16.92. 9.28.3.03.

Fragilis 9.10.8.91. (Creek Willow) 6. Salicaria 9.1.6.92.

Lauripoda 9.12.7.91. 6. annularis 5.3.10.91.

Ludlia 9.16.7.97.

Roberti 9.16.7.97.

Uittehuijs 9.16.7.97.

M. 9.16.7.97.

Perennia 9.16.7.97.

Var: argentata

Carrallia 9.25.1.79.
Salicaceae 4

The Creek Willow 7.10.85
(Reitzia) 9.8.91.

The White or Huntington Willow 7.6.90.
7.9.82.

Willows on Health 9.4.6.96.

Basket Willows 9.7.92.
( in Scotland) 7.23.7.81.

Cultivation of Osiers 7.30.1.97.
7.6.1.01.

Some little known ornamental Willows 7.19.3.04.

Willows for their beauty 7.13.8.98.

Willows 7.27.9.02.

Pollard Willows 7.12.3.81.

Cultivation of Willows for Basket Rudes 7.4.7.81.

Shrubby Willows 7.3.1.91.

Alpine Willows 7.1.8.91.

The Willow as a timber tree 7.16.7.87.

Willow as a seaside tree 7.24.6.82 or 9.7.87.

The Willow in its History 7.21.5.81.
General note on the Salvadoraceae.

The Salvadoraceae are a small order of trees and shrubs confined in distribution to Arabia, Syria &c. The alliances although the order is somewhat isolated, are possibly nearest with the Loganiaceae and Oleaceae. Of the three genera in the order, Azima, Dobera, Salvador, possibly the only one seen in cultivation, and that only in botanical collections is Salvador persica. It is a small tree or shrub, interesting because the fruit is edible, and from the fact that the twigs are used by the natives as toothbrushes. The flowers are small and insidious. Propagation is effected in cultivation by stem cuttings.
Salvadoraceae.

**Salvadora** Linn.

*Some evergreen tree*

General note on the Santalaceae.

Santalaceae are composed of monoecious, mainly shrubs and trees, distributed in tropical and subtropical regions (India, Persia, etc.). The order is allied to the Laranthaceae, another monocotyledonous order. Some of the trees are of large dimensions, e.g., *Acanthosyris* (allca). The fragrant (salal) wood of commercial value.

*Santalum album* is a small tree in this order. Other genera have economic importance for their wood. Some of the plants are grown as ornamentals. The plants are not easily propagated from germination collections. Propagation is effected by stems of the flowering genera such as *Thelescrum*, but the wood cannot be obtained by stem cuttings.
General note on the Santalaceae.

The Santalaceae are composed of rootparasites, mainly shrubs and trees, distributed in tropical and subtropical regions (India, Australia). The order is allied to the Loranthaceae, another semiparasitic order. Some of the trees are of large dimensions, e.g. Acanthosyris falcata. The fragrant Sandal wood of commerce Santalum album is a small tree in this order. Other genera Fusanus, Exocarpus are also of some economic importance for their wood. Some of the plants are herbaceous e.g. Thesium. The plants are not widely cultivated, except in botanical collections. Propagation is effected by division in the lowgrowing genera such as Thesium, but the usual method is by means of stem cuttings.
EXOCARPUS Labill.

The Sapindaceae are an order of essentially tropical plants, and the genus Exocarpus is distributed in the southern districts of the northern hemisphere, are often regarded as one distinct order. The Sapindaceae form the well-marked group among the climbing plants which are so abundant in all tropical regions. Exocarpus and related genera are to be found in the forest and in the undergrowth. For their economic value to mankind, they are of the first importance. Many of the species produce edible fruits, and in India, Arabia, and Africa, the majority of the genera are for the tree and the ground cover, the Sapindaceae also supply hard, shrubs and trees, including the ornamental shrubs, Hoelictis, and Acaciella. In the genus Exocarpus, the monotypic species, E. labillii, is widespread in southeastern Australia.
General note on the Sapindaceae.

The Sapindaceae are an order of essentially tropical plants. The suborder, Hippocastanaceae found in north temperate regions, and the Aceraceae, distributed in the mountain districts of the northern hemisphere, are often separated as two distinct orders. The alliances of the order are with the Anacardiaceae, Celastrineae and others. The Sapindaceae form two well-marked groups of plants, the climbers and nonclimbers. Among the climbing plants which are cultivated are various species of Cardiospermum, Serjania, Paullinia, Urvillea &c. Among the nonclimbing species mainly stove shrubs or trees are to be found, Sapindus, Talisia, Koelreuteria, Aphania. In horticulture, the Sapindaceae are perhaps more prized for their ornamental foliage than for their flowers. No more decorative plants could be found than the cut-leaved variegated Japanese Maples, or the fern-like stove climber Paullinia thalictrifolia. Ornamental foliage is also found in species of Cossinia, e.g., borbonica (with golden-veined leaves), Koelreuteria, Stadmannia &c. Many of the species produce edible fruit, e.g., Litchi. While the majority of the genera are for the stove and the greenhouse, the Sapindaceae also supply hardy shrubs and trees, including the ornamental shrubs, Aesculus parvifolius (Pavia macrostachya) and Xanthoceras sorbifolia.
and the various species of hardy deciduous, _Aesculus, Acer._

Propagation is effected vegetatively for the tender genera, stem cuttings being the usual mode of increase. For the trees, seeds are commonly used, since growth is characteristically quick in this order. Root cuttings are a common method of propagation, (for _Koelreuteria, Cupania,_ ) especially when stem cuttings are difficult or slow. (_Xanthoceras)._ Leaf cuttings have not been investigated.
layers in autumn - slow though safe. see 56.2.86 (germ)
grafting on common maple for varieties - but not to be recommended.
budding (grafting usually for Japanese var) "yamachiji" by Japanese
stem cutting for obtaining stock plants but see 72.7.12.79 (germ)
seeds sown as soon as ripe. usual method
imported for Amer. 24 varieties such as "aceamum"

abies sibirica 92.4.1.74
Campestris 92.4.10.85
( field maple ) 91.10.91

Circinatum - 92.15.5.92
Cotilion - 91.14.3.85
Coriaceum - 91.14.3.74

daucarpmum - 91.12.81
curtaped silver maple 97.1.82
93.10.83

Eriocarpum -

Glandula 98.10.84
91.10.90

Macrophyllum - 91.9.72
91.8.83

Monsporculum - 96.11.72

Fagus sylvatica 97.9.50
91.7.2.87
92.10.87
92.1.8.91

Ligustrum 99.10.72
90.4.97

Regundeasa variegata - 96.9.80
97.9.87
92.10.87
91.8.91

Rhus arborea - 90.10.72
90.4.97
Acer contd.

obtusatum  S21.9.72.
opalus  S23.11.72.
opulifolium  S7.12.72.

var. neapolitanum  see (neapol).
palmatum.

(see gen. arb. under Japanese Maples).
pennsylvanicum  S30.8.85.

platanoides  S19.4.90.  see gen. arb.
(Norway Maple)  S3.5.90.

var. laeiniatum  S14.9.89.
sikkimensis  S13.9.73.

pseudoplatanus  see gen.
tataricum  S19.4.72.

trifidum  S16.8.73.

truncatum  S28.3.74.

Fir

laeiniatum  S28.7.77.

9.27.8.87.
A. Platanus

A. platanoides

The Sycamore

Value of the Sycamore

The Norway Maple

The Norway Maple Varieties

The Sugar Maple

A. saccharinum

Japanese Maples

North American Maples

Variegated Leaves Maples
Aesculus. pulses

layers in spring
Horse chestnuts
(A. parviflora shrub)

California
(Calif. buckeye)

Pseudoacaeanum

flava

indica

Hippocastaneum

s. 22 - 3. 02; 9.71 - 80.

The American Poison. 525.
AESCULUS, cond.
A. TITONIA. Shiny.

To see art.

Horse chestnuts, 58. 4. 76. X 917. 1. 80.
(W. T. Bean.)

The American Brook-eyes, 928. 11. 91.

ALECTINON. White.

The Horse chestnut. 924. 11. 88.
5 12. 10. 89.
9 8. 7. 99.
(The Horse chestnut & allies.
- 9. 1. 97.
- 4. 9. 97.
(W. T. Bean)

CAROBISPERMUM, Lin.

C. TISSONIA. Cone.

Young shoots - old shoots different.

C. TISSONIA. Cone.

93. 12. 88.
AITONIA. Thumb.

STEM - CULCHING - YOUNG WOOD.

Seed -

ALECTRYON. Sæthn.

Culchings and their Culture. 1865.

CARDIOSPERMUM. Rau.

SEED -

halicacabum 911.11.99.

COSSIGNIA. Comm.

YOUNG SHOOTS - OLD MOST DIFFICULT.

Bononia 915.12.83.
CUPANIA, Lin.

Stem, leaf, stem shoots.
Root, stem usual method.

Cunninghamia, Bm. 4.470.
elegantrissima
filicifolia, 718.4.91.
grandidens.

Cupanias and their culture, S744.11.83.

DODONAEA, Lin.

Stem, cutting.

anguisfolia.
attenuata, Bm. 7860.
viscosa.
**Nepidaeae 7.**

Comm. EUPHORIA. see Nepheleium.

Nepheleium:

- litchi 73.2.77 (note).

**FILICICUM.**

**NEPHLEIUM Rosea**

Greenhouse show;

**GREYIA.** Hook. & Ham.

- cuttings; half-ripe shoots;
- longanda; Euphoria
- seeds; Bow 400g.

**Sutherlandia** Rom. 6040. 98.8.75.

**PAULLINIA**

**KOELREUTERIA.** Lam.

- root; cuttings;
- steam cuttings;
- layers; China
- seed & usual.

- Paniculata B.R. 330. 72.4.81.
- 72.10.81.
- 829.9.88.
- bipinnata.
- japonica 729.9.77.
- 729.9.77.
NEPHELIUM. Avic.

- Stem cuttings: half ripe shoots.
- Leaves.
- Seeds or sprouts.

Litchi. (Chinese fruit).

- See Olivier on prop. of litchi.

PAULLINIA.

- Cutting: ripe shoots. See 9.25.9.80.
- Or better young growing shoots. See 9.27.2.97.

- 9.27.2.97.
- F. argentea 9.22.5.80.
PANIA. Aesculus. hardy dec. shrubs.

grafting on to Aesculus
layes.

seeds. distinguish from Aesculus w. fruits have slim, smooth capsule, not spiny capsule.

alba Bull. 1818.

var. stachy aces A. parviflora.

PTAERONYXON

?

SAPINDUS. Staye Evergreen

stem. sealing

seeds in heat in spring

Danube - Nepri. verticillate.
STADMANIA. B K

Nephelium.

amabilis aeo. Bello Cat.

SERTANIA.

XANTHOCRÉRAS.

TALISIA. Aubl.

cutting native shoots.

megaphylla. 9.11.73.

UNGNNADIA. Endl.

Seeds.

Speciosa. 9.22-9.77.

Stove shrub.
URVILLEA. H.B.K.

Stem cuttings?

Seeds?

ferruginea B.R. 1077.

XANTHOCERAS.

Small hardy tree in sheltered parks.

Root cuttings: see 96.3.76. and 93.8.76. (Prof. Xanthoceras).

grafted by means of cuttings.

Seeds: usual method.

Sorbifolia


117.5.02. 118.12.75.

13.6.03. 119.9.96.

928.4.04.

928.5.04.

The various genera are often grown in gardens and as curiosities. The genera Acacia are of economic importance as the latex.
General note on the Sapotaceae.

The Sapotaceae contain plants of tree-like habit and laurel-like foliage, distributed in the tropics (Africa, America, &c.) While the plants differ in many respects from the members of the Ebenaceae, and Styraceae, yet are allied in the cyclic arrangement of the flowers &c. The various genera are not very ornamental. The characteristic flowers with their divided petals increased whorls of stamens (though fragrant in some species of Mimusops) are usually small and inconspicuous. The fruits which are relatively large, e.g. in Omphalocarpus, with the seeds arranged in a radiate manner in the fleshy latex-filled mesocarp are often found in museums as curiosities. The genera Achras, Omphalocarpus are of some economic importance as the latex produced is the source of gutta-percha, but the various members of the order are rarely seen in cultivation except in botanical gardens.

Propagation is effected in nature by seed. The berry is distributed mainly through the agency of birds. In practice the propagation is effected vegetatively by means of stem cuttings.
Sapotaceae

CHRAS. Linnaeus.

<table>
<thead>
<tr>
<th>Sapota</th>
<th>9/4/11/74</th>
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<tbody>
<tr>
<td>(Jamaica Plum)</td>
<td>5/27/2/75</td>
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ARGANIA. Röm. & Schult.

<table>
<thead>
<tr>
<th>leaves</th>
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<tr>
<td>stem cuttings</td>
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<td>Sideroxylon (Iron Wood)</td>
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CHRYSOPHYLLUM. Linnaeus.

ORPHALOCARPUM. Beauverd.

LUCUNA. Moll.

Stone Tree.
MINUSOPSIS. Linn.

Kanki (Hindi Mulsari 29).

OMPHALOCARPUS.

SIDEROXYLON. Linn.


WMHWIANUM

OMPHALOCARPUS. Beauv.

processum = 88. 11. 81.
General note on the Sarraceniaceae.

The Sarraceniaceae are a small insectivorous order of three herbaceous genera, limited in distribution to America. The alliances of the order are doubtful. From their insectivorous habit they were formerly placed near the Droseraceae, but from their flower structure &c. they are more nearly allied to the Ranales cohort (Papaveraceae, Nymphaeaceae &c.).

The plants are interesting theoretically for the curious transformation of the leaves into insect catching devices, but the colours that can be obtained in these pitchers, from the palest to crimson, with mottled striped and variegated effects, make them at once objects of cultural value. Though cultivated chiefly for their foliage, the flowers too are large and attractive, and in Sarracenia rubra deep red in colour and very fragrant. (The yellow flowers of S. flava have an unpleasant smell, while the crimson flowers of S. Drummondii and purpurea have little or no scent.). The Sarracenias were at one time very much more cultivated than at the present, though of late years they have somewhat come to the front again. A great number of beautiful forms have been obtained.

While somewhat difficult in their initial culture, the Sarracenias when once established are not difficult to grow. Propagation is effected mainly by pieces of the rhizome or by
offsets. Seed is rarely used for propagation and not often produced in this country. Many hybrids have however been obtained, *S. purpurea* or *S. falva* being usually used for one of the parent plants.

The Sarracenias are not dense rooting plants. The feeding roots produced on the rhizome are comparatively few and wholly unsuited for propagation.

**Leaf**—Propagation by means of the leaves have not been recorded.
DARRINGTONIA. Serr.

1. offsets from rhizomes ? c. 5.11.98. division of crown easy.

2. seed also easy 9.22. 6.78 (9.19. 8.82)

3. California 9.23. 3.72, 9.28. 2.74.

4. see also longer art.


6. Darringtonia 9.25. 11.98.

California Rushel Plant 9.26. 11.84.

HELIANTHUM PhorA. Bent.

1. division ?

2. seed ?

3. mufans 9.12. 8.82

4. 5.1. 12.94.

Culture of laracenian 99.8.79. Laracenian 9.24. 7.98

Laracenian at Chester 5.28. 7.79.

Laracenian (H. doreyana) 7.30. 6.13.

Laracenian (H. lutea) 9.12. 8.83.

Laracenian (H. varia) 9.14. 8.89.
SARRACENIA. Linn.

Cultivation of roots early; offsets readily produced. Cut not be performed too often, as not scarce rooting plants.

- usually from imported Slippery sees 976/7/79.

Seed not usually produced in this country.

- some hybrids obtained in this way, e.g. Atherstone

A. africana

Dornui 94-8-01.

Drummondii 916-3-78.

E. exoniensis 912-3-80.

Farnhami 913-8-92.

flava. Bm. 780. S36-10-78.

formosa. 912-7-79.

melanorhoda 918-6-81.

Moorei 913-6-74.

purpurea. B. E. 308. S4-6-79.

(U. Huntman's Horn)

(Lady)

Carolina. B. E. 1163.

Variolarius. 927-6-74. B. E. 803.

Culture of Sarracenia 979-5-74. Sarracenia 914-9-95.

Sarracenia at Chelsea 924-0-79.

Sarracenia (i. Broeran) 930-6-83.

Side Saddle Plants 912-83. 910-3-89/912-7-89.

New Hybrid Sarracenia 939-8-85.

Sarracenia for Flowering Plants 96-3-92/972-8-03.
General note on the Saxifragaceae.

The Saxifragaceae are an order closely allied to the Crassulaceae, Rosaceae and other members of the Rosales cohort with a general distribution in Africa, America and also in the tropics. The plants in the order are very varied in habit. The Saxifragas are low-growing rosette plants suitable for the rockery; many of the perennials are so freely flowering and so graceful in habit that they are very common in cultivation, for example, Heuchera, Mitella, Astilbe and others. The majority of genera in cultivation belonging to this order are however shrubby e.g. Carpenteria, Deutzia, Escallonia, Hydrangea and the various species of Philadelphus and Ribes are favourite hardy flowering shrubs, while the less known but equally hardy Itea, Jamesia, Platycrater are also in this order. The Saxifragaceae are usually cultivated for their relatively large and fragrant flowers, but ornamental foliage effects are obtained with the 'Bronze Leaf of Japan' (Rodgersia podophylla) some species of Heuchera e.g. H. Fantasiae, Davidsonia pungens and others. Perhaps the most ornamental, with the Deutzias and Mock Oranges, are the Hydrangeas, known in country districts as the 'Changeables' owing to the fact that under varying conditions (for which see lit) blue trusses of flowers may be induced, instead of the usual pink or white.
ACROPHYLLUM. Bent.

1. Cultius - half ripe shoots.
   best for varieties. fl.: superior. 18.10.87.
   better method for ord. sp.

   = berbeillatum P111. 4.0/0.

3. Acrophyllum venosum. 9.8.10.87.

ANOPTERUS. Labill.

1. Cultius - half ripe shoots. somewhat shorter.
   (plant grown growing).
   9.24.2.00.

2. Seed rarely produces.

   (Tasmanian Laurel).
   9.3.98.
   9.8.4.93 < 918.4.91.
   9.19.3.04.

BAILERA. Bent.

ASTILBE. Ham:

See also Spiraea (Rosacea).

1. Division in spring.

2. Seeds also.
Propagation in the order is effected on the whole by vegetative methods. Many of the plants e.g. Ribes, Philadelphus, habitually produce suckers, and these may be used for propagation. Layering is also common. Division is usually employed for the dense rooting shrubs and for the herbaceous perennials. Stem cuttings strike without difficulty. Root cuttings succeed for Hydrangea. Leaf cuttings have not been investigated to any extent.

Seed though used for the hardy perennials is not used to any extent for the shrubby species.
Acrophyllyum. Benth.

Cuttings: half ripe shoots.

Best for varieties. Fl. superior. 7th 10th 87.

Greenhouse; evergreen shrub.

Veronum 7th 6th 87. 9th 3rd 99.

Ver. 3rd 4th 98.

Ver. 21st 5th 98.

Acrophyllyum Veronum. 7th 8th 10th 87.

Anopterus. Labill.

Cuttings: half ripe shoots. Somewhat slow.

Plant slow growing.

Seed rarely produces.

Glandulosa.

(Tasmanian Laurel).

9th 3rd 88.

9th 4th 93. X 9th 4th 91.

9th 3rd 04.

Astilbe. Ham.

See also Spiraea (Rosaceae).

Herb perenn.

Seeds also.

Haskins 139 97.
Laxifragaceae

ASTIRBE. contd.

**Chinenis**

*73. 9. 92.*
*93. 8. 95.*

**japonica**

*See Spicaea japonica*

**variægata**

*523. 7. 87*

**Lemoinei**

**Infra.**

**revilariis**

*1994. 8. 97.*
*913. 8. 98.*

**Shunbergii**

*914. 8. 97.*
*915. 8. 98.*

(hybrid) Gerbe d'argent

*915. 10. 98.
913. 8. 98.*

**IV. ASTERBE. (Lemoinei & Others)**

*4. Lemoinei 79. 11. 95.*

The ASTERBES 927. 2. 92.

BAUERA. Banks.

*Greenhouse shrub*

**1. easy from stem cutting**

**rubroides**

*918. 4. 91.*
*930. 4. 98.*
*929. 6. 01.*

**Humilis**

*Dec. 1197.*
BOYKINIA. Nutt.

- division
- seed
- acortifolia 7/6/781
  7/28/794
- occidentalis 9/10/89

BREXIA. Thunb.

- stem cutting
  or leaf with bud attached
- seed
- madagascariensis
- spicata

CEPHALOTUS. Lodd.

CARRICOMA. Andr.

- cutting - half-ripe wood

- ERETIPETALUM. ex.
CEPHAKOTUS

California, March 1978

Carpentaria

California

8.9.11

24.7.88

21.6.81

23.4.98
CHYSOSPLENIUM, Linn.

Durin

Op. altcripolium

repalene

Op. cripolium

CUNONIA, Linn.

stem cutting

capensis B.R. 828

DAVIDSONIA, P. von Muel.

pieces of stem

bungenos (or nanus foliage)

DECUMARIA, Linn.

cutting in summer

barbara - see also end of 18. 5. 76 on denimia
DEUTZIA. Thunb.

1. Cutting: herb or triploid wood. Also young shoots on forest plants.
2. Seed grown in spring also.

*Corumbora.* BR. 1846. t. 5.

*Gracilis* 916. 3. 78.
929. 1. 87.
928. 4. 88.
922. 1. 98 x 93. 5. 10.
924. 2. 01.

*Paviflora.* 914. 3. 98.

*Corumbiflora.* 9c. 26. 2. 98.
91. 10. 98.
9c. 8. 10. 98.

*Crenata* fl. Pl. 923. 6. 87.
924. 7. 97.
928. 7. 00.

*Lemoinei* 926. 10. 95.
( Hybr. ) 921. 3. 03 x 912. 2. 96.

*Dicot. purpureascens.* 917. 6. 99. BR. 7705.
9c. 18. 7. 99.

*Stamina* BR. 33. 1847. t. 13.

See genus and for other sp.
DEUTZIA. Shrub. contd.

- Deutzia for Small Gardens $12.50.
  $18.4.88.
  $26.4.90.
  $17.3.94.

- Deutzia 92.12.88.
  926.8.93 < 95.4.90.

- Double Deutzia 926.8.88.
  91.5.89.

- New Deutzia of Unknown $96.6.00.
  928.6.01.
  931.6.02.

DICHRONA. Low.
FENDLERA. Engelm. et Gray

1. stem cuttings, layers.
2. seeds.
3. rupecola 930.3.89. BM 7924.
   (caesp. n.) utahensis. 9 21.5.04.

FRANCOA. Gau.

1. stem cuttings easy, early spring.
2. division of old plants.
3. seed, best method, early spring (Feb.), or autumn as soon as ripe.

4. ramosa. (Bridal Wreath). 916.3.01.
   = appendiculata
   914.3.01.
   = forchipte
   914.2.03.

5. The Wreath. 917.11.88.
   912.9.91.

Francoa: their culture & propagation. 915.1.01.
HEUCHERA Linn.

1. division

seed also, killed by wiser methods
& variable for hybrid

  x Rosamunde 7/27.6.03.

  macrophylla 7/1.8.97.
  7/13.5.99.

  Sanguinea grandiflora 7/18.6.98.
  7/6.8.98
  Sanguinea 7/13.3.90

  7/4.10.02
  7/20.6.03

  Improvement of the Heucheras 7/22.8.04

  Heuchera (Sanguinea) 7/25.10.84
  7/3.8.93
paniculata alba 11.6.10.98 / GC. 16.7.98
paniculata 7.30.12.82 < 9.26.10.95
hortensia 9.2.10.97
var: Mariezi 7.12.11.98
var: mandshurica 9.10.6.93
Leandros
petiolato 7.26.9.03
Stellata Sp. pl. 9.11.6.89
Stellata 9.11.11.90
volubilis 9.25.3.89
rozalba 7.30.12.79
arborescens 9.2.11.4.87
rosea 9.11.6.92
Vechila var: pubescens 9.28.10.98

Leander (Neander Hort) 7.26.3.87 / GC. 9.3.7.90

Monkii 7.30.11.10.08
Horina 9.1.6.97

paniculata 9.3.1.63 / GC. 11.7.1.63
Hydrangea contd.
HYDRANGEA. Linna.

Division of sorts.

1. Stem cutting. Use shoots early or young shoots.
   
   2. Root cutting.

Hydrangea  
9.9.76  
G. 26.3.04

Seeds. (W. H. Hewett)

11. The Different races of Hydrangea

  1. Cyanema  BM. 5030.


  var. Cushleyana  
  91.12.94.
  917.3.01.
  927.8.04

White (Thomas Hogg)  
95.3.77.
915.3.80.
913.7.99.

L. nivea  
G. 20.12.07.
L. nigra  
919.6.97.

Paniculata  
G. 3.1.03.
917.1.03.

P. grandiflora  
917.9.00.
920.11.80.
916.3.01.
G4.6.92.
926.3.86.
98.8.04.

L. petiolaris = Echinophragma hydrangeoides

G13.6.94.
917.7.99/911.10.02.
IV. HYDRANGEA

Blue Hydrangeas

Hydrangeas

The Different races of Hydrangeas

Hardiness of Hydrangeas

Hydrangeas indoors

Hydrangeas and their Culture

Hydrangeas in Pots

Dwarf Hydrangeas

The very large-flowered Hydrangeas

Himalayan Hydrangeas

New Hydrangeas
ITEA  Lin.

Suckers in spring.

Seeds in summer.

Effects:

Seeds in spring — for large quantity.


*Virginia*  931.7.94  Bot. 24097.

929.7.96

921.8.97  Ge. 21.8.97

918.8.00

JAMESIA  Lam. + Gray

- Suckers: Cuttings: young shoots
- Seeds

*Americanana*  Bot. 6142  918.6.81

73.12.87

915.9.86

920.5.93

PARNASSIA  Lam.

Hardy Shrub
Kirengshomaa

Yatabe.

1. Division of root.

2. Seed. Import.

- Paenula B.M. 7744. G10.10.03.

Mitella

Yunn.

1. Division of root.

2. Seed?

- Cordylobia 52.6.68.
- diphylla. 52.2.4.82.
- pentandra B.M. 2933.

Parnassia

Linn.

1. Division in spring.

2. Seed in spring.

- Astrophytum (Pentaphylla) B.M. 70, 71. 7.19.
- California - 731.8.95.
- caroliniana B.M. 1457.
- Himalaya - 52.9.82.
- umbellata (B.M. 1609. 91.7.82.

10. The Parnassias 928.3.81. / Grass & Parnassus 928.3.92.
PHILADELPHUS Linn.

Hardy deciduous shrubs.

Leaves:
- Simple
- Stalked
- Division of root: Stem cuttings in summer.
- Sow seed.

Coniferi 927:6:96
Coronaria Am. 341
Grandiflora B.R. 570
Hirsutus B.R. 44 B.M. 538H

Lemoinei crenata 936:6:00
Lemoinei 99:7:92
94:12:95
91:0:7:97
4 varietas 92:6:96
Microphyllus 94:1:93
91:0:7:97
916:7:98
Mexicanus 91:26:9:03
Speciosus 910:7:86

Mock Oranges (Philadelphus) 916:11:90 93:7:75
926:9:91
The Best Philadelphus 914:6:75
Philadelphus (W.J. Bean) 977:7:00
PLATYCRATER. Ledeb. & Zucc.

1. stem cuttings
2. layers
3. suckers

PLANT.

angustifolia Sibolus 7/31/89

RUBUS.

RODGERSIA. Gray.

1. division
2. seed?

rodocephylla 7/24/89, 8/16/93
5/9/98, 9/12/97, 9/12/99

privata 9/11/91, BM 7692

Rodgersias to come. 9/19/97.
The 14 species of Rodgersia. Fe 23. 8. 02
(A. Henry)

RIBES. Linna.

1. cuttings: ripe shoots
2. layers
3. seeds: usual

RIBES. Lin.
RIBES cond.

Sanguineum
S. fl. fl. 9.6.92
9.8.97

alpinum
Var. puniceum aureum 9.12.85
9.2.10.86

Aureum
9.14.87
9.16.88
9.13.12.90
5.4.3.95

a. praecep. 9.28.5.98

Braetosum 9.30.6.00. Bm. 7419.

Speciosum 9.1.8.03
9.15.8.03. 9.22.5.97

Subv. Sph. 9.12.5.88

Nigrum n. Aureum 9.22.6.89

Cereum 9.8.5.86
9.3.4.97

Gordonianum 9.12.4.84
9.28.5.87

Lobbi 9.25.12.86

valume 9.22.4.82
RIBES contd.

Ribes, (W.J. Bean) S20.3.97.
Wild American Gooseberries S20.3.97.
The Flowering Currents S2.9.82.
Hybrid Ribes Ec. 7.7.00.

SAXIFRAGA, Young.

I. species x sprig
II. hybrid

Granulata S12.8.82
fl. pl. S29.7.99, S12.6.81.

Virgata S12.6.97.
S. major S15.7.99.

Diversifolia S29.7.82
S5.8.82.

Odontophylla S28.8.86.

Sibirica S14.5.81.
AXIFRAEA

Beraphila virginica 9. 29.7.93.

v. fl. 9. 9. 9.80.

9. 7. 4. 80.

9. 3. 1. 83.

hollida 9. 2. 6. 86.

9. 1. 6. 01.

umbrosa (London Pride) 9. 14. 1. 89.

Andrewsii 9. 11. 2. 82.

u. var. acanthaeformis 9. 13. 1. 90.

Covillei

TIARELLA

SCHIZOPHRAGMA. see under Hydrangea.

TANAKAEA. Franch. f. Savat.

TORMEIA. Lat.
**TELLINIA** Rbr.

*Grandiflora*
- *rubra* 9.1.98
- *rubra* 9.2.98
- *purpurea* 9.27.2.97
- *rubra* 9.10.3.90

**TIARELLA** Lin.

1. Division: usual method
2. Seed
   - B. v. 10.89
   - 9.28.8.98
   - 9.28.1.99
   - 7.7.00
   - 9.6.8.04

*Spicata* 9.28.5.87

**TOLMEIA** Hook. & Gray.

- Division
  - Leaves produce new plants at base (adventitious buds at junction of leaf-stalk with blade)
- *Menziesii* 9.25.6.98
NEIN

MANNIA. Lin.
General note on the Scrophularineae.

The Scrophularineae are an order of variable habit, distributed all over the world, though their greatest development is in temperate regions. The majority are herbs and subshrubs, though shrubs and trees occur, some e.g. *Pawlownia* of considerable dimensions. The order is closely allied to the Solanaceae, from which it mainly differs in the zygomorphic character of its flowers. Transition forms occur, e.g. *Schizanthus*, formerly referred to the Solanaceae. Many ornamental plants, chiefly herbaceous, occur in this order. Such are *Calceolaria*, *Linaria*, *Mimulus* &c. *Maurandya Barclayana* (*Lophospermum*) is a pretty greenhouse climber, and *Mazus Pumilio* is an ornamental little plant for the rockery. The genus *Castilleja* is cultivated for its bright orange red bracts and others e.g. *Chelone* *Lyonii*, for their ornamental foliage.

The culture and increase of the Scrophularineae, like other members of the *Portulacées*, is easy. A great number of the plants are annuals, and these are best increased by seed. Special varieties, for example of *Calceolaria*, are usually raised from cuttings.
Cuttings strike easily in this order, of any description. Stem cuttings are the common mode of increase. The plants are on the whole characterised by a strongly developed main root, pieces of which can often be used as a means of increase especially by in *Pawlownia* *imperialis*. Leaf cuttings are not a common mode of increase in the Scrophularineae.
ALONSOA. R+P.

1. stem cultivo for shrubby.
2. and most usual for piano - 'Amara' 94.
   - acutifolia 917. 9.95.
     - lucida 919. 8.82 924. 4. 87.
   - lucisulphata 917. 10. 83.
     - 926. 11. 87.
   - cinfolia 913. 2. 78
     - 930. 10. 78
   - mutica 975. 81
   - var. compacta 978. 80.
   - War. sp. compacta 939. 998.
   - War. 910. 10. 03.

3. Alonsea 939. 98.

ANGELONIA. H. B.

1. stem cultivo: young shoots in shru; care must be taken
   to preserve from pest ship, as stems are t. watery.
2. see also: q. alba true from seed.
3. grandiflora alba 911. 11. 02.
   931. 10. 03.
   - Salicaria alpina 931. 10. 03
   - Salicaria alpina 931. 10. 03
ANTIRRHINUM. Linn. 

Stem cuttings. Summer side shoots. Pts. 2.79. (prop.)

The only sure method for varieties.

Seed in spring for autumn
or summer
Cut not true for varieties

See genus for species.

Glutinosum. 9.29.3.07. Rom. 7.2687.
9.1.8.04.

White Balm 9.6.90
9.6.8.92
9.10.8.99

Crimson 9.4.6.89

Garden. Vars. such as Yellow Prince, Queen of the North, White.

Snap dragons 9.2.2.89.
9.12.1.95

Dwarf Antirrhinums 9.16.6.83.

The Snap dragon 9.26.6.97/98. 11.4.96.

The Antirrhinum 9.29.4.93.
9.14.7.94.
BONNAYA. Link. 1 ott.

libero?

Rauwolfii Bm. 6244.

BOWKERIA. Ham.

triphylla (only 8% rare) - 9c. 13.8.04
sc. 10.9.04

BUCHNERA.

viscosa = Sphenandra viscosa Bm. 217.

CALORHABRUS.

Caeloptera Bm. 7800.

Sphenandra Splendens. 9-7-10 82

? - 31-10 82.
ACCEOLARIA, Linn.

1. Stem cutting best for varieties; 1 for shrubby species.

2. Said artificial fertilization best; choosing good plants

alba
923. 1. 97,
928. 8. 97,
9 3. 9. 98

ascendens BR. 1215.

Burbidgei 927. 10. 81,
94. 8. 95,
9 8. 11. 0 2.

chelidonioides 91. 9. 83

Luchsiae folia 96. 12. 84,
93. 2. 94,
9 31. 3. 9 4.

renella 910. 6. 76,
Blm. 6231.

volaerea G.E. 9 13. 10. 81,
Blm. 4929 9 8. 2. 704.

violaefolia 914. 3. 03

Sulpitania Splendens 9 7. 10. 82,
9 9. 10. 8 2

le
CALCEOLARIA. Linna.

Hardy Calceolarias 92.6.6.0 97.3.8.6.

Bedding Calceolaria 82.4.1.7.4 114.10.7.6 82.4.2.8.3.

Calceolarias 93.6.7.6
(1835-1897)

The Calceolarias
(money by W. B. Newbery)
Hebe calceol: 93.8.7.2 90.16.8.9.6 97.7.7.7 90.13.11.9.7 921.7.9.4 90.13.6.6.0 93.1.3.9.0 97.28.5.8.7 99.5.9.1 97.4.9.8.9.

Shawby Calceolarias 910.2.7.2 913.4.7.2.

Calceolaria Disease 96.3.7.5 911.9.7.8 99.9.10.7.5.

Calceol: from seed 929.4.7.6.
CASTILLA A. Linn.
Shrubs, cuttings for tender, division or potting by seeds for hardy.

Coccinea B.R. 1136.
(hardy)

Indica
A. 18. 9. 01.

The Castilejas 93. 9. 92.

CELSIA. Linn.
Half hardy or greenhouse plant.

Cretica - 97. 10. 82.
(Cretan Mullein)
Plants 20. 10. 86.
51. 7. 96.
52. 1. 6. 90.

Archium - 92. 1. 10. 82.
92. 1. 11. 83.

Bagulifolia - 98. 8. 85.

Celsia's 923. 3. 03.

CHAENOSTOMA. Benth.

Stem Cuttings.
CHELONE. Ran.

- division of roots
- stem cutting, young shoots
- seeds

- **barbata**
  - 72.1.10.93.
  - 91.8.91.
  - 62. var. 92.8.7.94.

- **lyoni**
  - 72.12.93.
  - 72.8.7.00.

- **memorosa**
  - BR. 10.11.

- **ottignia**
  - 91.9.97.

**Collinsia.** Hiff.

- seeds in spring, or autumn (better).

- **bicolor**
  - BR. 3.8.88.
  - Grandiflora BR. 1107.

- **verna**
  - 910.3.90.
  - 92.21.7.00.
  - 94.3.01.

**Collinsia** for spring flowering.
DERMATOBOTRYS, Bolea.

1. stem cutting.
2. seed.
3. Saundersie B.m. 3679.
   9.27.1994.

DIAISCA, Link & Otto.

1. seed.
2. barbadensis B.m. 3983 9.6.12.01.
   macrophylla 5.14.972.
   (perenn).

DIGITALIS, Linin.

1. division.
2. most common method seed.
3. campanulata 9.1.2.7.98
   white Digitalis 7.6.8.7
   7.9.98.
4. cannaa 9.22.7.99
   grandiflora
   laciniata B.R. 1201
   laevigata
   lutea.
5. obscura 9.3.7.04
   orientale A.k. 854.
Hybrid Foxgloves
- 9/6/77
- 9/12/82
- 9/8/88

Foxgloves
- 9/2/67
- 9/24/88
- 9/6/78
- 9/3/89
- 9/19/88
- 9/12/88

The Foxglove
- 5/23/04

(Diplacus)

Diplacus
- mutt. Boy
- glutinosus = Musculus glutinosus
coccineus

Erinus
- division

Seed

Alpina
- 9/13/90
- 9/16/80
- 9/27/90
- 8/23/02
- 9/6/96

Var. hispanicus

Echinoidea

Pennisetum
- 9/16/86
EUPHRASIA Lin.

- seeds - in spring in open
- alpina
- lakea

GERARDIA Lin.

- division in spring
- stem cuttings
- seed
- 'alpinoïda'
- hybrid 'G. 12. 9. 03'.
- quercifolia 'S. 22. 2. 94'.

GRATiola Lin.

- easily by division - plant roots at node
- seeds
- aurea
- Bo. 1399.
- 'karagora' Bo. 3/34.
- to

HERPESTIS Sc. Lin.

- division
- + seed
- reflexa
- 25/10/79.
- 12/4/84.

hardy annuals.

hardy

hardy herb.

aquatic peren.
**Leucothoe oregana** (Hook.) R.M. Schneid.

- Stem cuttings: well-rooted.
- Seed: 
  - 16-9-90

**Leucothoe fontanesiana** (Hook.) R.M. Schneid.

- Stem cuttings: well-rooted.
- Seed: 
  - 16-9-90

**Leucothoe virens** (Hook.) R.M. Schneid.

- Stem cuttings: well-rooted.
- Seed: 
  - 16-9-90

**Leucothoe fontanesiana** (Hook.) R.M. Schneid.

- Stem cuttings: well-rooted.
- Seed: 
  - 16-9-90

**Leucothoe xana** (Hook.) R.M. Schneid.

- Stem cuttings: well-rooted.
- Seed: 
  - 16-9-90
LINARIA. Jue.

division

Gen. usual - white

antirrhinifolia - 13.11.97
alpina - 9.7.04, var. rosea alba
Dalnatica - 7.5.95
arctica - 9.7.04
antica - 5.3.84
9.21.4.94

cymbalaria - 9.8.5.01
bipartita - 9.20.6.85
var. alba 9.10.24.03
speciosa 9.18.9.83

virgata - 5.29.6.01
fellida - 7.3.94
9.14.4.00

peloria - 9.30.8.84
repens alba 9.14.8.97
9.20.8.98

Phymisphala - 5.29.83

gemulacifolia - 5.27.4.71
hepaticefolia - 5.28.9.95

multipunctata - 5.6.12.84

lenticulata aurea purpurea - 5.27.5.81
9.22.5.91

tricornecephala - 5.28.6.84
9.31.7.84

Can. +

Hardy perenn.

Suit: for rockwork
The Best Linarias 9/10/94.
(From Goldberg)

Linarias 9/27/83.
Hardy Linarias 9/29/93.

Lindenbergia.

Sow cuttings in spring.

Grandflora 9/26/02.

Maurandia Oct.

Sow cuttings: young shoots.

Seed also: Feb.

Barclayana 9/29/83.
White 9/25/83.
Bk. 1108.
9/18/79.
9/18/96.
9/8/04.
(half hardy)

Scandens: Xopospernum Scandens 9/16/789.
9/8/10/04.
Bk. 3656.
MAZUS Lour.

division alca

small, in spray, in head, mix out in open.

Pumilio 9.20.9.90.
9.3.8.95.


MINUS Linn.

division

stem cutting

root, in December for early spring flowering.

Brunneri 5.22.6.01.
9.10.8.01.

7.9.8.81.
9.16.7.81.
9.18.3.98.

x Harrison 9.23.8.81 10.4.81.
9.18.3.93.

moschatus rubens 9.18.8.81.
7.13.2.90.

n. fl. pl.

Compactus 7.22.8.91.

Lewisii 7.28.2.91.


Cupressus brillant 9.1.9.83.
7.14.6.87.
Mimulus contd.

The Large flowered Mimulus 31.5.02
Ft. 2.7.04.

Mimulus Culture in Pots 23.5.78.
Mimulus Indoors in the Open Air 28.7.74.

Mimulus 22.12.88.
9.28.3.91.

The Mimulus Ft. 18.6.00.

Spotted Mimulus 25.6.86.
23.6.86.
30.5.91.

Nemedia Vent.

1.
Seed in heat in spring, or open in late spring.

2.

floribunda 23.9.93.

S. aurea 11.3.93.

Rom 7.27.79.

Var. Suttoni 26.7.98

3.

Versicolor var. Compacta 9.10.86.
OURISIA. Comm.

1. Shihpome pratae?
2. Leea (diff. in flower.)
9.22.7.82.
9.29.12.94.

PAEDEROTA. Lin.

2. Bonarota = Coerulea
   Aegeria

3. Paederota 9.23.11.78.

PAULOWNIA. Sieb. & Zucc.

1. Young growth.
   or cut down each year & roots.
3. Dead freely. Sown as soon as ripe. (Very quick growth.)
   But flowers freely in this country.
4. Imperialis 9.9.9. 94.7.85.
   9.9.9. 94.7.87.
   9.22.2.79. 9.2.11.89.
   9.18.6.81.
5. Fortunei 9.10.12.98.
**Pedicularis**

- hardy, half-hardy
- bog perennial

- **Pentstemon**

  - stem cutting or young shoots: best side shoots, see 92.6.00 (Pent. from seed)
  - dried down in spring, see 92.6.00 (Pent. from seed)
  - *Caeruleus* 92.6.01.
  - *Glauca* 92.2.02.
  - *Caeruleus* 92.7.98, 92.8.02.
  - *Palmieri* 92.5.8.00.
  - *Newbery* 92.8.04, 92.10.04.
  - *Newbery* 92.6.97, 92.7.6.99.
  - *Oxiana* 92.5.9.01.
  - *Tapirina* 92.6.01.
  - *Sheetables* 92.29.21.9.01.
verophularia 18

leucothoe 96-8-98

fragaria 97-7-85
92-8-98

menzieii 92-7-85
92-8-98

barbatus 92-7-01
91-3-02

barbatus var. torenyi 91-5-98
92-9-93

jeffreyanus 91-5-98

leuceri 94-6-81
91-6-96

jeffreyanus 92-2-89

murrayanus 93-4-84
91-9-82

cordifolius 91-8-91
93-9-87

cobaea 92-7-81
96-10-83

germanica 93-1-88

frankelii 94-9-82

anthurhinae 92-9-93

26-10-04
Soropharinaeae 19.

The Pentastemon 98.6-90. 98. 22. 2. 96.
92. 11. 2. 01.

Pentastemons & their Culture 91. 3. 83. 92. 7. 77.
93. 1. 84.

Pentastemon 97. 9. 98. 91. 8. 83.
91. 2. 02. 93. 7. 92.
92. 8. 04. 93. 5. 96.

A few good Pentastemons 91. 9. 84.

Blue Pentastemons 918. 9. 86.

Pentastemons as Annuals 93. 9. 96.

RHODOCHITON, tree

PHYGELENIUS, fl. May.

1. chicoric. - flowered.
2. chicoric. - flowered freely - though not so much as usual.

H. Capensis 924. 9. 81. 919. 11. 81.
924-11. 01. 918. 1. 02.
918. 8. 04.
918-10. 04.
Pteropodiumæ, 20.

PICCORHIZA D. Royle.

I. division.
II. seeds.
III. Kurrooa - 96.8.92.

REHMANNIA Libosch.

I. stem cuttings or runners, easily detached.
II. Kunzchima juncea - a basket plant. 19.7.91.

Schizanthus R.P.

Rhodochiton: Zucc.

I. Cutting usual mode.
II. seeds in heat. (when ripe)
III. Volubile - 547.10.85, 21.7.93, 918.9.94.
*RUSSELLIA*, Jacq.

- stem cuttings: hard,屿 -
- suckers, laying a branch.

- `Juncea`.
  - 7.11.11.93.
  - 9.10.11.00.
  - 9.14.11.03.

*Remontis multiflora* 57.5.98.

See gen. art.

*Russelalia juncea* as a *Basket Plant*. 519.7.79.
*Russelhia* 9.27.10.83.

*SYNTHYRIS*, Benth.

*SCHIZANTHUS*, R.H.P. (Solanaceae).

*Scrophularia*, Lin.

- division 2
- seeds.
- aquatic *Bornmuelleri* 78.3.96.
- nodosa (root) fol. var. 710.9.96.
- *The Fig. Work* 9.3.17.00.
SEROPHULARACEAE 79.

SIBTHORPII. Line.

1. division
2. seeds in spring
3. europea 57.3.74.
   (basket)
4. e. albo-marginata 923.1.76.
   (Creeping Cornish Moneywort)
5. e. variegata 517.10.74.
   94.9.86.
   98.8.91.
   912.8.93.

SYNTHYRIS. Benth.

1. division densely
2. seeds
3. primatifida 927.4.01.
   reniforme 916.6.60 526.8.98.
   98.4.99.
   95.8.60.

OROSHECKENEA. Lindl.

TETRANEMA.

1. cuttings "young shoots"
2. seeds in heat
3. mexicana 92.10.89. 914.6.70.
Serephulariae. 28.

TORRENIA. Lean.

1. Cuttings - young shoots.
   Seed in April.

- asiatica. 913.1.72. 929.12.77.
- Journieri. 90. 24. 4. 97. 918.7. 99. 916. 8. 02.
- P.M. 674.7.

Baillonii. 98. 2. 79.
- Hava. 6120. 23. 6. 83.
- Cerecular. 910. 1. 85.
- Cerecular rubens. 922. 9. 88.

1. Torrenia. 90. 22. 3. 02. 917. 9. 04. 910. 12. 92.
- Torrenia & their Culture. 922. 9. 88.
- Torrenia & their Uses. 99. 2. 84.

UROSKINNERA. Lindl.

Store herb.

1. Stem cutting easy.

- specabilis. 94. 4. 82. 92. 2. 84.
- 919. 2. 87.
- 914. 6. 93.
Aerophyllum

VANDELLIA Linn.

1. seeds in heat.
2. crustacea.

VERBASCUM Linn.

1. division for perennial.
2. seeds in spring, common method.

Byz. 7.36. mycom = Raymondia pyrenaica 56.12.79.

Thapsus. 925.7.91.
91.8.91.
98.8.91.

Rheomoides. 927.6.91.
919.12.91.

Chaiixi. 918.8.88.
714.9.95.

Congifolium. 926.1.02.
Var. Pannosum @ 6.9.02.

Olympicum. 930.6.00.
78.8.90.

Vigatum. 78.8.04.

Hookeri. 913.7.99.

Olympticum. 922.7.99.
VERBASCUM contd.

festuconum 917.4.84
phoenicium 914.7.97. 926.10.82.
922.12.94.
926.1.95.
924.7.97

olympicum — 94.9.85.
vernale 927.11.80.
96.8.92.

blathnica 920.7.98.

IV. Mullens § 919.7.90. 98.8.83.

Verbascums § 92.3.98.

The Verbascums of Mullens § 928.2.85.

VERONICA. Luca.

1. stem cuttings: easy for shrubs.
Division for perennials.

2. seeds for animals

Cupressoides § 910.6.93
§ 913.7.93.
SEROPHULAMAE 86

VERONICA Luc. Contd.

Lyalli 912.6.80
97.10.82

Lycopodioles BM 7338 930.7.98

parviflora 93.9.98 SC 3.9.98
925.10.02

traversii 918.8.00
916.8.02

RuelReana 912.6.00
913.6.03

Bm 5484

Eoganodes 911.11.93
Bm 74.04

Corimbora 916.7.07
90.18.10.02

Salicifolia 919.8.84
922.7.99

Anomala BM 7360 910.7.86
923.7.04

Speciosa 919.7.90
913.12.07

Repatriis 930.7.87
927.1.00

Dionaea folia 928.8.04

Chatanica 919.7.84 SC 11.11.99

Congifolia 8.7.81
IV. 
Shrubby Veronicas & New Zealand. 924.6/13/92. o.93.
New Zealand Speedwells. 919.9.85.
New Zealand Veronicas. 916.6.94.
Shrubby Speedwells. 920.10.83.
Veronica I. II. III. IV. 
Money by C. Wolley Dod. 
916.1.02
925.1.02
925.1.02
98.2.02
Veronicas. 91.10.98.
Hybrid Veronicas. 92.7.9.01.

WULFENIA. Jaceq.

1. division of roots.
2. seeds.
3. Auhbertiana 914.2.85.
926.11.98.

Caninthisa 918.6.87.
LAZULIANSKI. Schmidt:

1. Stem cuttings for Cycnium - (Schenk.)

 eclectic

Authors included in the Scrophulariaceae. Salago is confined

Lycnium - Nycteria c. 9/10/86.


The plants in the order are all herbaceous, and
increase is effected mainly by division or stem cuttings.

28 English Press.

29 Australian Press.
General note on the Selaginaceae.

The Selaginaceae derives its name from the genus Selago, by some authors(1) included in the Scrophulariaceae. Selago is confined mainly to Australia. The various species, while they are interesting are not very ornamental. The other genus Globularia is separated with Lytanthus and Cockburnia to form the order Globularineae (1), the alliances of which are doubtful, but it may be possibly placed near the Myoporineae. Bentham and Hooker place Selago with Globularia in the order Selaginaceae. The plants in the order are all herbaceous, and increase is effected mainly by division or stem cuttings.

(1) Engler. Prantl.
(2) Bentham & Hooker.
SELAGOINEAE

GLOBULARIA Lin.

1. stem, cuttings, in summer.
2. seeds.
3. aet. alkalum, 917.3.77. 912.2.87.
   Willkomi 526.6.97.
   vulgari
     var. alba.

HEBENSTREITIA Lin.

1. stem, cuttings, young shoots, stems, for shrubs.
2. seeds.
3. 'Comosa B.M. 7898.
   'dentata B.M. 483.
   "

SELAGO Lin.

1. cuttings of young shoots, side shoots best.
2. seeds.
   "obata B.M. 186.
   "
General note on the Simarubeae.

The Simarubeae an order allied to the Rutaceae are mainly composed of shrubs and trees, sometimes of considerable height. They are typically found in the tropics, (though the shore plant Surisia maritima is more widely distributed) and their greatest development is in tropical America. Not many of the order are in general cultivation, except the ornamental 'Tree of Heaven' (Ailanthus glandulosa). The flowers in the order are usually small and inconspicuous and in some plants, e.g. Ailanthus, the male flowers have a disagreeable odour. The Simarubeae are economically important for the bitter principles found in the bark of Quassia, Simaruba, Picraena excelsa, &c.

In cultivation, propagation is mainly effected vegetatively, seed is not always to be obtained. Cuttings strike with moderate ease, except in Ailanthus. In this genus, however, pieces of the roots characterised (by cutious swellings (see Andreae, Trécult, &c.) afford an easy means of increase. Leaf cuttings have not been investigated.
SIMARUBACEAE.

AILANTHUS. Decf.

Root. Cutting. usual. (see Friesea to.) in April.

(From cutting different.)

Seeds. rarely produces in this Country.

Male ft. seldom develops.

Leafy odour, so not to be planted in public parks to
see
7th June 1873
27th Aug. 1881
10th Sept. 1881

CALYNEA.

(C. excelsa)

Glandulosa. 14th Aug. 1886.
19th Sept. 1888.
18th Sept. 1893.

The Tree of Heaven. 9th Oct. 1887.
27th Oct. 1887.
Variation of Sex in Ailanthus. 7th Nov. 1887.
The Atlanta, or Tree of Heaven. 9th July 1888.

BRUCEA. J.S. Mill.

Cutting. live wood.

ferrogena. 1st April.
CNEORUM. Lin.
ster. cult.  

C. pulverulentum
biococcus

PICRASMA. Sw.

P. quassoides
G. P. 12.8.04

QUASSIA. Lin.

Q. amara
729.1.81, Bp. 172, Blm. 497
The Quassia tree 917.7.78
**SIMARUGA** Aubl.

- Cultiva: ripe shoots
- Amara

**SPATHELIA** Linn.

- Cultiva: ripe shoots
- Simplex 27.8.96

- Evergreen
General note on the Solanaceae.

The Solanaceae are distributed in tropical and temperate regions both in the old and new worlds, finding their highest development in central S. America. The order is closely allied to the Scrophularineae. The plants in the order are of variable habit and comprise herbs, climbing shrubs or small trees. From an economical point of view, the Solanaceae is one of the most important of all orders. Not only does it supply the common potato (Solanum tuberosum) and tomato (S. Lycopersicum) but the great majority of narcotic principles, and poisons used in Pharmaeaceae are obtained from members of this order, e.g. Atropa, Datura, &c. The characteristic quick growth and free flowering of the Solanaceae make them also favourites in cultivation. Specially ornamental are species of Solanum (e.g. jasminoides and others) Petunia, Nicotiana, Schizanthus, Brunfelsia &c. Some species are cultivated for their ornamental foliage, e.g. Solanum robustum, S. Crinitum &c. Like the Scrophularineae, propagation is easily effected. For the annuals, e.g. Salpiglossis, Shizanthus &c. seed is the best method of increase.

Vegetative propagation is largely employed. Stem cuttings are the usual mode especially for the shrubs Browallia, Datura, Brunfelsia.
Root cuttings are used for some species, notably Hyoscymus and Jaborosa, but is not so characteristic as in the orders of the Polemoniales cohort (Boragineae and Convolvulaceae). Leaf cuttings have been experimented in the following genera. Solanum lycopersicum, (roots were obtained after 9 days), Nicotiana rustica (...... 13 days.), Physalis Alkekengi (...... 24 days), Petunia hybrida (...... 11 days), Capsicum annuum (...... 24 days).

Shoots were only obtained in the above experiments in the case of Capsicum annuum after a period of nearly 2 months. Other vegetative methods, grafting, layering, &c. are not so commonly employed.

(1) Kindemuki
Solanaceae: 1

ANTHOCERcus.

1. stem cuttings, half ripe.

ATROPA. \( \text{Lila} \).


BROWALLIA. \( \text{Lila} \).

- cuttings in spring or summer, very easy for species.
- seeds in spring or summer for demissa: elata, speciosa.

<table>
<thead>
<tr>
<th>Elata</th>
<th>910.3.88</th>
<th>929.1.98</th>
<th>918.5.01</th>
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<th>918.10.02</th>
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<td>925.7.84</td>
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<th>Speciosa major</th>
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<th>Coerulea grandiflora</th>
<th>918.10.02</th>
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<td>920.8.79</td>
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<tr>
<th>Browallia</th>
<th>912.1.01</th>
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Greenhouse shrub.
Solanaceae 3.

**BRUGMANSIA** Pers.

= DATURA.

1. Stem-cuttings easy, half ripe shoots. Also young shoots.

ii.

Pl. pl. 55.10.95. Chilocoanthe. See plate 917.11.94.

White. 97.2.80.

Sequunica. 97.5.81.

Suavolens. 94.3.76.

925.9.80.

927.9.84.

923.5.91.

Waymanniana. 929.1.87.

912.2.87.

CAPSICUM

IV. BRUGMANSIAS.

922.1.87.

9.8.90.

917.11.94. 923.5.74.

Brugmansias planted out. 117.1.85.

93.7.97.

The BRUGMANSIAS.

915.1.87.

930.6.94.
**BUNIFERIA** Linn

- = *Franciscana*
- stem cutting in heat easy
- **uniflora** (P. 388)
- **americana** 9.21.7.00
- **Calycina** 9.6.4.01
- 9.19.7.02
- 9.3.1.03
- C. grandiflora 9.14.3.99

**CAPSICUM** Linn

- stem cutting for leaf cutting
- seed for annuals - sow in March
- **annuum**
- **bacatum** 9.5.10.61
- **Little Gem** 9.1.7.82/9.12.11.92, 9.4.2.93 (Passed by water)
- **Black Pepper** 9.15.8.93
CESTRUM. Linn.

= HABROTHAMNUS, Endl.

Sow cuttings easily. Half ripe in spring or autumn, once


---

fasciculatus = H. fasci., 11.2.81.
Newelli 7.10.2.83

Habrothamnus M., 7.2.6.83

elegans, 7.6.11.85

Aurantiacum, 7.13.12.92.
7.7.12.98.
3.2.4.04.

Habrothamnus planted out, 9.3.4.86.
7.5.3.04.

Smith, 511.10.02

Cocceus

Corymbosum, 9.1.13.6.85

Parqui, 9.3.21.9.95.

Erisanthes

Camelina rubra, 9.13.5.86
9.18.10.92.

---

The Habrothamnus 9.3.20.8.87.
9.4.8.88.
**Cyphomandra** Lindl.

I. cuttings.

II. 

III. 

**Datura** Linn.

   Root cuttings: poor woody root.

II. Seed, bit variable.

III. Lagenaria - *Bougainvillea*.
   93.8.94.

---

*Solanaceae* - 6.

---

**Stramonium** (the Thorn Apple).

Cornicopia fl, fr. 95.10.95.
Jauniosa 92.11.91.
Sauvageo (Bougainvillea). 94.2.89.
Sauvagea 98.9.94/97.11.96/98.11.96.

---

Flower Garden Damiana 97.2.74.
The Annual Sativas 97.2.91.
**Solanaceae**

*AUROISIA A.R. Br.*


---

**DERMATOBOTRYS Bolus.**

epiphyte.

1. stem cutting

---

**JABIANA R.P.**

lady, or sub lady

1. cutting, buried in same tray as Erica.  
   half ripe wood

---

**TOCHROMA, Berth.**

---

**FRANCISCEA A.Bl.**

= Brunfelsia

1. stem cutting, early  
   half ripe wood
Solanaeae 8.

Confertiflora 911.6.87.
  calypium  (C. calypium) 917.3.94.
  Hopeana  920.4.95.
  927.4.95.

To Francisceas Their Culture 924.3.77.
  941.8.83.
  Francisceas  924.2.83  965.93.
  925.7.84.
  The Best Francisceas 927.2.75.

Hyoscyamus Linu.

1. Division of Hosts.

2. Seed in Spring.

3. Seed 929.12.00
   Physaloides 927.8.91
   Newham 924.11.85.

Iochroma Bent.

1. Stem Cutting Young Spring or Summer.

2. Seeds When Obtainable.

3. Grandiflora 96.9.90
   Brin. S301
   Sauerkloer 95.10.01
   Canistrostata 97.4.91
   longiflora 918.8.83.
**TOCHROMA**
- *tuberculatum* 9.4.11.93.
- *boralliana* 9.16.7.81.
- *lararubri* 9.3.4.88
- *lachnanus* 7.25.10.90.
- 9.5.10.01.

**TASOROSA**
- *Jun*.

1. Division of roots.
   - Stem cutting of young shoots.
2. Seeds in spring.
3. winterpolia 5.7.2.83.
   - 9.5.9.03.
   - Sp. mainly of botanical interest.

**NICANDRA**

**LYCIUM**
- *Linn*.
   - Hardy half-shrubs.

1. Cuttings: ripe wood, in spring or autumn.
   - Layered or sowners in autumn.
2. Seeds?

III. *alpinum* 9.2.7.10.99?
   - *barbarum* 7.27.10.00.
   - 9.17.11.00.
   - *europaeum* 9.9.4.87.

- *callidum* 9.2.16.7.98.
- 9.25.6.01.
**Tobacco**

\[**Lycopersicum**\] Mill.

- 
- **Annuals**

**Mandragora** Juss.

- 
- **Hardy herb. peren**

**Nicandra**

- **Hardy annual**

**Nicotiana** Linn.

- Premature shrub

- Annuals

- *Hypaloides* B.M. 2458

- *Solanacea* 10

- *E. Persicum* = *S. perns*.

- *Ribes am. 911. 11. 76.*

- *Autumnalis 916. 10. 76.* (Rare)

- *Fragans*
Solanaceae

aeutifolia 910.8.78.

affinis 912.9.96.
911.11.99. 916.7.87.
(hardy) 924.9.04. 926.8.92. (The right season). Tobacco

Landrace 927.6.03.
930.10.10.03.

Syvastria 923.12.99.
921.10.99.
916.3.61.

Colossea 921.12.89.
927.3.97.

dicarnus 929.6.89.

macrophylla gigantea 931.4.77.

PETUNIA

Tobacco & Its Cultivation 923.6.81.
The Nicotianas or Tobaccos 929.4.82.
Vitality of Tobacco Seed 919.9.85.
Tobacco Culture 929.8.86.
The genus Nicotiana 920.8.7.90.
Tobacco 911.2.02.

see also other products etc.
The page contains handwritten notes on plant species, including:

**NEREMBERCIA** (Nericia) Ruiz. & Pav.
- **Chilean evergreen**
- **Semi-cultivar - easy**
- **Seeds in slight heat in spring**

**N. montanis**
- 84.12.13
- 97.8.98
- 97.8.03
- **N. frutescens**
- 91.7.89
- 91.10.99

**N. The White Cap (N. monilis)**
- 94.2.88
- 92.3.84

**PETUNIA** (Grev.
- **Half-hardy herb**
- **Seed in spring**
- **Cuttings - young shoots**
- **Cultivars**
- **Seeds**
- **Fruits**

**Petunias**
- 1837-1897 (98.26.6.97)
- **Petunias**
- Single & Double 93.12.95
- 931.3.77
Solanaceae 13.

PETUNIA, contd.

- Specimen double-flowered Petunia, 930.6.77.
- Double Petunia, 916.7.92.
- Petunia, 913.3.97.
- Petunia from Seed, 919.2.81.
- S21.3.81
- S21.3.85.
- S6.4.89.

Petunias as Bedding Plants, 911.7.74.

PHYSALIS, Linn.

- Ovum, 917.4.97
- Seed, 917.4.97.

- Alkekengi Franchetti, 913.10.94, 94.12.97.
  - (Flake), 928.3.96, 94.9.97.

- Coulus, (Cape Gooseberry), 917.4.97.

- Peruviana, 918.12.77.
  - S.C. 18.9.97.
  - 911.10.02.

- The Hardy Physalis, 913.1.00.
- The Hardy Physalis, 93.2.00.
Solanaceae 14.

**SALPICHROA**. Meisn.

1. culturing: half-ripe shoots. Layering for **homboidenum**.
2. Seed.
3. **homboidenum** (hardy) 920.4.89. Climber 927.11.91 or 97.

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**SALPIGLOSSIS**. Ruiz. y Pav.

1. Seed in autumn or spring.
2. **Sibirea** 93.9.98. 920.2.86. 911.11.82.
3. **Grandiflora** 92.9.93 910.8.96.
4. A bed of **Salpiglossis** 919.3.04.

**Salpiglossis** 925.7.91.
**Diff var.** of **Salpiglossis** 911.3.76.

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**SCOPOLIA**. Jacq.

1. Division in spring.
2. Seed in spring.
3. **hlandichiana** 928.3.91.
Solanaceae

SCHIZANTHUS. Ruyt. & Pau.

... seeds in heat, best in autumn (Sept.) for next spring.

Papilionaceae. £30. 8. 79.
£22. 3. 84.

Scolymus. £24. 11. 83.

Schiz in Pots. £20. 6. 89.
£26. 1. 01.
£11. 4. 91.

The Schizanthus as a decorative plant £c. 23. 7. 98.

SOLANDRA, L.

... evergreen shrubs.


ii. Grandiflora. £12. 1. 89. / £c. 24. 4. 97
(plate in 92. 3. 98) £c. 1. 5. 97.

iv. Solandrea. £12. 3. 98.
Solanaceae. 16

Solanum. Line

Division: hardy. 1 tender herb.

Cucurb. — for shrubby. Young shoots e.g. Leaffthianum.

Cucum. from the root. e.g. Cucum. See 523.8.8.4 (Soluble

Cucumber.)

Aviculare 96.10.00.

Alba 97.4.95.

Cape. (Star Cape.)


e 18.9.97.


e 17.5.02.

Crispum. — 923.6.03. 929.8.03.

(half hardy)

Cornutum 922.6.89.

Crispinum 921.12.03.

922.7.93 (plate)

Crinum 30.10.97.

(Jasminoides)

(half hardy)

Jasminoides 98.1.01.

98.12.03.

91.12.00.

91.7.96.

Melongena. (99 plant.) 921.10.99.

Macrocarpum 7.0.28.3.99.

Pensil.

Seaforthianum 910.6.99.

Pierianum 90.11.90.

Pensil

Robustum 96.4.72.

Worlandi 91.2.90. 915.6.01.

Worl. 924.11.00.

Worsle 9.0.13.1.00.
Solanaceae 17.

SOLANUM, contd.

Camel's Foot Solanum 810.12.92.
Species of Solanum 810.20.11.97.
Wild Forms of A tuberosum Solanum 818.12.86. (J.S. Baker.)
Solanum for Christmas Decoration 823.12.80.
Culture of Berry Bearing Solanums 831.3.76.
821.3.83.
830.1.97.
Solanums & their Cultivation 829.10.78.
Notes on some Hybrid tuberosum Solanums. J. R. H. S. Vol. xxxvii p. 53
J. R. H. S. Vol. xxxvii p. 50 1909

WITHANIA, Panq.

I. stem cutting
II. seed
III. arganifolia (the Pampas Lily) 826.10.98.
General note on the Stackhouisiaceae.

The Stackhouisiaceae are a small order allied to the Sapindaceae, and also to the Celastrineae, though they differ from the latter in their habit, unequal stamens &c. The members of the order are not often seen in cultivation, except Stackhousia monogyna. The order consisting only one genus is confined mainly to Australia.

General note on the Staphyleaceae.

The Staphyleaceae are usually included under the Sapindaceae. They are also related to the Celastrineae. Like the Sapindaceae this suborder contains shrubs and trees. Staphylea the only genus of importance in horticulture is distributed mainly in temperate regions. The other genera Turpinia, Euscaphis are not seen in cultivation. Increase in Staphylea is commonly effected vegetatively. (see under Staphylea.)
Staphylea

Leaves

Suckers, very freely produced in Staphylea spinata & others

Seeds sour when ripe

colechica  7 18 2 87
Bm. 7383  9 20 12 83
9 6 3 86
9 12 3 92

× Columbriici  90 3 9 96

spinata  see 9 8 1 81
tripoliatia

The Staphyleas or Bladder Thistles 9 8 1 81
General note on the Sterculiaceae.

The Sterculiaceae are a small but wellmarked order, closely allied to the Malvaceae, differing mainly in their habit. The plants are mainly trees and shrubs. Sometimes lianes and herbs occur. The distribution is almost entirely tropical. The plants in cultivation are thus mainly stove and greenhouse forms e.g. Sterculia, Lasiopetalon, Mahernia &c. A beautiful hardy or halfhardy shrub, not commonly met with in gardens, owing to its difficulty of culture and increase is the yellowflowered Fremontia californica. The greenhouse (Delabechia rupestris) is prized for its Araliailike foliage.

Increase in the order by stem cuttings is relatively slow, as the stems are hard and woody. In one genus, Melhania melanoxylo, the wood of the stem is so hard, that it goes by the name of St. Helena ebony, and is used for carving into ornaments. Other lowgrowing genera, however, e.g. Mahernia are easily reproduced form by cuttings.

Root cuttings have not been investigated, though they might afford a quicker mode of increase. Leaf cuttings have also not been investigated.
**AROMA.** Gaeg.

1. cutting: half ripe wood. Sprout.
2. seeds in spring.
3. angustata B.R. 6518
   carpatica Bm. 6542.

**CHEIROSTEMON.** A.B.

- Stem cutting: ripe shoots.
- do not easily germinate.
- plataniodes Bm. 8135.

**COLA.** Schott.

2. seeds.
3. acuminate (the Kola tree) Bm. 8699.
   86.183.

- Viburnumform. Bm. 4566.
- wallachicum 26.8.1.96.
COMMERSIONIA. \[\text{Fod.}\]

1. Stem cuttings, 
2. Wood.

Platyphylla B.M. 1813.

Dombeya. \[\text{Goo.}\]

1. Stem cuttings, 
2. Half 
3. 

Amelia B.M.

Astraeacar viscosa B.M. 4544.

Angulata B.M. 2905.

Pourqessaia. B.M. 5487.

Cannabina B.M. 3619.

Erythroxylon B.M. 1000.

Masternii B.M. 5639.

Mollii B.M. 4578.

Viburniloba B.M. 4568.

Walliachii. Ex. 8.2.96.

(Hybrids). Ex. 11.12.97.
HERITIERA. Bryand.

* Cuttings will take a long time to grow.
  * Somewhat slow.

  - * Cittoracis
    - * Macrophylla Rom. 7192.
      - 9-18-79

* Steere evergreen tree.
HERMANNIA. Rau.

Cutting: young shoots: spring.

alpinophila Pom. 299.
alpinophila Pom. 337.
Cristata Pom. 7113.
lavenderalipha Pom. 304.
pterocarpum. Seint.

LASIOPETALUM. Sm.

Cutting: half ripe shoots.

braeckeanum = Corethrostylis br. P.R. 1844, 6.47.
Canari Pom. 6445.
Lamareum Pom. 1735.
macrophyllum Pom. 3908.

MAHERNIA. Rau.

Cutting: young shoots.

P.R. 1236.
inaria Pom. 253.
finetana Pom. 277. 926 876.
PENTAPETES, Linn.

1. Cuthijp: half ripe shoots.
2. Seed & Seed for Phoenicca.
3. Pyt horrificum Form: 1000
   Phoenicca: Po.R: 575.
   9-28-12-01.
   (annual) (Golden Cone Flowers).

STERCULIA, Linn.

PTEROSPERMUM, Schreb.

1. Cuthijp half ripe side shoots best.
2. Seed?
3. acerifolium: Po.R: 620
  named foliata.
   suberifolium: Po.R: 1526.

REEVESIA, Lindl.

1. Cuthijp half ripe shoots.
2. Thrysoides: Po.R: 4199
   Po.R: 1236.
Sterculiaceae 6.

Rulingia Benth.  

- stem cutchips  half ripe  
- foliage  
- flowers  
- greenhouse evergreen  
- seeds  
- rhizome  
- evergreen  

Sterculia Linn.  

- stem cutchips  ripe shoots  
- THOMAS J. Gay  
- greenhouse  
- evergreen  

- acerifolia Brachychiton ac.  9c. 10.10.96  
- austro-caledonica Bm. 782  
-Bidwilli  Brachychiton bid.  Bm. 5123  
- discolor  Bm. 6608  
- diversipolia  9c. 8.17.03  
- canecolata Bm. 1256  
- impestis (The Bottle-Tree)  
- oblongia  palustris  910.7.80  
- velucelchia  impestis  76.11.80  

Patarch Berinba  Bm. 7202  90.13.4
THEOBROMA Linn.

1. Cathing : half the shoots in heat.
2. Seeds : rarely in this country. See 9.27.6.03. (usually imported).
3. Cacao. (Cocoa tree).
   9.23.5.78.
   9.16.3.78.

THOMASIA J. Gay.

2. Seeds.
3. Stipulacea B.m. 4111.
   See also R质押petaxum purpurea 1-quercifolia.

TROCHETIA L.

1. Cathing : the shoots in spring.
2. Blackburniana B.m. 7209. 9.13.8.04.
General note on the Stylidaceae.

The Stylidaceae are a small order confined almost to New Zealand and Australia. The plants are small tufted and are not common in cultivation except Stylidium itself, but the order presents many points of interest to the botanist. The alliances are mainly with the Campanulaceae &c. (1). Increase is effected by seed or by division.
**STYLIIDION, Sw.**

1. Division for herbs. E.g.
   - Graminifolium
   - Cenchrus canthium (young shoots)
2. Seed for herb.
3. Seed for shrub.

- adrakhan Pom. 2598
- ciliatum Pom. 3883
- crusfolium Pom. 7679
- hirsutum Pom. 3194
- junciforme Pom. 171
- neumani Pom. 3913
- graminifolium Bc. 385
- spathulatum Pom. 2958

**CANDOLLEA, Labill.**

- Stem cattail
- Spatulatum Pom. 2958

- Cuneiformis Pom. 2711
- Tetragona Pom. 820
- Andistichi

- Greenhouse herb
- Greenhouse evergreen shrub
General note on the Styraceae.

The Styraceae are an order of trees and shrubs, limited in their distribution to particular areas in Brazil, N. America, and Japan and China. The Symplocaceae, described as a separate order by Engler-prantl, are usually included under the Styraceae. The alliances are close with the Ebenaceae from which the Styraceae differ in having the flowers rarely solitary, usually produced in bunches, and also with the Sapotaceae, (from which they differ in the absence of the latex which is characteristic of that order. ). The plants of horticultural interest are Halesia especially tetrapetala (the Snowdrop tree), and Styrax, both hardy flowering shrubs. Seeds are used for increase when obtainable, by home production, or importation. Vegetative propagation is somewhat slow; stem cuttings and layer are the common methods of increase. The leaves are on the whole unsuited for cuttings. Root cuttings are successful for Halesia. They have not been investigated to any great extent.
Styraceae.

Halesia. Lin.

Layer., root without difficulty, 6ct. to Nov.
Stem cuttings do not strike so readily. - best from young growing shoots.
Root cuttings in Spring or Autumn.
Seed freely.

A. 11.7.99.

Hispida: 9a. 1884 p. 177

= Pterostyrax hispidus. 9.18.9.75.
920.4.78.
929.7.91.

Ketrapessa. 94.6.87.
(Snowdrop Tree.) 912.11.87.
930.4.88.
918.5.94.

Parviflora.

IV. The Silver Bell, or Snowdrop Trees. 919.5.00. (W. J. Bean)
Snowdrop Trees. 920.10.00. (W. J. Bean).

Insert Styrax.

Symlocos. Lin.

Stem cuttings half the length.

Dec 9a. (Plant very ornamental deep blue).
Crataegus (Hardy at Kent).
Styraecae 2.

Styrax. Lin.  

‘Stem cutting': best from young shoots in midsummer. Not so well in autumn or winter.
Layers also. (S. officinale difficult both by cutting & layers.)
Imported seeds. (best for S. officinale.)

In, grandiflorum Pos. 1016. 811.6.87. 96.7.90.
laevigatum Pos. 921.
   See 910.9.81. = pulverulentum.
obassia Pos. 7039. 90. 4.8.88.

japonica 920.7.89.
   97.7.94.
   923.7.04.

officinale: Sheltered wall see 910.9.81.
Serrulatum 920.6.85.
   (greenhouse).

The Styraxes. 910.9.81.
Notes on the Propagation of Nicot. Orders I.
General note on the Tamariscineae.

The Tamariscineae are an xerophytic order (shown by the reduction of the leaf surface) found in dry or salty situations in Central Asia. The alliances are mainly to the Frankeniaceae and Elatineae. The Tamarisks are shrubs though often attaining treelike dimensions in their native countries, more extensively cultivated on the continent than in this country. Though they thrive best by the seaside, they succeed well inland and are well deserving of more attention than is usually bestowed upon them, on account of their feathery foliage and pretty little flowers.

The only plant in the order the Tamarix itself is rapid of growth and easy of propagation. Seed may be used but vegetative propagation is preferred, as cuttings or slips root as easily as those of a willow.

Leaf cuttings are impracticable as they are slow and cannot be inserted out of doors and also because the leaves are very small. Root cuttings have not been investigated.
Fouquieria. H.B. R. K.

Columnarico. 90. 9. 10. 99.

Sp. more a curiosity than anything else.

Tamarix. Lin.

L. easily stem cutting. Stakes cut from T. Galliaca & driven into ground will root like willows in Feb.

Also small things in spring. 986. 9. 96.

Of rapid growth.

Needs?

Chienisico 923. 10. 97.

ericoides.

germanica = Hyacinthana

Kashgarica 913. 4. 01.

(indica)

Ristro P. 9. 18. 6. 94. Var. ascidialis 50. 27. 8. 04.

Galliaca 96. 9. 73 / 90. 6. 88 / 98. 10. 93.

Pleuronca 98. 5. 94 / 98. 7. 07 / 98. 3. 76

Sallaccii var. rosea 9. 17. 9. 04

Trehand g. 976. 4. 02. Odessana 95. 9. 00 / 961. 9. 01.

95. 5. 94

95. 7. 02

3. The Tamarisk. 986. 4. 07 / 98. 27. 7. 07.

1. Ristro p. better bars. 918. 8. 94.

Culture & prop. of the Tamarisk. 976. 9. 96.

The Tamarisk in Bloom 916. 7. 84.
General note on the Ternstroemiaceae.

The Ternstroemiaceae are for the most part a shrubby order found in tropical and subtropical regions (America and Asia) with affinities to the Dilleniaceae and Guttiferae. Many of the plants in this order are handsome hardy shrubs e.g. *Actinidia*, *Gordonia pubescens*, *Stachyrurus praecox*, *Stuartia*, and have moreover the additional advantage of red autumn foliage. The Camellias were much more grown cultivated in the 70s. and 80s. than at the present day, when they seem to have gone much out of the fashion. They are still prized however for culture out of doors and in the conservatory. A feature which perhaps has helped to put the Ternstroemiaceae out of favour is their slow growth and increase.

Increase by seed is rarely used since the method is very slow, especially in *Camellia sp.*, *Stuartia pentagyna* &c.

Vegetative propagation is that most commonly employed. Cutting are also slow and alternative methods particularly grafting, budding and layering are resorted to.

Leaf cuttings are very slow e.g. Camellia.

Root cuttings have not been investigated.
ACTINIDIA. Small, hardy deciduous climbers.

1. Layering: place slip + stem cutting.

2. Seed.

3. Chrysan #193.4.04.
   Kolomikta 9.27.6.88 / 98.2.7.04 / 97.9.93.


CAMELLIA - THEA. Evergreen.

   Layering: Oct. 924.10.96.
   air layering in spring 937.4.78.
   Grafting common kept at Feb. tongue grafting. 111.3.78 / 910.2.90.
   the usual method: double bars on single stocks.

   Seeds do not bloom as well as plants increased by layering.

3. Albo-margiata 9.17.3.88.
   Chameri elegans 9.6.2.97 / 927.2.97.
   Conspicua 9.19.7.98.
CAMELLIA. Cond.

Donkhaari 924.9.98.

japonica Rm.479, 928.1.83.

j. var. alba 911.3.93

Fordii, nicaragua, rivolata f.

m. alba 976.4.90

928.3.99.

Camellias

974.8.94

910.9.94

916.4.88

911.11.90

914.6.90

914.1.93

929.2.96

921.3.96

914.4.96

926.7.98

930.4.98

977.2.03

95.23.7.04.

Camellia Culture 920.1.77 — 929.5.79.

923.7.78 — 929.1.87.

98.2.96.

Camellias out of Doors 925.3.72.

92.2.01

(Harden) 913.11.80

916.3.82

Le.17.4.97

918.04

919.3.98

Le.10.11.98.

Japanese Camellias 914.9.86.

Species of Camellias 934.9.98.

Newer Camellias 920.4.01.

Smaller flowered Camellias 97.10.93.
CAMELLIA contd.

Pot culture of Camellias 9/10/77.
Camellias as Wall Plants 9/1/81.
Single Camellias 9/22/85.
Propagating Camellias 9/14/88.

CLEYERA DC.

1. Stein culture: Half ripe shoots.
2. Seed?
   (hardy).
   japonica.
   Herbodes: Fregiera Heribodes Pom. 4/5/46.

EURYA. Thunb.

1. Stein culture: Half ripe shoots: spring or autumn 9/28/78
   9/26/79.
2. ?
3. japonica - j. variegata 9/26/75.
   latifolia variegata 9/30/481, 9/26/92.
   9/10/84, 9/20/04.
   9/23/78.
GORDONIA  var. Plici

1. stem-curling : young shoots
   slimmer in autumn.

2. seeds in spring.

3. lasianthos Blu. 668.
   puberulus 910.9.81.
   (hardy) 929.9.84
   931.10.96.

4. The Gordonias 92.11.89.

LAPLACEA  H.B. & K.

1. temucita  Bm. 4179.

MARCOVIA  Plum.

STACHYRACEMUS  Sib. & Zucc.

1. stem-curling easily - half the wood 918.4.02.

1. fraxcox. Bm. 6631. Ge. 13.3.97
   18.14.03
   923.4.04.
STUARTIA. Lin. (Hardy evergreen shrub)

diff. to propagate from stem cuttings. Layers. the usual method.

- Graphis, also

- narae-hodoura. BM 8148.
- pentagyna. BM 3418
- pseudo-camellia. 74.8.88
  98.8.96.
- Virgiana
  - grandiflora. 86.8.84
  96.7.87
  93.9.93.

- The Stuartia. 713.7.78
  98.1.87
  94.3.93
- The American Stuartia. 922.9.00.

TERNSTEFJIA. Hort. (Stone evergreen)

- stem cutting. rifle shoots.
- seeds?
- japonica
- veneta.

VISNEA. Lin. f. S. (Greenhouse evergreen)
General note on the Thymelaeaceae.

Like the Ternstroemiaceae the Thymelaeaceae consist mainly of shrubby plants. They are usually characterised by the much branched stems and stems are widely distributed all over the world except in the polar regions. Its systematic position is somewhat doubtful. It is isolated, but is possibly nearest the members of the Parietales and Myrtales cohorts. The order contains many favourite fragrant evergreen hardy and greenhouse shrubse.g. Daphne, Dais cotinifolia, Edgeworthia chrysantha, Phaleria laurifolia &c. The early flowers and the autumn berries of most of the members of this order add to their advantages.

Propagation by means of seed is sometimes used. Seed is however rarely produced and must be imported e.g. Edgeworthia, Gnidia &c. and seedlings are slow of growth.

Vegetative methods of increase although also slow are preferred. Stem cuttings and those of root and leaf are on the whole slow. Passerina spicata is however easily increased by stem cuttings.

Grafting and layering seem to give better results. While layers of Gnidia are said to be successful only after a period of three years, the method is the quickest and most convenient for species of Daphne especially for the lowgrowing varieties. Grafting is usually for the taller growing species. Leafcuttings would be slow. Root cuttings succeed in the case of Dais Cotinifolia. These so-called roots may be in reality rhizomes as the majority of the plants in the order have rhizomatous stems with few fibrous roots. They are thus impatient of
Thymelaeaceae

DAIS. Sun fits.

1. Difficulty to grow by stem cutting. Half ripen root cuttings in April.

2. Seeds do not ripen well in this country. Those obtainable sown in spring.

3. Cotyledon 7 Jan. 147.
   931.10.91.
   C. W. B. —

DAPHNE. Live.

1. Stem cuttings (e.g. D. indica) side shoot. All 918.12.83.

   Layers. Convenient for long growing kinds, e.g. bla gayana, "rheum".

   Staking also on D. laureola & magereum.


5. Cretorenus
   Blugrayana
   98.6.89.
   913.4.98. 98.3.98. 96.6.98. 92.8.74.
   913.6.91.
   912.5.98.
   928.3.98.
   930.6.91.
   931.8.92.

   Colettea  98.14.28. 931.8.92. hybrid 911.1.01.

   Genkwa
   Indica
   rubra
   94.12.75 914.1.99.
   922.3.79. 930.7.92.
   98.1.98.

   indicia odorata 98.12.88.

   indicia 923.12.71. indicia rubra 924.3.99.

   94.7.85 914.2.86. 92.2.98.
DAPHNE.

**Thymeliaceae**

- **Laureola**: 97.4.88, 925.8.89, 93.4.97
- **purpurea**: 75.1.89

**Mezereum**: 91.2.88, 926.2.88, 930.4.89, 920.2.94, 97.12.95

**album**: 91.3.90 / 92.20.3.97

**autumnalis**: 916.2.89 / 921.11.91

**bar. grandiflora**: 97.3.91 / 924.3.94 / 99.1.97

**neapolitana**: 926.10.88 / 98.11.94

**odorata**: 92.3.01 / 92.8.3.02

**pontica**: 912.2.89 / 92.15.8.97

**reptans**: 927.9.84 / 927.4.95

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- The Daphnies 926.6.86.
- Hardy Daphnies 918.1.02.
- Greenhouse Daphnies 916.10.78 / 99.10.80.

The Daphnies of China & Japan 916.11.78.

The Daphnies (Monog. by P. Gordon) 917.6.76.
**DIRCA. Linn.**

1. Difficultly in prop. by stem cuttings. 18.4.87
   
   
2. Mosaic seeds in spring

3. Var. calicophylla 18.4.87
   31.5.86
   27.8.91
   217.4.97

Sp. seldom seen. So diff. of propagation.

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**EDGEOORTHIA. Linn.**


2. Mosaic seeds.

3. Chrysanth a 718.2.96
   Gardnerii 97.3.91

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**GNIIDA. Linn.**

1. Stem cuttings. Young shoots. Stem layers also.

2. Mosaic seeds.

3. denudata 1848
   Semipala 517347
   Radiata 1846
Thymelaeaceae

LACHNAEA. Linna.

1. stem–cuttings for L. purpurea.
2. Rostrum
3. graphis

L. buxifolia R.m. 1637.
L. glantea R.m. 1638.
L. ericaphala R.m. 1698.
L. purpurea R.c. 273.

LAGETTA. I. 1800.

1. stem–cuttings + half–ripe shoots.

L. antheraria (Jamaica Race Bank)
R.m. 4807. R.c. 16.7.07

LASIOSIPHON. Linna.

1. aspermos R.m. 7303.
2. Scrophularia Torrey, Rev Soc. Phila. vol. XXXI

PASSERINA. Linna.

1. Gracilisflora R.m. 397.
**Shrubs**

- **Phaleria**
  - seeds in spring

- **Ambigua**
  - Roman 7471
  - Roman 7789
  - 15-3-90

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**Pimelea**

- **Banks**

1. **Arenaria**
   - Roman 3240
   - Elegans
   - Ferruginea
   - Hypericin
   - Henderson
   - Ligustrina
      - 28.5.89
      - 9.4.98

   - Speculum
      - Roman 3850
      - 31.5.87
      - 5.6.94

- **Pimelean**
  - 93.12.84
  - 8.8.03
  - 24.7.97

- **Pimelean at their Culture**
  - 28.3.96
Thymeliaceae 6.

**STRUTHIOLA**. Run.

I. stem-cutting: easy for S. erecta.
   young short shoots 2-3 ins. long. Giant like Ricin.

II. not usual.

III. ciliata.
   erecta B. & C. 74.
   juniperina B. & C. 75.
   ovata B. & C. 141.

**THYMELEA**. Endl.

I. stem-cutting.

II. impeded seeds.

III. kivinta.
General note on the Tiliaceae.

The Tiliaceae are closely allied to the Sterculiaceae as well as to the Malvaceae and like the former are composed mainly of trees and shrubs. The plants have a wide distribution being found mainly in S.E. Asia (Brazil India) Australia &c. The order is of horticultural interest and importance as it contains the Limetree and also the shrub Elaecarpus with its beautifully fringed flowers and blue berries, *Sparmannia Aristotelis maquis* (the berries of which are edible) and *Corchorus* (the plant from which Jute is made).

Except in Tilia which is reproduced almost exclusively from seed, vegetative propagation is preferred to the sexual method. Stem cuttings strike easily. Neither root nor leaf cuttings have been investigated. Other vegetative methods are not so frequently employed in this order.
Aristotelia

Harpy, evergreen.

1. Stems upright, ripe shoots. Fragrant also in autumn.

H. Jacquin. F. 4. 16. 02
m. variegata 97. 11. 91
racemosa. BM 7868.

Berrea. Roxb.

1. Amomilla (The Swizzle Stick Tree)

G. C. 2. 11. 01.

Brownlowia. Roxb.

1. Elata. BM 1472.

Corchorus. Linna.

Seed in leaf.

Capsularis (The Jute Plant.) BM 1474.

Japanica = Keirinia japonica.

Olitorius BM 2810.
Elaeocarpus  

Disturbance at root 18.7.90.

2. Seeds also freely produced. Quick growing 9.22.6.98.
But do not flower so well from young as Cuttings.

* Cyanus *  
Rom. 1727. \textit{Reculatius.}
14.7.88
8.6.89
22.6.98.

* Dentatus *  
9.14.6.79
9.14.6.83
9.23.6.83.

* Floribundus * 
Grandis etc.
Other sp. not cultivated.

* E. laeocarpus (cyanus)  
71.9.83.

Glyphaea  

Hook. fil.  

Grewia  

Linn.  

Greenhouse evergreen.  

Stem Cuttings.
Seed.

Occidentalis Rom. 422 many sp. but all in cultivation.
**Filicaeae 3.**

**Honckenyia.** Willd.

- **Sparmannia.** Lin. f.

1. Stem cuttings: strike easily at any time. Half ripe wood, 8/03-78.
   - Best method for varieties.
   - Cutting of flowering shoots have resulted in a dwarf form, 8/02-78.

2. Seeds will often produce:

   **a. africana**
   - 8/20/3-78.
   - 9/16/3-94.
   - 9/27/11-88.
   - 9/26/3-94.
   - 9/16/3-89.

   - 9/17/4-86.
   - 9/13/6-84.


**T.** *The African Hemp.*

(s. africana.) 8/12-11-84.
Siliacaeae 4.

**11.14. Linin**

1. Lagenic. usual method 919.12. 88
   918.10. 90.

   Suckers from roots.
   or old stools where trees cut down.

   grafting for vars. but make ugly stems.


   *europaea*. 6 vars. 920.1. 77.
   (See gen. articles) 918.4. 79.

   *Argentea* 925.12. 86
   918.10. 90.

   *parvipolia* 910.3. 88.

   *petiolaris* 926.11. 84.
   (Cruiser line).

3. The *Linnea*. 910.8. 78.

   The *Linnea* & its varieties 918.8. 91.

   The *Linnea* for city planting 926.10. 89.

   Notes on the *Linnea* 919.12. 88
   926.6. 86.

   Running *Linnea* 914.1. 82.
Tiliaceae s.

**TRICUSPIDARIA** Ruíz

= **CRINODEM DRON**.

I. stem culmip y half the shoots 527.4.80
    925.6.78.

II. ?

III. *T. dependens* (hexapetala)
    = **CRINODEM DRON Hookerianum**. 527.4.80
    925.2.91.
    92.7.92.
    919.6.77.
    918.6.78.
    923.6.78.

IV. **CRINODEM DRON Hookerianum** 520.9.90.
General note on the Tremandraceae.

The Tremandraceae are a small order of subshrubs allied to the Geraniaceae and Malpighiaceae and confined to Australia. The plants are somewhat heathlike in appearance and are usually a little difficult to propagate except except Tremandra (Tetratheca). Tetratheca Hugeli with its pretty pink geranium like flowers is not uncommon in cultivation.

Propagation in the genus which is the only one met with, is effected easily by cuttings of halfripe shoots in summer.

Cuttings of the leaves which are small and ericoid and of the roots which are fibrous would be impracticable.
**PLATYTHECA. Steely.**

1. Stem cutting: young half-ripe shoots.  $g_8.9.94$.

2. *Galioidea* = *Tetrahtheca tectillata*.
   *Tremandra*

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>$g_{12}.5.88$</td>
</tr>
<tr>
<td>$g_{12}.7.90$</td>
</tr>
<tr>
<td>$g_{14}.3.91$</td>
</tr>
</tbody>
</table>

See also under *Tetrahtheca*.

---

**TETRAHTHECA. Sm.**

= *TREMANDRA*.

---

Greenshorne

**EVERGREENS.**

1. Stem cutting: best wide shoots; half-ripe in summer.  $g_{18.6.87}$.

---

**TRES HIRNTRA.**

---

**TRES ERICAECOLIA.**

---

**TRES HIRNTRA (Tres: LEF. HUGELI).**

---

**TRES ERICAECOLIA.**

---

**TRES HIRNTRA.**

---

**SCHULTHECAS.**

---

**SCHULTHECAS (Tremandras).**

---
General note on the Turneraeae.

The Turneraeae are a small order closely allied to the Malsherbriaceae and Passifloraceae limited to tropical Africa and America. The plants which are varied in habit from annuals to shrubs are not often seen in cultivation. The order includes the tree Mathurina, and the yellow-flowered herbaceous Turnera.

Propagation for the last species which is the only one to be seen in cultivation is effected mainly by seed. Stem cuttings may also be used.
**Turnera** Linn.

*Annual and biennial,*

...greenhouse, etc.

1. Stem cutting for some species.
2. Seeds best for greenhouse; seeds for annuals.
3. *A. angustifolia* from 281 (stems)

...from 213.

*G. decumbens* from 213. Room - 213.
Notes on the Propagation of
Acol. Orders. U.
General note on the Umbelliferae.

The Umbelliferae contain plants that vary in habit from creeping herbs (Hydrocotyle) to plants of treelike dimensions (Angelica). The majority are however in habit and are largely distributed in temperate regions. The order is allied to the Araliaceae and Cornaceae.

Few plants are cultivated except for vegetables (parsley and carrot) for many are poisonous e.g. Cicuta virosa, Oenanthe crocata, Conium maculatum, Aethusa cynapium. They also possess the disadvantage of a rank weedy growth. As they flower well and produce plenty of seed they are suitable for the wild rather than for the cultivated garden. A few exceptions however. The pretty fernlike foliage of Chaerophyllum makes it an ornamental plant though it is often apt to be straggling of growth. Dondia (Hacquetia) epipactia is suitable for the rockery. The showy flowers, purplish hue of the stalks and glaucous leaves of Eryngium (the Sea Holly) makes it a desirable plant for cultivation. Good foliage effects can also be obtained with Ferulas, Pleurospermum, Angelicas &c. Others have a pleasant odor like Myrrhis.

Propagation like growth may be easy. Seed is freely produced and usually self-sown.

Vegetative propagation may be effected artificially also by division since nearly every all the cultivated plants are herbaceous and easily
produce adventitious roots at the nodes. Stem cuttings except for the shrubby species such as Trachymene and Xanthoria are not an available means of increase.

The roots however usually fleshy and cuttings may be made. (see Figs. Chap. III. Part I.)
UMBELLIFERACEAE

ACIPHYLLA. Forsk.:

- Division: spiny; difficult to handle, because of sharp points to leaves.
- Seeds also.
- Colensoi (Spear Grass) 96.6.76.
  - Cephalis Hook. de Pl. 2556.
  - Squarroso 96.9.85.
  - 8.6.89.
  - 16.9.96.

AEGOPODIUM. Lin.

- Should not be cultivated, as most troublesome weed.
- See 931.1.88
- 127.3.81.
- Best way to remove top soil altogether.

AETHUSA. Lin.

- Like Parsley. But it has white flowers & poisoned

  Parsley, yellow fl. & not poisonous.

  Ulster sp. sylvatica 93.9.17.00.
  - Also poisonous.

ANN1

- Major also Brit. not phytocultural interest.
**Umbelliferae.**

**ANETHUM.**

1. very easy culture.
2. Seed: sow broadcast in March, afterwards thin down.
3. Grow as a Garden drill. (Only of horticultural value.)

**ANGELICA.**

1. Division 1
2. Dense.
3. Angelica: 96-10-60. (Suitable for wild garden.)

**ANTHRISCUS.**

1. Light: weed.
2. spp. of no horticultural value.

**APR.**

1. seed: usual.
2. Grow as a Garden. (The Celery) only 8th of importance.
3. P. umbrella to.
UMBELLIFERACEAE 3.

ARRACACHIA. Bancroft.

1. Division of roots.
2. Seeds.
3. Esculentta BM. 3093.
   siliformis J. & P. 249.

ASTRANTIA.

1. Root. Division: very easy increase.
2. Seed also.
   Helliconifolia 914.700.
   maxima 930.7.81.
   major 924.10.96.
   minor 931.7.80.
4. Astrankia

ATHAMANTA. Linnaeus.

1. Division.
2. Seeds in spurs.
3. Matthioli 934.6.74.
   cretensis 94.

Handy herb. perennial.

Handy herb. perennial.
Rupleurum

1. Division: Euphorbiaceae
2. Cutting for strawberry species
3. Seeds for ammals in spring
4. Actinidia (Akebia) 9.4.7.1
5. Eucalyptus

Carum

1. Fries

Caucalis

Cicuta

Conium

Coriandrum

Crithmum

Daucus

Cidota the carrot
**UMBELLIFERAE S.**

**DON DIA.**

= *Hequecla*

i. division 1

ii. seed

iii. *ephipctic* 19.3.78
    20.3.97
    4.3.99.

---

**MERLINI.**

**ERYNGIUM.**

i. division 1, genus


ii. seed


    24.11.00
    18.8.00
    28.07.00
    11.10.02.


    5.8.99.8.03
    3.10.03.

*broneliae florem* 9.21.3.74

    9.28.3.74.

*giganteum* 8.8.91

    26.4.97.

*glaciale* 11.10.00

    10.7.97.
ERYNGIUM cond.

Leavenworthii 921.1.76

maritimum 916.7.84
  9.7.80.

oliverianum 9.9.4.84
  917.3.94
  910-10.96.

pandanapetalum 918.1.02
  924.10.03.

planum 920.8.84
  931.8.89
  928.8.94.

triquetrum 928.1.02.

Sea Hollies. 921.3.88.
  95.11.87.
  925.6.92
  928.12.01.

The Eryngios 924.7.80.

Hardy Eryngiums 930.12.93.

Border Sea Hollies 911.6.92.

ERICENIA. Nutt.

1. Division Scabia.

2. Seed 7.

3. albescens 925.3.93.
   (Harbinger of Spring)
**Umbelliferae 7.**

**GERULA** Linna.

<table>
<thead>
<tr>
<th>species</th>
<th>date</th>
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<tbody>
<tr>
<td>anaestoida</td>
<td>9.30.5.96</td>
</tr>
<tr>
<td>communis</td>
<td>9.10.82</td>
</tr>
<tr>
<td>gigantea</td>
<td>9.19.3.81</td>
</tr>
<tr>
<td>linkii</td>
<td>9.15.6.01</td>
</tr>
<tr>
<td>umbellul</td>
<td>9.31.7.76</td>
</tr>
<tr>
<td>= Euphorbiaceae umbellul</td>
<td>9.18.1.76</td>
</tr>
<tr>
<td>trigirtana</td>
<td>9.18.7.96</td>
</tr>
<tr>
<td></td>
<td>9.18.11.80</td>
</tr>
<tr>
<td></td>
<td>9.18.9.86</td>
</tr>
</tbody>
</table>

**IV.**

**Gerula** 9.10.83 / 8.13.12.02

**Gerula** or Giant Fennels 9.27.4.72.

**FOeniculum** Linna.

<table>
<thead>
<tr>
<th>species</th>
<th>date</th>
</tr>
</thead>
<tbody>
<tr>
<td>dulcamara (sweet fennel)</td>
<td>9.13.5.76</td>
</tr>
</tbody>
</table>
**HERACLEUM.** Linnaeus

1. Division
2. Seed. Best grown where it can recover from the winter.
3. Abundantly produced.
4. *M. mantegazzianum* 5.10.04.
5. *M. mantegazzianum* 5.2.01.
6. Not of great value.
7. *Con Passeno* 5.2.77
8. *Con Passeno* 5.10.1.80

**HYDRÖCOTYLE.** Linnaeus

1. Cuttings & layers easy.
2. Seed also.
3. *bogaricus* as a basket plant 9.13.7.82
4. *S. thoripioides* 9.16.3.78
5. *S. thoripioides* 9.17.9.87

**MEUM.** Town. Jacq.

1. Division
2. Seed.
3. *athamanticum*.
**Umbelliferae**

**MOLOPSPERNUM** Koch.

1. Division
2. Seed
3. Cicutarium 923.9.78

Species not very common.

**MONTAGNEA** Linn. f. Hoy.

1. Root. Cuttings. Easy
2. Stem cuttings?

**OENANTHE** Linn.

Poisonous weed. O. crocata

9.12.7.73
9.12.11.73
9.6.12.73

**SELENUM** Linn.

S. OREOCOMTE.

1. Division
2. Seed
3. Caudicata 916.9.90
4. C. 3.9.04
UMBELLIFERACEAE

SYMRNIUM. Linna.

I. division
II. seed
III. oleatum 913.9.07.

THAPSIA. Linna.

I. division by root
II. seed
III. decipiens Pom. 3670
   = Melanoseelenium decipiens 96.4.01.

TRACHYMENE. Rudge.

= Didiscus.

I. stem-cutting for greenhouse shrubs
II. seeds in slight heat
III. Coerulea (Didiscus) Br. 1229 / Pom. 2875
   926.3.81 / 921.8.86.

XANTHOSIA. Rudge.

I. stem-cutting
II. seeds
III. pilosia
   sociabilis Pom. 3852
General note on the Urticaceae family.

The Urticaceae are an interesting, most highly developed in the tropics, though the various species of Urtica are found even to the arctic regions. With the Moraceae it forms an isolated cohort the Urticales. This order contains such plants as the Upas tree (Antiaris toxicaria the Cow Tree (Galactodendron sp.) the Bread Fruit (Artocarpus) and the deadly poisonous Laportea moroides.

The Urticaceae are divided from the Moraceae (containing Artocarpus Cecropia Cannabis Broussonetia Brosimum Ficus &c.) by the fact that they all possess milky juice. The latex of such plants is economically important as being the source of indiarubber.

The Urticaceae contain plants of varying habit. Those in cultivation except the Elm, are mainly herbs and shrubs. In the tropics trees such as Antiaris, Celtis, Ficus &c. are found. The flowers in all the plants are small and usually uninteresting. The long spikes of Myriocarpa longipes are exceptional. The fruits are more ornamental e.g. Ficus, Morus or Laportea. Many of the plants are valued for their foliage e.g. Pellionia daveana, various species of Artocarpus e.g. cannoni and eburnea, Cecropia sp. and variegated species of Ficus, e.g. dealbata and Parcelli.

Propagation is preferably effected by stem cuttings which strike easily and quickly (Care must be exercised with such plants as Laportea and others producing stinging hairs.) Root and Leaf cuttings have not been investigated. Seed is not often produced and germination is slow.
Antiaris. Leschen.

I. Cutting: ripe wood.

II. Seeds?

III. macrophylla Sim. 17.12.81.
   toxicaria. the Uparas Tree 27.10.77.
   sp. causes toxicaria of historic and botanical interest only.

Artocarpus. Forsk.

I. Ripe Cutting: difficult to propagate.
   Young slender side shoots also suitable for cutting though not easily
   in heat see 29.4.81.
   Suckers when produced, but rare.

II. cannonii. 29.4.81. good foliage plants
   eburnii. Inesia Bm. 2869-71.
   integripolia Bm. 2833. 7. 9.8.12.76.
   (Hawan Jack Fruit.)

Boehmeria. Jacq.

I. Division

II. Seeds?

III. nitera (Rheka plant 912.7.81.

IV. Ranne + China Grass 9. 17.10.96.
   Rheka Fibre 9. 11.96.
Aricaeae 2.

**BROSIMUM** Swenk.

= **GALACTODENDRON**

- Cutting: ripe wood in heat.
- Fruit rare.
- *Alicastrum* (edible nuts).
  - *Galactodendron* while BM 3723-7.
  - *Brosimum thunbergii* (Cow Tree).

**BROUSSONETIA** Vent.

- Cutting: ripe wood - autumn
  - Sprouts.
- Seeds in Spring.
  - var. *Billardii* 318.1.79.
  - discoidea

**CANNABIS** Towne.

- Seeds in open ground 5.20.8.90.
- *Salvia* (Hemp) 913.3.75 / 316.4.97.
  - *gigantea* 911.9.75.
CASTILLOA  Cervant.

CECROPIA  Linn.


2. deadbata

3. Beltata

CELTIIS  Linn.

1. Layering, stem cuttings: ripe shoots.

2. Seeds, normal method: sow as soon as ripe.

3. occidentalis  916-10-50
   (Hettle Tree)  925-10-84
   922-2-90.

   Sierrae  916-3-01.

Slow sp. not so much grown as hardy American.

CONOCEPHALUS  B.C.

1. Stem cuttings: ripe shoots?

2. ?

3. macrocarpium  B.C. 1203, A+B.
CUDRANIA. Fréme.  

DEBREGEGESIA. Saviuk.  

velutina.  

DORSTENIA. Linna.  

division in spring.  

seeds in bud in spring.  

arabica ex. 1. 6. 98  
argentea Bum. 3777.  
Ceratosanthos Bum. 2760.  
Philippinarum Bum. 3676.  
lubricum Bum. 2504.  
Sp. all more curious than beautiful.  

FICUS. Linna.  

stump cut into ripe wood see 28. 11. 5. 01.  
eyes e.g. for Ficus elastica te.  
layers.  

must have male & female plants for fertilisation see your articles.
Ficus contd.

Elaeis

variegata G 31.1.85
G 3.6.92
G 29.3.92

albo G 18.2.90

falcata G 13.11.97
G 8.10.98

indica (Banyan) G 31.8.84

minima G 18.3.79
G 31.1.80

radicans variegata G 11.9.97
G 19.6.97
G 14.7.01

repens G 8.3.81, 717.2.84
G 18.11.82, 712.3.84
G 3.3.84, 713.3.97

repens variegata G 6.8.02

religiosa - G 6.4.72
(Pagoda Fig)

Roxburghii G 9.11.72

Sycomorus G 23.1.97
(Porthalia's Fig Tree)

The Creeping Species of Ficus
Ficus and their Culture
\[ \text{Dec. 18, 1907} \]
\[ \text{July 22, 1923} \]
\[ \text{July 31, 1970} \]
\[ \text{June 31, 1978} \]

Colonial Fig Tree
\[ \text{November 11, 1977} \]
\[ \text{April 4, 1984} \]
\[ \text{June 11, 1996} \]
\[ \text{March 31, 2000} \]

Cultivation of the Fig in Pots.

Fig in Pots. (J. Hudson) J. R. H. S. Vol. XXV. p. 231. 1900

**HELIXINE**

Reg.

1. Division

2. Seeds

3. Soleirolia
   \[ \text{Dec. 22, 1907} \]
   \[ \text{Dec. 29, 803} \]

**HUMULUS**

Linn.

1. Division for Cupulus

2. Seeds - grow very rapidly, in one season
   - j. variegata come true from seed

3. japonicae
   \[ \text{Annual} \]
   \[ \text{July 12, 1985} \]
   \[ \text{July 4, 1986} \]
   - j. variegata
   \[ \text{July 27, 1994} \]

Cupulus (The Hop)
\[ \text{July 8, 1979} \]

The Hop in Gardens
\[ \text{July 8, 1979} \]


LACTICAEACEAE

KAFEREA Gaudich.  

Poisonous greenhorn?

1. Stem cutting: must be handled with care, as they are poisonous.

2. Seeds also.

3. Longifolia Hook. de Fl. 1839. 60.

Morichea. (Ponon Tree of Queensland.)

B.M. 7037. 938. 11. 96
94. 12. 01.
91. 2. 07.

MACLURA

Huis.

1. Stem cutting: not good.

2. Root cutting also easy (see Hudson, "Fruit," etc.):

3. Layers.

4. ?

5. Amoriantee.

MORUS. Lin.

1. Layers.

2. Stem cutting: apical.

3. Pieces of root, stem cuttings also.

4. Seeds also.

5. alba (Kuder).

6. Indicus.

7. nigra. (The Mulberry) was genus: arts.

pendulina. 919. 11. 81.

hastata. 930. 7. 81/ 920. 1. 83.

hardy deciduous trees.
**Anticarceae**

**Morus. Contd.**

IV. The Mulberry (M. nigra L., etc.) 9 22 12 88.
   The Tonganese Mulberry 9 21 9 89.
   Weeping Mulberry 9 20 8 87
   9 3 12 87
   9 23 7 96.

**Mussango.**

**Myriocarpa. Berth.**

I. Stem-cutting?

II. Seed?

III. Conspice 9 27 3 97
   9 6 2 97.

**Parietaria. Town.**

I. Division

II. Seeds

III. Lucitanica 9 18 7 85
   *T. officinalis* (British weed).

A. of little horticultural value: *Lucitanica* is used as a carpet plant.
Urticaceae 9.

PELLIONIA. Sand.

1. stem cutting easily
   division also.

[stem cutting dates listed]

II. seeds.

III. davaniana

[dates listed]

IV. decora

[dates listed]

= pulchra

[dates listed]

PINEA. Lidd.

1. stem cutting in spring: easy
   division also.

II. seeds also.

III. muscosa

[dates listed]

[useful for ground work & bedding]

IIIA. nana

[dates listed]

Pseudovesicaria

PROCRIS. Tusco
**Ulmus** Linna.

I. **Suckers** for **U. campestris**.
   - *C. variegata* 18. 12. 98.
   - *C. + montana* 915. 7. 99.
   - *C. x montana* 916. 7. 98.
   - *C. campestris* 916. 7. 87.
   - *C. variegata* 916. 7. 88.

II. **Seed**.
   - 929. 1. 89
   - 926. 3. 92
   - 93. 2. 00
   - 96. 4. 01

III. **U. alata**
   - *Okahoe* 925. 2. 88
   - 926. 3. 92
   - 93. 2. 00
   - 96. 4. 01

IV. **U. glabra** 917. 10. 91

V. **U. kumila** 913. 2. 04. (fig. in 920. 2. 04.)

VI. **U. sappan** 94. 8. 78/70. 8. 78.

VII. **U. minor** 9q. 11. 89.
Wyeth Heyleon Shrub 25.8.00.

Bonheur Shrub 711.11.82
American Shrub 918.3.76
921.8.80.

Notes on the Shrub 97.11.85.

Propagation of the Shrub 53.4.86.

The Shrub Trees 94.9.86.
Old Shrub 929.10.81
912.11.81.

Weeping Shrub 913.8.91.
930.2.97
931.10.83.

Desirable Shrub 913.10.90.

URTICA. Linnaeus.

1. (Natural prof. very easy)

2.

3. dioica var. 92.8.90.

4. are troublesome weeds.

4. are troublesome weeds.

4. are troublesome weeds.

4. are troublesome weeds.

4. are troublesome weeds.

4. are troublesome weeds.

Eradication 911.1.79.

4. eradicat. 923.8.73.
ZELKOWA

1. grafting, usually on the common Elm.
   layered, easily.
2. seed.
3. cut seven 93.10.84 / 12.23.1.90.
4. The Plane Tree + the Zelkowas 8/19.7.84.
   The Zelkowas 5/24.10.83.
   The Zelkowa 5/25.1.90.
Notes on the Propagation of Nicol. Orders V and X.
General note on Vaccineaceae.

The Vaccineaceae are an offset of the Ericaceae and have the same distribution and habit. They are sometimes included in that order, but differ in the epigynous character of their stamens. Plants in the order are not commonly met with, except the hardy genus Oxyccoccus (the Cranberry). The other plants in cultivation need greenhouse temperature, and include Pentapterygium, Epigynium, etc. The flowers are bell-shaped, and usually pendulous, and rather showy. The berries too are ornamental in Epigynium leucobotrys. Like other members of the Ericales cohort, the plants in the order require peat for their culture.

Vegetative propagation is more common than increase by seed, and is effected by cuttings of young shoots. The roots are fibrous on the whole, and unsuited for cuttings. Tuberous roots which might be used for propagation are found in Epigynium species, and Pentapterygium serpens.

The leaves of nearly all the genera are of a xerophytic type, and being small, linear, and tough in texture are unsuited for propagation.
Vacciniaceae

AGAPETES, Don.


Cavendishia. Rm. 5012. 28. 3. 85.
26. 4. 89.
230. 5. 91.
58. 3. 90.
516. 3. 95.
94. 3. 99.

Macrantha. 9'c. 19. 1. 01.
Manni. 9'c. 6. 10. 00.

CAVENDISHIA. Lindl.


Ceratostemma. Juss.

1. Stem cutting. Young & half ripe shoots.

Epigynium. Niel.

Root cutting? Roots to think as in Yam.

Cereobotrys. Rm. 5103. 212. 12. 72.
518. 2. 93.
Eurycania.

Stem cuttings half-ripened shoots.

Ovata Bm. 6393.

Macleania. Hook.

Stem cuttings, half-ripened shoots, seed also.

Floribunda Bm. 7694.
Insignis Bm. 5465. S17.8.89.
Pulchra Bm. 5465. S17.8.89.
Punctata 985. 7.96.
Species typica Bm. 5463.

Oxyccoccus. Pers.

Division layering.
Stem cuttings.
Seed also.

Macro-carpus (American Cranberry).
Best variety; produces the largest fruit.

American Cranberry 731.2.74.
The Lesser Cranberry (O. macro-carpus) 79.7.81.
PENTAPTERYGium, Kloesch.

I. stem - cutting easily.

II. ?


rugosum, 74. 8. 98.

serpens, Bn. 6777, 74. 8. 98

= Vaccinium serpens

= Thibaudia myrtifolia

PSAMMISIA, Kloesch.

I. stem - cutting.

II. ?

III. congesta, Bn. 5876.

pedunculata, Bn. 5804.

THIBAUDIA, H. B. K.

= AGAPETES.

I. stem - cutting: easy from ripe or green, half - ripe wood.

II. ?

III. acuminata, 79. 2. 89.

= Cavendishii acuminata, 79. 2. 89.

Coronaria, Bn. 5878.

cordifolia, Bn. 5589.

glabra, 79. 12. 76.

macrantha, Bn. 4866.

IV. Thibaudias, 717. 191.

Propagation Thibaudias 78. 9. 83.
Vaccinaceae 4.

VACCINUM. Linnaeus
- PENTAPTERYGIIUM.

1. Stem-cultures ready.
   - Suckers
   - Division

2. Seeds in autumn.

3. Vaccinum, Sm. 10.79/18.5.86.
   - Vito idea, 9/21.12.93

4. Vaccinum or blueberry bush, 9/25.3.89.
   - Macrocyanon 7/22.1.89/7/36.10.89.
   - Pennycuunicum 7/11.93.

Serpeus 7/36.8.88.
- Pent. serpeus.

Sprengeli 5/3.87.
General note on Valerianaceae.

The Valerianaceae are an order closely allied to the Dipsaceae and Compositae, composed mainly of herbaceous plants found especially in the Eastern Hemisphere. Like the Dipsaceae the order supplied few plants worthy of cultivation. Centranthus is perhaps most often met with.

Its propagation as well as that of Valeriana is of the easiest, both vegetatively by division, and by seed since they practically become weeds in the places where they are established. Cuttings are not often used. Root cuttings might succeed in the case of Valeriana and other plants. Leaf cuttings are impracticable as the plants are hardy and herbaceous.
Valerianaceae

CENTRANTHUS

I. easily prof. division. becomes weak.

II. seeds. self-sown in quantity.

III. Herbarium 930 - 6:00 1928 7-7-04
94 8:00.

NARDOSTACHYS

division.

Jatamansi B.M. 6564. 1866 90 1-83.

The Spikenard. 96 9-79
(Jatamansi) 913 9-79
1866 90 1-83.

PATRINIA

division for heterophylla.

seeds in spring.

Rehmannia

Heterophylla

Impatiens 96 8-98
9/3 8-98

Valerianaceae. 2.

**VALERIANA.** Lin.

- Easily cultivated if division by division is recommended. Root cuttings possible.
- Seed also.

3. *arizonica* 9.3. 30.3.01.
   - 19.4.01.
   - 9. 3. 10.03.

   - 939. 8.03.
   - *officinalis* 97. 7. 00.
   - *pyreneica* 9. 30. 11.78
   - *sibirica* 97. 11. 71

3. Notes on Valeriana 935. 3. 87.
   - 9. 14. 6. 84

**VALERIANELLA.** Haller.

- Small insignificant weed.
- Congesta. BR. 1094
General note on the Verbenaceae.

The Verbenaceae are an order of very varying habit containing plants of herbaceous and even tree-like forms. E.g. Gmelina arborea, Tectona grandis. In distribution they are almost entirely tropical or sub-tropical except Verbena itself which is found in temperate regions also.

As a family the Verbenaceae share in common with the closely allied Orders Labiatae and Scrophulariaceae the power of being easily reproduced vegetatively, especially from stem cuttings of almost any kind, and at almost any season. Since propagation by this means is so easy other methods are not usually employed. Root cuttings are used for many species of Clerodendrons, but the methods has not been thought worth while investigating for many other genera. Verbena may also be increased by this method. Our knowledge of the power of leaf cuttings to strike in this order is also limited. Mr. L. Stewart has however, propagated species of Clerodendron such as Balfouri, fallax, infortunatus, etc. from their leaves. In the experiments of Lindemuth () roots were obtained on leaves of Verbena hybrida a week after insertion, but no shoots were formed.

Division is the vegetative method usually employed for the herbaceous perennials e.g. Stachytarpheta, etc.
On the whole vegetative propagation is to be preferred in this order to increase by seed, as in the latter case variable results occur, e.g. Verbena, Lantana, etc. The difficulty may of course be overcome by a due selection and obtaining seed from a reliable source.
AEGIPHYLA. J. C.\

I. Stem cutting. Easy. usual mode of propagation.
II. Do not open e.g. Diffusa, although flowering abundant.

Diffusa:
Clara BR. 946.
Grandiflora:
Martini cansin BR. 132.

AMASONIA. Linn.

= Saligalea.


Young stems also flowering. Imbue.

II.

(Calycina) 744.2.83.
76.1.86, 76.8, 9.86

93.12.87

63.9.7

938.9.95

9.11.6

Crassula BR. 744.5.

BOUCHEA. Cham.

I. Stem cutting in spring.

II. Seed for pseudo-gervaes (annual). BR. 6271.

Earnaia olia (greenhouse shrub) 27.11.91.
Pseudo-gervaes (shrub) BR. 6271 915.4.76.
Verbenaeeae 2

**CALLI CARPA.** Lin.  
= Perphyra.

II. Easy from seeds also. 
But plants do not fruit for two years.
III. gracilis = purpurea 598.12.77. 
macrophylla: 512.7.86.
purpurea: 598.9.80. 
99.10.80. 
918.11.82. 
916.6.83. 
919.12.91.

**CARYOPTERIS.** Purge.

I. Stem cutting: young growing shoots: Glaucum. 
Division also.
II. Seed also.
III. in cana 51.10.81.

**Hystaceanthus.** BM. 6799.

915.12.83.
918.10.90.
91.10.92.
915.10.92.
928.10.93.
917.10.96.
926.10.01.

m. alba 59.12.99.
Verbenaeeae 3.

CHLOANTHES, R.Br.

1. stem cutting, young
2. ?
3. ?
4. Shuckardia

CITHAREXHYLUM, Linn.

1. stem cutting, easy at any time
2. ?
   quadangular
   Callus from pith + from cambium. see Chap I. &

Clerodendron, Linn.

1. stem cutting, for shrubbery species - rifle sawing.
   grafting, sometimes for C. splendens. on C. Balfouriana.
   root cutting for Pachotumum to 5.24.92.
   leaf cutting.
   cut stem. see gen. note on prop. is Verbenaeeae.
   veget. usually preferred; easy except C. splendens.
   seed also; easily grown. e. q. C. kewlingii.
2. Fallax 75.11.84 / 73.7.97 / 72. 6.11.97
3. ficoidenum 9.16.9.93 / 520.4.99 / 517.9.04
   fragans 788.88 fragans f. f. 81. 211.8.00
   mutans

Greenhouse evergreen shrubs.
Veronicaeae 4.

Dichotonum 916.9.87.
Balfourianum 924.12.81.
95.11.92.
92.18.1.96.
92.4.98.
Kauferi 924.6.76.
Myreneophila 92.28.3.03
923.7.04.
Squaratum 930.4.81.
Thomaeeae 916.3.74.
Vicusum 93.2.77.
Volubile 916.9.82.
Speciosum 934.11.80.
929.10.87
Dichotonum 939.9.83.
924.9.92
915.9.97

IV.
Clerodendrons. S. M. 13.1.83.
919.3.77/911.8.83.
910.5.90.

Sheppy Clerodendrons. 922.7.82
924.12.92
579.4.93.

Chuteing Clerodendrons 93.6.93/93.6.99.
Cultures of Clerodendron 91.6.72/94.7.85.
**Cornutia** Linn.

= Hosta.

I. stem cutting : strike early spring.

II. **Coerulea** : *pyramidalis*?

III. **Pyramidata** : *pyramidalis* ?

**Pyramidalis**. R.B. 1904.

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**Diossea** Miers.

= Lippia.

I. stem cutting : strike readily.

II. seeds ?

III. **junccea** R.M. 7698. 92.7.01

929.6.01.

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**Duranta** Linn.

I. stem cutting easy.

II. ?

III. **Plumier**. memis.

**Sterostachys**. 
**Plumier**. R.C. 280.

121. **Durrantia** 14.9.89.
Verbenaeeae 6.

**Gmelina** Linn.

1. stem cuttings in first young shoots.

**Holmskioldia** Reh. 

1. stem cuttings at almost any season.

2. sanguinea 94.9.86.

**Lantana** Linn.

1. stem cuttings: easy, summer.

2. seeds also, but variable.

3. *L. delicatissima* 919.9.03.
   - *L. var. flav. d'or*.
   - *L. salviasfolia* 96.

4. Lantanas & their Cultivar 912.7.79
   - 912.6.80
LANTANA. Contd.

1. Lantanas in bloom 9/10.8.89.
   Lantanas 9/6.8.08.
   Lantanas from seed 9/2/1.3.03
   Lantanas in the Flower Garden 9/7.9.99.

LIPPIA. Linn.

= Aloysia.
   Japaria.

1. Cultivar easy: Young shoots division also e.g. cerinflora.
   ?

2. Citriodora = Aloysia citriodora
   (hardy)

   "orange" 9/6.9.78
   9/10.9.81
   9/2.3.94

   "orange" 9/10.9.94
   9/10.9.94
   "orange" 9/11.9.94

3. Lippia citriodora 9/11.10.90.

   "orange" 9/11.10.90.
   9/11.6.01.
Verbenacca

Oxera. Labia

[i.] Stem cuttings easy.
[ii.] 
[iii.] pulchella

14.1.88
17.6.88
15.7.88
16

Petraea. Ruia

[i.] Stem cuttings freely in spring & summer.

ii.

iii. volubilis

B. 678
14.7.73
14.7.77
28.4.83
12.3.88
9.3.89

Prina. Adamus

[i.] Stem cuttings.
[ii.] Division.

iii. Casim.

15.12.88

Raphithamnus
STACHYTARPHAETA.

I. Division for perennials.
   Stem cuttings for shrubs.

II. Seeds for annuals & perennials.

III. Ricola B.M. 553.8
    Jamaican
    Mucubilo

TECTONA. Linn.

I. Stem cuttings: rift wood.
   (For earlier formation. See Chap. I.)

II. Quandrira. (Leak Tree)

IV. Wood: Economic Products
    Indian Timbers (Wm. Tansley, 9). etc.

VERBENA. Linn.

I. Stem cuttings: easy in spring & autumn.
   See genus, on Prop. of Verbenas.
   Division: for hardy species, e.g. V. cneosa.

   Root cuttings also. See 11. 9. 86.
   Layering: for V. cneusa.

II. Seeds: Cool, high here; good for V. cneosa.

Verbenaeeae 10.
VERBENA. Contd.

- need better for hardy species: see 7. 17. 3. 77.
- 7. 12. 3. 83 Verbena from seed.
- 7. 13. 3. 84

- amoenas

- Chamaedryfolia

- garden vars. bred at Ellen Willard
  A. of Edinburgh. see 7. 15. 3. 77.

Verbena 6: its Cultivar 7. 20. 6. 83.
Verbena in Pots 7. 17. 11. 77.
New French Verbena 7. 10. 8. 89 (for 1890).

VITEX. Linn.

- stem cutting: ripe wood, division also.
- seed also.
  - Agnus Castus 7. 2. 4. 81
    7. 16. 9. 93
    7. 22. 10. 98.
  - Viburnum
    Negundo 7. m. 364.
General note on Violaceae.

The Violaceae are an order well known and prized in horticulture as containing the many cultivated species of pansy and violet. The species Viola is the only one found in cold regions, but the order is nevertheless widely distributed, and mainly in the tropics where shrubby forms (Calypttrion, Agation) and even tree-like forms (Melicytus, Hymenanthera) occur. These tropical genera, mainly greenhouse plants, are not so well known. The order is allied mainly to the Bixineae and Cistineae.

The hardy herbaceous species are propagated mainly from seed, though varieties come best from cuttings (?). The indoor shrubs are easily propagated from stem cuttings. Root and leaf cuttings have not been investigated.

Gen. Literature: – British Violets. E.S. Gregory
(Camb. Heffer Sons. 61, 1912)

- Pansies and Violas. W. Catherton.

- British Pansies. E. Drabble.
Diolacea.

ALSODEIA. Thou.

Young stem-cutting.

Capillata.
Cineraria.
Comosa.
Latifolia.


CORYNOSTYLI. Mant.

Cutting: young shoots in spring.

Seeds.

Hybanthus Rom. 8960.
Val. albiflora.

HYMENANTHERA. R. Br.

Stem cutting: young wood.

Crassifolia 924, 7, 77, 73, 11, 92.

Care hardy 920, 9, 90, 91, 3, 99.

MELYCITYS. Forst.

Stem cutting: hard

Seeds?

Ramosae.
Viola, Linn.

Division.

Seed culture for vars. 73.7.78.
74.6.78.

See also 6.4.01/73.7.79.

Seeds for hybridising 73.7.79.

Garden vars. innumerable see gen. cats.

Among Tufted Pansies desirable species are Bluebell, Cottage Maid, Elsie Hancock Princess Louise, Yellow Prince.

Garden vars. of Violet also innumerable see gen. cats.

Sweet Violets 74.3.03/723.4.04

Sweet Violet old twin: 713.9.02
720.9.02
737.9.02.

Sweet Violets & their Culture 729.9.00.

Free Violets 6.18.6.98/6.16.7.98.

Double Violets 723.7.01.
725.03.

The Panay & Viola

Tufted Pansies 74.8.00.
714.8.00.
74.8.00.
(1.3. Cane) J.R. H.S.

$7.4.00.  
$12.4.00.  
$4.8.00.  
$20.7.01.  
$27.8.02.  
$11.10.02.  
$7.7.03.
VIOLACEAE 3.

VIOLA. contd.

IV. Pol ca Tufte's Parma. 7.28.6.98
79.7.04.

Contribution to the History of Parma. 20.6.96.
General note on the Vochysiaceae.

The Vochysiaceae are a small order containing plants inhabiting Brazil and Guiana. By Bentham and Hooker the order is placed near the Pollygalaceae, though its affinities are somewhat doubtful. The plants are of woody habit, mainly trees, some of considerable dimensions, for example Vochysia species. The plants are of little or no horticultural value.
General note on Zygophyllaceae.

The Zygophyllaceae allied to the Rutaceae and inhabiting dry places in warm regions, particularly salty deserts. The plants are variable in habit, but mainly herbaceous. The hard wood of Guaicum officinale is used economically for timber as well as for its medicinal properties. The pretty little greenhouse annuals Zygophyllum, are common in cultivation.

Propagation is mainly affected by seed for the herbaceous genera, and stem cuttings for the shrubby species. Neither root nor leaf cuttings have been investigated.
Bulnesia

Guaicum

Larrea

Steen ereween

Larrea can.

Duniferro - half rip shoots

Tovuncata - mtida

Lycophyllum
General Notes on the Propagation of the Monocots. H - Z.
GENERAL NOTE ON THE HAEMADORACEAE:

The Haemadoraceae are often not considered as a separate order\(^{(1)}\), as they are exactly intermediate in character between the Liliaceae and Amaryllidaceae. The plants are usually herbaceous with inconspicuous flowers — and rhizomatous in character. They are distributed especially in Australia, in the Cape, and in Tropical America.

Ornamental foliage occurs in Liriope (Ophiopogon) the Snake’s Beard — Tecophylaea is known as the Chilian Crocus. The genus Sanseviera is interesting economically as producing the commercial product hemp, and theoretically as having a remarkable power of regeneration. Leaf-cuttings of S. quinensis and cylindrica give rise quite easily to roots and shoots (see Stingl).\(^{(2)}\)

Propagation is effected both vegetatively and by means of seed as in the Liliaceae and Amaryllidaceae.

\(^{(1)}\) Pax.
\(^{(2)}\) Stingl — also Chap. \(\text{V.} \) Part \(\text{I.} \)
ALECTRIS. Lin.  

division - of offsets

- seed.

- farnosa  920.7.78  
  BM. 1418.

ANIGZ ZANTHOS. Labill.  

division - of roots in spring

- Coecineus  Pakt. Mag. Bot. 271. 928.7
- Mangusta  B.M. 3893. 71.9.83
- Ipmanthina  BM. 4307.
  The Species of Anigozanthos  56.1.77
  98.9.86.

CONANTHERA. R.T.P.  

- Culto - offsets.

- Sinusii = Cuthaniga campanulata 99.7.87.

sh. are scarce.
Haemodoraceae

CONOSTYLIS. R.Br.

- Tender
- succulent
- aculeata R. B. 1989

in Gloria = Scleranthus tricostia (The Paint Root)

7/18/376 (The Paint Root and its Effect on Pigs)

- annuals

CYANELELA. Linnaeus

- small bulbs
- offsets
- capensis R. B. 1868
- lutea R. B. 1252

half hardy bulbs

LIRIOPE. Loud

- division of roots in spring
- seed
- spicata 9/14/11/03 = Orthiopogon Spicatus
- greenfiolia 9/12/8/00
- japonica 9/30/8/90
- spicata

hardy perennial

LOPHIOON. Ker

- division in spring & autumn
- aurea R. B. 1596 9/8/8/91

hardy herb. perennial
Haemosoraceae 3

**OPHIOPOGON** Ker.

- Division in spring or autumn.

- **spicatus** 92.4.87.
  
  (see *Ariope*).

- **fasciatus** variegatum 96.3.97, japonicum 98.1.76.
  
  (see *Ariope*).

- **Variegated Snake's Beard** 92.7.11.80.
  
  The Snake's beard in pots. Sc. 5.3.04.

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**PERILOSANTHE**s, Andr.

- S. neckeri (Creeping Rhizome).

- **alba** P.P.M. 7116
  
  humilis P.P.M. 1332
  
  leva P.P.M. 1302

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**SANSEVIERIA**. Shurb.

- Leaf cutting very easy.

- S. eckeri in spring.

- Division of plant.

- **sp. Andreana** (Bostrich Hemp)
  
  Grandio P.P.M. 78.77.
SANSEVIERIA. Contd.
Ehrenbergii 9.29.1.98.
Roxburghiana B.M. 74.87.
Zeylanica 9.13.12.84.
9.12.3.04.
For other sp. see Post.

TECOPHYLAEA. Bert.

I. bulbs.
II. seeds, set abundantly.

III. Cyanocrocus 9.6.4.89.
9.23.3.99.
9.7.4.00.
9.27.4.01.

C. Leichtlini 9.9.1.86.
9.26.2.87.

NACHENDORFIA. Lin.

I. bulbs.
III. Crow J. Rom. 466.
Herbaceae 9.2.4.87.

Thysiflora 9.2.4.87.
XIPHIDIUM. Aubl.

division.

floribundum. Bur. SDSS.

- Ceculeum.
GENERAL NOTE ON THE HYDROCHARIDACEAE.

The Hydrocharidaceae are an aquatic order, widely distributed, in temperate regions chiefly, in both the old and new worlds, and allied to another aquatic order, the Alismaceae. The members of the order are submerged water plants of both fresh and salt water (e.g. Halophila), and are nearly all perennials with an unlimited vegetative axis. The flowers are small and unisexual.

Like other water plants, propagation is easily effected vegetatively. The plants are soft in character and root easily at the node. Increase by isolated portions of the stem is very rapid. It is by this rapid vegetative increase that genera such as Anacharis and Elodea become such troublesome weeds in ponds and rivers.
Hydrocharis Lu.  

- very early by bits in water.
- mossy, ranac. (freq. bit.)

Stratiotes Lu.  

can be established by any bit.  

Readers from old plants renewed each spring.

Alloides. (Water Sedge) 98.11.78.


canily vegetatively.

Spec. arrangement for seeds in nature.
Iridaceae. 1.

**ACIDANTHERA** Hochst.

1. Offered from bulbs.

2. bicolor.
   tubulosa 26.8.78.
   capensis  Trianonia capensis Binn. 618.
   aquinoctialis  Binn. 7393.
   9.8.95.

3. **ALOPHIA Herb. = HERBERTIA Sw.**

   1. Offered from bulbs.
   2. pulchella  Herbertia pulchella. 9.13.8.04.

4. **ANTHOLOYZA** Linn.

   1. Offered from bulbs.

   seeds—when obtainable, as soon as ripe. In favourable seasons, freely by 9.10.9.51.

   aethiopica 26.9.84. 92.11.99. a. minor 92.10.1.
   cuneonaria Binn. 343.
   cececina 92.6.00.
   paniculata 9.25.10.84. 925.12.99. 92.9.99.
   quadrangularis  Binn. 367.
   Schweinfurthii  Binn. 7709.
ANTHONY A. LIEF

Antholyza. 910.9.81.

See also 920.12.97.

ARISTEA. Ait.

greenhouse plants.

Division in spring. Seed cuttings for hardy stuff. C. q. Commbosa. Slow.

seeds in spring.

capitata Bux. 605

= maj. 920.6.82.

Combossa = Wistleia Combossa. 912.11.87.

Cyanca.

Sekloni.

Spiralis = Moraea spiralis Bux.820.

BABIANA. Ker.

bulbous plants. hardy or greenhouse.

offsets from bulbs.

Bux. 637, 621.

Jistihe Bux. 676.

Nicata Bux. 576.

stricta Bux. 637, 621.

S. rubia cyanca. 910.7.86.
ELAMCANDA. Adams.

Editions in spring.

Seeds: Early Cleveras 9/23-5-03 (M. Kemp)

chinensis = punctata 9/14-9-01.

= Pandanthus chinensis 9/15-10-04.

CALYDOREA. Herb.

Speciosa. 9/23-5-04

Spring flowering Cleveras 9/3-10-04

Crocus. Sp.

offsets, from bulbs.

Seeds: in autumn - easy, though slow. Take 2:5 yrs till maturing.

soon as soon as ripe.

See gen. arr.
IRIDACEAE 9.

CROCUS. Ruin

Autumnal Crocuses 10.11.86
(Des Kemp)

The Crocus 131.3.00

Autumn Crocuses 117.10.83 11.11.87 19.7.97 (J. Arnott)
128.1.88 9.17.10.89 (C. Weller, Dad)

Some early Crocuses 2.12.99
(J. Arnott)

Autumn + winter flowering Crocuses 9.23.11.01 11.18.11.02 (J. Fernie)

The Home of Wild Crocuses 95.3.87

Winter + Early spring Crocuses 98.11.78

Wild Crocuses 9.1.04

Spring flowering Crocuses 7.5.02 7.24.10.88

Crocuses 7.16.83
7.28.1.82 (J. Wills)

The genus Crocus 9.20.11.86 9.5.11.87
CYPHERA: Herb.

I. offsets from bulbs.

II. Seeds.

Imperialis: Crocosmia 1/24 9.98
Bumbea 9/1 10.00
9/10.12.03

Pernosiana 9/19 2.76

Herbertii 9/21 2.99 plate in 9/14 1.99 (top
9/23 7.04 H: pulexella also)

Graecilis 9/16 1.78

Cyphellas + Herbertias 9/16 1.99
Cyphellas 9/6 7.01

DIERAMA: C. Koch

Seed readily see 9/21 10.75

Pulexellina: Sparaxis pulexellina 9/11 11.76
9/6 8.81

DIPLARRHENA: thornea 9/7 7.83 9/15 7.93
FERRARIA. Linna.

1. Offset from bulbs. Easy.
2. Seed when ripe

half hardy bulbs.

FREESIA. Klatt.

greenhouse bulbs.

2. (Seed) in Aug. - Sept. see 9.C. 4. 2. 97.
3. as soon as ripe if home saved.
4. Armstrongii 925. 5. 01.
   9 26. 3. 04.
   9 2. 4. 04.
5. Leichtlini major 919. 4. 84/93. 3. 83.
   refracta 9.C. 28. 3. 01.
   refracta alba 921. 1. 88, 9.C. 11. 4. 96.
   924. 4. 97.
   9 17. 9. 98
6. Freesias 929. 6. 01, 9.C. 1. 1. 98.
   9 1. 8. 03, 9.C. 13. 7. 02.
   929. 4. 99.

Cultivation of Freesias 9.C. 4. 2. 97.
Freesias in Main Culture 919. 3. 92, 917. 1. 91.
99. 1. 86.

Freesias all the year round 917. 7. 97.
I. *Hemerocallis* - see arts on harvesting bulbs.
   + bulbs. young - *Cosmos*. - method for varieities
II. seeds. see *Raising* Gladioli from seeds 9/24/84
   9/19/83
   99-7-92
III. see sp. under gen: arts.

IV. The *Gladiolus* - its origin & development. 9/23-8-03

The *Gladiolus*
(10.8.03)
917.10.03. / 914.12.93. (J. Douglas)

Culture of *Gladioli* 9/4.02
(H. H. Dombrait)

The *Gladiolus* as a Garden Flower 9/14.4.00

*Gladiolus Culture* 9/12.94. 9/12.83.
9/15.12.94. 9/1.87

*Hardy* Gladioli 9/27.9.90
9/20.12.90

New *Hardy Hybrids* Formed *Gladioli* (W. S. Pumpleton)
9/24.8.89
9/10.10.90
9/9.10.86
9/14.11.91

*Gladiolus failure* 9/30.12.83
9/10.2.83

New hybrids of *Gladiolus grandiflora* 9/23.11.95. 9/20.1.83
Irideae 8.

**GLADIOLUS cont'd.**

- Harvesting Gladiolus bulbs: 76.11.86.
- 718.12.90.
- 720.11.86.

- Early flowering Gladioli: 92.10.87.
- Gladioli: 74.10.84.
- 926.1.89.

- Wintering Gladioli: 711.9.80 / 93.12.81.

- Spring Culture of Gladioli: 75.3.81.
- 921.3.91.

- Gladioli as cut flowers: 919.9.85.

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**HYDRORHAEMIA, Linn.**

See *Hyridia* new berries: 926.4.98

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**IRIS, Linn.**

Suckers:
- Division of rhizome: for splitting and division: 926.4.98
- Ripe seeds from bulbs: for hybrid selection.
- use Bulbs from green gen ends
- Seed for both herb and bulbous types.
Iridaceae q.v.

**HERBERTIA**. Sw.

See *Alophila*.

Also gen. art. under *Gyrella*.

**HOMERIA**. Vent.

= *MORAEA*.


2. Seeds. (Summer)

3. Aurantiaca Br. & R. 1612.

Colonia Br. & R. 1033. 54. 6. 04.

**HYDROTAEENIA**. Smith.

See *Tigridia van Houttei* 536. 8. 93.

**IRIS**. Linn.

1. Suckers.

   Division of rhizomes - free rooting see 519. 12. 96.

   Offset from bulbs for bulbous section:

   See Bulbous Irises gen. art.

2. Seed for both herb. & bulbous series.
Bare Leaved Druce 93° 9.96.

The so-called German Druce 914.11.88
916.7.87

German Hags 914.1.88

The Peacock Druce 96.12.90
(= Moraca).

On the Cultivation of Onocyclus Druce 911.1.02 918.1.02 96.7.01
924.12.87 (Mr. 916.8.01 918.7.01
928.2.91 921.6.02 931.10.90
913.5.93 91.9.94

English Druce 919.7.84
912.7.90 94.6.92
910.11.94

Bulbous Druce 90.7.4.00 90.
90.23.3.01 916.6.88
910.12.98
(= Mallet 911.11.02)

Hardy Alpine Druce 916.11.01
910.1.03
96.11.7.03
Irideae II
IRIS
Contd.

Winter Iris 1831.8.01.

Ree Cushion Iris 1814.6.02
(S. B. Mallet) 1824.10.96 (P. Jenkini)

Californian Iris 1812.3.98 (C. Purdy)
1818.6.98  1819.12.96
1811.1.98 (C. Purdy) 1819.6.97
1821.4.98 (E. Purdy)

New Hybrid Iris 1814.6.04.
1870.28.6.04

The Iris
(Monograph by W. B. Hemley) 1892.12.76

The Iris 1822.6.89
1877.6.90

African Iris 1828.9.89

Flag Iris 1825.7.96

Japanese Iris 1817.7.80
1820.8.92

American Iris 1828.9.96
Iridae 12.

IXIA. Linnaeus.

' Offset from bulbs - Easily see 126.7.84.

' seeds in heat - but then as compared to vegetative method.

Crakenveldes

G14 6.84
G25 5.01. Blu. 574

aristata - Blu. 589.

columnaris.

Flexuosa Blu. 624.

Hybrida - Blu. 128 - flexuosa.

Lineata - Blu. 589.

Maculata - conica Blu. 589.

Nonadeepa.

Ovata.

patens. Blu. 522.

paniculata.

Speciosa -

Viridiflora. 98.7.99.

929.7.99.

For garden var. see gen. arts.

To: Culture of Irisas + Sparaxis 913.9.73 / 930.4.92.

Irias 922.1.87 928.12.01.

913.8.87

924.5.90.
Iridaceae 13.

LXIA. contd.

Ixia 1 their culture 926-7-84.

Concerning Ixias. 927-9-7-12-01.

514-12-01.

IPEY ROUSIA. Pourr.

i. offsets from bulbs.

ii. seeds also freely.

iii. cruzenta - Anomatheca cruzenta

910-9-98.

910-12-98

924-12-98 92-19-9-03

920-8-04.

A. calliantha

925-9-86

912-11-87

914-9-89.

Greenhouse bulbs.
Iridaceae 14.

**LIBERTIA** Stemm.

1. division of roots.
2. seed in spring.

- *formosa* 920.7.78 x 97.6.90.
- *pilocarpa* 928.6.87 (see general.
- *libertas* 914.11.91.

MARICA, Ker.

- division of rhizomes.
- or seeds.

- *coerulea* 928.3.81.
- *gracilis* 920.3.81.
- *nortiana* 923.4.04.

- *marica* 910.3.84.

Greenhouse Flora 917.1.03.
**MICRANTHUS.** Pers.

= Watsonia.

I. offsets from bulbs.
II. seed.

III. *W. africana* = *W. fistulosa.*

9/15/88.

**MORAEA.** Linn.

= Dietes.

I. offsets from bulbs.
II. seed.

III. bicolor. 9/4-9/86.

Ramosa. 9/4-7/77.

Bicolor. 9/8-10/80.

Robinsoniana. 9/21-8/89.

(Wedding Flower). 9/28-8/86.

9/16-6/94.
Druidae 18.

PATERSONIA. R. Br.

1. Division.

2. Seeds.

3. "Longiscapa" 924: 5: 84.
   "Glabrata" B.R. S1.

ROMULEA. Linn.

1. Offsets or bulbs.


   "Bulbocodium var. = Trichoneuma Rugium. 924: 3: 94.
   "Macowanii" 910: 1: 80, 97: 2: 86.
   "Rosea" 930: 6: 83.
   911: 1: 79.

SCHIZOSTYLIS. Backh. & Haw.

1. Division of shoots - increase rapidly.

2. Seeds.

SISYRINCHIUM, Linn.

1. Division -
   Offsets from bulbs.

2. Sect. - flowers in about a year.

   Convolutum 919.11.87.

Filifolium      925.4.85 / 9c. 22.6.01.
(Pale Manner)

Grandiflorum 921.4.00. 928.3.96. 927.6.74.
   Album
   (Latin flowers)
   920.3.97. 93.3.83.
   929.4.99. 930.6.83.

Indifolium 9c. 10.10.03.

Paniculatum 911.4.03.

TREPTANTHERA

Sisyrinchiums 98.2.96.

Two Sisyrinchiums 930.7.04.
   (Bermudianum +
    Indifolium)

HARDY
herb. perennial.
Irisae 18.

**Sparaxis** Ker. = **Dierama**

- offsets from bulbs, division.
- seed.

*grandiflora* Bsw. 779.

- *lutea*.
- *pulcherrima* = *Dierama* 927.12.02, 727.98 p. alba.
  9117.12.81.
- *tricolor*. 90.11.7.03.

For other vars. see *genus* art.

* *Dieramas* 90. 26.7.02, 90. 10.1.03.

**Streptanthera** Sw.

- offsets.
- cuprea.
- elegans.

**Syringodea**

- *bulbacea* 918.6.76.
TIGRIDIA. Ker.

Seeds in heat. See 920. 10.80 (Tiger flowers from seed.)
When ripe. See gen. arts.

Pavonia.
927. 3. 86. GC. 3. 2. 00.
917. 9. 04.

Grandiflora.
917. 9. 78.
91. 9. 94.

P. alba.
98. 9. 83.
915. 9. 83.
915. 9. 08.
See also. 95. 1. 84. (Plate.)

P. alba uninaeulate. 916. 8. 96.

P. conchiflora. 910. 1. 80.

P. liliacea. 93. 8. 98.

See gen. arts.

T. The Tigridiaceae.
951. 84. 931. 3. 94. (W. Sollmann.)
912. 9. 91. 96. 12. 02. 915. 3. 02. (F. Mallett.

Notes on Tigridiaceae.
923. 9. 93.

The Tiger Flower.
94. 4. 91.

Keep hardy or greenhouse. bulbs.
Iridaceae 20.

TRITELLA. Salisb.

I. offsets from bulbs (Montbretia) 2 7 6.

II. seeds (I. pseudomontbretia) 7 6 7.

III. trudis = Iri montanicaeae 4 7 6.

TRITONIA. Reh.

= MONTBRETIA.

I. Division by root. increase easily. Storing in bulbs. 1 replanting. Sometimes choke growth.

II. seeds. of the self. sonon.

M. crocata 9 7 6 9 9 crocosmiaeflora 3 0 9 9 9.

M. germanica 9 6 4 0 1 9 2 1 8 7 8 0 1.

M. rosea 7 2 9 9 9 9 7 9 6 4.

M. imperialis 7 6 9 9 9 crocosmiaeflora 9 7 2 0 1.

C. aurea var. maculata 9 9 7 0 1.

C. aurea imperialis 9 3 8 0 1.

Pottsd. re. see genus crocosm.
Crocosmia aurea var. Tritomais
(Montbretia)
(C. Lemoine)

Tritomais 930 7 98
Montbretia 94 27 8 98 70 discussion in 98.98
Montbretia 194 7 12 01
Culture of Montbretia 194 13 12 02
Hybrid Montbretia from Belgrove 93 9 04 (F. Gambleton)
Montbretia x Tritomais in Scotland 94 2 12 99
Hybrid Montbretia 94 18 11 99
(C. Wollney 1999)

Irideae 21
TRITOMIA Lec...
ATSONIA. Hill.

Offsets from bulbs.

i. Ardernei
   5.9.76.

ALETROIDE
   5.14.6.84.

angusta
   5.9.84.

rosea
   5.24.9.81.
   5.24.10.85.

The White Watsonia (irid. O'Brieni.) 517.4.97.
The Watromai
   5.14.9.89.
   5.12.8.93.

NITSENIA. Shunbg.

Division.

1. offsets.

2. Seeds in spring.

   6.20.9.99.
Iridaceae: 23.

Less aften in Cultivation are -

Gelagris, azurca

Nemastylis altata, acuta 96.1.83

Rigidae, flamma.

Aromatetce, cruenta.

The Liliaceous order are amongst the most important of the flowering plants. Though belonging to the Liliaceae the structure of the habit. They are usually found in the districts of temperate climate. The plants in the order are divided into several groups, but generally are found in the same order. The various species of Liliaceous are of great value in the garden, being a valuable addition to the scene in the garden. One of the species, **Xanthorrhoea**, is worth a place in every garden.

*Propagated by division, this plant in the case of Xanthorrhoea by division and also by seed for* 

Lusina, &c.

(1) see Engler-Priest
GENERAL NOTE ON THE JUNCAEAE.

The Juncaceae are an order closely allied in structure to the Liliaceae and other members of the Liliaefloral cohort, though resembling the Grasses in habit. They are usually found distributed in damp districts of temperate regions. The plants in the order are mainly low growing perennials: some shrubby are found in the Cape genus Prionium. The various species of Juncus itself are bog plants and are of no value in horticulture. The allied genus Luzula has one or two species, especially L. nivea, which are more worth a place in a garden; while cyanea with its bright blue flowers and golden anthers is a decorative subject for the greenhouse.

The Grass Gums of Australia (Blackboys) are usually referred to this order, though sometimes placed in the Liliaceae(1) are of interest but are not ornamental plants. The gum of these plants has a pleasant odour when burnt and is for that reason used as incense (see Xanthorrhoea).

Propagation is effected by division and in the case of Xanthorrhoea by imported specimens, and by seed for Luzula, &c.

(1) see Engler-Pramtl.
Juwaeaceae

LULU A. DC.

division of roots

seeds

nivea 9.16.7.87
S.17.1.03

Sylvatica

CALECTASIA R.Brit.

= PRIONUM. P. Hey.

seeds

cuttings for P. seminum

C. cyaneca BM. 3834. 916.4.87
P. palmata BM. 6722

KunthoKHOFEN. BM.

imported plant

Franti BM. 4722
Primevi BM. 6933
other sp. BM. 26

Giant Grasses of Australia P.29.12.83
Grass Gum Trees. 919.6.86
GENERAL NOTE ON THE LEMNACEAE.

The Lemnaceae are a small order, consisting of two aquatic genera *Lemna* and *Woolfia*. Several species of Lemna, e.g. *minor*, *major*, are British. The plants are interesting theoretically as being examples of a persistent protocormic stage (see Goebel, &c.).
Liliaceae 1.

AGAPANTHUS L'Hér. 1

division of crown - in spring

Agapanthus 927 8 81

insignis 925 7 03

micromedius 922 9 00

minor mooreanus 915 9 03

see below

umbellatus (African Sp.) 910 8 49

118 1 02

929 4 03

u. var. albus 922 2 02

75 4 02

910 8 02

ALBUCA Lin.

u. var. excelsa

u. var. flore pleno 918 11 76

922 9 8

9 10 88

u. var. maximus 928 10 81

929 9 88

u. var. minor 921 8 80

u. var. mooreanus 926 8 93

917 8 01
AGAPANTHUS. contd.

African Lilies
19.2.84.
18.9.84.
9.11.92.

Agapanthus
7.27.8.81.

Hardiness of the African Lily
16.11.80.
7.4.12.80.

African Lily in pots
12.9.90.
8.24.5.90

ALBUCA. Lin.

Greenhouse bulbous plants.

Bulbs annual, seedlihood in practice, great many bulbs formed as Al. prolifera.

Seeds also in nature.

Few sp. cultivated, best in Venus.

Minor Bm. 1720.

Helsoni
11.6.89.

See also under prolifera.

Wakefieldia Bm. 6429.

Prolifera S. C. 28.6.98

Palmari 16.7.92
**Allium** Rauw

Division of Bulbils.

Seed sown in autumn e.g. Moly - alboflosum  
acuminatum -  
acephalum 913.5.76. Bm. 6227.  
Coeruleum 924.3.84.  
Nobilis 96.8.81.

*Cepa* (Common onion) see list on Vegetables.

*Giganteum* 917.5.79. Bm. 6426.

*Hemerocallis grandiflora* 923.5.87.

*Karavianae* 927.92. Bm. 7290.

*Karabavienae* 931.5.79.

*Moly* Bm. 499.

*P Muelleri* 913.6.82.

*Moly* Bm. 499.

*P Muelleri* 913.6.82.

= *P Muelleri* 921.6.02.

Nobilis 97.7.86.

*Ostrowskianum*  
Nobilis 917.6.82.

*Palmeri* 916.7.92.

*Stebichianum* 928.8.86.
Alkium. contd.

- Roseum 96. 30. 9. 90.
- Salamin (Parkie).
- Schuberti Rom. 78. 88.
- 78. 8.
- Stellatum 729. 10. 81.
- Seeds
- Tripetrum 78. 5. 80.
- 727. 3. 99

Ursinum (Wild Parkie)

Vincens 717. 8. 01.

Zebrinaeae 722. 26. 3. 60.

For other see Irwin's art. on Alliums in Sanden 1904 (below).

The Alliums (by W. Irwin)

- 26. 3. 04.
- 22. 4. 04
- 9. 4. 04
- 9. 16. 4. 04

- White flowered Allium 723. 7. 81.
- Alliums mostly growing 722. 8. 83.

Convallaria Maj.
**LILIACEAE** 23

**COLCHICUM contd.**

*Speciosum*  911:10:79,  958:10:81,  927:10:00

- 5th album  956:10:00,  976:10:00

*Genos*  921:12:01,  914:11:03

**COLCHICUM or Meadow Saffron**

Saffron Cultivation in Kashmir  98:23.9:97

**Colchicums**

- 94:1:02 193:6:77
- Winter flowering  912:12:03
- Double Meadow Saffron  973:10:83

**CONVALLARIA** 41

- Rain
Aloe

Suckers.

Leaves.

Greenhouse Coarse Grains
Succulent.

Abyssonica Bun. 7712. 9.7.2.74. africana 928.9.98.
Baumii 90.9.4.04. americana 97.7.83.
Bainesii 91.8.74. arboretum 91.3.94.
Concina 90.16.4.98.
Ciliaris 929.2.84.
928.11.96.
931.12.98.

Greenii 922.10.81.
Margaritaeum 97.11.03.

Lynchi 9.11.3.82.
90.30.3.01.
Somaliensis 90.9.12.99.

Aloe & Qucca Tribe 914.2.80.

Cape Aloe at Kew 929.1.81.

South African Aloe to 90.8.8.03.
Liliaceae 6.

**ANDROCYMBIUM**  Lodd.

- offsets.
- seeds.
- eucormides  84. 6.92
- eucormides  9. 5. 91.

**ANDROSTEPHIUM**  ?

- offsets.
- seeds.
- violaceum  93. 9.81.
- barbiflorum  93. 9.81.

**ANTHERICUM**  Linn.

- hardy bulbs.
- division of roots — not with knife but with hand see  94. 6.92.
- seeds: either sow when ripe or stored till winter after.
- liliaceum  91. 1.76.
  (Great St. Bruno’s Lily)  + var. major.
- lilioage  94.  7.96.
  (St. Bernard’s Lily).
- linearae  93.  11.96.
- gamozusum = Dorschi  92. 7.81.
- undulatum = gymnifolium  93.  7.87.

*Greenhouse bulbous plants*

*Handy bulbous plants*
ANTHERICUM: contd.

- Anthricums: 94-6-92
  9-10-98
- Swiss Anthricums: 23-12-75

APHYLLANTHES, Lin.

- hardy perennial
- division of roots in summer after flowering
- seeds (slow growing)

- monopeliensis: 10-9-81
  B.M. 1132
  9-4-93
  9-22-94

ARTHROPODIUM

- green-flowered perennial
- effects: division - easy of tubers
- seeds: sometimes produced

- cernatum: B.M. 2350
  9-14-87
  7-6-91
  9-16-96

- paniculatum: 9-30-1-72
PARAGUS Linn.

Division of genus for hardy.
Division for indoor.
Sow cuttings. Diff. for some of see green year's end, e.g., 520.1.91.

caespitosa?

Scandens 526.1.96/ 96 30.5.93
Decumbens  58.1.98 - 58.3.79,
            52.2.89
Comonensis 514.1.99, 59.1.92
Crispus      516.11.95

Deflexus  54.3.98,
           514.1.99
Salicatus  527.8.81.

Myrtif

medeoides = Myriophyllum asparagoides.
            (Similar or creeping myrtle)
            52.3.72
            53.10.78
            58.4.76
            513.6.93

var. myrtifolia 516.4.04

Officinalis (Common Asparagus) 53.6.82,
527.4.89

Florusus  516.4.87, 511.10.81
          520.4.95

var. namus. 53.10.85
            520.10.83
            57.2.91
Liliaceae 9.

ASPARAGUS contd.

**Retroflexus**
- 913. 6. 91.
- 914. 5. 98.
- 917. 11. 91.
- 911. 1. 99.

**Sarmentosus** 923. 8. 94.

**Speciori**
- 99. 11. 98.
- 911. 8. 00.
- 910. 8. 3. 62.
- 910. 19. 4. 02.

Var. Compactus. 911. 12. 98.

- Variegatus. 923. 01.

**Tenaximus**
- 98. 3. 84.
- 92. 3. 89.
- 914. 3. 93.
- 923. 1. 97.
- 910. 3. 00.

**Umbellatus**
- 921. 9. 01.

**Verticillatum**
- 92. 3. 78.
- 922. 9. 00.

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The Cultivated Species of Asparagus (C.W. Watson)

- Go. 24. 2. 98.
- 17. 26.
- 3. 98.

The French Asparagus Industry (C.W. Watson)

- Go. 16. 4. 98.
- 924. 8. 02.

Asparagus Propriety 90. 10. 01.

Asparagus Propriety 90. 10. 01.
ASPHODELINE. Rehb.  

I. division

1. seed

2. Balansine 9.2.6.00.


4. luteus = Asphodelus luteus 9.23.7.81.

5. lusica 9.13.3.97.

6. The genus Asphodeline 19.2.98.
Liliaceae

ASPHEDELUS. Linna

1. division
2. sect.
3. aemulis 7074  S 22.12.88  S31-3-94
   Fimbrosus  927-2-92
   Ramossus  921-4-00  928-6-81
   BM 799

4. Asphodel 917-9-81
   (Blue) 924-2-94

ASPIDISTRA. Sweet

1. Succulent division of crown see 9.6.24-2-00
2. Seeds see 9.3-8.01 for lucida
3. lucida, Bot 628 99-7-81  90-3-8.01  9117.03
   l. variegata 928-12-01
   typical  BM 74-84

5. Aspidistrae 915-9-77
   90-24-2-00
**Leucocoea**

12.

**Astelia**. Banks & Soland. ('division in spring') 9.1.81

Cunninghamii B.M. 5170
Solandri B.M. 5503

**Bessera**. Schult. ('bulbs')

offsets.

elegans 511.8.83
57.9.92
97.10.02

91.9.1.84 (with plate)

**Blandfordia**. Smith.

offsets. division usual method
seeds by artificial fertilization

flammae var: princeps 929.1.76
B.M. 6209

flammae elegans 96.5.82
92.6.83

flava 91.7.80
92.8.80

nobilis 91.8.91
91.8.5.01
AND FORDIA. contd.

Cunninghamia 98.1.81.

a. Splendens see plate 9.27.10.83.

Polianthfordia 9.18.6.98.

The Polianthfordia 9.27.10.83

Notes on Polianthfordia 9.16.1.86.

The Australian Baker 9.11.3.93.

BOWIEA. Harvey.

(Division of offsets).

Seed. Easily. usual method.

volubilis Potr. 5619 9.19.3.81 9.19.8.83

BREVOORTIA = BROMIDAEA.

I. Division

II. Seeds

III. coecinea 9.10.2.77 (Cheiriden Latin Flower)
Liliaceae 14

BRODIAEA, Smith

division of offsets:

seed

cocenica (see Brevonan) - 930.683
Congesta - 922.6.89.

grandiflora

= Californiaica - 922.4.76.
9.27.6.96.

Howellsii - 93.3.85.

var. lilaeat - 92.6.94.
9.20.6.96.

viroides

cala - 910.6.82.

= Milleri cala - 922.1.81.

gechthiae - 9.2.89.

multiflora - 912.10.72.

uniflora

= Trit-eclina uniflora - 927.3.73.
9.15.3.73.
9.6.8.88.
9.7.9.92.

For other sp. see gen. articles.

Brodiaee - 923.8.84 / 915.12.94

The genus Brodiaee w. its allies G.c. 5.12.96.

(J.G. Baker)
**BULBINE** Lin.

- bulbs
- division
- suckers
- stem cuttings for propagation
- seed, plentifully produced in Barbata

- **bulbosa** 924.7.86
- **barbata** 189.3.30

**BULBINIELLA** Kunth.

- seeds - best mode of increase
- Hookeri - Chrysopogon
  - **pumilus** 914.1.95
  - 920.6.96
  - 919.6.97
- Kennedyi
- [another variety] 914.2.93
- [another variety] 814.3.83
ULISOCHIDAE. Rüm.

 Cults.

 Bernum. Prun. 153. 923. 2. 89.
 926. 1. 93.
 928. 4. 00.

 Bulbocodium. 966. 83.

 CALOCHORUS. Parah.

 bulbs.

 Armoenius. 956. 97.
 Benthami. 914. 2. 80.
 946. 6. 81.

 Carneus. 916. 6. 88.
 Claveatus. 937. 97.

 Fuscus b. 911. 9. 83.
 Flavus.
 914. 7. 83.

 Kennedyi.
 (dearuet Mariposa Lily).
 Lilacinus. 919. 9. 83.
Liliaceae 17.

**CALOCHORTUS** contd.

**Euteus.**

* I. concolor 97.12.95.

* Lyoni 915.6.95.

* macrocarpus 98.8.82.

* madrensis 923.8.90.

* nitidus 94.7.96.

**Plummerae** 92.2.98.

* pulchellus 97.6.82. /90.22.8.03.

= _Cyclobothra pulchella_ 921.5.81.

926.8.88.

**Purdeyji**

* venustus 930.9.82

(Mariposa Lily.)

* citrinus 940.7.96 /912.2.76

see gen. art.

**Weedii** 921.7.83.

Calochortus venustus F. L. Harris 912.10.95.

Calochortus, H. K. H. Culture (G. B. Mallett) 931.4.02.

Calochortus 922.9.00.

Notes on Calochortus (C. Purdy) 921.7.98.
Calochortus

30.7.92.
7.24.7.97.

The Mariposa Lilies
Planting Mariposa Lilies in Spring 520.2.97.
The Culture of Calochortus 528.8.97.
The Mariposa Lilies (Calochortus)

Camassia Lindl.

Bulbs by division, usual feed, but slow process.
Brownii 911.6.92.
Cusickii 530.6.88.
esculenta 93.1.80
76.11.80.

Fraseri 916.3.78
(decella f.) 92.6.88
Leichtlini 91.11.79.
7.14.6.02.

Camassia 99.8.02
(S.R. Walker) 9c.16.6.00

The Camassias 97.9.81
CHAMÆLIRIUM. Willd.

CHIONODÓXÁ. Boiss. hárty calbs.

CHIONODÓXÁ var. alba S273-86 928. 3. 94 931. 3. 94 937. 2. 99. hárty calbs.

CHIONODÓXÁ var. giganta- 928. 3. 90 939. 9. 97 (with plate) 920. 3. 97 93. 4. 97 914. 99

CHIONODÓXÁ var. Tmolusi 913. 8. 99 914. 8. 99 915. 4. 99 922. 4. 99 929. 4. 99

Chionodoxa (luciliae) S20. 10. 00
Notes on Chionodoxa S74. 94 Chionodoxa S920. 4. 89
Chionodoxa

division of rock

japonica BM 65 10
94 9 80
72 5 80

Chionocallis

division
seed borne very freely

Abundance 9 13 8 04
Allen 6 20 3 97

Chionodoxa 9 18 3 99
9 27 8 99

Chlorophyllum

division offsets
seed

pomerianum (California Soap Plant) 9 17 8 72
9 30 1 75

half hardy

hardy perennial

hardy bulbs

hardy bulb
CHLOROPHYTUM, Ker.

Suckers, division in spring.

seed

cratum variegatum 8.1.12.92.
8.3.8.93.

vivipara 7.6.1.77.
5.27.1.77.
9.10.2.77.

CLINTONIA, Raf.

rock, perennial

division?

Andrewsiana B.M. 90.92. 7.6.2.86.
9.22.6.89.

boreal = Dracena borealis
smilacina borealis B.M. 1403

ColCHICUM, Lin.

hardy bulbs

bulbs, from seed see 9.17.10.88.

autumnale (Common Colchicums)
Lycoris Squamaria
Riliaceae 22.

**COLCHICUM contd.**

*autumnale*

album fll. 914.10.99
92.11.03

Bivonae 98.2.96

Bornmuelleri 918.10.02
917.9.04

byzantinum 910.9.98
929.9.00

*cilicicum* 923.11.01
9c. 13.12.02

*Crociflorum* 918.3.84
914.2.91
912.3.04

giganteum 98.10.04

*hydrophilum* 919.5.04

*lateum* 910.2.83
914.2.91

kontarum 929.2.98
96.2.04

Napoliitanum 919.3.87

Parkinsoni 92.12.76
98.12.84

Procurensis 931.10.03

Ritchii 921.2.03

Sibthorpii 90.12.10.00
98.24.11.00
98.12.00
COCHICUM

 Gen. : Arts.

 Colchicum or Meadow Saffron. 9/5. 7.00 ?
 Colchicum. 9/11.10.02. / 936. 6. 77.
 Winter flowering Colchicum 9/10. 12. 03.
 Saffron Cultivation in Kashmir.

CONVALARIA, Linna

 division. y formo.
 seed. alsa.

 majalio.
 var. prolificans. 9/11.10.02.
 823. 8. 02.

 majalio (kind) 9/18.6.98
 9/26.5.00.

 9/14. 9. 97.

 Polygonatum. Polygonatum officinale.
CONVALLARIA.

Lily of the Valley:
Lily of the Valley, £28.10.99; £24.6.02.
Lily of the Valley in Fruit, £23.10.97.
Lily of the Valley forcing, £7.8.97; £23.1.92; £12.12.91.

The Victoria Lily of the Valley, £8.6.89.
Lily of the Valley exposed in the Shade, £21.6.83.
Lily of the Valley in Pots, £13.1.72.

Plantaris, £21.7.76; £22.6.83.

Corydalis, £23.4.72.
Corydalis concolor, £12.12.72.
Corydalis concolor, £27.6.87.

1. Succulents
   - Stem cuttings, apical & rhizomes.
   - Seeds: not as good as veget. method. See 9/27/58.

- Australia: 9/12/01, 9/22/77, a. variegata
  - 9/23/74, 9/14/75, a. albostriata
  - 9/30/98, a. purpurea
  - 9/12/73, 9/26/01, a. indivisa
    - 9/22/78, 9/7/83
  - indivisa vera: 9/16/2, 9/15/01

2. Guilfoylei: 9/16/6, 9/16/3

3. Bankii: 9/11/7, 9/2/83

4. Terminalis: 9/23/11, 72

Cordylines out of Doors: 9/21/9.


DASYLIRION Jucc.


Secto. Very slow growers.

aerofichum 7/3. 86
GC. 1/3. 96
GC. 13. 4. 01

glauccum 7/30. 6. 83.


Dasylium 9/2. 11. 89

Dasyliums in flower at Kew. 9/18. 8. 83

Dasyliums after flowering. 9/18. 8. 77.

DASYSTACHYS. Baker
Brumipris Blu. 7/5. 80

Chinesis. Blu. 6/7. (harmic)
Liliaceae 28.

DIP DiAX. Salicéb. = MELANTHIIUM.

Division of bulbs.

juncéum 57·8·86. (aquatic)

D. rosea

M. briquetii = D. rosea 526·10·78

DISPORUM. Salicéb.

Division of creeping rhizomes or plants, seeds in spring.

E. echinatum

S. sessile variegatum = 918·6·92

Disporum 95·6·86

DRAcAENA. Vand.

Apical cuttings. see Fig. 94·5·78. also own Fig.

Cutting up stems see 94·8·78 on Dracena. (eyes). & cutting up rhizome. (not tap root. see 920·9·84. gen. art. Usual method. it does not disfigure the plant. From side shoots see 920·9·84.)
The Dragon Tree of Teneriffe 727.7.01
(St. Rowe.)

Revision of the Genus Dracaena 720.7.72
(Dr. Regel)

Dracaena + Coromine 523.8.78
(J. J. Barnes)

Dracaenas 927.2.78
92 919.1.84 (J. Barnes)
913.2.92

Brightly colored Dracaenas 926.9.85
917.10.85

Dracaenas & their culture 920.9.84
925.1.90
918.1.90

Rubiin. 976 710.13.77
Liliaceae 31.

DRIMA. Jacq.

Greenhouse bulbous plants.

Offsets from bulbs.

Colca. BM. 7566.

Robusta. 75.9.66. (Mann).

Villosa. BR. 1346.

DRIMIOPSIS. Lindl.

Offsets from bulbs.

Kurik. BM. 62.76.

S. 10.3.77.

Maculata.

Minor.

Freesia. 930.186. 19.10.91.

(3 seeds) 93.18.4. 9.3. (Jensen).

Freesia from seed 9.12.9.03.
EREMURUS

division

1. seed. easily. though slow. seed 912.9.03 gen. art. k. 77.3.76

Burkei 923.7.98
93.9.04
913.3.86. (Note)
928.7.86. Glorii 912.8.99.
92.9.99.

Limalains 54.8.00.
931.3.00.
96.9.86.

Koore Kovi 925.6.87.

Olgae 913.5.82.
910.8.89.

Robustus 919.12.96. 919.7.79. robustus superbus 927.9.02.
Brii 672.6.
9c. 22.9.00.
98.6.98.
930.8.02.

spectabilis

Turkestanciens 923.7.92.

Warei 922.6.00.
90.11.7.03.

ERYTHRONIUM

Tremirius 930.1.86.
910.1.91.

9c. 13.6.03 (E. Jenius).

Tremiri from seed 912.9.03.
**Liliaceae** 33.

**EREMURUS** contd.

*Eremurus* 96.8.98.
(W. Nichol.) 929.4.93.
(W. Soaring.) 722.2.96.

{1114.4.96 (H. Sibbald).
97.3.96.

Giant Asphodels. 920.3.96.

---

**ERIOPSPERMUM.**

- Effects from bulb.
- ?
- *Hedera* 91.8.96
- *Pubescens* B.R. 578
- *Mackennii* = *Sulbire mackennii* B.M. 8955.

---

**ERYTHRONIUM.** Lin.

- Effects from bulb.
- *Montanum* 920.9.96
- *Hedraclis morio* 715.10.46
- *Pseudosertularia* 97.3.85
Liliaceae 34.

ERYTHRONIUM. Link.

- americanum 91375
  9217.78
  9218.80

  dens canis 9224.99 9174.75
  (Von Bredel) 9214.88
  9412.06 place
  964.89

- grandiflorum 9255.88
  944.85

- giganteum 9233.85

- revolutum johnson 92112.01 9244.97
  9184.03 9224.99

- hastwegi 9143.96
  Btt. 7583 9253.99
  12812.01

- hendersoni 9810.88
  Btt. 7017 9284.00

- johnsoni 9235.96
  9174.97

- montanum

- nutballianum 91812.86
  9273.97
ERYTHRONIUM. Rain

パーフェルスル 928.8.77
97.3.81.

Smithie 91.3.97

for other sp. see gen. arts.

Gen. Arts.

Dog's-Tooth Violets 924.6.99 / 924.12.86 (B. Kemp.)

Erythroniums 91.10.01
922.2.02
95.6.97. (C. Purdy.)

Note on American Erythroniums. 92.8.5.97.
Liliaceae 36.

EUCONIS. L'Héritier

I. offset from bulbs.
- 

III. bicolor
   Bux. 6816.
   917.7.86.

pallidiflora
   93.10.91.

funetata
   923.9.99.
   914.10.99.
   921.10.99.
   919.5.00.

regia
   96.11.86.

robusta
   96. 1894. p. 562.

The Species of EUCONIS 921.9.78.

EUCONIS 911.3.98.
FRITILLARIA

Handy bulbs

offsets - though slowly

Seed - when obtainable, should be sown at once. Usually disturbs till 2nd year.

see sp. in genera.

among the most commonly cultivated are:

*aurica, armena, hispanica, imperialis, carduola, culta, meleagris, purica, recurva.*

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<th>Fritillaria</th>
<th>Built in Culture</th>
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</table>

Fritillaria 526.5.00 529.11.90 723.9.97 (J. Jen)

Handy Fritillaria 523.7.92 (D. Kent)

California Fritillaria 520.3.97

European Snake's Heads 710.12.87

"Fritillaries for Home Decoration" 524.9.04
Liliaceae 38.

**FUNKIA.** Willd.

1. Division of roots — proso feeceos.

2. *Caneefolia var. tardiflora.* 7/17.11.00.
   7/14.11.03.


   *ovata.* 7/24.7.80.

4. *Sieboldiana.* (var. fortunei)— 7/17.7.86.
   9/6.8.79.
   9/3.8.98 & 9/16.9.82.

5. *Sieboldiana.* (var.fortunei)— 7/17.7.86.


7. *Sieboldiana.* (var. fortunei)— 7/17.7.86.

8. *Sieboldiana.* (var. fortunei)— 7/17.7.86.


   *Subcordata.* 9/16.6.83.

10. *Plantain lilio.* 9/22.4.93

11. *The Funkia (J. Cook).* 9/22.9/31.10.03.


15. *Funkia.* 9/18.11.79.

16. *Funkia.* 9/13.3.78. (Treatment of)
FUNKIA. Willd. contd.

Plantain Lilies
718.3.82.
924.2.83.
910.7.86.

GAGEA. Salicif.
Offsets from bulbs.
Seeds also.

GALTONIA. Dene.
Offsets from bulbs.
Seeds produced abundantly in candidans.

Candidans 973.9.02  973.2.83  918.10.79  918.1.81.
923.12.93  919.8.82.
910.3.00.

Prineeps:

Galtonia hybrids Sc. 2.9.99.
(candidans x prineeps.)
Rubiaceae 40

GIASTERIA. Raw

1. Stem. Cutting
3. Seed?

fusco-punctata Bl. 7549.

GIASTERIA S. 93.2.94

(note)

GLORIOSA. Linn

- Melanocarpa

2. Seed. See gener. act. 79.10.97
   Very slow. See also 79.1.84.

   Pot. 2539.
   V. grandiflora. F.C. 20.8.04.
   Rothschildiana. F.C. 23.5.03
   F.C. 6.6.03
   Superba. 7/5.9.94
   79.9.97
   89.11.04.
   Simpliceflora. See gener. act.
**Liliaceae** 41.

**Gloriosa.**

- Gloriosa: their culture 99.10.97
- 919.1.84.
- Methoniaca (Gloriosa): 128.8.90
- 546.6.81.
- Culture of Gloriosa: 128.4.88
- Gloriosa: 520.12.90.

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**Pachyspermum.** Pachyspermum

- Stem: cuttings, young shoots.
- Seeds: 518.4.91

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**Goniocystis.** Baker

HAWORTHIA. Duval.

- suckers
- leaf-cultivation
- seeds

arachnoides: Aloe arach. BM 756.

albicans: BM 1452.

subulata: 5/3/56.

nispophylla: BM 7505.

HELENIAS. Linn.

- blooms in spring. Occasionally flowers in summer.

- seed

bullata: 5/12/91

BM 747.

arachnoides: Xerophyllum arach. 5/7/00

9/28/01.

Citrina: 9/18/03

9/28/04

9/15/04
FRIE NOPSIS

division
seed.
... japonica B.M. 6986.
93.1.91.

HENEROCALLIS, Linn

division of plant in spring.

...auvianicaea major. 923.9.99. plate in
90.31.8.01. to - 923.11.96.
91.23.4.02.

auvianicaea 97.8.97.
93.7.97.

flava. 920.6.96.
924.6.99.

Citrina 91.8.03.
920.8.04.
915.10.04.
Hemerocallis

- fulva
  - var. macleaya. 99.7.04.
- minor 93.10.97
- puteola 921.7.00.
  97.7.00.
- Kwanza
  - K. fol. varieg. 927.7.96.
- Thunbergi 922.8.96.
- Damortieri plate in 926.3.87.

Day Lilies 926.3.94, 91.7.96.

Hemerocallis or Day Lilies 910.1.03, 917.1.03, 924.1.03.

New Hybrids Hemerocallis 90.10.8.02.

An Endemic Plant (Hemerocallis) 916.8.90.

Hemerocallis or Day Lily 917.1.91.
HESPERALOE. Engelm.

Index

ucca folia. P.M. 1728.

91. 8. 80.
91. 10. 81.
91. 3. 82.
91. 7. 84.

Engelmanni. 920. 3. 86.

HESPEROCALLIS. A.Way

1. undulata 917. 5. 02.
HYACINTHUS LINN.

Handy bulbs.

Helleborus. See Hyacinth cultivation in Holland.

Fewer pots in old bulbs. Also, i.e. leaves. Also backs near Prof. Hyacinth. From flowers produced freely in amaranthines - Azar. See 5.1.76

Amethystines. Blu. 5.2.78.

9.10.2.78.

a. giganteus. 9.10.2.78.

a. var. amphiboli. 9.3.8.02.

Candidus. See Galtonia candidans.

Ciliatus. 9.21.1.99.

Linatus. 9.3.3.94.

Orientalis. See gei: act. 9.11.1.07.

(Roman Hyacinthus).

9.18.1.02.

9.8.8.04.

Roman Hyacinths 9.9.10.90.

9.10.2.86.

9.17.9.92.

The White Roman Hyacinth 9.18.7.91.
Leireaceae #6.

**HYACINTHUS**

1. The Hyacinth 1768. 5c.27.11.97.
   (n. Robert)

Hyacinth in Pots 92.9.99.

Hyacinth, Culture in the British Isles 910.5.02.

New Way of growing Hyacinths 916.11.72.

Indoor Hyacinths 95.10.72.

How to Grow, Force & Show the Hyacinth 92.9.76.

Dutch bulbs for spring decoration 94.10.99.

Hyacinths in the open 95.5.83
   911.4.83

The Hyacinth 94.4.84 / 94.4.91 / 9c.17.4.97

Hyacinths in Holland 78.4.86
   94.4.94

Hyacinths in water 912.10.72.
   In (hot) glass (95.9.74
   911.11.84
   94.4.91

New Hyacinths 9c.15.8.96

Hardy Hyacinths 910.5.89.
GENERAL NOTE ON THE MARANTACEAE.

The Marantaceae are an essentially tropical order, limited in distribution, but mainly found on moist shores of the Western Hemisphere. The plants in the order have peculiarities of their own, such as the quite irregular flower, with its complicated structure of hood and pilliar, the presence of only a half perfect stamen, and the characteristically auriculated leaves, but the alliances are nevertheless close with the other Scitaminaee, especially the Cannaceae. The plants in the order are mainly herbaceous perennials with underground rhizomes. They are more cultivated for their leaves than for their flowers. The curious patterns and colouring of these organs, often indicated in the specific names, e.g. argentea, zebrina, polita, &c., make them very ornamental.

Propagation is effected mainly by cuttings of the underground rhizome and also, as in the Dracaenas (see Liliaceae), by apical stem-cuttings.
MARANTA. (Linn.)

-Calathea-

Division of rootstocks in spring.

Suckers at base of plant.

augustifolia B.M. 2398
auratifolia B.M. 2307 (The Arrowroot)

Zebuina - 99.5.74

CARRATHA. G.F.W. Meyer.

Division of rhizome.

grandiflora - B.R. 1210
Crocata - B.M. 7820

Stone plants. evergreens
GENERAL NOTE ON THE MAYACACEAE.

The Mayacaceae are a small order consisting of the one genus Mayaca, found in North and South America. Mayaca is an aquatic genus of moss-like appearance, somewhat isolated in its affinities, but united to the Grass-like section of the Farinosae by the possession of mealy endosperm and orthotropous ovules. The species are also allied to the Hydrocharideae by their habit. They are marsh plants characterised by strong adventitious roots and with close-set small leaves spirally arranged on the stem. The species are rarely found in cultivation.

Propagation is effected naturally by vegetative means.
GENERAL NOTE ON THE MUSACEAE.

The Musaceae are essentially plants of tropical forests. The genus Ravenala is found in Madagascar, the Musas in Asia, and Helicornia in America. They are characterised by large strongly ribbed petiolate leaves, overlapping a false stem. The true stem is the underground rhizome. The well-known Traveller's Tree (Ravenala madagascariensis) with its curious fan-shaped distichous leaves belongs to this order.

The flowers of the Musaceae are usually bright and crowded together in bright spathaceous bracts, and are thus well adapted for bird pollination. The genus Strelitzia possesses an additional adaptation for pollination in the colour of its yellow and blue flowers which exactly correspond to the colours of the humming-bird, Nectarina afr. The presence of the septal glands is also an attraction, and the characteristic bright aril of the seeds makes them easily distributed by birds.

Edibles rhizomes occur in Heliconium psittacorum, and the edible fruit (or banana) of the Musas is well known.

The Musaceae are cultivated in gardens mainly for their/
their foliage. Ornamental leaves occur in *Heliconia* sp., *H. spectabilis*, *H. aureo-striata*, and especially in *H. illustris-rubicaulis*, the leaves of the last named plant being especially remarkable for their brilliant colour and feathered serration. Various species of *Musa* have also coloured and variegated leaves.

Increase in nature is effected usually by seed though vegetative propagation is common.

Species of *Musa* in botanic gardens and private collections are usually imported, or raised vegetatively by cuttings of the rhizome, as seed does not ripen freely.
**Heliconia**

Stone plants

**Heliconia** Lin.

- Population.
- Offsets produced abundantly, easy prop.
- Common method of prop. in Feb. usual.
- Seed not usually produced in cultivation.

- Sanderi. 929.7.99 (other species).
- Illustris rubescantis. 930.11.95, 914.12.95, 920.11.97.
- Aureo-striata. 913.11.96, 920.9.98.

For other sp. see gen. articles.

- Heliconias. 928.12.99, 920.2.98, 96.11.97.

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**Lonvia** Schorsteek.

Stone plants

- Dichidanthe.
- Division of Shihone.

- Grandiflora. 92. 28. 11. 96.
- Longflora.
Musaaceae

Musa Linn.

-leaflet.hardy plant.

1. division of Rhizome
-offsets easily
-divers for M. religiosa.

2. Seed rarely produced in cultivation
   -See 96.2.92, 91.8.04. (plant drew after flowering?)
   -Sanse [28.8.77] 72.6.78 723.11.92.
   -Bana [japonica] 91.9.91 87.1.99.
   -Bun 7182.


4. Superba 95.6.2.04.
5. Cavendishii (The Banana) 917.9.87 810.10.96 919.9.96 926.9.96
   -Rosae 917.8.04 98.3.4.02.
   -Coccoidea 917.1.83 922.11.84 85.12.85
   -Sapremnium (The Common Banana) See gen. articles

Musa for the Conservatory 919.1.91
- Dwarf -flowering Musas 97.7.88 98.10.12.98.

African Musas 95.13.3.04.
-Varieites of the Banana 931.10.74.
-Culture of the Banana 929.3.84.
-Banana flowering quickly 810.4.97.
-Intropical Plants at Torgny 95.8.1.95.
RAVENNA. Adams.

Suckers like Musa.

**GENERAL NOTE OF THE MADAGASCARIA.**

Madagascarensia (Traveller's Tree). 52-3-72.

= *Urania speciosa*.

The Traveller's Tree of Madagascar. 92-3-72.

92-3-8. 74.

---

**STRELI'TZIA. Ait.**

Intermediate Stout perennials.

Division of rhizome see 91-3-84.

See 92-9. 83.

Suckers. Produces after flowering.

Seed. also

**Reginale.**

95-4-90. 98-9-83. 97-5-04. (92-3-04)

91-9-94. 92-2-98. K. var. citrina 93-3-02

92-2-3-07

**Nicolai.**

92-2-8. 74.

91-3-70.

93-0-4. 92

**Angusta.**

92-4-3-86.

90-2-5. 6-04.

ovata. 98-1-81.

**Strelitzia.**

92-9-12. 83.

91-3. 84
GENERAL NOTE ON THE NAIADACEAE.

The Naiadaceae are a small aquatic order. The plants of most interest in cultivation are Ouvirandra fenestralis (Lattice Leaf Plant) with its curious ornamental leaves, and various species of Aponogeton. Beautiful fragrant flowers occur in the hardy Aponogeton distachyon, a plant which, cultivated in a pot of peat, is suitable for the room, and is ornamental with its pure white flowers even in winter.

Propagation is effected most easily vegetatively by means of division.
HAIRY ACONITE

APOGONETON Thunbq.

Division
Tubers for A. distichyon

Seeds: normally difficult to obtain as sinks to bottom, best to cut off fruit just before ripe, then cover with earth. Dec 5/20 9/76.

Berriesana 9/25 7/79. 4 also art. on fenestratio.

A. distichyon (Cape Pondweed) 9/20 11/75 9/4 8/76
9/5 7/84
9/29 11/84
9/7 9 85

O. fenestratio (The Lattice Leaf Plant) 9/2 12/76
9/29 8/85
9/9 10/86
9/28 3 91

Spathneman var. juncuum 9/4 10/79
9/4 10/79.

The Cape Pondweed in & out of water 9/30 9/76.

The Lattice Leaf Plant 9/18 3/72

The Water Hawthorn on Cape Pondweed 9/28 1/79

POTAMOGETON

Some water weed - will be destroyed by swans.
Lit. on orchids.

- Orchids -- Their Culture & Management. -- (1st) 1890.

- Orchids -- Their Culture & Management. -- (2nd) 1903.
  (New Edition revised by H. J. Chapman)

  (J. Veitch & Son.)

- The Orchid Album. -- Warner, Williams & Moore. -- 1881.

- The Orchid Growers Manual. -- S. Williams. -- 1874-86

- Temperate Orchids. -- J.W. Bunbridge -- 1874.


Lit.

- Nomenclature des orchidées hybrides.

- Orchids & Their Cultivation. -- W.T. Kaye. -- 1909.
  (Proc. S. Lond. Ent. Soc. 1908-9.)

- Physiology & Fertilization -- Conference on Orchids. -- 1912.
  (Prof. Keelie -- G.C. 14.12.12.)
Lit. on Orchid. Culture + Prop.

Root of Epiphytal Orchids
(J. Banks)

British Orchids

9/9.3.81.

(see also Books.)

see Magazines devoted entirely to Orchid Culture

such as "The Orchid Review"

Sander's Orchid

Berlin. Ers.

Hybrid Orchids

9/3.12.78.

Winter flowering Orchids
9/7.7.78
9/7.2.78
9/3.2.78

Variegated Orchids
9/28.12.74
9/16.6.76

Ground Orchids
9/25.5.76
9/20.5.76

Hardy Orchids
9/16.6.78
9/13.10.79

Orchid Cultivation (J. Banks)
9/9.3.97
Lst. on Orchids.


Cool Orchid Growing
(J. W. Bunbridge)

- "Cool Orchid Growing"
  - £23.11.72
  - £30.11.72

Collecting Orchids
(J. W. Bunbridge)

- Collecting Orchids
  - £30.11.78 (J. O'Brien)
  - £4.10.79 (J. O'Brien)
  - £8.1.81

Resting Orchids
(J. W. Bunbridge)

- Resting Orchids
  - £28.12.72
  - £23.9.76 (J. O'Brien)

Hybrid Orchids

- Hybrid Orchids
  - £13.12.73

Winter Flowering Orchids

- Winter Flowering Orchids
  - £10.1.74
  - £7.2.74
  - £2.2.78

Variegated Orchids

- Variegated Orchids
  - £28.2.74
  - £6.6.74

Ground Orchids

- Ground Orchids
  - £13.5.76
  - £20.5.76

Hardy Orchids

- Hardy Orchids
  - £15.6.78
  - £18.10.79

Orchid Cultivation (J. O'Brien)

- Orchid Cultivation (J. O'Brien)
  - £5.3.81
GENERAL NOTE ON THE PALMEAE.

The Palmeae are a well-known order in cultivation, as the members are universally used for decoration. Most common are the Kentias, &c. Pinanga Veitchii has highly ornamental leaves, and the long filaments of Pritchardia (Washingtonia) filifera give it a striking appearance. Other ornamental genera are Areca, Cocos, Calamus, Mauritia.

The majority of the Palms are increased by imported seed. In many cases unless packed carefully the seeds perish. They lose their vitality very quickly so should be sown at once. After that they lie dormant for a long time before germination. Increase on a small scale is usually from imported plants. But this method has its disadvantages as in many cases the roots are brittle, e.g. Cocos. Many of the Palms, e.g. Caryota, Phoenix, Sabal, Wallichia, and Chamaerops, produce suckers and may be propagated from these. Division may also be employed for species such as Rhaphis flabelliformis.
ACANTHOPHENIX Wendt.

Crinum 9.23.11.95.

Diosentias

CYPHOKENTIA Brongn.
macrocarpa see Bulli's Cat.

DESMOicus. Max.
gramatensis see Bulli's Cat.

DICTYOSPERMA Wendel. & D.
sf. in R.B.S.

BRONGA Labill.
ACANTHORHITA. Wendel. ex Dr.

Aculeata
B.M. 7308
910. 4. 80.

Varceviczii. 912 6 73.

ARECA. Liuin.

seeds. in heat.

Catechu. Betel Nut.
Fumaria. Pom. 6025.

ARENGA. Labill.

seed.

Saccharifera. (Gourmati Palm). 920 4 92.
Wightii.

Insert ASTROCARYUM. Mey. see Bull's Cat.
ATTALEA A. H. B. K.

II. Seeds.

III. Speciosa 916.8.73.

BACTRIS Jacq. B. Faehipaer (Beach Palm) 922.5.73.

BENTINCKIA Bent.

meobaria see Sand. Cat.

BRAHENA Mart. filamentosa 921.7.77 see Pulic Cat.

BORASSUS Linn. CALAMUS Linn.

III. Seeds.

palembanicus Daemonorops p. see Pulic Cat.

ciliaris 916.2.97.
draeco (Magonio B. Good).

imperatrice maris 916.12.76

rotang (Cane).

peracanthus 918.10.79.

for other sp. see Pulic's Cat. under

CALAMUS 1

 Daemonorops 920.8.97 920.9.97
Palmae 3.

Calyptronoma. Gise. in Calyphogyne. Went.


2. Swartzi II 94.12.80.

3. Calyptronoma

Caryota. Linn.

1. Suckers.

2. Seeds. plentifully produced in arens.

3. Arens. (Wine Palm). 921.1.82.

(C. cumini, also other Sp.
Pet. 5762.
So. Colferia etc.)

4. The hope. Caryota Arens. 924.2.98.

The Wine Palm. 923.6.97.


2. Chamaerops. (next page)

Cocos. Linn.


2. australis. 91.7.76.

3. melifera.

4. Wendtiana. 928.3.98 921.7.89
   920.9.99 86.2.97.


6. Cocos Wendtiana. 917.9.87

Prent Corypha. Linn.
**CHAMAEROPS.** Lin.,

1. *Chamaerops humilis*.—See Gracilis + Humilis.  

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<td><em>Excelsa</em> (hardy)</td>
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**Palmetta**

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**European**

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**CHAMAE.**

**CORYPHA.** Lin.

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<td><em>Australis</em></td>
<td>90. 29. 6. 01</td>
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<td><em>Decora</em></td>
<td>See Bollis Cat</td>
<td>See Bollis Cat</td>
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<td><em>Cerifera</em></td>
<td>See Bollis Cat</td>
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[Note: There is a handwritten note on the top right corner of the page that appears to say something about hardiness and greenhouse care.]

[Note: The page appears to be a record of palm species, with dates and notes on their cultivation and characteristics.]
**Didymosperma** W. & A.

- Seeds
- Kranum Bm. 6836
- *morphocarpum*

**Drymophila** A.Eus. fsp.

- Seeds
- appenunciata Bm. 7202
- Normanbyi G.C. 28.6.02

**Erythea** Walis.

- Seeds
- armata (Blue Palm) G.C. 10.10.96
- edulis G.C. 4.9.97

**Geonoma** Willis.

- Seeds
- by side shoots from base of plant (suckers)
- Acaculis Canderi gracilis 916.11.78
- Sperunse 915.12.77
- Geonomas 97.11.91
  - Germination Bm.
Palmaceae 5

HOWEA

Belfioreana  =  Kelpia Belsica
Ferosisianiana  =  Forsteriana

> usert IGUANURA BC  Sanderiana  Sc. 23.6.04

JUBAEA  A.B.K.

Spectabilis  920.1.77
(hardy)

(Kentiprosis  Brongen
Seychellaram
(Double Coconut)
918.1.90
Sc. 25.11.99

XodoceA  Labill.

Borassus  Linna

flabelliformis  (Palmyra Palm)  929.10.92
95.11.92

LACTANIA  Comm.

Verschaffelitla  93.1.3.02
Commersoni  926.2.98
Coronarica  97.10.76/923.1.97
Palmaceae 6.

**KENTIA** Bl.

- Forsteriana 930.8.90. variegata 9/9.2.87
- Belmoreana = Howea.
- Wendlandiana.
- Canterburyi (Veitchii) 91.9.77.

Species of Kentia 910.9.81.

Kentia as House Plants 93.9.85
Kentia as House Plants 96.14.89.

Kentia 97.1.93
926.1.95.

---

**KENTIOPSIS** Brögn.

- Lindeni 91.2.78
- 916.2.78
- macrocarpa 930.8.84.

---

*Latania*

**CEROPODIA** = Cocos

**LICUARA** Bl. Wurmb.

- Micholitzii 90.23.1.04
- elegantissima 90.23.1.04
- Jeanenceyi 94.6.98
- 94.2.99.
Palmaceae

*Linospadix* Bee.. Stove.

*petrikkiana* 9.15.10.98.

*Micholitzii* see Sanders Catalogue.

> Insert *Livistona*.

*Livistona* Coddicea.

*Martineelia* R. & P.

Kunth.

*Carostafolia* Bm. 6854.

see Bulls Catalogue.

*Mauritia* Lin.

*carana* 9.4.8.72

9.3.1.74.

Nipa. Shundg.

*fruticans*.

Onco sperma. Bee.

*fasciculatum*. see Bulls Cat.

*Oreo doxa* A. Wild.

*granatensis* see Bulls Cat.

*Regia* (Royal Palm) 9.5.12.5.00.

9.20.1.72.
DIVISION

A. R.Br.

Muelleri. 30.13.12.02.

australis. 518.10.84. Bm. 62.74.

= Chrypha. 926.10.72.

Chryphiæs. 931.3.77.

Subgloboza. 927.4.72.

Woodfordi. 90.26.3.98.

PHYTENE PHAS. R.T.P.

CHAMAEOBOREA. Willd.

formosa.

Karwinskiana. 930.6.74.

crass.-augusti. 916.12.76

arensbergiana. 50.2.2.01.

diowneformis. 923.12.86.

clavus. 917.12.92.

fragrans. 910.2.94.

Hartwegi. 919.7.79.
PHOENICOPIRUM. Hendl.
Stevensonia Dune.
Seebelmann 9.0.23.4.98.

PHOENIX. Linn.
Canariensis 9.4.00/9.0.2.6.02.
Daetylocera (greenhouse) (Date Palm) see below.
Sylvestris - wild date 9.17.1.74

The Date Palm in Baghdad 9.13.2.75.
The Date Palm in India 9.0.1.1.98.

PHYTIELEPHAS. R. & P.

Macrocarpa (Vegetable Ivory).
9.24.11.83.

PINANGA Bc.

Kuhlii 9.0.8.2.02.

Veitchi 9.1.9.83.
9.15.5.80.
9.0.15.2.02.

Lepida Bull's Cat.
Spectabilis
Sanderiana
PLECTOCOMA. Marsh.

andersonii. Bull's Cat.

crinita

PRESTOA see Seconoma anderi.

PRITCHARDIA. See. + Wendl.

stout palm

grandis. 922.1.81.
  924.11.77.
  926.5.83.

= Ricuala grandis 98.12.83.
  see Bull's Cat.

felisera. 920.3.76.
  97.9.78.

= Washingtonia 910.7.80.

robusta. 91.1.96.

PSYCHECOCEUS. Becc.

paradornus see Bull's Cat.

PTYCHORAPHIS. Becc.

anguinea see Landeis Cat.
PTYCHOSPERMA Labill.

= SEAFORTHIA. 

"cunninghamii = Aechonopheix cun. "

= elegans. Sep. 928.3.74.

Singaporeensis. 919.1.84.

rupicola. 910.1.80.

alexandrae. 930.7.8.97.

Sanderiana. 90.5.11.98.

see Bull’s Cat.

90. 17.12.98.

II. SEAFORTHIA’S unhealthy. 930.6.94.

("PTYCHOSPERMA")

RHAPHIS. L.filis.

I. increased by division. 928.11.97.

aspera. 97.4.00.

humilis. 927.2.97.

928.6.98.

flabelliformis. 923.10.78.

925.11.93.

92.3.93.

RHOPALOBISTE. Schott.

" alexandra. see Bull’s Cat.

90.2.94.
Palmae II.

Sabal. Adams.

Adansonii B.M. 14.3.4. 78.9.88.

umbrellafera, R.B.G. Edinburgh.


ceruleescens see Bull's Cat.

The Palmers (Sabal) 520, 9, 84.

Scheelia. Karst.

kevensis B.M. 785.5+2.

imperialis Bull's Cat.

Stevensonia. Duncan.

grandiflora: G(10.3.83.

B.M. 7277. 98.10.92.

57.4.83.

Seebeckianum: Phoenixorum seebeckianum.

Thrnanx. Lindl.

Morrissii G(16.11.01.

radiata 912, 3, 87.

Carbadensis see Bull's Cat.
Palmae 12.

IRACHCARS. Bee Chasmeocarpus Griffith 52-5-81.
IRITHRINAX. 584-8-90. (Stevensia spp. = palms.)

Mauritaeformis 522-8-86.

VERSCHAEFFELIA. Wendl.

Splendida. 911. 1176
(see Stevensonia grandifolia 57.4-88)

NARLICHA. Roxb.

Nefria. Must be rooted before removal.

Tischia.
Zebrina.

NELFIA. Wendl. + Hook.

Georgii (Wendlandi) 95. 1-6-01.
Regia. See Bull's Cat.

LACACA. Reinek.

Ritida. See Bull's Cat.
Gen. Arts. on Palms.

- Stove Palms. 922.9.83 (J. Baunis.)
  919.12.91.

Palms for the Garden

- Garden 1871 (J. Croucher)
  91871.

- Palms from Seed.
  93.12.92. 93.10.83
  94.5.93. 91.3.84.

- Cool Greenhouse & Temperate Palms. 923.1.92.

- Useful Palms. 930.11.93.
  (A. Healsby).

- Cool Palms. 914.2.91.

- Fan Palms. 922.8.91.

- American Palms. 90.6.2.97.

- Palms for the Dinner-table. 93.1.74.

- Some of the Hardier Palms. 98.1.81. 912.1.78 (Haddington). 919.1.78. 91.1.88.

- Palms at Kew.
  96.12.99.
  94.5.72.

- Palms in small pots. 98.9.88.

- Palms for Indoor Decoration. 924.3.84.
  925.12.84.

- Nomenclature of Palms. 92.8.84.
The most useful Palms

Palms in their Culture.

Palm.

Propogation to include a number of Palms
GENERAL NOTE ON THE PANDANACEAE.

The Pandanaceae are essentially a tropical order. The Screw Pines, as the plants are termed from the twisting of their leaves, are ornamental and are often cultivated in the place of Palms for indoor decoration. Ornamental variegated foliage occurs in Pandanus javanicus var. and P. Veitchii and P. Vandermeerschi. While in cultivation the plants are dwarfed, in nature they are trees with characteristic prop roots, inhabiting swamps, &c.

Propagation is usually effected by means of suckers.
Pandanaeaceae

FREYCINETIA Gaed. and

Stove evergreen
Climber.

Banksii Bn. 6028. 9/19. 10. 78.

Pandanaeaceae Linn.

Stove Evergreen
Tree or Shrub.

or offsets. See also 5/29. 3. 81.
Also lateral growths - by removing central growth; often not necessary.
Seeds sometimes to be had. But not common.

Elegantissimus
Sanderi 5c. 23. 11. 90.

Veitchii 9/7. 2. 80. 9/23. 12. 93.
9/5. 3. 81.
9/4. 11. 82.

Wiliis 9/7. 2. 80. For description of Veitchii.
Other pandanums to see general.

Pandanaeae, or Screw Pines.
The Screw Pines
9/26. 4. 79.
9/18. 8. 77.
9/15. 2. 84.
9/23. 2. 86
9/29. 3. 84.

Screw Pines for indoor decoration 9/10. 3. 83.
Treatment of Pandanas 9/6. 2. 92.
The variegated Pandanas 9/13. 2. 92.
GENERAL NOTE ON THE PHILYDRACEAE.

The Philydraceae is a small order containing the genera Philydorum, Helmholtzia, and Pritzelia, distributed in Australia. The plants are perennial with bushy roots. They have some relations to the Orchidaceae from the structure of the flower, but possibly nearer affinities are with the Commelinaceae and Pontederiaceae. The plants are not common in cultivation.

Propagation is usually by division.
Philydraeceae. 1.

PHILHYDRUM Willot.

= HERMELHOT XIA. [von Mueller.

1. division of plant.

2. Seeds in spring.

3. glaberrimum. 911. 10. 79. = H. lab @ 28. 12. 93.
   Pm. 6056.
   S.C. 22. 8. 96.
   Canegnorum P.m. 783.
GENERAL NOTE ON THE PONTEDERIACAE.

The Pontederiaceae are a small order of aquatic plants, characterised by their blue flowers. They are distributed in temperate and tropical regions. The order is allied to the Commelinaceae, from which it differs in the structure of the flower, and absence of hairs.

In cultivation they are valued for their freely flowering habit. *Eichorinea crassipes* and *E. azurea* are very ornamental stove aquatics. *Heteranthera limosa* is a hardy blue-flowered aquatic.

Propagation is most easily effected by division of the rhizome. In nature, especially in species of *Eichornea* (*Pontederia*) vegetative reproduction proceeds so easily and quickly that in regions, e.g. St. John's River, navigation is obstructed.

Stingl tried leaf-cuttings of *Pontederia cordata*, but found that all the leaves withered within fourteen days.
EICHORNEA. Kunth.

Division of Alismataceae.
Very rapidly naturalizes, forming obstruction to navigation on St. John's River.

Azurica R.M. 6487. 9/13/12.
Speciosa R.M. 14/12/98 / 1/3/12/98 (Water Hyacinth) 9/18/399.
\textit{Tricolor} R.M. 5020.

HETERANTHERA. R.P.

Division.

Seeds.

\textit{Alionca} R.M. 6192. 9/13/892.
\textit{Hardy}.

MONOCHELORA. Presl.

Division.

\textit{Cyanea} 9/22/983.
PONTEDERIA. Linn.

Hardy / Shade
Aquatics.

division of roots.

azurea = Pachornea crassipes
Bom. 7/32.

= Pachornea azurea
Bom. 64/8/7.

R. crassipes
919. 8. 87.
90. 13. 6. 96.

Condate
910. 8. 72.
910. 10. 03

IV. Pontederia (azurea) 96. 3. 80.
GENERAL NOTE ON THE RAPATACEAE.

The Rapataceae are a small order belonging to the grass-like section of the Farinosae, possessing inconspicuous flowers. They are of little value in cultivation.
Rapataeaceae

RAPATEA.

I. division
II. of seeds
III. pandanoides

= Lagothrixia subcordata

Some plants.

General note on the Restiaceae.

The Restiaceae also belong to the section of the perennial Sedges and grass-like foliage. The plants belong mainly to the Cape, Australia. They are in general not cultivated but ornamental are Restio verticillata and other species, Thamnocoriza, and Lagynogaulon (for the colour of its stems) (see Dr. Masters on the Restiaceae.

Propagation is usually effected by division (see note on Restio.)
GENERAL NOTE ON THE RESTIACEAE.

The Restiaceae also belong to the section of the Farinosae with inconspicuous flowers and grass-like foliage. The plants belong mainly to the Cape, Australia. They are in general not cultivated but ornamental are Restio verticillata and other species, Thamnocortus, and Lamprocaulos (for the colour of its stems) (see Dr. Masters on the Restiaceae.

Propagation is usually effected by division (see note on Restio.)
RESTIACEAE.

RESTIO. Lin.

= Willdenowia.

1. Division.
   Stem-cultures (see Fig.)
   
   notes on ventricillata.

   2. unisexual fl.

   3. subventricillata = Willdenowia teret. 711. 10. 84.
      Gc. 6. 6. 98.
      Gc. 11. 6. 98.


THAMNOCHORTUS. Berg.

1. Division.

   2. seed - not available.

   3. Spicigerus argentae.
GENERAL NOTE ON THE ROXBURGHIACEAE.

The Roxburghiaceae is a small order of no value in horticulture. It includes the Stemonaceae.
GENERAL NOTE ON THE TACCACEAE.

The small order Taccaceae is really intermediate between Amaryllidaceae and Liliaceae, but has been separated off with peculiarities peculiarities of its own, in the structure of its flowers and the unilocular ovary. The genus Tacca, including Ataccia, is the only one in the order. The various species are grown, but Ataccia crispa-Lata is most commonly seen in cultivation as a curiosity.

The characteristic concave stigmas and long appendages to the cantharides (the glands containing the calls) have pinnatifid much resembles an Aroid in appearance, and some authors have placed the Taccaceae near that order, but from their internal structure the plants have a closer alliance with the Amaryllidaceae. They are distributed in the Tropics of both hemispheres.

Propagation is effected by division of the roots with side shoots, or better (as these roots are sparingly produced) by suckers after the plant has flowered.
GENERAL NOTE ON THE TACCACEAE.

The small order Taccaceae is really intermediate between Amaryllidaceae and Liliaceae, but has been separated off as it possesses peculiarities of its own, in the structure of its flowers and the unilocular ovary. The genus Tacca, including Ataccia, is the only one in the order. The various species are grown, but Ataccia cristata is most commonly seen in cultivation as a curiosity. The characteristic concave stamens and long appendages to the flowers give the plants a striking appearance. Tacca pinnatirida much resembles an Aroid in appearance, and some authors have placed the Taccaceae near that order, but from their internal structure the plants have a closer alliance with the Amaryllidaceae. They are distributed in the Tropics of both hemispheres.

Propagation is effected by division of the roots with side shoots, or better (as these shoots are sparingly produced) by suckers after the plant has flowered.
TACCA. Form. = ATACCA.

Stem bulbous plants.

Division of roots in spring, division of side shoots, but produced scantily. See §25.3.76.

fleshy rhizome, — letter from suckers see §16.6.83.

**cristata** = Atacca cristata

§14.3.74.

§25.3.76.

§16.6.83.

§16.3.96.

**pinnatifida**

§15.4.79.

arato carpilohia

§16.4.90.

§17.7.86.

The genus Atacca.
GENERAL NOTE ON THE TRIURIDACEAE.

The Triuridaceae, a small saprophytic order, contain Sciaphyllis and Triuris, colourless or yellow herbs of tropical countries such as Brazil, India, Malay, &c. The plants are characterised by the numerous roots springing from the upper part of the stalk, and by the practically sessile stamens.

The plants are not met with in cultivation.
GENERAL NOTE ON THE TYPHACEAE.

The Typhaceae are a small order containing two genera, Sparganium and Typha, inhabitants of marshes, and both British plants.

Typha, or the Bulrush, is common in cultivation and is used for decorative purposes. Like all marsh forms, vegetative propagation is remarkably easy. The parts of the plants readily separate and easily root. They thus spread very rapidly.
Lyphaceae.

SPARGANUM. Linn.

I. Division.

III. species

samosum 919.8.76. (The Bar. reed for typhus.)

TYPHA. Linn.

I. Division of clumps; but if disturbed do not usually flower the following season.

III. minima Reed Mace 923.1.97

96.2.97

96.3.97.

II. The Typhas 924.3.77

930.8.84.
GENERAL NOTE ON THE XYRIDACEAE.

The **Xyridaceae** are a small order of no cultural importance, containing mostly perennial herbs of grass-like appearance, inhabiting marshes in tropical America. *Xyris indica* is also found in the old world. The order contains *Xyris*, *Alboboa*.

Propagation is effected vegetatively and by seed, as in the Grasses.
GENERAL NOTE ON THE ZINGIBERACEAE.

The Zingiberaceae with the Cannaceae, Marantaceae, and Musaceae, form the Scitamineae. The orders are all closely allied, but like the Musaceae the Zingibers or Gingers possess a median zygomorphy in their flowers. The flower differs from that of the Musaceae in possessing only one perfect stamen. The bracts of the flower are bright in the Curcumas and the flowers themselves brightly coloured in the Bornean species Globba coccinea. Other plants cultivated for their flowers are the Kaempferias. The species K. rotunda possesses beautiful orchid-like flowers. Mantisia saltatoria has beautiful blue purple flowers. Bright orange flowers occur in Burbidgea nitida. Ornamental foliage occurs in the Alpinias, particularly the species A. vittata, A. punila, &c.

Propagation is effected as in the other Scitamineae by vegetative means. Apical cuttings and cuttings of the rhizome are usually employed in cultivation. The Gingers have a remarkable power of vegetative reproduction.
Zingiberaceae.

ALPINIA. Linn.

division of creeping rhizomes.
in spring.

Trapezata P. 82.37.
funila S. 26.2.87.
mutana S. 21.3.81.
S. 21.3.96.
S. 7.11.96.
mutica S. 8.3.90.
S. 18.2.99.

villata S. 12.7.73.
S. 18.4.99.

Sanderae.

vetellina

= Corollophyllum. S. 19.3.96.
alba lineata S. 21.3.88.

AMOMUM. Linn.

division of rhizomes.
seed with bright anils.

hemisphericum S. 27.7.04.
angustifolium S. 27.1.00.

Stone herbs.
Burbidgea. Hook. f.

1. Division of Rhizome.
   (pleasant fragrance of rhizome).

   9.30 S. 68
   50.11.98.

Cautleya. Boyle.

1. Division of rhizome.

2. Lutea = Roscoea lutea Am. 6991.

Cienkowskia. Solms.
   = Koenferia.

1. Division easily.

2. Seeds not easily produce.

   919.11.81.
   92.7.81.
   Bur 5994 G. C. 16.6.00.
COSTUS. Ruin.

1. Sclerot.
   Division of rhizome easily, or cutting of weak shoots.

   Agnesa
   $50.1.92, 53.12.98.$
   $57.9.92, 59.11.01.$
   $72.9.96.$

   Species
   Part. Mag. Bot. 248, 827.8.81
   79.9.82
   912.9.03 or 06?
   (Plate) in 93.8.96.

   afar   $515.9.83.$

CURCUMA. Ruin.

1. no division of rhizome.

2. Species
   Roseocana
   97.10.93, 96.2-4.98.
   921.10.99
   97.11.03
   Aeestralasica
   Petiolata

2. Curcumas & their culture $929.7.76.$
   Curcuma $929.4.93.$
   920.10.83.
ÉNETTARIA. Maton.

GASTROCHILUS. Wall.

GLOBBA. Linnae.

1. division of rhizome.

Cardamomum (Cardamom).

Gastrochilus. Wall. Stoene Herb.

1. division of plant in spring.


Curtisii Bm. 7863.

Globba. Linnae. Stoene Herb.

1. division of plants.

Coccinea 91.10.81. = A. coccineum Bm. 6626. 92.5 82.

Schoenburgkii Bm. 6298.
Zingiberaceae 3.

**HEDYCHIUM**

Division of plant: 1 crown, best in early spring.

*Hardenerianum* | 9.27.77
(Not hardy.) | 9.12.89
| 5.11.91
| 9.1.94
| 9.1.8.04

*Kacemaria* | 9.18.10.81

*Coronarium* | 9.10.77

Rsm. | 9.85
| 9.8.88
| 9.23.99

Hybrid H | 9.20.8.04

*Flavescens* | 9.27.8.87

For other sp. see genus notes.

Tu. Garland Flowers (*Hedychium*) | 9.8.92

*Hedychium* | 9.28.3.81
| 9.13.10.83
| 9.17.10.88

(H.922). The Garland Flower | 9.6.11.75

The Indian Garland Flower | 9.29.8.74
HEMORCHIS. Kew.

division of Rhizome

Burmanica. BM. 7120.

KAEMFERIA. Linn.

division of plant in spring

rotunda. 927. 4. 89.
919. 4. 90.

rosea. Sc. 9. 1. 04.

macrocephala. 98. 10. 9. 98

Eliotiae. 98. 12. 2. 98.
91. 2. 02.

Korki. 922. 6. 95. 1931. 7. 97.
see Centronskia Korki 99. 7. 87.
918. 8. 88.

Ornata. 926. 2. 87.

Secundita. BM. 6997.

The galangale. 918. 8. 88.
Zingiberaceae

MANTISIA. Sim. Stone perennials

1. Division of the roots

II. salutariorum. B.m. 1320
(The Opera Sals)

RENEAL M. Linf. Stone perennials

1. Division of the roots

III. nutans. = Alpinia nutans
917.1.88

RHYNCHANTHUS. Hook f. Stone perennials

1. Division in spring

III. sikkimensis 53.10.91
924.8.98

purplea 512.10.89. 931.8.89
912.8.93
(hard-hardy)
Zingiberaceae 8.
ZINGIBER. Adans.

Division of rhizome.
4 tubers.

Officinale (Ringer). 227.9.84.
parishii BM. 6019.

The Ringer Plant. 227.9.84.
918.9.97.
PART II. A. GENERAL NOTES ON THE PROPAGATION OF DIGOTYLEDONOUS ORDERS.

B. GENERAL NOTES ON THE PROPAGATION OF MONOCOTYLEDONOUS ORDERS.

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* Orders in small type - unimportant herbiologically.
   or included under others as indicated.
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Zygophyllaceae.
General note on the Celastrineae.

The Celastrineae are an order mainly composed of shrubs and trees woody climbers &c. e.g. Celastrus and sp. of Euonymus also occur. The order is not developed in S. Africa though found in all other parts of the world with the exception of the arctic regions. It is allied to other members of the Sapindo celastral cohort viz. Rhamnaceae Ilicineae &c. In horticulture a the Celastrineae are important as supplying some hardy shrubs and climbers particularly the rampant Japanese tree strangler Celastrus scandens and the various species of spindle tree. In winter the bright red berries of these shrubs make them doubly attractive.

The plants in the order are usually quick of growth and increase. Vegetative propagation by means of stem cuttings which strike very easily at the node or internode with Euonymus and at any season is the method usually employed. Grafting is employed for varieties. Euonymus japonicus is found to grow more rapidly grafted on to stock E. europaeus than on its own roots. Layers are also employed for sp. of Celastrus &c. Leaf and root cuttings have not been investigated.

Seed is an alternative method though vegetative methods are more commonly employed.
Celastraceae I.

**CASSINE.** Linn.

I. Leaf cuttings: strike readily.

II. -

III. *Excelsa.*

    *Macrocarpa* (Hottentot Choke)

    Oppositifolia

---

**CATHA.** Forsk.

1. Easy from cuttings (large callus formation).

---

**CELASTRUS.** Linn.

1. Stem cuttings, layers. in autumn for hardy species.

2. Easy. best for *Scandens, articularis.* Ripens freely, but gallows rarely.

3. *Articularis.* (rampant climber)

(Japanese tree Fig. 8:198)

Bux polius

*Gallaceus*

*Scandens* 71:3.76 / 77:2.80
Elaeodendron

1. Whip stem cuttings
2. Seeds - spring
3. Cape used quadrangularum 28. 9. 01.

Euonymus

1. Stem cuttings - easily in autumn usual method 28. 11. 79.
3. Sow either autumn or spring.

Angustifolia americana

1. Fimbriatum
2. Iaponicum
3. Radicans

Euonymus (Mow J. Cunthill)

Variegated 7. 16. 8. 84. 7. 16. 2. 75
Evergreen Euonymus 7. 16. 3. 95
Euonymus in fruit 7. 12. 11. 89
Spindle Trees - History + Distribution 7. 26. 2. 76.
Celastrineae 3.

**HIPPOCRATEA**, Linnaeus

- Stem-cultivo
- Aegrotiana
- Obliquifolia

Fl. of no great value. Small flowers.

**METINUS**, ?
General note on the Ceratophyllaceae.

The Ceratophyllaceae are a small isolated order consisting of a single species Ceratophyllum demersum, the Hornwort, a submerged British aquatic plant. The plant is of purely botanical interest. Propagation takes place naturally by means of seed, and vegetatively by division of the plant.
General note on the Chenopodiaceae.

The Chenopodiaceae contain plants that are essentially halophytic and though widely distributed they are therefore confined mainly to salty marshes, sea shores, etc. Their xerophytic habit is often shown by the plants having fleshy vegetative organs or reduction of their leaf surface. The order forms one of the Centrospermae and is thus allied to the Caryophyllaceae, Portulaceae, Nyctagineae, etc.

The Chenopodiaceae supply few plants of horticultural value. Most of the genera are worthless for cultivation as their habit is so weedy and their flowers are so small and inconspicuous. Their growth is often so rapid, e.g., *Boussingaultia* that if uncontrolled they strangle more beautiful plants. The characteristic changing of colour in the leaves from green to brilliant crimson render one or two genera particularly *Beta*, *Kochia*, *Atriplex purpurascens*, highly ornamental. Such plants especially *Beta* are much used in consequence for foliage effect in borders. Economically the Chenopodiacae are of value as supplying the vegetables *Beet* and *Spinach* and the various species of *Chenopodium* serve as fodder for cattle in Australia.

Propagation is best effected by seed. Vegetative propagation is also easy by means of stem cuttings. Leaf cuttings have not been investigated. In most cases they are impracticable. Root cuttings succeed for *Beta vulgaris*, etc., but are not a very practical means of increase. The British shore plants (*Atriplex Salicornia* and *Sueda Chenopodium*) reproduce themselves easily from seed but also vegetatively from pieces of the stem which may become broken off.
ATRIPLEX

1. Few cuttings for shrubby species except A. hortensis, atrosanguinea, halimus.

2. Seeds quite easy also.

3. halimus.
   - hortensis.
   - atrosanguinea.

4. Orach (vegetable).
   (A. hortensis).

BETA

1. Seed usual method as biennials:
   Seed sown in March indoors, pot out in May for summer.
   or in autumn for autumn use.

2. Hortensis 1 var.
   - Brazilian Beet (K. braziliensis) 123-19-80.
   - Chilian Beet
     - Metallic 59-4-82.

4. Beet 929-4-82.
Boussingaultia

1. division of root tubers 1 stem tubercles (very bitter)
2. leaf cuttings
3. stem cuttings

Basellodes 31-8-01.
sp. not of importance. Considered as worthless annuals as so rampant. See 7-9-01
14-12-01.

Chebel, 'Indecent to

Cenolea

= Bassia

1. cuttings half ripe shoots
2. diffusa

Chenopodium

3. seeds usual method
4. sp. are mostly weeds. Only one of horticultural value is
purpureascens (good foliage plant)

Hardy annuals mostly weeds.
Chenopodiaceae.

**Didymanthus.**

1. ?

**Habitatia.**

1. division
2. seeds also
3. tamnoideae. (useful for rocking, or wild garden. 1 covering old stumps.

9.14.7.80
9.14.8.88
9.16.8.90

**Kochia.**

1. Seed; in April

3. Scoparia.

only spr. & valves
useful foliage plant

9.14.9.01
9.9.5.03
9.10.9.04
Chloranthaeae 1.

CHLORANTHUS.

1. stem cut into, in tree.

2. inconspicuous.

CIRCEASTER.

1. beat from seed.

2. aquatic.
General note on the Chloranthaceae.

The Chloranthaceae are like the Piperaceae mainly tropical in their distribution. The shrubs and trees that compose the order are found in the Indies and in the tropical America. The plants are of theoretical interest on account of their curious flower structure but these are too small and inconspicuous to make the members of the order e.g. Ascarina, Hedyosmum &c. of any horticultural importance. Chloranthus inconspicuus a stove shrub is sometimes found among stove plants and Circeaster agrestis an annual also. Not much investigation has taken place concerning the various parts of the plants to reproduce themselves vegetatively. Circeaster is best raised from seed.
General note on the Cistineae.

The Cistineae are an order found in the northern hemisphere particularly in two regions, one in America and the other around the Mediterranean Sea. The plants order is allied to the Bixineae and Violaceae. The plants are mostly perennials with a few annuals e.g. Brachypetalum, and are eminently suitable with their free flowering and lowgrowing habit for the rockery. Very easy of culture and propagation this order is a striking example in which vegetative propagation is most commonly preferred. Although the plants produce seed in abundance and are easily increased by this means. Hybridization however occurs so freely and so naturally that seedling plants cannot be depended on for colour in flowers or foliage. Vegetative propagation is easily effected by division, layers, or by stem cuttings. The leaves which are small and the roots which are fibrous cannot be well used for cuttings. Leaves have been used as a means of propagation in the larger leaved species of Cistus and Helianthemum but the method is slow.
Cistaceae 1.

**CISTUS.**

1. Stems cutting, very freely. __Direct method of propagation.____
   913. 9. 87  
   913. 1. 94  
   915. 7. 90

2. Impatient of disturbance at the root. Should be grown in pots till planted out.

3. Cuttings also after plants have flowered.

4. Division of plants.

5. Seed freely produced. Increase easy from well-sieved seed but results variable.
   (Seed vessels 5-10 cells; cp. Helichrysum)

   **Cistus**

   *C. creticus* 9. 7. 37

   *C. florentinicus*

   *C. hirsutus*

   *C. ladaniferus*

   *C. var. maculatum* 9. 10. 78

   *C. carpaticus* 9. 10. 03

6. **Cistus (Monog. by C. Wolfe, 1858)** 9. 17. 7. 97

   **The Cistus**

   9. 11. 94 9. 20. 6. 85

   9. 12. 2. 98

   9. 10. 9. 88

7. **The Cistus or Rock Roses** 9. 18. 1. 79

   **The Rock Roses** 9. 16. 8. 04

   **The Rock Roses or Cistus** (W. Golding) 9. 23. 8. 90

   **Hardy Varieties of the Pure Cistus:**

   *C. Sanderi* 9. 15. 8. 76

   **Cistaceae - Rob. Sweet**
Helianthemum

1. Stem-cuttings, half-ripe in autumn. 7/15.12.60.
   Needs careful method, e.g., for formosum.
   Seeds for annuals.
   Results variable - in flower & foliage 5/3.93.
   (as well as 3-leaved, cf. Cistus.)

2. Algarensis 9/12.3.84.
   Algeriensis
   Formosum
   Kalimiri folium
   Leptophyllum
   Pilosum
   Umbellatum
   Vulgare

3. Helianthemum 7/15.12.60.
   Helianthemum ×Cistus 5/26.3.84.
   Helianthemum - Rock Rose. 5/15.11.84.

Hudsonia

1. Stem-cuttings, semi-ripe in spring & autumn.
2. Semi-ripe cuttings, semi-ripe in spring & autumn.
General note on the Columelliaceae.

The Columelliaceae are a small and somewhat isolated order of probably primitive type, now placed near the Gesneraceae. The order comprises the one genus Columella the various species of which are found in the Andes, S. America. They are of little horticultural importance and are rarely if ever seen in cultivation. Columella oblonga however is a showy greenhouse plant. This was raised from seed at Kew but it is also raised from halfripe stem cuttings. (1)
(1) B.M. 6183
(1) G.6.11.75.

General note on the Combretaceae.

The Combretaceae are closely allied to the Rhizophoraceae and comprise plants mainly trees (which reach considerable dimensions in Terminalia and Anogeissus) and shrubs distributed in various parts of the world but mainly E. Indies and N. Africa. The climbing shrubs such as Combretum, Quisqualis, and Cacoucia are more common in cultivation.

Vegetative propagation is that more commonly employed since seed is not always obtainable. Stem cuttings are the usual mode of increase. It was thought at one time that Combretum was difficult to graft but is not a common method. Root cuttings succeed in the case of Terminalia. Leaf cuttings have also been tried but do not prove a practicable mode of increase.
COMBRETUM

1. stem cuttings - half ripe shoots. (the young long jointed shoots are inclined to rot off.)

   Dec. 928.8.77
   928.7.83
   913.7.89

   Graphite also. 51.10.81.

   - grandiflora
     - Afzelii

   - Parviflora
     (Forska coecinea)

   928.8.77
   914.10.81
   928.7.83
   917.9.83

   Combretum (Parviflora)

   944.8.89
   913.7.89
   98.6.89
   93.3.90

CONOE CARPUS

1. stem cuttings - firm shoots in spring.

2. seeds?

3. California.
**GETONIA.**

2. adulta.

**QUISQUALIS.**

2. indica 9.25.179
   3.7.86.

**TERMINALIA.**

1. Stem cultivi: not often hard
   Root cultivi common 9.17.83
   9.6.87
   Most common method grafting on Italias with pithy stems
   Espec reticularata Kichin.

2. elegans - Italia 9.17.82
   angustaphia (See Perg. in Chap I.)
General note on the Compositae.

The Compositae form the largest order known and are known in all parts of the world. The order is closely allied to the Calyceraceae, Valerianaceae and Dipsaceae. It is also the most important order in horticulture from the variety of plants that it offers. The great majority are herbaceous annuals and perennials but there are also greenhouse shrubby forms e.g. Athanasia, Barnadesia, Eriocephalus &c. Hardy and greenhouse climbers are not uncommon Hidalgo Werckli, Micana scandens, Mutisia decurrens Proustia pyrifolia. Marsh and water plants are rare. In the one genus Senecio alone, all varieties from herbs, shrubs to even trees may found. The Compositae also supply bright flowering plants for the border, mostly red orange or yellow. Such are Gaillardias, Gazanias, Calendulas, Calliopsis, Coriopsis. For the rockery such plants as Inula vars. Hulgedium are suitable. Some of the most prized of flowers for exhibition purposes (next to Roses and Sweet Peas) the Chrysanthemums and also the Asters and Dahlias are in this order. Another remarkable group of flowers the Everlastings which are useful to florists for wreaths, crosses are among the Compositae. The Everlastings owe their name to the persistence of their chaffy petals. If plucked in the right condition before fully ripe they may persist for years. These 'Immortelles' are much more cultivated in France than in this country, and refer particularly to the Helichrysums Acrocliniums Rhodanthes and Xeranthemum. While yellow orange
While yellow orange and red flowers are characteristic of this order, blue forms occur naturally or have been obtained in *Brachycome iberidifolia*, *Cineraria* sp. *Chicorium* sp. *Catananche coerulea* *Kaufussia amelloides*, *Ageratum mexicanum* *Agathea coelistsis* &c;

Propagation is effected mainly by seed. The order owes its wide distribution to the perfection and quantity of seed which is produced and the parachute mechanism for its dispersal. In practice therefore while annuals are necessarily raised in this way it is also the best method for perennials. The seed is sown in autumn and in spring for continuous flowering. Hybridization occurs easily. The hybrids that have been obtained naturally and artificially are innumerable in the genera *Chrysanthemum*, *Aster*, *Cineraria*, *Dahlia*, *Zinnia* &c.

Vegetative propagation is commonly reserved for the greenhouse and tender genera. Division is however a common method for the hardy perennials if they form sufficiently tufted roots to admit of this mode of increase.

Stem cuttings are used for the shrubby forms e.g. *Barnadesia*, *Aster*, *Athanasia Cullumii*, *Eupatorium* &c; *Montana Osteospernum* &c.

When varieties are wished to be propagated the surest method is by stem cuttings both for tender and for hardy, e.g. *Gaillardia* &c.

Root cuttings are commonly used for those plants possessing thickened...
roots e.g. Senecio tuberosus, Othonna sp. Euryops ovinus, Lactuca
tuberosa, Helianthus tuberosus and is also an easy an rapid means
of increase for many perennials e.g. Catanche, Coreopsis lanceolata
Echinops &c.

Leaf cuttings have not been investigated to any great extent in
the order. They would certainly succeed in the succulent genera
e.g. Othonna, Kleinia, Senecio, &c. The methods would be slow in other
genera.

Other vegetative methods grafting, budding &c&c are not employed
except in Dahlia where grafting on the tuberous roots is common.

() see on Root cuttings G.C. 1897. vol. XXI.
CHILKEA.

I. division easily.
- A. umbellata strike very easily 18.9.86
  - aegyptica 10

II. Seed also.

- filipendula
- maeroforkta
- mongolica 916.6.97
  - 94.7.04.
- rossa
- rustica 93.3.94.
  - 913.6.03
- Cremenora
- umbellata 523.8.00

III. Achillea 927.4.97
  - 939.8.36
  - 928.8.00.

ACTINELLA.

I. division.

II. Seed.

- Brandegi 927.8.81
- Grandiflora
- Sealsosa
GERATUM

Sow early spring or autumn 9.4.10.90
9.1.10.98
May be treated as perennials if seeds not allowed to ripen.
 Lofting seeds in flats. Cutting back. Potting in autumn. Wintering in partial
waste. Propagating from young tips in spring.

Seed also

Mexicanum used for bedding

A. var. blue Zoo, Spanish Blue to 50. 7.3.03

Peric blue (best variety for bedding)

A. Bonsan to

Ageratum 9.15.11.02

AINSLIARA

- Division
- Tissue
- Walkeri Bm. 6298

Sh. rare & not very decorative

ANTIRROPIUM

Easy from seed

alatum (Winged Stalked land plant. Bm. 2659
- (Winged Eriocaulon)

Hardy in ordinary
ANACYCLUS

ANAPHALIS

ANTENNARIA

ANDRYALA

ANGIARTHUS
ANTHEMIS

I. division

II. seed

III. argyrum 910.10.83.
  Macedonie 922.12.94
  912.6.97

IV. sintonia 917.93
  917.11.98.

IV. Sec: Arts. 930.7.97 (Aulkenia
  918.12.97
  937.10.98.

APLOPAPPUS

APLOPAPPUS

II. seed best.

III. ciliatus
  croceus
  ericoides
  pulchellus

IV. Sec: Arts. 910.9.81.

ARCTIUM

I. herb: root: division

II. seed

III. bastardus minor sp. by no. value for garden
  haffa minor
**ARCTOTIS**

- **Stem Cutting**: Summer easy, e.g. arborescens
- **Seed**: Also spring

- ecaulis
  - aparata
  - arborescens
- aureola 9/14/10.89
- Gumbeltonia ex 7/9/01
- revoluta
- Stoechadifolia (grandis).

- Sea-Ann 5/33.11.89 (Arctotis)
  - 9/13.2.97

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**ARNICA**

- **Division in Spring**
- **Seed**: in spring

- foliosa
- montana
- scopiiode

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**ARTEMISIA**

- **Stem Cutting**: for shrubby e.g. arborescens
  - division for herbaceous
- **Seed**: for annuals.
**Compositae**

**Artemisia**

1. *Arborescens* 9/10/97
   - 9/14/93

2. *Lactiflora* 9/31/00
   - Usually the only *A.*; value are the smaller, silvery-leaved *Artemisia* species - e.g. *Boungartenii*.

3. *Spicata* 11/10/02

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**Asterita**

1. Stem cutting: half size.
2. Read better method.
3. *Eximium* B.C.
   - *Speciosissimum*.

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**Athanasia**

1. Stem cutting: half size grown.
2. ?
3. *Calcitata*.
   - *Hidense*.
Compositae &

ASTER.

1. Easy culture.
   Germination for greenhouse plants
   division in spring & autumn.

Seeds rise in spring; home saved: the general method.

- alpinus
- acris
- callistephus
- compositus
- diplosepaleoides
- ericoides
- grandiflorus
- punctulio
- etc.

Chiccn Aster
9. 35. 1. 02
9. 20. 9. 02
9. 27. 9. 07

Perennial Aster
9. 19. 11. 02
9. 18. 9. 00
9. 17. 10. 01
9. 14. 17. 02

Michaelmas Daisies
9. 30. 10. 97 (late)
9. 28. 10. 99
9. 19. 10. 01 (notes on)
9. 04. 10. 02 (best)
9. 7. 9. 72 (cultivated)
9. 12. 3. 04

Dwarf Aster
9. 3. 2. 83

Exhibition Aster
9. 10. 84
Baccharis

2. ?
3. Confertifolia
   halmifolia (hardy)
   salicinia

Baeria

1. Seed in spring.
2. Chrysostoma

Bahtia

= Phialis

1. Division.
2. Seed.
3. Confertiflora
   lanata

Bararadesia

   Seed in spring.
2. rosea (shows) Bn. 4237 9/17/80
**COMPOSITAE 10.**

**BELLIS.**

1. Division after flowering.

2. Seed also. Some species however do not produce good flowers though rotundifolia: coerulescens freely from seed 7.1.76.

   *coerulescens*.

   *mitrifolia*.

   *perennis fl. lt.*

   *perennis proliferum S32.7.76.*

4. Double Daisies 7 18.4.74.

6. 6.3.76.

9. 20.5.76.

Garden Daisies & Treatments S9.6.85.

**BELLIUM.**

1. Division in Spring; or Summer after flowering.

2. Seed also in Spring.

3. *bellidioles S33.9.93.*

4. *minutum.*

**BERARDIA.**

1. Stem cuttings 1.

2. Division.


4. Philodendron.
BERKLEY I:

- Stem cuttings for Thunbergia
- Division for perennials

- Seed readily

- Allam. Fru. 7.5.14
- Surfinia = Stobea purpurea
- 2nd radula 5.7.6.8.96, 9.14.8.97
- Sphaerocephala 5.4.1.79, 5.18.9.97

BERLANDIERA:

1. Stem cutting freely from
2. Seed will freely produced
3. Tomentosa Fru. 7.6.80, 9.2.7.04

BIDENS:

1. Division in spring
2. Seed, best method
3. Chrysanthemoides
   Beckii
   procera
   striata
   sp. will of global value

   (hardy annual flowering herb)
**BIGELOVIA**

- New cultive for shrubbery
  - division for perennials

- Botryolens
- Cooperi
- Graecolens

- Trogelovia 9.12.91

**BOLTONIA L’Hérit.**

- division in spring & autumn

- also
  - asteroides 9.9.1086
  - glasphoria 9.9.1699
  - plus: elsewhere

**BRACHYCOME**

- stem cutting + half wood sprig, e.g. diosmophila (shrubby)
  - division

- seed usual method

- iberidifolia (blue) 9.11.80
  - 9.3.8.95

- Sinclairi (white) 9.13.8.89
  - 9.7.9.93
BRACHYLAENA

telata
discolor
neririfolia

BUTHALTHUM

stem cultige: easy
division in any season

seed?

Cordifolium 94.1.79
Salicifolium 97.7.00
914.9.95
923.12.99
Speciosum 918.6.72
96.8.98

CACALID

division of tuberous roots
stem cultige
seed also
preciosas
laciniata
kleinia
repens
Calendula

STEM CUTTINGS for greenhouse e.g. gazanifolia
SEED for annuals in spring (flowers should be removed). Plants should not go to seed early if flowering in the continue.

Hybrida
Gazanifolia (greenhouse)
Officinalis 9.28.9.78
9.7.4.81

Garden Var.: Meteor, Orange King, Prud'ry Orange.

Marigolds 9.26.12.03.

Garden Marigolds 9.25.7.91.
9.6.8.92.

Concerning Marigolds 9.8.9.00.

Calliopsis

Biennial or annual
Seed usual

Ditkinsoni
Bicolor
Drummondii - 9.8.10.81.
Gazanifolia - 9.28.4.00.
Victoria - 9.11.9.94.

Yellow flowered Bedding Plants. 9.3.8.78.
PART II B.
Index of Monocot. Orders considered in Part II B.

ALISMACEAE.
AMARYLLIDACEAE.
Apogonetaceae see Naiadaceae.
ARACEAE.

BROMELIACEAE.
Burmanniaceae.
Butomaceae see Alismaceae.

CANNACEAE, see also Scitamineae.
Centrolepidaeae.
COMMELINACEAE.
Cordaitaceae.
CYOLANTHACEAE.
CYPERACEAE.

DIOSCOREAE.
Eriocaulaceae.
Flagellariaceae.

GRAMINEAE.

HAEMADORACEAE.
HYDROCHARIDACEAE.

IRIDACEAE.
Juncaceae.

Lemnaceae.
LILIACEAE.

MARANTACEAE, see also Scitamineae.
Mayacaceae.
MUSACEAE, see also Scitamineae.

NAIADACEAE.

ORCHIDACEAE.

PALMEAE.
PANDANACEAE.
Pontederiaceae.
Rapataceae.
RESTIACEAE.
Roxburghiaceae.

SCITAMINEAE.
Sparagniaceae see Typhaceae.
Stemonaceae see Roxburghiaceae.

Taccaceae.
Triuridaceae.
TYPOACEAE.

Velloziaceae. see Amaryllidaceae.

Xyridaceae

ZINGIBERACEAE. see also Scitamineae.
General Note on the Propagation of the Monocots. A - G.

1. Gramineae.
GENERAL NOTES ON THE PROPAGATION OF ALISMACEAE

The members of the Alismaceae are mainly hardy or marsh aquatic herbs of grass-like appearance. The distribution is greatest in temperate regions particularly in America. The alliances of the order are close with the Gramineae &c. (The Butomaceae, usually included with this order is sometimes considered as a separate order on account of the placentation and the many seeds). Alisma and Sagittaria are often cultivated for adorning the banks of ponds or lakes, but perhaps the most ornamental member of the order from a cultural point of view is Limnocharis Humboldtii, a greenhouse continuous yellow flowering aquatic. Some of the double forms of Sagittaria are also very ornamental.

Propagation is very regular throughout the order. Division is the common vegetative method especially where the roots are tuberous as in Sagittaria sagittifolia &c. The production of runners which is common among aquatic plants makes division also an easy and natural mode of increase.

Seed /

(1) See Engler-Prantl, Butomaceae.
Seed is produced easily and may be sown in spring. The method is not to be used for special varieties e.g. *Sagittaria japonica fl.pl.* Pieces of the root are said to increase easily in *S. japonica*, (which see). Possibly the pieces are those of the rhizome with roots attached rather than cuttings of the *aerial stem.* Stingl tried leaf cuttings of *Sagittaria natans*, but obtained no successful result.

(1) Stingl. *Gartenflora* 1908.
**Aekomaceae 1.**

**ISMA. Linna.**

 division

 seeds

 plantago

 ranunculoides

 Sp. of no cultural value.

**SUTOMUS. Linna.**

 division - usual method

 or seeds

 umbellatus

 § 20. 5. 87

 § 28. 7. 94

**LIMNOCHARIS. H.B.K.**

 division of clumps

 runners

 seeds

 Humboldtii

 § 13. 9. 77

 (plak) § 31. 5. 87

 § 7. 9. 98

 Plumieri. see also § 21. 5. 87

 (annual).
**SAGITTARIA.** Rupp. Thin

- Division in spring. Tubers for *Sagittaria fl. pl.* see 9.9.00.
- Pieces of roots in mud increase easily e.g. *japonica*.
- Seed in spring e.g. *montevideensis* not for *variabilis* see 9.6.98.
- *but floating bulbs*.

- *Sagittaria fl. pl.* 7.7.77.
- 9.9.94.
- 9.3.900.

- *Variabilis.* 9.4.78.

- *Simplex.* 9.1.83.
  - *japonica fl. pl.* 9.15.11.73.
  - G.C. 9.9.91.

To

The Arrowheads or *Sagittaria* 9.15.10.80.
The *Sagittaria* 9.3.1.88.

**TRIGLOCHIN.** Riv.

- Division
- Seed
- *bulbosum* Bm. 1.4.8.
GENERAL NOTE ON THE AMARYLLIDACEAE

The Amaryllidaceae are an order closely allied to the Liliaceae, from which they differ mainly in the inferior ovary and in the introrse anthers (though the section Campanula has extrorse anthers) containing perennial plants of varying habit, widely distributed in tropical and subtropical regions, with a large development in the steppe regions. The order is one of great importance in horticulture as the plants contained in it are usually characterised by large and numerous brightly coloured flowers. Common in cultivation are the many and beautiful varieties of Narcissus, Snowdrop, Ornith, Aistroemeria, Pancratium, &c. The Giant Spear Lily (Doryanthus) and Fourcroya are the giants of this order and are generally found too large for ordinary cultivation. Not commonly met with either are many beautiful bulbs mainly from the Cape, e.g. Chlidanthus, Coppelia, Hypoxia, Ixia, Stenosanthes, &c. Many Amaryllids too once in fashion are no longer in favour, e.g. Cucullago, which was much grown before Palms became so common. Not only for their beautiful and usually fragrant flowers are the members of this order prized, but also for their foliage.
The variegated species of *Agave*, especially *Agave americana variegata*, are chiefly grown for this purpose. When in fruit, too many plants are objects of beauty. E.g. *Clivia*, in which the fruits are large red and ornamental.

Propagation is effected by various methods as the plants are of varying habit. The great majority are, however, as in the Liliaceae bulbous plants, and vegetative propagation by means of offsets from the bulbs becomes the natural mode of increase. The treatment and wintering of the bulbs varies with the individual plants and are given in the general articles under each genus. The bulbs of some Amaryllidaceae thrive best when no resting period is allowed, e.g. *Zephyranthes* &c. The bulbs of others (and these are in the majority) must be dried and stored during the resting period. Many of these bulbous plants are impatient of root disturbance. It has therefore been found best not to transplant, but to leave them undisturbed at the roots. Particularly is this the case with *Alstroemeria*.

 Others left best undisturbed are *Anoiganthus, Vallota, Gastronema* &c. It is perhaps on account of this impatience of root disturbance that many imported bulbs, e.g. *Griffinia*, are difficult to establish.

While offsets from the bulbs form the common mode of increase division may also be used especially where clumps are formed as in *Acis*. The capacity for vegetative increase /
increase is very great in Agava. (q.v.) The plants are said to be able to reproduce themselves by means of suckers, stolons, buds, pole and bits of the plant and also bulbils on the flowers stalks (see article on Polycarpic Agaves). The last mentioned method of increase by means of gemmae is not uncommon among other Amaryllids e.g. Crinum &c. Increase by seed is not so common as vegetative methods, except for the purpose of hybridization. It has many disadvantages (see also Chap.1). The method is slow. In Crinum a period of sometimes four year elapses before the specimen reaches the flowering stage. As is common too, the product of seed is unreliable: great variation occurs, e.g. Alstroemeria. In other plants, possibly because the vegetative methods of increase have been so much utilized, seed is not freely produced, e.g. Fourcroya. Increase by seed is very largely used however for forming new hybrids (see Burbidge, Worsley, &c. on Hybrids). Many beautiful forms e.g. among Crinum, Narcisus, Amaryllis, &c. have been raised. As mentioned above the formation of gemmae or bulbils are often formed instead of seed.

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Gen.Lit.
Dean Herbert. Amaryllidaceae.
Amaryllidaceae

Save. Sen.

wounds at base of plant e.g. attenutata
suckers; or stolons at base of the plant; e.g. filifera. See 9c. 16

seeds - e.g. ferox.

(not all Agave are monocarpic - see gen: art)
applanata var: Parygi. 9c. 6.6.02 / 9c. 30.06.03
Bakeri . 912. 4.02. BM. 7890.

ferox . 9c. 31.10.96 / 9c. 11.7.96.
filifera 9c. 8.8.03.
aequiniana . 9c. 13.1.00.

veridaria . 94. 9. 80.
cirrata . 910. 9. 87.

potatorum . 917. 3. 94.
recurvata . 9c. 1.2.02.
romanii x . 9c. 7.11.03.

Rayleigh = Kerchovei 926. 12.96.
Sechottii BM. 9567.

Scholemus = Saundersii

Victoria Regia

Victoria Regia e 99. 10.75 . 918. 11.82 ; 917. 8.95 - considering

sylviaeana 9c. 12.1.01. BM. 5660

13.3.71.
American

Potterii

Rigida

Moricci variegata

Striata Richardsoni

Dasyli lidodes

Juncus

Bonapartea

Celliana

Sectoria

Ellemetiana

Woodrowi

Yuca caespitata

albertii
**Amaryllidaeae** 4.

**Astroemeria**, Lin.

- Division of tuberous roots.

- Seeds: great variation.

- *A. aurea* 121-7-83 = *A. aurantaca* 119-7-84 126-7-90
  - *A. haemantha* 129-6-78
  - *A. inodora* 93-9-98

  *Ligtia* (Sloane Pm. 120)

- *A. helgrina* 114-6-81
  - 117-9-98

- *A. alba* 128-7-83
  - 118-12-86

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**Tulip**, *Astroemerias* 128-7-88

- Seedlings *Astroemerias* 124-1-88
  - 127-7-90

- Cultivar *Astroemerias* 127-11-78
  - 126-4-79

- *Peruvian Lily* 127-8-81

- *The *Astroemerias* 127-12-84
AMARYLLIS. Luisa.


Seed: sow as soon as ripe (July-Aug.)
- See 3243:94 & gen. arts.

Belladonna. 918:9.97. 99:11.01.
98:10.98. 93:10.03

See also gen. arts. on Belladonna Lily.

6. spectabilis major. 91:8.04.
6. Kewensis. 8c. 19:9.03
914:11.98.

924:3.88 (W. Watson)
810:6.93
819:1.98.
ARYLLIS. Rev.

New Arts. on Amaryllis.

Species of Amaryllis 914.3.96. 1917-9.87.

Hybridisation in Amaryllis 914.2.01.

(A. Worsley)

Amaryllises & their Hybrids 923.12.82.

Breeding Amaryllises 923.7.98.

New Amaryllises 912.4.84.

The Amaryllis (or Hippeastrum) 924.3.94.
AMMOCARIS. Herb.

Caulbs.

Salicata.

ANOIGANTHUS. Bak.

Bulbs.

Ses?

Brevispinoso.

Brn. 7072.

= Cyrtanthus longicorns.

BARBACENIA. Pander.

division of roots.

See?

purpureae. 95-5-83.

= Vellozia coerulescens. 914.11.74.

= Pseudotheca. 919.12.74.
BECHORNERIA. Kunth.

- Seekers from base of plant.
- bracteata: 95.1.78. deconica: 99.8.84 Bm. 6768.
- tonellii
- yuccoides: 926.6.75.
- 921.11.83.
- For other sp. see gen. art.
- Becherorneria: 921.11.85.

BOMARCA. Meib.

- Division: but must be carefully performed.
- Stem cuttings: leaves?
- Seed: when available.
- caudifolia: Bm.: 387. 3058.
- 64444.
- Caldasiana:
  - 96.8.81.
  - 728.9.81.
- Canarei
  - 931.12.81. 9/1.10.87.
  - 910.12.98. 910.10.87.
- Shutterworthi: 922.9.83.
- 919.6.86.
- (Plants in 925.2.99)
- Hondo: see plate in gen. art. 914.5.92 (Bomarea).
BOMAREA.  Muir.

contd.

Jacquesiana  918. 9. 80.
Kabreyeri  910. 3. 63.
         913. 12. 83.

multiflora  976. 2. 81.
         912. 7. 90.

oculata  see plate 330. 3. 86.

ligantia  91. 2. 79.
         917. 11. 83.
         91. 12. 01.

lataeensis  95. 11. 81. = contorta  93. 11. 83.

Bun. 6692.  924. 3. 00.
         919. 4. 84.

Salicota  914. 6. 02.

Williamaeae,  93. 7. 84.

Bomareas.

         912. 8. 83.  920. 3. 86.
         927. 1. 83.  913. 9. 94.  930. 4. 98.
         930. 11. 89.  925. 2. 99.

New Bomareas  925. 2. 82.
GRAVOL - Llave + dep.

Bulbs.

Seeds.

*geminiplora* 910.10.03.
913.8.04.

*Keiwaia x* 9ce.3.8.99.

BRUNSUGIA - Heist.

Bulbs must be only partially exposed
very slow of increase.

Taken up in winter + stored
Seeds?

Cooperi 9ce.12.11.98.

*Josephinia* 923.9.80.
95.17.8.93.
9ce.27.8.98.

*giokanwa* see gener.

Brunsvigia 924.11.88
9ce.26.9.96.

BUPHANE - Herb.

Bulbs.

ciliaria = Brunsvigia
Districhia = Brunsvigia
Anarhyllidaceae II.

CALLIPHRURIA. Herb.

N. hastwigena. BM. 6259 9/18/476.

CALLIPSCHYCHE. Herb.

1. bulbs, for treatment see 9c. 3/1.3.00.

1. seeds, also.

aurantiaca. 9/14.2.88.
encrocioides. BR. 1845 t. H.S.
mirabilis. 9/2.8.58.

Callipschychos. 9c. 31.3.00.

CALOSTEMMA, R.Br.

1. bulbs.

album. See gen. art.
cutereum. 9/7.9.59 BM. 2/101.
purpureum. See gen. art. BM. 3/100.

Calostemmas. 9/7.3.88.
9/14.3.85.
CHLIDANTHUS. Herb.

1. offset from bulb, freely. Dug up & stored at beginning of winter.

2. Chrenbergii. 18. 5. 01.

CLIVIA. Lindl.

1. = Himantophyllum. TMANTOPHYLUM.

2. Thick, fleshy roots, perennial. Dormant in division after flowering.

3. Seed also which is freely produced.


5. Miniata. 9. 21. 3. 94. = Himantophyllum miniata. 24. 2. 93.

6. 9. 16. 2. 96.

7. M. Citrina. 9. 18. 8. 01.

8. 9. 28. 10. 99.

9. M. Superbum. 9. 28. 2. 82.

10. 9. 1. 2. 92.

Other: See: note.


12. The Himantophyllums. 9. 21. 10. 82.

13. Himantophyllums & Their Culture. 9. 1. 3. 84.


15. 9. 26. 2. 98.

16. 9. 3. 1. 99.
Many Iliaceae. 18.

COOPERIA. Wede. 3.

offsets from the bulbs.

seeds, ni spring.

frummondii

pedunculata 58-6-36.

916-6-88.

CRINUM. Linin.

offsets from bulbs.

bulbs in winter, e.g. Capense. Quicker more than one seed.

see 917-3-00.

seed, hybrids easily formed.

asiaticum 94-2-99.

a. variegatum 91-1-98.

amabile, 924-2-77.

americanum, 94-10-87.

amantenum x 92-21-40-05.

caribbaeum, 929-10-81.

carlos 926-12-88.

capense, 90-17-2-00.

carlos, var. minor 90-10-2-00.

Hildebrandii 92-3-89.

93-3-89.

924-12-87.

natans 90-17-9-02.

purpurascens 90-3-12-98.

pedunculatum 91-3-97.

var. pacificum 91.

roseum 930-9-99.
Amaryllidaceae: 14.

CRINUM contd.

CRINUM contd. Balfouri. 9 C. 23. 9. 97.
9 C. 6. 5. 99.

Zeylanicum 9 21. 6. 90.

Curvatile 9 25. 6. 86.
9 C. 25. 8. 99.

Brachysema 9 18. 8. 83.
9 14. 9. 89.

Placeiuncum 9 18. 9. 86.

Careyanum 9 18. 10. 79.

Sandersonianum 9 16. 8. 88.

Limariatum 9 11. 2. 99.

Crassipes 9 C. 7. 12. 01.

Giganteum 9 26. 8. 87.
9 26. 7. 90.
9 C. 8. 9. 00.

G. var. aureum 9 14. 8. 86.

Crassifolium 9 8. 6. 95.

Moorei +

Poepp. 9 C. 15. 2. 02.

Moorei 9 6. 11. 97.
9 24. 9. 02.
9 23. 2. 01.

var. album 9 23. 11. 93

variegatum 9 7. 98.
CRINUM. Contd.

TR. yemenese 54. 2. 99.

Rodanthum 5c. 28. 5. 00.
5c. 16. 5. 03

Powelli x. 527. 8. 98.
53. 9. 98.
5. 28. 1. 90.

albun 5. 1. 7. 93
57. 8. 97

For other see gen. articles.

Harvey Carinus 55. 10. 95. 5c. 25. 1. 02.
59. 1. 04. 5c. 14. 12. 01.

Carinus & Hycomoea 58. 12. 83.

Harvey Carinus & their Culture 5c. 21. 9. 01.

Hybino Carinus 5c. 9. 8. 02.
Amaryllis Saceae 16

CURCULICO.  Gaertn.

Division early | Suckers early see 9 12 82.
also young growing points | Common method

Tussa.
recurvata.  930.5.74/91.1.76.  Rr. 770.
Viv. striata.
variegata 95.1.84.

Curculigos.  9 12 82.

CYRTANTHUS.  Ad.
Bulbs greenhouse

Bulbs press

seeds for hybrids.
obliques.  916.6.88/78,
spiralis.  90.30.10.97.
Buttoni 9 26 7 96.
Macowanii 9 19.4.02.
odorus 9 8 8 04.
The smaller Cyranthi 9 31.3.94.
The genus Cyranthus 9 12.4.90.

Carcinus.  94.2.78.
Suckii 9 30.3.85.
angustifolius 9 26.8.93.
MeKani 9 21.1.99/1912.1.00.
9 28.1.88/1916.4.92.
RTANTHUS. Ait.

P. luceresens.  9.12.80.
   9.25.1.90.

Sanguineus  9.18.9.80.
   9.6.10.85.

Parviflorus  Bm. 7653.  9.9.77.

   9.8.10.87.
   9.8.9.74.

Intermedius x.  9.14.1.97.

Marian x.  9.2.6.3.97.

Brachyptalum  9.26.7.79.

DORYANTHES. Corri.

1. offsets.

2. seeds.

Palmeri.  see Bailly's Cat.
   9.17.10.83.
   9.18.6.04.

Excelsa.  9.8.12.77.
   9.27.6.84.
Doryanthes Coul.

Ruelliflora  9.22.793.
Lankini  see also 7.22.793.

Eucharis. Planck.

Bulbs, base only covered.

Seeds: sometimes produce.

Seed籍 is very liable to Eucharis mike.
four newer kinds  & Eucharis e.g. Candida & Sanderaea (artificial pollen)
see 9.15.1883.

Amagonica
96.11.86.
91.11.88. 90.7.88. 90.7.83.
93.1.99 92.1.99.
93.12.99 98.7.90.
91.1.01. 98.7.00.
95.11.7.03.
93.1.03.

Bakeriana  79.4.92.

Candida  97.12.81.
92.2.82.
96.1.83.

Elmetana x 96.4.11.99.

Grandiflora var. Moreui.

Intermedia.
**SUCHARIS.** Planch.

**grandiflora var. Lori** 60. 12. 11. 98.

*mastersii* 715. 8. 88.
728. 8. 88.

*Sanderi* 722. 7. 53.
717. 3. 83.

**Eurycales**

*subedentata* Calipheoria ed. 77. 4. 77.
9th. 24. 12. 81.
93. 12. 88.

Stevensii × 71. 4. 93.
712. 12. 96.

See plate in 711. 8. 94.

10. The genus *Sucharum* 711. 8. 94.
729. 3. 84.

917. 3. 00.

The *Sucharum* 931. 1. 91.

Notes on *Sucharum* Culture 523. 3. 01.
94. 8. 83.

*Sucharum* Failure 711. 7. 96.
93. 3. 84.

*Sucharum* Culture 711. 7. 96. See discussion in Sanderi 96.

Flowering of *Sucharum* bulbs 93. 2. 94.
EUSTEPHIA. Cav.

Cocinea = Phaedranassa rubroariae. 7/6.3.80

ELISENA loser

EURYKLES. Salieb.

Offsets from bulbs.

usual method.

Seeds.

Curcuma hancei. 7/20.3.82.
(Portioned bulbs.) 7/22.3.86.
7/4.8.88.

Sylvestris = 7/6.26.7.02.

Australasia. 7/5.5.88.
(Australian bulbs.) 7/12.6.97.

The genus Eurykles. 7/7.11.77.

ELISENA. Heib.

Greenhouse bulbs.

Greenhouse bulbs.

Handy bulbs.

GALANTHUS. Linn.

Greenhouse bulbs.

Greenhouse bulbs.

Handy bulbs.

Meets from bulbs, but fragilis.

Seeds also fragilis — must be sown immediately.

Conspicua Pryn. 38.73.
7/5.20.3.93. 7/9.6.94.
FURCRAEA

- Flora

Specimens:

- albisepala
- cuneata 522 1.98
- elegans
- flavoviridis
- gigantea 9.6 16.4 98
- longiflora
- latifolia 23.4 98
- undulata

See Bm. for other species.

Furcraeae (Furcroya) 7/5 8 91

GALANTHUS

Hardy bulbs.

- Division of bulbs which form massed -
  offsets from bulbs. usual method treat satisfactorily.

- Seed not often produced in ord. vars.
  but freely in Elwesii.

- Rivalis 1 vars.
Amaryllidaceae 22.

**Nipperati arnhemii** 7.2.86
97.2.06.
9.3.03.

**Caucasica.** 730.3.89.

**Elwesii var. whittallii.** 728.1.99.
91.6.01. Fe. 2.3.01.

**Elwesii (The Pink Snowdrop.)**

**Reginae.** 724.12.98.
931.12.98.

**Plicatus (The Caucic Snowdrop.)** 724.3.77.

**Fraseri.** 72.3.01. Plicatus reflexus 10.
912.3.04.

**Allenii.** 714.3.91.
520.2.97.

**Ciliatus.** Sc. 3.4.97.
Sc. 3.2.98.

**Fosteri.** 95.3.94. 921.2.91.
924.3.94.
916.1.04.

**Grandiflora.** Sc. 19.3.96.

**Karieae.** 72.5.96.

**Perryi.** 728.1.99.

**Yellow Snowdrops.** 74.3.99.
Sc. 24.3.00.
910.9.04.

**Pink Snowdrops.** 74.3.91.
921.3.91.

See also J. Allen's penand.
**GARANTHUS. Lin.**

The Snowdrops  910.3.77.  *Galanthus cristatus*  927.2.86.

Snowdrops in New Zealand  919.4.02.
Snowdrops in Scotland  96.11.97.
Snowdrops  90.4.3.99 / 917.2.94 / 921.3.91.
The best Snowdrops  923.3.99 / 919.9.01 (J. Allen).
Notes on Snowdrops  918.3.96.
New Snowdrops  913.4.01.
Autumnal Snowdrops  90.10.12.98 / 914.3.91 / 920.2.97.
Disease of Snowdrops (*Botrytis galanthae*)  920.2.97.

**GRIFFINIA. Ker.**

- **by roots from bulbs, usual method.**
- **seeds in heat. — Cult. under cultivation**

**HYACINTHUS.**

*Hyacinthus*  95.11.92.
  926.10.89 (Hale).
  927.9.90.

*Hyacinthus maxima*  96.11.80.
  97.9.1.

*Hyacinthus microstega*  911.12.80.
  98.1.81.

Steue Bulbs.
I. **GRIFFINIA**. Ker.

- **blumenowia**: 9.10.81.
  73.7.86.

  - *ornata*: 9.10.76.
    9.17.3.94.

  - **griffiniaca**: 9.26.6.89.

  - **griffiniaca** + their Culture: 9.10.76, 9.13.6.82.
    9.20.11.80, 9.15.9.83.

  - *griffiniaca* from Seed: 9.27.11.80.

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**HAEMANTHUS**. Linnae.

- **officinalis**

- **seeds**

  - **allisoni**
      9.6.2.04.

  - *albo-maculatus*: 9.1.2.79.
    9.13.1.83.

- greenhouse bulbs.

- plants.
HAEMANTHUS, Lin.

Carusii 15.12.85.
Caroens. 9.13.9.79.
annabavinus 93.2.77. 9c.16.4.99.
  9.7.2.01.

coceaus 912.9.85.
  9.15.10.87.
  9.18.10.98.

fascinator 930.3.01.
impervia 9c.8.2.02.
  9.1.2.02.

furbitus 912.12.89.

Kath frequ. Kalbreyeri
Kathea 9c.27.8.98 927.4.98

serawatii 9c.30.4.04,
  93.8.98.
  914.3.96.
  929.2.96.
  93.11.00.

magnificus 910.7.86.

magnificus = insignis

Marnii.
mirabilis 9c.25.3.01.
natalensis 911.2.88.
  94.4.91.

pubescens 911.12.97.

fruticosus 98.3.89.

trigicus 92.1.91.
AEMANTHUS.

Haemanthus (Blood Flowers) 7/13.6.91 / 9/8.25 & 5.01.
Haem. Katherine's blood alliae 7/15.6.01.
The Blood Flowers 7/15.7.93.

HAYLOCKIA. Herb.

Hesperis Thun. 7/6.93.
Hesperis (only sp.) 7/8.99.
9 27.1.00.

HESSIA. Herb.

ogf: sets

S.10.12.87.
Stellaria 7/17.12.87.
Strumaria stellaris.
HIPPEASTRUM

Effects from bulbs: see 921.10.76 (offsets from Hippeastrums)
Seeds as soon as ripe: see 92.9.5.03

advenum. Anderson 913.9.02.
arcuatae - 90.27.5.99.
aureum. = Amaryllis aurea 918.4.91.
braechyantherum. 911.1.96 (Wallace, 1862).
breviflorum. 91.6.8.98.
bifidum.
bicolor.
calyx pityreatum. 931.12.98.
cymbista.
coccinea. - splendens 913.4.98.
leopoldi. 922.1.81.

So organense.
pretensis = Habranthus. 917.12.78. 918.9.02.
Pittaurium
sanderum. 925.4.02.
procenum. 917.4.97.
reticulatum. (Amaryllis) 919.10.80. 929.9.96.
Reginae.
reticulatum = Bulbocodium 919.9.85.
var. concolorum. 923.4.04. 928.9.75.
Robustum. 96.9.02.
HIPPEASTRUM

Solanaceae Solanum
Vittatum

Hippeastrums  9c. 22.3.92
9c. 20.4.01

Hippeastrums at Septon Park, Liverpool  9c. 17.3.02

Hippeastrums from Seed  9c. 9.5.03
9c. 24.1.03

Hippeastrums at Weston Gut  9.6.4.98

The Hippeastrum
9c. 12.4.99
9c. 20.1.92
9c. 21.10.93

Hippeastrums in America  9c. 12.1.89

Species
Speeceala  9c. 16.4.92
Panidraea species  9c. 27.4.95
Setigerostephana  9c. 8.4.95
Squasamia  9c. 10.6.94
Seraq cumbia  9c. 17.8.94
Seraq  9c. 10.6.94
Seraq flamum  9c. 27.4.95

Science
Yemenocalis Salisb.

offsets. Either produced near the bulb (division) or at some time e.g. lacerata (mexicanum).

seeds (large + green)

Pancretum proper, seeds, black.

Amaneae.

Ag. 7.8.91.

Andrena = Isonee And. 731.3.84.

Caribaea.

Ag. 93.4.80.

Concinna. Ag. 7.7.62.

Crasioehia.

Calathuria = Isonee. 89.5.91.

Eristii = Ag. 20.11.03.

Glauca = Chlorotis glauca 724.11.83.

Humilis. 92.6.88.

littoralis 76.10.9.98.

Lacera = P. rotatum 91.11.79.

Macleana.

Ag. 710.7.80. 912.11.92.

Macrostephana. 9130.5.03. 913.6.03. Mcrophyllum 92.2.01.

Monkianea bar. major 76.6.11.97.

ovata = P. fragrans. 923.8.84.

Palmeri.

Quilocensis.

Speciosa. 76 12.11.98 = Pancretum speciosa 714.10.64.

Sehijostephana. 76 12.6.99.

Seneqambica. 917.10.91.

but if lora = Pancretum guianensis 927.11.86.

no Data. 823.8.74.
Hymenocallis. Liliaceae.

Hymenocallis. 8.0. 29.4.99.
Hymenocallis & Pancratium. 522.1.98.
Pancratium, their new culture. 73.9.81.
522.9.83.
Pancratium vs. Hymenocallis. 726.11.92.
Pancratium (Fairy Lilies). 73.3.90.
529.3.90.
717.4.90.

Hypoxis. Linn.
Division in spring.

Andrewsii.
Creea. Blu. 710. 723. 7.81.
YPOXIS. Linn.

Lemero-callidea.

Longifolia. 9c. 3.9.98.

Rooperi. 718.7.74.

Serrata

Stellata. 527.3.86

4 var. elegans 97 #88.

Stellapila. Blte. 3696.

Villoza.

sp. mit much Cultivated.

Hypoxis 913.3.92.

IXIO LIRION. Hook.

- bulb. offsets.

- seed.

- montanum 98.3.80

- m. var. cantabricum 916.7.81

- Pallasia 913.6.85

- macracanthum 918.5.78
10 LIRION, Feuch

The *Ixia* lilies. 516.10.80.

Culture of *Ixiolirions* 56.11.80.

**EU Coturn, Lin.**

offsets from bulbs.

- aestivum - £7.5.98
  £7.26.2.98

- autumnale - £7.12.5.00. = *Acis* autumnale. 527. 9.84.

- hybrids - £15.9.83.

- pulchellum - £12.4.80.

- roseum - £30.9.99

- triphalum - £14.5.67/58.4.99.

- vernal - £9.2.84/79.2.96/926.5.00/910.3.00

  var. carpathicum - £14.3.85.
  £18.3.99.

- *Leucojum (Snowflakes)* £11.1.02.

The *Leucojum* - £20.2.78.

The *Leucojum* - £22.1.02/918.2.02 (J. B. Hallack)
Lycoris

offsets from bulbs.

- aurea 929.9.94/926.1.95/919.12.96
- radiata = Vernis japonica 822.9.83
- Squamigera 927.12.98

Sprengerii 927.12.02

Chinese Narcissus 920.2.86

The genus Lycoris 919.1.95

Narcissus

offsets from bulbs, division see 922.9.00

sets

Species too numerous to mention
see Que. achelen.

The transplanting of Narcissi 926.9.03
Daffodils under Place 910.3.00. (F. Engleheart).
Notes on New and Choice Daffodils 918.5.01.
Narcissus Names 92.9.4.
Some new Daffodils 920.8.99.
New and Choice Daffodils at Ditton 914.8.98.
Some Trumpet Daffodils 921.4.00. 918.9.83.
(F. Engleheart)
920.9.02.
Spontaneous hybridization and hybridization of Narcissi 919.4.02.
924.5.02.
927.5.08.
921.5.02.
The Lesser Narcissi
(F. Engleheart) 918.5.01. 923.5.01.
Bicolor Daffodils 924.9.98.
Species of the Narcissus 918.10.4.97.
(F. Engleheart) 94.20.4.97.
The Daffodil 98.5.86.
Daffodils at Hampton Court 927.4.89.
Notes on Spanish Narcissi 928.6.79.
Double Daffodils and Narcissi 912.4.84.
Italian Daffodils 922.5.86.
NARCISSUS. contd.

Polyanthus Daffodils 912.11.87.
924.12.87.

Albino Daffodils 928.4.88.

History of Cultivated Narcissus 919.4.90.

Narcissi & their ancestors 925.8.96.

Daffodil Conference 92.18.4.96.
97.4.84.

The finest Daffodils 926.4.90

Hybrid Narcissi 928.4.96.
97.13.3.02.
97.9.89. (Burb.)

The Daffodils
95.4.84

Nomenclature of Narcissi 931.3.84.

The Great & Common Jonquils 929.10.87.

Morocco Narcissi 930.6.88
NERINE. Herb.

- offshoot from bulbs. Division when beginning to get active cae. 8.4.98.
- seeds as soon as ripe.

appendiculata.

curvifolia
  var. tocheri gilli. 526.11.82 = N. tocheri gilli.
  531.10.86.
  56.10.88.
  729.11.02 x 76.11.97. f. major 59.12.99.
  93.9.96.

filifolia  91.10.84.
flexuosa.
  var. angularifolia
  var. major.

lumidi.

moorei.

pancratioides.

putica. 86.11.80.
  916.10.97.

Sarriensis.

  var. cosmo & co. 924.8.78.
  var. profusa.

la undulatifolia = cruxia. 816.2.92.
  11.12.97.
  824.4.12.97.

(white) Nervia 9.12.12.02 / 821.5.04.
Hybrids

O'Brien x. Sc. 31.10.96.
C. rubescens x. 9/27.1.83.
Elegans alba. 9/26.11.98.
Meadowbankii 9/27.10.83.
9/30.10.97.

Maccalli

9/23.1.86.
9/11.11.99.
9/3.12.02.

Roseo-crispa 9/18.11.99.

See also gen. articles.

Nerines

9/12.2.98. 9/26.8.93.
9/19.10.98.
9/19.3.98.
9/13.2.04.

Guernsey Lilies 9/23.10.74. 9/23.3.82.
9/10.10.74. 9/30.1.86.

Fine grown Nerines 9/14.10.82.

Hybrid Nerines 9/16.11.86.

Seedling Nerines 9/20.11.97.
9/18.11.99.
Pancratium

Linn.

bulls. - offsets.

seeds. - if carefully fertilised, see 30.1.100.

drawn as soon as ripe.

Canaricense: 9.30.10.97; 9.0.10.98.


Illyricum: 9.28.9.98.

(9.18.10.02; 9.6.9.91; (plate).


(9.19.7.84.

Speciosum: 9.30.10.97.

9.8.4.99.

Zeulanicum.

Pancratium "S. Mallet"

Pancratium + Helenium: 9.18.3.99.

see also Pen. als. under Hymenocalis.
**Amaryllidaceae 40**

**Phedranassa**
see *Asphodelia*

- offsets

**Chloraea**
- 927.9.79.
- 95.5.83.
- 92.4.98

**Placca** Miss

greenhouse bulbs.

- offsets
- seeds

**ormata**
- 92.4.98.
- 93.9.98.

- Other sp. *Aryae* & *grandiflora* race *garzani*.

- Placca 924.12.98.

**Plagiothallis** Bark

- offsets from bulbs

**Horowani**
- 921.7.83.
- 919.7.84.
- 921.2.85.

Stove bulb.
POLIANTHES, Linn.

offset bulbs, imported bulbs.

Tuberose, see Sutton's Cat.

Tuberoses.

1879. 76. 1. 97. 86. 2. 88.
7. 924. 9. 98. 9. 11. 95.

Tuberoses in Winter 7. 11. 97.
9. 6. 78.

The Tuberose 7. 9. 6. 192/97. 1. 93.
7. 9. 31. 12. 81.

Barren Tuberoses 7. 9. 76. (Falkland), 7. 26. 12. 95.

Cool Treatment of Tuberoses 7. 6. 81.

Tuberoses in their Culture 7. 4. 3. 91.
7. 8. 91.

PROCHYNANTHES, Linn.

P. bulliana see P. 7. 4. 27.

SPREKELIA, Heist.

offsets.

seeds.

stone bulbs.
Sprekelia

Formosissima (Jacobean Lily) 8/18. 11. 89. 8/20. 6. 96.
(half. hardy).

Cyclamen 51. 3. 91.

Hybridisation of Sprekelia 8/2. 29. 10. 98.
(t. Hipheastrium)

STENOMESSON. Herb.

 offsets in spring.

Harroegi 914. 9. 78.
Coccineum Btu. 3865.
Curvidentatum Btu. 7640.
Incarinatus 712. 3. 98.
(Coburgia) 925. 7. 96.
Cuteo-viridis 96. 3. 80 / 923. 10. 80.
Coburgiis 913. 7. 89.
<table>
<thead>
<tr>
<th>Species</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sternbergia Waldst.</td>
<td>£25.6.84</td>
</tr>
<tr>
<td>Autumn or Winter Daffodils</td>
<td>£16.2.95</td>
</tr>
</tbody>
</table>

**Notes:**
- Lady's Bulbs.
- Autumn flowering.
- offsets - better to leave undisturbed as year-old.
- tubs - not very freely flowering.
- Colechia flor. £14.4.00
  - actinensis £21.10.82
  - Fosteriana £29.1.98
    - Bum.7441 £7.5.98
    - £8.2.02
- Lentuca
  - Winter Daffodil £26.9.83
    - £14.11.83
    - £21.10.99
    - £24.11.00
- Maeranthera
  - Bum.74.59 £19.2.98
  - £20.8.98
- Sucea £25.9.86

**Other:**
- Sternbergias £6.10.00
Tapeinanthus

Rare, & diff. of cultivation see "art."

humbilis 9.10.98.
only sp.

purpurea (Scarborough 9.10.98)

Cliff. 9.14.9.01. 118.11.93.
31.1.03.

Urceolaris, x

Urceolina, Reach

Half hairy, bell, greenhouse 7° 9°.

Offshoot or bulblets

Seed also see 912.5.88, though 8 long in germination
not often ripened.

aurea, 913.10.00 = pendula

pendula, 912.3.88, (The droopy Urn flower)

926.11.98
929.10.92
916.11.93.
**VALLOTA.** Herb.

I. offsets.

II. seed also see 9.27.9.84. 9.0.
   as soon as rip.

III. purpurea. (Scarborough Lily)

   Bill. 14.30.

IV. purpurea (pink) 11.8.94.

V. alba. 9.0. 27.8.04.

VI. purpurea from seed 9.27.9.84.
   9.12.9.86.

VII. V. purpurea 1 var. 9.11.9.86.

VIII. V. in spring 9.28.3.88.

A bigeneric hybrid. 9.0. 10.11.00.

(V. pallida x Amaryllis.)

\[\text{greenhouse} \text{ bulbs.}\]
**Lophiozoa** Vand.

- **Division.**
- **Equisetoides.** 9.0. 18. 02.
  - **candida.** 710. 9. 92.
  - **Elegans.** 712. 8. 93. 8. 03.

---

**Lephyranthes** Herb.

- *Ajax.* 96. 1. 00. / 917. 9. 04.
- **candida.** a.
  - **camara.** 711. 8. 92. / 714. 8. 93.
  - **Coronata.** 930. 4. 98.
  - **Coronata.** 930. 4. 98. / 920. 10. 00.
  - **Coronata.** 96. 10. 02.
  - **Coronata.** 97. 8. 97. / 920. 10. 00.

Spofforthiana. 93.8.72.

Treatiae. 94.3.81.
94.5.83.
94.4.83.

Mexicana.

Tauberiana.

Vacuundus.

The Atamarco Lily (L. atamarco) 58.9.83.

White flowered Zephyranthus 92.11.99.

The Zephyr flowers. 928.7.77.

(W. Watson) 915.2.98
GENERAL NOTE ON THE AROIDEAE.

The Aroideae are essentially a tropical family, though a few genera, e.g. Acorus, are found in temperate regions. The order has close alliance with the Palms, and with the Cyclanthaceae, by reason of the arrangement of the flowers in spathes. In horticulture the members of the Aroideae are cultivated as much for their handsome large foliage as for their flowers. Ornamental leaves are to be found in Aglaeonema. The various species are usually mottled, e.g. A. costatum, A. versicolor, A. commutatum. Variegated leaves occur in Alocasia Sanderiana. Amorphophallus Rivieri is also an ornamental foliage plant and has the advantage of being hardy. Another species of Amorphophallus - A. titanum (the Giant Aroid) - is more of interest as a curiosity than of any cultural value, as its evil smell makes it very objectionable. The large arrow-shaped leaves of Caladium bicolor are of a beautiful colour. Other plants cultivated for their foliage are Dieffenbachia, Homalomena, Schizmatoglottis, &c. The long continued juvenile form of the leaves is a characteristic of the Aroideae, e.g. Pothos, an ornamental climber which in its young condition possesses many simple flat leaves adpressed to the support. While in this stage it has/
has such a marked resemblance to a dicotyledonous plant Marcgravia, that it is often cultivated under that name. In the adult condition, in the same plant, the leaf becomes compound and is of very different shape. The adult forms of *Pothos* are often cultivated under species of *Anadendron* and *Raphiolepis.*

The Aroids are also cultivated for their handsome inflorescences. These may be arranged in various ways on a spadix and surrounded by a spathe. These may be very bright in colour and curious in shape, e.g. *Alocasia andreana,* and *A. scherzerianum* (the Flamingo Plant), in which they are bright red, or they may be of wonderful contrasting colours, e.g. the spathe of *Icharum* (*Biarmum*) *eximium* is purplish on the upper surface while the under surface is green spotted with red. The spathe of *Arisoea fimbriata* is of a silvery colour striped with rose, shading into green at the apex. The spadices are not so ornamental, but sometimes of curious shape, e.g. in *Arisoea fimbriatum* the spadices are long and whip-like, an adaptation for purposes of fertilization.

Propagation is usually effected vegetatively by means of division of the roots or rhizomes.
ACORUS Linn.

1. division

III. Calamus

<table>
<thead>
<tr>
<th>Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.6.10.72</td>
<td>G.C. 4.7.96</td>
</tr>
<tr>
<td>5.7.78</td>
<td>G. 20.8.04</td>
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</table>

Gramineus

Variegatus  9.2.12.82.

IV. Acorus

<table>
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<tr>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>9.27.81</td>
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Acorus

<table>
<thead>
<tr>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.27.11.86</td>
</tr>
</tbody>
</table>

AGLAONEMA Schott.

1. division

Stem cuttings in heat.

7. seed

III. Commutatum 320 Bmr. 5500

Mannii  Bmr. 5760

Versicolor  9.36.2.98

Costatum  9.7.1.93

9.6.6.96.
Alocasias.

Alocasia Schott = Colocasia.

I. Division of Rhizome

- Suckers usually - Thickets. in spring see 521.7.88.
- Seeds.

- Odora = odorata 92-3-72.

- Spectabilis 915.10.98

- Wauriniana. 95. 23. 4.98. 918. 3. 99.

- Sandania. 95. 3-3. 88.

- Thibautiana. 92. 22. 3. 80.

- Putzeysi. 98. 1. 98.

- Utermedia. 92. 1. 8. 78.

- Metallic. 912. 12. 72. 924. 10. 96.

Veitchii.

For bare te. see Bulbis Car. also gen. arts.

Alocasias.

- 95. 13. 3. 99. 921. 7. 88 (Frances).
- 93. 6. 99. 921. 2. 91 (J. Hudson).
- 913. 1. 47 (W. Watson).
Aroidae 3.

**AMORPHOPHALLUS** Blume.

1. Tubers - division 1 sprig.
   For Rivieri.

Rivieri. 92. 8. 76 915. 1. 76 - Proteophallus.

920. 10. 77.
918. 11. 80.

Campanulatum. 915. 9. 83.
(The giant Aroid.) 913. 5. 93.

Culbiper 91. 4. 93.

Viroosus 94. 3. 89.

Variabilis 914. 11. 96.

Titanum 922. 6. 89 923. 12. 93. (The Giant Aroid)
928. 1. 88 9/9. 12. 93.

Amorophophallus 914. 7. 88.

Floweri of A. Titanum at Kew 921. 6. 7. 01.
Giant Aroid of Sumatra 97. 1. 82.
ANCHOMANES.

I. Division of tubers

II. Seed.

III. Hookeri. 93.4.80.

pallida. Pw. 5.394.

ANTHURIUM. Luiz.

I. Division of crown in Spring.

also cuttings & rhizomes.

II. Seeds also, not so usual as vegetative methods.

see genus, arts.

III. see species in genus articles in Bull's Cat.

Andréanum 94.11.82.  Peck's Cat.

93.4.86.

97.1.93.

1 year. 98.7.80.

Seidenjanum. 1 year.


Anthuriums 92.10.97

91.6.98.

Select Anthuriums 99.9.82.

Ornamental leaves Anthuriums 92.9.12. 83 (T. Banks).
Aroidaceae 5.

ANTHRURIUM. Rin.

To confid:

Leeloei Anturiums 93.5.84.
917.4.86
9.10.6.02.

New Anthuriums 917.1.03.

Ari sarum 937-3.86
A. cretion 937.3.86
Creotion an quentin 937.3.86
Arrancados 938.2.99
9.10.6.00

Valecum 937.9.86
9.10.6.00
9.3.90

Gaoatoms 937.3.97
9.10.6.00

ARISAEMA - Mart.

Cool green stems
Stone.

Division of tubers

Fimbriata 9129.11.84. - race Anello Cal.

_proboscis... 98.6.01.
911.6.01

Speciosa 9711.6.90
918.5.92
9.10.3.96

Arisoemas 921.6.90
914.3.88
9.2.4.87

Yellow flowered name 923.3.99
931.6.00
923.2.01
923.5.98
Aroideae 6.

ARUM Linnaeus.

1. Effects: Division at end of summer.

2. Arum Pinkin in the open air. 9.6.97.

3. Arisaema 527-3-75. A. crinum = Helicodiceros crinitus. 521-4-83.

Arisarum 527-3-75. A. crinum = Helicodiceros crinitus. (Hairy Arum.) see Fig. 2-76.

Dracontium 525-2-99. 9-10-1-00.

Italicum 511-7-81. 5-4-3-82. 51-3-90.

Palaestinum 511-4-94. = Samutum 527-3-97. (Plate in 514-10-93).

p.riccotor. 526-3-04.

For other Sh. see gen. art.

Sanqu为空因： too 6355.

Handy Hic. 16-6-83. 519-2-76. J.C. Hic.

The Arum Family 511-2-83.

Arums 512-7-90. 514-10-93.

Cultivated Arums 522-2-84.

Yellow-flowered Arums 522-3-99. 9-21-4-00. 923-2-01. 520-8-04.
Aroidae 7.

contd.

ARUM Lilies

ARUM Lilies in the open air

ARUMs as aquatics

BIARUM. Schott.

= Ischarum.

hardy tuberous perennials.

- offeet.

- cuminium (Ischarum ex.).

- lanatusatum Bn. 6355.

- insert CAIRDIUM

CAIRDA Leon.

- division removal of side growths with portion of roots attached, Dec 22, 12:00.

- caethiopica Bn. 832.
CAULI. contd.

iii. 'Little Gem' 9.27.11.97
   $ 6.4.01.
   Fragrant 5.13.3.99
   $ 20.5.99

iv. Yellow Callas 9.20.11.97
   9.14.12.97
   Golden Callas 9.7.8.98
   Callas 9.9.1.01 9.16.11.78
   $ 31.8.02

CAULIADIVUM Vent

1. Offset. Freshly produced
   Division by plants see 9.11.6.78
   See Propagation Caladiums P.14.1.93
2. Stem cuttings - in water 9.23.10.78
   C. bicoloratum 9.12.7.73 9.11.98
   $ 27.1.94
   Minus crambescens 9.7.8.92
   $ 9.3.01
   See sp. & vars. in Gen: acts.
Aroidae 9.

**Caladium. contd.**

- **Caladium.**
  - $928.12.72$
  - $916.4.87$
  - $920.4.93$
  - $97.2.91$

- **Caladium Culture**
  - $913.2.76$
  - $910.3.77$
  - $920.10.80$
  - $919.6.80$ (B.T. Fish.)
  - $911.9.86$
  - $915.2.87$

- **New & Choice Caladiums** $924.5.84$

  The Caladium $9.9.76$

  Portuguese Caladium $919.7.79$

  The Silvery Caladium $923.4.92$

  (C. argyrophylo)

---

**Chamyodendron.**

- division 37
- Pilocereus

<table>
<thead>
<tr>
<th>Variety</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metallicum</td>
<td>$920.11.64$</td>
</tr>
<tr>
<td>Rubens</td>
<td>Póllo Cal.</td>
</tr>
</tbody>
</table>

- Afghanii $9117.6.98$
- Johnstonii $920.8.98$
- Ringani $920.7.76.17$
**Cryptocoryne, Lisch.**

*C. Griffithii* B.H. 7719

**Cryptosperma, Griff.**

*Streps yers., xix.*

**Culcasia, P. Beauv.**

*Seandens*

**Streps yers., xix.*
DIEFFENBACHIA. Schott.

1. suckers — from base of plant. in Aug. or so.
2. stem cuttings in heat (see Fig.) — cut in pieces. Propagate early.
   (dangerous to put near mouth.)

Leopoldi, Cansis, Shuttleworthi to see Boule's Cat.
Rex to. Magnifica, Reginae.
For other Sf. see general.

Dumb Canes. on dieffenbachias 124.12.92.

Dieffenbachias 31.12.83.
31.12.98.

Hybrid Dieffenbachia 124.9.81. (note)
31.10.81.

DRACON T IUM. Lin.

1. Division of tubers.

Figaro. (Godinie Figaro). 16.4.01.
16.23.4.04.
Cansis 9.6.86.

Slow perennial.
Araidae 12.

RAUCUNULUS. Schott.

vulgaris = Arium Dracunculus.

half-hardy perennials.

PIPREMNUM. Schott.

division?

root suckers.

 giganteum. Post 7982.

 mirabile. 96.3.82 (The Tonga Plant).

GODWINIA. Seem.

1. tuber division.

2. gigas (see Dracuncium gigas).
   7.12.72.
   92.2.84.

HAPALINE.

Brownii. BM 7325.
HOMALONEMA. Schott.

Division of stem.

Wallisii: wallisi  see Rolfe's Cat.

LYSICHITUM.

L. camtschaticææ Bm. 7937.
Division of root: sheath brown.

SEPHYTIS.

camtschaticææ Bm. 7937. 95. 9. 4. 00.
930. 4. 01.
95. 21. 5. 04.

MONSTERA. Adams.

Division: culture.
Fruits edible:

Adansonii Bm. 95. 11. 81.

Deliciosa. 930. 7. 92. 924. 5. 02.
MONSTERA contd.

S. deliciosa. 56-11-80.
S. paradicea. 94-2-82.
S. 121-1-82.

Heliosa = Monstera paradicea. 927-3-86.
922-9-88.

MONTRICHARDIA. Güiger.

M. aceleata see Pln. 7817.

NEPHYTIS. Schott.

NEPHTHYTIS. Schott.

ORONTIUM Linn.

O. aquatica see Ware's Cat.

P. ELEANORA. Raf.

P. virginica see Ware's Cat.
division
Stem cutting - short, side shoot.
Pieces of stem - with eyes see 926.9.91.

Sellowianum 917.10.70
Elegans 930.4.81
Leichti 916.5.98
Wallisii 94.12.80
Sellowianum 913.9.84
9C. 22.6.01.

andreamum 9C. 2.3.01
mamei 917.11.82

Philodendrons 912.1.84
Philodendrons at Home 94.11.82
Phil. in fruit 923.12.99.
Araceae. 16

PIPTOE SPATHA. N.E.Br.
P. Ridleyi B.M. 7410.

POTHOS. Linna.

I. Division in spring.

II. flaccuoso see Pauli Cate.
   celato-calicis. 40. (Carnivorous leaves plante.)
   see also Pauli's organographie.

PSEUDODRAGONIA. N.E.Br.
P. Lacourii B.M. 6673.

RAPHIDOPHORA. Hassk.

I. Stem cutting in heat.

II. seeds.

III. lemonicide B.M. 7282.
RICHARDIA. N. P. Br.

= CALLA.

Division in spring.

Snakes + hibern. e.g. for Eliothiana.

deep. in head. (i.e. Sept. see 73-12-98)

don't trim as freely, but not used so much as veget. method see 71-12-98.

ecaethiopica. Calia ecaethiopica - africana (73.26.5-00.

don't cut. 73.25.5-04.

Elliothiana (73.30.1-04.


Little Pen 76.2.92 - C. Little Pen (73.8.98)

Rehmanni 719.1-93.

924.4-97.

(× Richardia) 930.6-03.

Sprengeri.

Can. abrigensis 70.9-94.

albo-maculata 71.9-94 710.3-97.

53.1-98.

Summer Treatment of Richardia 930.6-94.

Richardia (× Richardia) 920.11-94 (W. Watson). 728.1-91 / 723.6-98 / 70.4-4-96.

Double - fringed Calas. 712.1-84 / 713.7-76.

926.1-84 / 9.3.9-92.

78.3-84.

Arum Libico in the Open Air. 718.5-90.

78.2-90.

Golden-flowered Richardia 92.11-93.

Early Calas 717.12-96.

723.1-97.
AUROMATUM. Schott.

dor offets. from rhizoe.

\textit{guttatum} Pau. 4465.
\( \text{Ec. 19.4.62} \)
\( \text{Ec. 3.3.02} \)
\( \text{Ec. 28.3.02} \) (tuberous Aroid.)

SCHISMATOGLOTTIS. foll. flor.

\textit{Spathiphyllum}. Schott.

division of plant.

SYNANTHROSPADIX. Engl.

\textit{crispata} 9.28.9.81. Bum. 6396.

\textit{alba}

\textit{flavescens}

\textit{variegata} See Bullo Cal.

\textit{latifolia}

\textit{Siamensi}

\textit{Syngonion}. Schott.

SPATHIPHYLLUM. Schott.

division of rhizome - most common method.

seed in head.

\textit{candidum}

\textit{pictum} See Bullo Cal.

\textit{Wallacei} - Steuously Pau. 6336.
Acordeae 19.

STEUDNERA  C.Koch.

Stem cuttings.
Division of Stipeome.
Seekers.

Seeds in heat.

Color: as above  916.  2.84

Bum. 6076.
6762

Discolor  see Pocillo Cat.

SYNANDROSPADIX  Engl.
S. bernollii  Bum. 7242.

SYNANTHERIAS -
S. syloberti  Bum. 7190.

SYN GONIUM  Schott.
also linearum  see Pocillo Cat.

TACCARUM, Pocillo.
I. Division of offsets.
II.
Warmingianum  912.4-90.
Pocillo Cat.
GENERAL NOTE ON THE BROMELIACEAE

The Bromeliaceae are an order to be found mainly in tropical regions of America. The greatest development is in S. America, especially Brazil. While nearly allied to the Liliaeae and the Amaryllidaceae the Bromeliaceae differ in marked respects from these orders, especially in the mealy nature of their endosperm. With the Commelinaceae and Pontederiaceae &c. the order forms the group Farinosae. The majority of the plants belonging to the Bromeliaceae are stove plants, e.g. Pitcairnea, Billbergia, Aechmea. One or two may be grown in the green house, and Rhodostachys is used as a hardy rock plant. In the majority of cases the Bromeliads are used for foliage effects, e.g. Ananas sativus variegatus, Hectia Chiesbrechtil, &c. Some plants have curiously curled leaves, e.g. Dyckea (Hectia) argentea, Karatas humulis. Others are brilliantly coloured, e.g. Aechmeas. Others again have their leaves checkered and striped (thus the species zebrinum striatum are common, see under the different genera.) As a general rule the leaves of the Bromeliaceae are rigid and spinous, and being arranged in a spiral manner form a cup in the centre, in which water collects; thus the name Tankplants which is often applied /
applied to Bromeliads. The flowers are not usually beautiful though curiously and often brightly coloured, e.g. Aechmeas Billbergias &c. Ornamental blue flowers are, however, produced in Pitcairnea coerulea. The fruit is edible in Ananas, Bromelia, and Karatas.

The propagation of the Bromeliaceae is simple and uniform throughout the order. Vegetative propagation by means of the characteristic offsets is that usually employed. These suckers or offsets are produced after the flowering period. If single plants are required the suckers may be taken off while young and after development in near, potted off singly. If larger growths are required the suckers are left to develop for a longer period. (see figs.)

Seed is not the common method of increase, but is used when procurable. Sometimes artificial fertilization is necessary, though many are naturally fertile. In the Pineapple for example, the production of sterile seed is common, and the habit is strengthened by the vegetative mode of increase. Imported seed is also used. To produce seed at home careful cross fertilization is necessary (see Burbidge). Some hybridization has been effected in this order.
Bromeliaceae

Bromeliaceae. Plants. 96. 11-86.
931. 12-81.
923. 3-90.
913. 12-90.


see also genus under Bromelia, Tillandsia, Aechmea, Neoregelia.

Aechmea

Aechmea Reginae. 931. 12-81.
923. 3-90.

Aechmea & their Cultivation. 923. 12-90.

ANANAS. 4. 12-81.

SUCCULENTS - plants with fleshy or juicy stems or leaves.
Best specimens from Mexico. A. S. A. 1959. (53) in a chest
containing a few books. Sun 5/2. 91.

Stiff leaf forms, more branched. Also a Tillandsia.
**Bromeliaceae**

**Aechmea**, R.Y.P.

1. Suckers - after plant has flowered.
   - Do not grow so freely as the Pineapples.
   - Single suckers for small plants.
   - Left to form large for larger plants.

**Discolor**
- *Distichantha*
- *Fasciata*
- *Fulgens*

**Maniae - Reginae**
- *Saxifraga*
- *Skinneri - Androsteis Skinneri* 914.2.80
- *Veitchii - Chev alliacea Veitchii* 923.6.81. 922.1.81.

**Tu.**
- *Aechmeas* 917.1.85.
- 92.11.01.
- *Aechmeas Veitch Culture* 918.1.76.
- Winter flowering Bromeliads 912.12.85.

**Ananas**, Adams.

1. Suckers - trimmed of jagged edges or overflourished leaves.
   - Best specimen from *crown* & A.S. *Variiegatus* (if double or cluster crown has been formed). 92.1.91
   - 916.5.91.
   - 923.1.97.

II. Striped forms sometimes obtained as in *Tillandinsia* from seed - 923.1.97.
Bromeliaceae 2.

ANANAS.

Saturex (The Pine Apple).

var. lucida = Mordilona. 9a.6.80.

var. variegatus. 9.2.1.91.
930.12.93.
923.1.97.

Lecture on Pine Apples. GC. 25.4.96.

BILLY BERGIA - Shyly.

no berries after flowering when a fair size.

not usual.

amara.
Bakerii 96.2.84.

deora.

Euphemia 91.5.80.

hoaica
macrocalla 92.9.84.

novel 93.1.83.

nutans. 97.2.80. / 912.1.84 / 83.3.80.

sanderiana. 91.2.90. / 94.3.93.

Saundersi.

H. speciosa = variegata 919.6.86.

Thyssoidea f.aurae. Splendida 96.1.80 tr.

Vithata. 918.12.86.

Billbergia ac 96.8.87 (lked). 917.4.76.
930.6.83. 931.3.90.

917.6.82. 929.9.83. 96.8.87.
**BROCHINIA.** Schult.

- Requires very much room.
- Vegetative not com.
- Plant dies after flowering.
- Cordyline odorata. A very rare.
- Spec. more of botanical than horticultural interest.
- As being the plant of the Bromeliads, requires so much room.

**BROMELIA.** Plum.

- Suckers, treated in same way as others.
- Increase with great rapidity.

- A. antarctica fastuosa.
- Binotiana.
- Commeliana.
- Pinguia. 715. 4. 82.

- Bromeliads in Bloom. 79, 2. 89.
- Bromeliaceae. Plants. 714. 1. 88.
- Bromeliads. 71. 3. 02.
**Bromeliaceae**

**CARAGUATA**. Lindl.

1. Suckers, like Tillandsia (of which Caraguata is a subgenus)

2. Andreana, cardinalis. 94.9.80.
   Lingulata. 92.2.84.

3. Muesaenda
   Muesaica = Tillandsia mosaica. 92.5.12.80. = Massangea mosaica.
   Bajana.

   Van Volxemii.
   Zahiri. 9.4.10.73.

**CATOPSIAS**. Grieb.

1. Suckers.

2. KADATAS. Plum. = Natalum

3. Milida
   Vellenia

**CRYPTANTHUS**. Otto. & Dietr.

1. Suckers

2. Buccheri. 9.1.2.90.
   Bivittata
   Undulatus
**Dyckia** Schuer.

- Suckers

- brevifolia
  - Desmatiana
  - frigida 98.11.79.

**Guzmannia** Rup.

- Trester (Free Pine) 92.5.12.80.
  - var. alba

**Hechtia** Kl.

- Suckers very readily

- argentea: Dyckia argentea
  - Bm. 7.4.60
  - Thierackei = glomerata 93.10.91
  - Cordylineoides  Bm. 6.5.54

**Karatas** Plum. = Nidularium

- Suckers. but of slow growth
  - Plant xerophy flowers

- elongata: 92.9.11.84
- carolinae
  - humilis 92.5.79
  - Specabile 91.3.93
  - Striatum

- Nidularium: Karatas 912.4.84 / 114.11.91
Bromeliaceae

PITCAIRNEA. L'Hérit.

Suckers like other Bromeliads
(see figs.)

apheleandrae folia 190.2.98
Corallinia 5 27.1.00
flavescens 931.1.91
migra 9 5.4.90

Pitcairnea 5 21.6.90

PORTEA. Bionig.

Suckers

Kermesina 9 3.7.83

PUYA. Molina.

Suckers

Seeds when mature

Chilenis 9.6.6.03
lanuginosa

Pique 9 6.5.82
Violacea 9 6.8.1.94
Bromeliaceae

**QUESNERIA**., Gaud.

1. **Quesneria**

   **rosea-margiata**
   - *S.L.a* 930.3.80
   - *L.L.a* 3.3.83
   - van Houtteana 94.3.93

**RHODOSTACHYS**., Phil.

1. Suckers or offsets at base of clumps.

   **andina** 916.1.86
   - *pitcairnifolia*
     - var. *kirchhoffiana*

**RONNBERGIA**., Morr. & Andri.

1. **columbiana**
   - *Moreniana*

**STREPTOCALYX**., Beer.

1. Suckers like *Aechmea* to

   **Vallensergi**
   - *Furstenbergi = Aechmea Furstenbergii*
TILLANDSIA, Linn.

1. Suckers.

Care should be taken in saving seed—good stock can be raised.

- camina - Vriesia braehystaeny
- ferruginis
- Guttata
- Lindeni
- Tessellata
- Seae
- Splendens

Eriostoma - 18.8.74.
9.20.6.85

See under gen. articles.

- Tillandsiae 9.12.8.86
- Anaphylaeae (Tillandsia) 9.12.4.90
- Choice Bromeliads 9.8.3.90
- Tillandsiae of Air Plants 9.11.76 (W.B. Hemakay)
- Vriesiae (Tillandsiae) 9.18.2.88
- The Tillandsies 9.17.1.80.
GENERAL NOTE ON THE BURMANNIACEAE

The *Burmanniaceae* is a small order isolated in position by some authors related to the *Amaryllidaceae*. The plants also shew some analogies to the *Trituridaceae*. The members of the order are saprophytic, and contain the genera *Thismia*, *Burmannia*, *Corsia* &c. The order is highly developed in Borneo, New Guinea, and tropical Brazil. The plants are only of botanical interest.
GENERAL NOTE ON THE CANNACEAE

With the Musaceae, Marantaceae, and Zingiberaceae the Cannaceae form a distinct group of the Monocots, the Scitamineae. These subgroups or orders as they are often regarded while resembling each other in habit &c. differ markedly in the construction of their flowers. In the Cannaceae the flowers are asymmetric and the modification of the staminal whirl into petalline segments is characteristic. Canna itself is the only living genus. It is limited to tropical and subtrropical America. In this country it is usually grown in greenhouses, but in the more temperate climates of many cities on the continent, e.g. Wiesbaden &c. the beds of bright Cannas in the open make a fine display. Canna indica is one of the most common species. The bright red drooping flowers of C. irideaflora are particularly ornamental.

Increase is usual by vegetative methods. (see under Canna). Seed is used for hybridization. It is interesting to note that the orchid flowering Cannas like the Orchids themselves produce few fertile seeds.
Canna, Linnaeus.

Division of roots for variation.

Cuttings made from old stools.

Suckers which should be severed when grown a few inches.

Seeds for growing new varieties: easily raised from seed.

Very small and hard, must be soaked in warm water 12 hours.

(C. italic a does not produce fertile seeds like other
hybrids of tropical flowering Can n as.)

Seed Canna from seeds 929. 1. 84.

H. discolor, cannabina 90. 24. 2. 00.

gigantea

indica

tricolor 911. 8. 77

speciosa

For Garden Varieties: see under general.

Work of Crop on Hybrid Canna. 90. 15. 7. 99

Canna 9c. 1. 1. 98, 98. 1. 76. W. B. Hemley 921. 10. 70

Canna as a decorative plant. 90. 16. 7. 98.

Italian Canna, 921. 1. 99.

The Gladiolus flowers Canna 922. 6. 95, 91. 7. 91, 92. 3. 89

Wintering Canna 921. 12. 98, 914. 10. 82.

Flowering Canna 97. 6. 94.

Dwarf Canna 913. 6. 89.
GENERAL NOTE ON THE CENTROLEPIDACEAE

The Centrolepidaceae are a small order containing grasslike plants, natives of Tasmania, of no horticultural value. The order contains the genera \textit{Aphelia}, \textit{Centrolepis}, \textit{Gaimardia}, \textit{(Aepyrum)} and \textit{Trithuria}. The flowers are characterised by a long carpophore. The order is isolated in position, but it has alliances with the other members of the grasslike Farinosae.
GENERAL NOTE ON COMMELINACEAE

The Commelinaceae are annual and perennial herbs found distributed in all parts of the tropics and also in the subtropical regions. The alliances are close with the Bromeliaceae, the characteristic of the mealy endosperm and bright flowers placing them in the group of conspicuous flowered Farinosae. Most of the plants are stove plants and are common in cultivation. Commelina coelestis is frequent as an ornamental plant. While the characteristic colour of the flowers is blue in this order, red sometimes occurs, while white is rare. The purplish red flowers of Cochliostemma Jacobianum are ornamental. Some of the plants have handsome foliage combined with their flowers e.g. Dichorisandra. Of some economic importance are the various species of Commelina e.g. Tuberosus, and coelestis the fleshy rhizomes of which are edible.

The propagation of the Commelinaceae is excessively simple by vegetative means, since the tissues are soft, the leaves hairy, the rizomes fleshy. The plants in the order may /
may on this account be regarded as Monocotyledous.  

Gesneraceae (q.v.) Propagation may be effected by
division by cuttings (apical or otherwise) of the stem and
of the rhizome. Many of the plants e.g. Tradescantia,
naturally form adventitious roots on the stem so that
after separation cuttings are most easy to strike.
The capacity of the roots themselves to increase has not
been investigated, but it is likely from their general
character that reproduction would take place easily. The
hairy soft leaves should also like the Gesneraceae among
the Dicots, reproduce easily. Seed is the usual method
of increase for the annuals specially among the Commelinas,
Tradescantias, and is a common and easy mode in other
genera.
Commelinaeae.

ANEILENA. R.Br.

Division

Seed

Sinicus
Giganteum
Spilicus

Mexicana. 914. 8.78.

CAMPERLIA. Lin.

Division

Stem Cutting? (Plants root freely from node).

Seed also in spring.

Mexicana. 914. 8.78.

CARTONEMA. R.Br.

Division

Seed in spring.

Speciation

Cochlidiostemma. Lemaire

Greenhouse herb. perennial

COCHLIOSTEMMA. Lemaire

Division

Suckers. Produced at base of plants in spring or offsets. (Common for soda filtration.)
Commelinae 1,
COCHLIOSTEMMA.

1. Seeds produced in abundance. (artificial fertilization.)
down at once in heat.
see Apparent Sterility. 9/6. 278
9/23. 278
9/23. 278

Jasminum
9/14. 174
9/16. 776
9/17. 1183
9/23. 8
9/17. 1189
9/20. 8 93

= Odozatiaria
9/27. 278
9/14. 82

COMMELINA. Linn.

hardy, or greenhouse or stove, perennials

1. division for perennials.

for tubers for Commelina species. e.g. Coelestis, Tuberosa

(treat like Dahlia, but not overdry.)

2. Seeds for annuals. in spring.

for Coelestis i.e. (which seed freely)

C. Coelestis 9/20. 7. 93
9/3. 8. 93

Communis

Tuberosa
9/1. 9. 88
9/19. 3
Comelinaeae 3.

**CYNANTHIS** Don.

I. Division for *C. Barbata* no.

II. Seed for other species.

- *Cynanthis Barbata*
- *Cynanthis Himanta* Bmn. 7788
- *Cynanthis Nobilis*
- *Cynanthis Multicolor*
- *Cynanthis Zebra*

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**FORRESTIA AGB.**

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**DICHORORANDRA** Mck.

- Division in spring: usual method.
  - Stew Cut Sioux, weaker shoots. SS 11.92

- Seed.

- *Dichorandras Angustifolia*

- *Dichorandras Musaica*

- *Dichorandras Secundaria*

- *Dichorandras Thiyiana* 9.6 27.10.00

- *Dichorandras Thyiiflora* The most common sh. met with in the next hands.

  - 9 21. 8 86
  - 9 20. 10 00
  - 9 21. 11 03

- *Dichorandras Thyiiflora* 9 12. 12. 80

  - 9 19. 1. 84
ERYTHROTEIS, Hook.

division or type of young shoots inserted.

seed.

Beddomei least known sp. 9.23.4.87.
= Cyanotis Kewensis 9.23.89

FORRESTIA, A. Rich.

division
seed cutting.

seed.

triplicata = margiata BM 5.4.28.

PULISOTA, Robb.

division
seed cutting.

seed.

Borerei BM 5.31.8
9.22.6.01.

Macleodi F.C. 5.3.98.
Commelinaeae 5.

**Tradescantia** Linn.

Division for perennial

Skin cutting also easy: soft, woody & roots naturally dormant

Annuals: by seeds; seed self-sown easily

- *Ileacea*
- *Iridescent*
- *Multicolor*
- *Rosea*
- *Reginae*
- *Virginica* 18. 28. 1999 7 11-8-01

**Wilddenia**

Division of Reedy tubers

- *Candida* 7. 24. 5. 02
  BM 74-03
GENERAL NOTE ON THE CYCLANTHACEAE.

The Cyclanthaceae are a small tropical order limited to America, allied to the Pandanaeae and Palmeae. In appearance they are like bushy Palms: characteristic of the order are the many-nerved leaves and the inflorescence with the long protruding filamentous style. The flowers themselves are not very ornamental, but the plants are cultivated chiefly for their handsome foliage, e.g. species of Carludovica. These plants were formerly included among the Screw Pines, but though there is similarity of habit, there is a marked difference in the construction of the flower. Some of the members are lianes and these especially are characterised by a thick rhizome.

Propagation in the order is usually effected vegetatively, as in the Pandanaeae, by means of offsets.
CARLUDOVICA, R.T.P.

**humbilis**, 97.11.74.

**Palmata**. (Panama Hat Plant.) 96.8.76.

**Nallieo**, 917.1.80.

**Carludovicar**, 530.11.72.
GENERAL NOTE ON THE CYPERACEAE.

The Cyperaceae are an order closely allied to the Grasses in appearance. The members are mainly inhabitants of marshy and wet places and are on the whole insignificant and little suited for cultivation. But some species of Carex, e.g. C. pendula variegata, and C. Buchanani, are used with ornamental effect in the garden or for table decoration, and especially decorative are C. alternifolia variegata, and Kyllingia monoccephala, with its pretty silky heads of flowers, Isolepis gracilis, and the downy heads of Eriophorum growing wild in bogs in this country have earned for this plant the name of "Snow in June". On the whole, however, the majority of the Cyperaceae are not adapted for cultivation.

Like most aquatic and marshy plants, vegetative propagation is the usual method of increase, even in nature: the plants root easily at the node and pieces of the creeping rhizome which become isolated can thus readily reproduce. In practice Cyperus is also increased by apical cuttings placed in a saucer of water in heat. (See under Cyperus, and figs. in ).
Cyperaceae

CAREX. Linn.

I. Carex by division.

Paniculata 7.2.2.78 7.8.13.8.99 Buchanani 7.30.11.01

Fenobulva variegata 7.1.10.81

9.13.3.82

9.6.9.90

Scopaca 7.8.11.02

IV. see British Carexes.

CYPHERUS. Linn.

I. Home - division - cuttings of apex in water. (see Fig.)

Seed - better than division for alternifolius except for variegatus.

Papyrus 7.10.2.00 - The Papyrus in Sicily

Fertilis 7.8.2.7.98 7.98.1.98 7.18.7.99

Natalensis 7.8.7.1.99

Echinos 7.31.7.80

Alternifolius 7.11.12.80

9.15.11.84

9.27.6.03

a. variegatus 8.21.11.91

Distans 7.29.3.90

9.8.28.3.96

Warm plant. Shallow water.
Cyperaceae 2.

CYPHERUS. Contd.

longus. 5/98.80.
Meyenianus 5/83.89.
natalensis 5/11.85.

The Paper-Reed of the Ancients 5/18.74.
Disappearance of the Paper Reed 5/19.72.
The Paper Reeds 5/22.6.89.
Graceful Ledges 5/21.5.81.

ERIOPHORUM. Linn.

I.

II. ceto. natural (silky hairs in seeds).

III. angustifolium (Cotton Grass) 5/8.6.89
papystachyon 5/19.7.04.

GAHNIA. Forsk.

II. division

II. cephala Bm. 5/8.6.89
Cyperaceae 3.

**HYPOLYTRUM. Rich.**

**GENERAL NOTE ON CYPERACEAE.**

I. division

II. seeds

III. Cataphron Bn. 6282 324-3.77.
   schoedermannii. Lec. Bulló & As. 1893.

KYLLINGIA. Rothb.

I. division

II. seeds

III. monocephala. 930.12.76.
   92.11.92

SCIRPUS. Linna.

I. division. By old plants in Feb.

II. seeds

III. Nicolai = *Isolépis gracilis*. 92-3.78
   918-12.86
   98-4.99.

aconitus 910.7.04.

zebrinus 914.8.86
   923.8.89.

Holtzscheuer var. dinicui 99.10.86.
The Dioscoreae form one of the Liliaeae, and is closely allied to the Iridaceae from which it differs chiefly in the liane habit and to the petiolate leaves with reticulate venation. The order may be considered intermediate in character between the Monocots, and Dicots. The plants in the order are widely distributed in tropical forests and other warm regions and thus in cultivation belong mainly to the stove and greenhouse. *Tamus communis* (Black Bryony) is a hardy British plant and some species of Dioscorea, e.g. *Batatas* are also hardy in some places. The flowers are on the whole small and inconspicuous, unisexual greenish in colour (except *Trichopus secomeris*). The plants are more cultivated for their foliage. The leaves are often of a satiny texture variegated and very ornamental in many species of Dioscorea, e.g. *egregia multicolor* and varieties specially *chrysophyllan argyrea* &c.; they turn to a bronzy hue in *Tamus communis* and for the greenhouse the graceful foliage of *Testudinaria eliphantipes* is highly ornamental.
The Diosoreae are characterised by a thick tuberous underground portion (sometimes root, sometimes rhizome). In nature vegetative reproduction is effected by renewed growth from this tuber, e.g. Testuderinaria, or by the formation of axillary buds as in the case of the Yams.
Dioscoreae. Linnaeus.

Division of tubers.
(Tubers are edible. Yams).

*Batatas* (hardy). *Angyrea*


Retusa. 910.8.78.
Isoës. 920.9.84.

Tamus. Linnaeus.

Division of roots — tubercous.

Commune. 929.11.84.

(Black Bryony.) 913.12.84.

Elephantipes

Testudinaria. Salisii.

Cutting young shoots. Side best.
Cutting of root? Imported roots

Elephantipes

(Plants for RH)</p>
GENERAL NOTE ON THE ERIOCAULACEAE.

The small order of the Eriocaulons are an interesting group of plants, somewhat isolated in their alliances, but usually placed in the Grass-like section of inconspicuous flowered plants of the Farinosae. In appearance they resemble some Composites as their flowers are small, unisexual, and as in Eryngium, arranged in heads and surrounded by an involucre. The various species inhabit damp or marshy places of warm regions. The species Eriocaulon septangulare is interesting on account of its being native. It has a restricted distribution in Skye. The other genera are also of theoretical interest because of the additional style, but are not met with in cultivation.
**Triocaulaceae.**

**ERIOCAULON** Linn.

by plants.

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The Phragmariaceae are a small order of flowering plants still insufficiently known. The type of the order is *Phragmacos*, which is a climbing, as in the Hesperineae (flaxies), and its flowers are in close panicles, the leaves long and lanceolate.

They resemble the Pandorea in general appearance and might be termed Trinjia Hughes, but they differ markedly in the anther, which lies on a side on top of the spermatophore, and in the character of the antherosperm itself, which is usually placed in the grass-like section of the Pandorea. The order includes the three genera *Phragmacos*, *Phragmariaceae*, and *Phragmarius*, none of which are ornamental and are rarely seen outside of botanical gardens.
GENERAL NOTE ON THE FLAGELLARIACEAE.

The Flagellariaceae are a small order of climbing plants still insufficiently known. The tips of the leaves function for climbing, as in the Liliaceae (Gloriosa), the flowers are in close panicles, the leaves long and lanceolate.

They resemble the Juncaceae in general appearance and might be termed Twining Rushes, but they differ markedly in the embryo, which lies on a disc on top of the endosperm, and in the character of the endosperm itself, which is mealy, thus usually placed in the grass-like section of the Farinosae. The order includes the three genera Joinvillea, Flagellaria, and Susum, none of which are ornamental and are rarely seen outside of botanical gardens.
LAGELLARIA

Suckers

Common method

The Gramineae are the most widely spread monocoty-
leoned order, as the Compositae are among the dicoty-
leoned. The variety and the perfection of mechanisms
for seed dispersal have aided in bringing about their
wide distribution, for they are to be found all over the
world, in both tropical and temperate regions. The
stems are spreading and rhizomatous, and whereas seed is
not well produced, as in the Bermuda grass, pieces of the
stem afford an alternative mode of increase.

Though such a large family the Gramineae are only
represented in horticulture by comparatively few species
which can be really classed as ornamental. The majority
of the genera, e.g., Agonidium, are of little garden value.
Albicaulisitis, however, is used for coverts, as it is so
quick growing. Very beautiful in colour and habit, too,
is Agrostis arundinacea. The most well-known and ornamental
Gramineae are perhaps the various species of Bamboo (Arund-
inalis), especially A. Taeolani, A. nobilis, A. callosa,
A. nitida. Very decorative also are the feathery plumes
of Eryngium argentae (the Eryngia Arms), which unfor-
unately is often not quite hardy, but almost equal to
GENERAL NOTE ON THE GRAMINEAE.

The Gramineae are the most widely spread monocotyledonous order, as the Compositae are among the Dicotyledons. The variety and the perfection of mechanisms for seed dispersal have aided in bringing about their wide distribution, for they are to be found all over the world, in both tropical and temperate regions. The stems are spreading and rhizomatous, and where seed is not well produced, as in the Bermuda Grass, pieces of the stem afford an alternative mode of increase.

Though such a large family the Gramineae are only represented in horticulture by comparatively few species which can be really classed as ornamental. The majority of the genera, e.g. Aegilops, are of little garden value. Aira caespitosa, however, is used for coverts, as it is so quick growing. Very beautiful in colour and habit, too, is Apera arundinacea. The most well-known and ornamental Grasses are perhaps the various species of Bamboo (Arundinaria), especially A. Falconeri, A. nobilis, A. Simoni, A. nitida. Very decorative also are the feathery plumes of Gynernium argenteum (the Pampas Grass), which unfortunately is often not quite hardy; but almost equal to it
it in appearance and hardier is *Erianthus Ravernae*.

Propagation is almost invariably effected by means of division of the roots - or by seed.
Ornamental Grasses.

Ornamental Grasses in Pots £20.10.83.
Ornamental Grasses in Floral Decorations £14.1.82.
Grasses £18.4.91.
Grasses in Pots £10.1.91.
Grasses for Duchess Court £24.1.91.
£7.2.91.
Grasses £21.8.86. £18.3.86.
£15.3.90 £8.3.90.
£9.4.87. £24.8.84.
A bouquet of dried grasses £29.3.90.
A. annintha £10.2.4.
A. formosa £3.12.4.5.
A. haasianica £1.9.7.

Ornamental Grasses. W. Smyth.

AGROSTIS. Linn.

Cloud grass September 27, 91
May 20, 90.

Vars: rubella, pulegella, gracilis.

AIRA. Linn.

A. caespitosa: best for young plantations or game cover.
September 16, 78.

AMMOPHILA. Host.

A. arundinacea. (Mat Grass) September 16, 04.

ANDROPOGON. Linn.

A. schoenanthus (Lemon Grass) September 24, 77.

A. annuus. September 27, 97.


Followed by division as rarely produce seed outside.

Sorghum Halepensis September 74, 75.
Andropogon. September 93, 1981.

ANOMOCCHLOA. Brongn.

Marantaoides. September 53, 71.
Graminae 2.

ANTHOXANTHUM.
Adoratum 916·7·04.
graile see W. Smight (gen. index)

APERA. Adans

seed freely.

arundinacea. 9c. 23·10·97. 96·11·97.
(Pleasant Grass)

ARUNDINARIA. Michx

= Bambusa.

hardy or half-hardy.

falcata. 9c. 21·5·04. /929·7·76.

Simoni. 9c. 21·3·03.
9·29·03.
9c. 30·7·09.

auricoma. 9c. 18·7·99.

Anceps. 93·11·00
9c. 12·1·01.

mitida. 94·12·98 see gen. cols on Bamboo. Mehl as.
93·9·04.

Veitchii. 92·12·98.

Metallica. 94·12·98.
ARUNDINARIA. Michx.

japonica. Sc. 18.8.00.
khazuran. Sc. 27.1.94.
spathi flower = Thamnocalamus sp. Sc. 29.12.94.
nobilis. Sc. 15.1.98.
Sc. 7.1.99 (Plate).
Sc. 25.6.04.
Sc. 2.7.04.

See Bambusa.

ARUNDO. Linn. hardy - damp


A. Donax variegata. Sc. 11.10.81.
Sc. 30.12.82.
Sc. 13.5.99.

A. Donax. 9.23.3.72/81.4.85
(Great Reed).

for varieg. Phragmites. See genus.

Arundo species. Sc. 11.7.98.
AM BUSA. Schreb.

Division Common Method.

Stem cuttings. See photo?
Cuttings of rhizomes, see 91.12.94.

Suckers -

Seed. See 9c. 21.1.99 also 9c. 13.8.04 (seedling of Bamboo).

Sp. minima. See wider genus, articles -
also Keitch's cat. of Hardy Bamboos &
arts. by A.B. Freeman. Milford.

Hardy Bamboos 9c. 1.10.98 / 912.10.72 / 920.4.89 / 913.12.90
(B. arundinacea).

Bamboos in Pots. 98-4.99.

Himalayan Bamboo 9c. 14.3.04.
9c. 21.8.04.
9c. 28.8.04.
9c. 4.6.04.

Flowering of Bamboos. 91.8.03. 9c. 5.9.03
9c. 8.8.03.

The Bamboos. (A.B. Freeman Milford.) 92.12.99
see also remarks in 923-16.96.

The Bamboo Garden at Ken. 51.2.03.
(W. Ballinobe)
Francciaae 5°.

BAMIB USA contd

W contd.

Bamboos in the S. of England 9235 0 8

Bamboos 916 7 92
930 11 80

The Bamboo Sander (A B Freeman-Mitford)

Caananagrostis

Cannanagrostis (Canna Family) is Eburnata, elegans, alas Chrysanthemum

Cynanchum

Canadaria Stark & Cynanchum (var) (var)

C papatae Pett 71 0 7
C papatae papata 99 2 90 190 7 6 0 2

pre the alba of Him & Palmas Fenus - bee 94 12 97

C cambrici 90 710 99

C folia variegatus 90 27 5 99

Sir mano Cynanchum (Pampas Fenus)

Cryptopyrum

Ranunculaceae
BRIKA. Laur.

Division + seeds.

maxima. 357.

(anual).

media. (perenn.) Useful for hockey.

spicata. (cliose).

CALAMAGROSTIS Rott.

elegans. Elymus elegans var. Bells ca. 8m.

CHORIS (Fieg. comm.) sp. Carabica, elegans.

CORNAERIA Staff. = Gynetrium.

C. juba. Rott. 7607. = Gynetrium juba. 7607 2.94. 196 4. 1. 94.

See the allies of Gua & Pampas Grass. — See. 54.12.97.

C. tafeltsii G. C. 7.10.99.

C. folvis variegatis 90. 27. 5. 99.

See under GYNERIUM (The Pampas Grass).

CRYPTOBRUN.

Richardsoni.

E. M. MacMillan 90. 2. 7.9
CYNODON. Pers.

C. dactylon 928.10.82.
(R Bermuda Grass)

DACTYLYS. Linn.

D. glomerata lakpola aurea 524.6.76 / 927.3.80.
elegantissima aurea 529.4.79.
519.9.76.
= glom. eleg. 515.10.81.

(see Silver-edged Grasses. in gen. 518.10.79)
511.11.79.

Diplachne fascicularis. (w.s.) for borders.

ELYMUS. Linn.

E. arenarius. (Rayne Grass) 516.12.90
514.2.91.
518.2.93.

Glauca foliosa 510.8.78
514.9.86

ERAGROSTIS (Bee Grass).

ERIANTHUS. Mich.

E. Ravennae 514.9.72.
517.12.98.

E. Monstrierii 510.2.72.
EUCHLAENA. Sehns.

9.11.9.80.

EULALIA. Kunth.

Best by division - seed - variable - not true for vars.

9. japonica. - 921.9.76/ 93.11.88 / 46.

j. variegata. 915.12.77.
931.12.87.
925.7.96.

j. zembrina. 911.10.79 / 90.30.12.99
j. albo-lineata. 99.9.82.

9. gracillima. 97.10.93.
90.6.9.02.

9. uni vittata. 912.3.92.
921.10.93.

The Eulalias. 912.3.92.
97.9.98.
98.8.96.

The Japan Eulalias. 98.10.98.
FESTUCA. Linna

F. glauca. 7.6.90.
F. ovina caerulea 223.3.78.
F. ovina. 7.10.83.
(Blue Spike Grass)
Viridi. 9.10.78.
9.29.1.76.

GLYCERIA. R. Br.
G. aquatica. 91.9.00.

GYNERIUM. H.B.


Elegans. 9.24.10.96.
9.18.72.
24.10.96.
24.7.03.

Argentum. (Common Pampas Grass) = Cortaderia sp.
See also Cortaderia sp.

Pampas Grass. Bamboos & Thorns. 9.15.1.87.
11.8.88.

Varieties of Pampas Grass. 98.11.79.

The Botanical History of the Ura. Pampas Grasses & Their Allies.
(0. Staff, see G. C. 1907) July-Aug.

Relative Hardiness of New Varieties of Pampas Grass. 9.27.8.81.
HORCUS. Linn.
lanaroides aureus 8/25/79

LYGEUM. Linn.
Spantum - (Esharto Grass) 8/13/73

MISCANTHUS. Anders. s.
Nepalensis - =  Sacalinia gracilisca un النمط
(Anonymous Fairy Grass)
Grosier. Br. 7304

MOLINIA. Schrk.
Coenilla Variegata 8/17/77

O LYRA. Linn.
O. coenina Br. 7469

PANICUM. Linn.
(Seed or divisions usual)
Variegatum
8/13/77
9/21/77
9/22/1979
9/19/98

Gramineae 11.

PANICUM Contd.

Virgatum  927.9.78
         921.7.94.

Plicatum  928.5.85.
         (seed from sec.)
         921.2.89.
         94.12.97.

Bulbosum 913.11.97.

PHARUS s.str.

PENNISETUM Pers.

(beat: from seed) treated as annuals.

P. Ruppelii  920.2.97.
         95.17.12.98.

P. Scirphoides 913.7.79.

P. Sicyoides 924.12.72.
         9.9.10.78.
         9.16.10.78.

japonica = Hypochoeris jap. 97.10.76.

latifolia = Hypochoeris latifolia 928.12.72.

P. Aduncum 90.4.22.01.
         912.12.63.

P. Castilleona 90.6.2.06.
         924.12.72.

P. Fulon  924.12.72.
         98.10.11.01.
         9.24.10.03.
**Gramineae 12.**

**PHAE NOSPERMA.** Munro.

*P. globoza.* Ip. Pt. 1941. 525. 10. 79.

**ORNAMENTAL.**

---

**PHALARIS.** Linna.

*P. ammònîacea varieglata.* 79. 12. 82.

= *Diaphanous.* (Pardew's Parker.)

*P. eleganîtissima.* Warz. Cal.

*P. canariense.* (Canary Sea Grass).

**PHARUS.** Linna.

*P. quinânum albo striato.* 80. 2. 9. 99.

**PHRAGMÎTES.** Linna.

*P. communis folio varieglato.* 521. 9. 01.

**P. communis.** 916. 7. 04.

(Reed Grass)

---

**PHYLLOSTACHYS.** Sieb. AND Zucc. hardy Bamboo.

*P. Henonis.* 90. 22. 6. 01.

= 12. 12. 03

*P. castillonis.* 90. 6. 2. 04.

= 24. 12. 98

*P. Sulua.* 924. 12. 98.

*P. nigra.* 816. 11. 01 / 924. 10. 08.
**Phyllostachys**

- **mpic:** var. punctata 6.6.00
- **Kumasara:** 9.26.12.96, 9.15.8.96
- **Vindu glaucum:** 9.9.94

- 'In Range' Walking cane 5.9.77

**POA - Linnaea**

<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>Annuva</td>
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<td>1.8.03</td>
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<td>22.8.03</td>
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- Poa annua as a Lawn Grass 6.6.03
  - (Prof. Henson)
- Poa Annuca noto 4.7.03
  - Self-fertilized 18.7.03
CIECHARYM. Linnaeus 8 lepso.
Stipa cutting of pieces. Common method. See 922.3.90. on Stipa of Sugar Cane.
Aegilops 527.1.77.
Officinarum 922.3.90.

SETARIA. Beauv.
- Aepocruroides nigra 917.8.95.
  (annual).
- macrosperma 911.11.93

SPARTINA. Schreb.
- Emerincea (Tussock Grass) 97.11.74.

STEINOTAPHRUM. Linnaeus.
Glabrum 916.1.04.
(Americanum) 99.2.99.
Variegatum 924.10.96.

STIPA. Linnaeus
- Pennata (The Feather Grass) 926.2.76.
  (Not very common, as seeds hard. Take long time to germinate.)
*Trameteceae* Linn.
*STIPA* Conta.
*teracissina* - GC. 16.10.97.

**TRITICUM.*** Linn.

- *repeus*
  - bulgar (Cork. Grass) - GC. 14.2.80.
  - GC. 18.7.96.
  - GC. 19.2.96.

**UNIOLOA.*** Linn.

- *latifolia* - GC. 25.10.79.

**LEA.*** Linn.

- *annuus* - May 1st. (Maize or Indian Corn)
  - *Indian Maize* - 939.6.72, GC. 12.9.96.
  - *Variegated Japanese Maize* - 730.8.78
  - *Cobbett's Corn* - 9.1.78
  - *Good Varieties of Sweet Corn* - 919.2.76
  - Maize as a vegetable - 919.9.96.
  - 92.10.97.

- Maize or Indian Corn - 53.9.92.
Franciseae 16.

L'IBANIA. Lin.
aquatica. (Canadian, or Wild Rice.) S.C. 27.10.00.
929.10.98
General notes on the Propagation of Conifers.
GENERAL NOTES ON THE PROPAGATION OF THE CONIFERS.

ABIES: Prop. 1. cuttings not usual: slow. except A. polita.
   grafting not satisfactory, though used in some sp.
   species.
   2. seed the usual method. March 55° or outdoors April

Species in cultivation: arizona, concolor, grandis, nobilis
   Nordmanni, pectinata, Pinsapo.

Lit. G26.6.36.
   G.16.2.78.

ACTINOSTROBUS:
   sp. acuminatus, pyramidalis.

AGATHIS: (DAMMARA, CUNNINGHAMIA).
   difficult
   1. usually from cuttings, somewhat to form leading shoot.
   shoots. G.20.2.86.
   suckers best removed in C. sinensis.
   cuttings of young firm shoots for D. australis,
   orientalis, &c.
   2. seed also. make the most handsome plants.

orientalis (D. orientalis, C. australis.)
   obtusa, loranthifolia, sinensis. G.20.2.86.

ARAUCARIA:
   1. weaker terminal shoots (not lateral).
   cuttings make best feathered plants. autumn and
   spring, but slow.

   2. seeds not so good. resulting too leggy and naked
   at the base e.g. bidwelli G19.3.98. or slow
   e.g. A. imbricata G.9.4.98.

Bidwelli, Cunninghamhia, Cooki, balansae, Brasiliensis excelsa
   imbricata goldieana G16.6.77.
ATHROTAXIS: 1. cuttings in frame in autumn.
   2. seed also when can be obtained.
   sp. in cultivation: cupressoides, Gunneana, laxifolia
   selaginoides.

BIOTA: (Chinese arbor-vitaes.)

1. cuttings more difficult than American arbor-vitaes
   easiest to root is elegantissima; fairly easy is
   aurea, most difficult is semperaureescens.
   pendula does not strike easily.
   seed.
   sp. aurea, elegantissima, semperaureescens, pendula &c.

CALLITRIS: (WIDDROPINION, OCTOCLINIS, TETRACLINIS.)

1. cuttings in autumn.
   2. seed also.
   sp. Muelleri, quadrivalis (T. articulata), rhomboidea,
   robusta, &c.

CEDRUS: 1. not commonly used, either cuttings or grafting.
   resulting plants seldom well branched 618.4.35
   610.5.90.
   grafting for varieties on strong stocks.
   2. best for Deodars 6.9.11.12.97.
   622.6.95.
   seed best taken out of cones and sown as soon
   as possible, because they soon lose vitality.
   sp. atlantica, and var. glauca.
   deodarii, and var. nivea and robusta.
   Libana.

CEPHALOTAXUS. 1. cuttings in autumn.
   2. seeds in Sept. light soil, or March.
   sp. drupacea, fastigiata, (Podocarpus koraina )Fortunai,
   pedunculata, &c.
CHAMAECYPARIS = RETINOSPORA, THUYA.

CRYPTOMERIA: 1. cuttings easy half ripe autumn, and a little heat in spring. G7.3.74.

2. seed in March 55° or outdoors April.

sp. elegans G20.10.77, G17.10.85, G13.12.90.

japulica, Lobbii, lycopodiodes.

CUNNINGHAMIA = AGATHIS.

CUPRESSUS 1. cuttings Sept. and Oct. compact vars. strike more easily than loose open varieties, G10.5.90
C. ereeta viridis easy from cuttings.
the dwarf vars. take longer than ordinary vars.

grafting also for vars.

2. seed also April.

sp. macrocarpa, lawsoniana, nootkatensis, obtusa, pisifera & c.

DACRYDIUM (LEPIDOTHAMNUS)

1. cuttings mature twigs.

2. seed when it can be obtained fresh.

sp. cupressinum G29.11.79, G15.5.75.

Fransenii G10.11.83.

G27.10.77.

FITZROYA: 1. cuttings half mature twigs and leading shoots under glass.

2. seed also.

sp. Archeri, patagonica.

GLYPTOSTROBUS = TAXODIUM.

JUNIPERUS: 1. cuttings. juvenile shoots root better than mature G10.5.90.

e.g. golden Chinese Juniper G 9 8. 90.
cuttings not satisfactory for J. recurva G7.9.89.
easy for J. rigida G 4.2.93, G25.9.86.

2. also layers and grafting.

2. seed also. light soil. April.

sp. communis, alpina, bermudiana, drupacea, hibernica.
KETELEERIA.

LARIX:  1. grafting for varieties and rare species.
        2. seed is the common method.

        sp. europaea: C & W. II 222.

LIBOCEDRUS:
        1. cuttings firm shoots. Aug. and Sept.
        2. seeds in sandy soil.

        sp. decurrens. C.& W.II.208.

PHYLLOXERUS:

PICEA  1. cuttings in sandy soil Aug. & Sept.
       layering in autumn.

       2. seed sown in sandy loam March 55 or outdoors in April

        sp. alcockiana, excelsa, morinda, nigra, orientalis, polita,
        pungens.
        C. & W. II. 216.

PINUS:  1. cuttings not used. but possible (1)
        grafting in August.

        2. seed in greenhouse April, and transplanting outdoors
        following spring.

        sp. Coulteri, Laricio, and var. nigricans, Pinaster, ponderosa,
        sylvestris, cembroa, excelsa, strobus.

PODOCARPUS:

  1. some sp. quite readily from cuttings, japonica &c.
     andina also (Prumnopitys elegans).

       2. seed the usual method.

        sp. korodata, chinensis =alpina, G8.12.77.
        chillina C.20.12.90.
        macrophylla , pectinatus, C.C.1392. Vol.XI.
        nubigeana =Saxegothea,
        andina=Prumnopitys elegans.

PRUNNOpITYS:

       1. cuttings easy in autumn or late summer. C.C.13.02.

        sp. elegans.
PSEUDOLARIX: 1. cuttings not used.
               2. seed the usual method in spring, transplanting to
                   following year.

PSEUDOTSTUGA: seed the usual method in spring.

RETINOSPORA: (Japanese arbor-vitaes.)
1. cuttings of small shoots taken off in autumn.
   and given a little heat in spring. species of
   varying difficulty.
   easy are R.squarrosa, ericoides and dubia.
   more difficult are pisifera and plumosa,
   and still more are R.obtusa and vars.310.5.90.
   grafting also on closely allied species as stocks.
   sp. pisifera, plumosa, obtusa &c.

SAXEGOTHREA:

SCIADOPITYS: 1. half ripe shoots strike easily.
               2. seed usually imported from Japan, but plants make
                   very slow growth' especially the first six years.
                   sp. verticillata.

SEQUOIA: 1. cuttings in autumn (1)
             also layers.
             2. seed in spring.
             sp. gigantea, sempervirens.

TAXODIUM: 1. cuttings in autumn in sand or in water.
             layers in autumn.
             grafting for vars on to T.distichum.
             2. seed also in light soil outdoors March.
             distichum.

TAXUS: cuttings autumn.
       grafting on to T.baccata.
       2. seed also in spring.
       sp. baccata, canadensis, davidiana, fastigiata.
THUYA: (American arbor-vitaes.)
1. cuttings sandy soil autumn. more easily struck than Chinese arbor-vitaes.

  grafting for rare vars.

  layering not common.

2. seed in spring in temp. 55. transplanting when large enough to handle to open ground.

sp. two only occidentalis, and orientalis. if Retinospora, Chamaecyparis, Libocedrus and Biota are excluded.

THUOPSIS: sp. dolabrata.

TORREYA: 1. cuttings and grafting like Taxus.

2. seed also.

sp. californica, grandis, nucifera, myristica, taxifolia.

TSUGA: seed the usual method

sp. brunoniana, canadensis, caroliniana, diversifolia, mertensiana, Sieboldi.
**CALLICHOEA**

- Seed
  - platyglossa BM. 3719

**CALLISTEPHUS**

- Seed
  - Hortensis 736.3.98 9.23.17.99
  - Sinensis 54.11.99 9.28.11.99 9.97.1.00

- China Aster 539.9.73

**CALOTIS**

- Division
- Seed
- Cuneifolia BR. 304

**CARDUINCELLUS**

- Division
- Seed
  - Consolens BM 939.3
  - Primus (extinct) 9.7.10.99
CARLINA

Division

Seed


C. lyrata.

CARTHAMUS

Seeds in spring

Tricotomin P. R. 170.

CASSINIA

Division

Stem cuttings in spring

Seed for annual in spring

fulvida - Hoploptopus Chaenophyllus

white 9 28 1 99 (note)

9 2 2 99

9 15 4 99

CASTANANCHE

Division

Seed - local method

Alba - bicolor - Coelancha

C. Coerulea

Bom. 1998

9 10 6 99

9 23 6 83

C. 9 7 92

9 27 5 99
Compositae 7.

**CELMISIA.**

- coriacea 9c. 13. 9. 02.
- Lindayi 9m. 7134
- Munroi 9 12. 17. 03
- Pum. 7496
- Spectabilis 9m. 6653
- wallaceiifolia 9 18. 6. 04

**CENTAUREA.**

1. Stem cuttings in autumn.
   Must not be too soft or green, otherwise damp off from bases also. Cut cuttings near convenient.

- Babylonica
- Ceanreae, *C. candidissima* 93. 3. 92
- Clementi 94. 9. 86
- ra macrocephala
- macrorhiza 95. 4. 79 9 14. 9. 72
- 9 22-3. 79 Le 16. 9. 99
- 9 4. 12. 86

- Tuthériea 99. 10. 93

Propagating Centaureas 9 30. 8. 73
- 9 18. 8. 77
- 9 1. 9. 77
- 9 28. 9. 77
- 9 15. 9. 88

Centaureas from seed 9 8. 11. 73
9 31. 8. 86

Annual Centaureas 9 8. 11. 98
CHAETANTHERA

Division in spring
Seeds for annuals
Ciliata
Chilensis
Luricaria

Chaenomeles

CHAEMEPEUCHE

Seeds: best to treat as an annual
Dianthus 920.3.80
CasaRambo

Midwinter Crape 99.7.89

CHAPTALIA

Division 6
Seeds

Tomentosum 920.2.00

CHRYSANTHEMUM

Division in March
Cuttings in Feb.
Cage also for getting dwarf plants.
Seeds also spring

Scunice.
Garden bars: innumerable
Chrysanthemums 976.7.90.

Hardy Chrys. 96.12.90.

New Continental Chrys. 974.8.92.

New Continental Chrys. 974.8.92.

Notes on Recent Varieties 971.8.93.

Chrysanthemums Them for 923.7.95.

Greenhouse Plants

Chrys. for Decoration 974.4.96

Chrys. novelties 972.7.96

Midwinter Chrys. 99.7.89

Anemone flowered

Chrysanthemums in their Culture 979.11.90

Starting the Chrysanthemums 915.11.90

Autumnal Chrysanthemums 911.10.90 (Cultural Notes)

Chrys.: Housing the Plants 94.10.90

Repotting the roots of Chrysanthemums 96.9.90.

For other articles see Chrysanthemum: Cultural Notes.
CHRYSOCONA.

division

Selting for greenhouse 15th Aug. 1972

* Conacreas
  * Per. 1972

* Linosyris S. 27.9.84
  * Sp. 91.10.99

CHRYSOGONUM

hardy herb

division in spring of offsets

CINERARIA

virginianum Ge. 26.9.96

* Sp. 11.10.00
  * 26.10.00
  * 94.3.07
  * 06.12.7.02

CHRYSOSTEMMA

triflorus see COREOPSIS triflora Per. 3583

CHRYSOPSIS

hardy herb, perenn

divisions in April

* Leeds
  * 98.6.97

* Brewen
  * 98.7.97

* Villora var. Rutterii (rare)
  * 99.6.97
ECHIUM

Seed calling. Root. Cutting will soon cutting 3 or 4 inches.
Vegetable method not so good as seeds. As leaves become bitter I recommend for salads needs best in spring.

Valerian (Chicory)
(If by common sense, as roots roasted to mix with coffee)

Staging and Foremen's Chicory C.C., 31-10-03

CINERARIA

New cutting best method - Spring or autumn.
Seeds also in Feb: again in April, May, to get succession.

Cauila £1.9.90.

Garden Vans, Fleet, Police Perfection, B. Boshell.

Cinerarias £11.1.88
£19.4.90
£14.5.97
£15.8.97

Double Cinerarias £6.5.82
£14.5.87

Cinerarias of Today £11.7.90
Hybrid Cinerarias £16.1.97
£17.7.97
£16.8.98.
CINERARIA, contd

How to improve the Cineraria 9 6.4.78
Unique of Sander Cineraria 9 2.8.96
Cineraria at Tamah Blow 9 10.5.02

Cnicus

division

seeds

C. glechoma 9 17.5.84
(keep hardy)
9 15.11.02

Comaclinium

1. division
2. seed
3. aurea annua
( spp. are success)
9 12.4.91
9 3.4.91
(b욱)
9 30.5.92

Conyxa

Conyza

= Chrysocoma

seed

ambigua (annual)
chileensis (biennial)

Erect, decumbent, or prostrate. The use mainly in fi
CORCEPIS

Stem cuttings in spring & autumn
Division also spring & autumn for C. lanceolata

Seeds for annuals; though variation occurs: e.g. C. grandiflora

Coronata 1927 3460
aristosa 14.10.76

Dumontii 9.22.10.89

Eldorado 9.11.91 (x6)

C. lanceolata 9.29.8.91
9.24.7.91

grandiflora 9.29.94
8.1.95
9.31.7.97
9.22.7.99

C. lanceolata (other bars) 9.29.11.84

Varieties of Coreopsis 9.17.8.89

Annual Coreopsis 9.1.4.91

Annumal Coreopsis 9.1.5.91 (bel.)
9.23.5.93
9.29.5.96

Annuals & Perennials Coreopsis 9.1.3.84
Compositae 9/4 -

Cosmos -

seeds sown early to bloom in Sept.

Atriplex prostrata 7/17/83.

Ciparranthus 7/15/86.

Calendula officinalis 7/27/90.

200 3.01.

Cynchronously 10/14/01.

Alstroemeria 7/29/85.

Cryptostegia 7/6/98.

Annual Compositae 9/7/91.

Cousinia -

seen in March

Division for perennials

Macrophylla

Knella (annual)

Crassocephalum -

=Synurus

seen in Nov.

Cockscomb 11/16/84.

Annual Amaranths 9/3/83.

annual Amaranths.
CREPIS

seed 6.1

barbata t 35 Blm

maculosa Blm 1938

nudicaulis

= Barbers ecroica mth 98.1.81

sibirica

Crepis sibirica 911.6.98

CRYPTOSTemma

Seeds

calendulaceum Fom 1952

curitamum 9.1.12.00

9.13.12.00

CULLUMIA

Noe calcifer

seed also

ciliata 900.3.02

pelata

SYNARA

- Arichote

A. burdock

A. coremum

A. frutescens

A. officinale

A. officinarum

A. sativa

A. tuberosum

A. vitifolia

GREENHOUSE USA green

 Alexander 910.59

 Alexander 910.69

 ST. 11 49
DAHLIA

1. stem cuttings - Feb - Aug.
   best from young shoots from old roots.
   also young tops.
   grafting on roots for delicate varieties.
   root leaders for producing stem cuttings.

2. seed also in March.

3. arborea
   excelsa
   Maximiliana
   ceriseii

4. see you ants.

Dahlia: $1.6.4.92
   $3.4.96
   $5.3.4.97

The Dahlia: $9.3.89
   $16.5.89
   $12.10.89

Planting Dahlias: $28.5.87

Single Dahlias: $39.5.86
   $28.10.87
   $17.3.94

Cactus Dahlias: $19.9.96 $12.3.01
   $29.9.96
   $18.9.96

New Cactus Dahlias: $31.8.95
   $19.9.96
DAHLIA contd

Single Cactus Dahlias 5/14.9.96
Best Cactus Dahlias 5/18.10.02

New Dahlias 5/39.9.00
9.2.10.97
The Various Groups of Dahlias 5/30.8.01
Dahlias as a Garden Flower 5/17.11.01
Dahlias FAIRY BROWN 5/18.10.94
Decorative Dahlias 5/18.10.90
How to propagate the Dahlia 5/15.3.84

Species of Dahlias & Their Early History 5/13.10.77
of Cactus Dahlias (W. B. Hemmings)

National Dahlia Society 5/11.9.97

Bibliography of the Dahlia 5/9.2.97
(C. Harman Payne)

DORONICUM

DENDROSERIS

DEEDS  & unpotted plants

macrophylla 15th 6353

Greenhous Lee
**DIMORPHOTHECA.**

1. Stem easily strike easily for shrubs, e.g. *Cheonggaentheuma forma* + Pericton

2. Seeds in spring

3. *Barbarea Ren. 5337*
   - *Canadica*
   - *Pericton* (Transvaal Mar. youths)
   - 9/26/97
   - 9/6/04
   - 9/13/04

**DIPLOPAPPUS.** see Aster.

**DORONICUM.**

1. Division of column

2. Seeds also

3. *Austriacum*

   - var. majus 9/27/97
   - Bouchieri
   - Clusii 9/31/90 / 5/29/97
   - Columnae
   - *Plantagenium*
   - *Planti var. Harper Cerei 9/27/12/84*
   - 9/20/49
   - 9/8/6/01
Conpositae 29.

**DYSODIA.**

= Clomenecoma =

1. ?

2. seeds.

3. montana = Dysodia montana Pm. 5310.

9.11.12.80.

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**ECHINACEA.**

Division in Spring.

1. seeds. various method Spring.

2. Echinacea.

 purpurea = 919.8.97
 9.11.97
 9.13.12.02

 tenuiflora = 913.12.02

Eerea spectabilis 913.12.02

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**ECHINOPS.**

Division in Spring.

1. seeds. in Spring.

2. Echinops.

 3. lanatus = 94.9.97 (note.
 4. Behrath. Globe Thistle. 94.2.74
 5. Maurocephalus 93.9.03
 6. 919.9.03
 7. huthicus = 93.3.94
 8. Retro Pm. 932.

9. Schinzop 928.8.86

Globe Thistle 923.7.92/93.3.94.
ERIGERON.

1. Compositae 30

2. ERIGERON.

3. division


5. Aurantiacus 790-9-84.

6. Coulteri 50-3-8-01.

7. glaucus 9-29-1-98

8. 7-19-2-98.

9. hyssopifolius 9-7-12-01.

10. mucronatus 9-13-8-90.

11. 9-11-7-92.

12. 9-16-8-95.

13. 9-21-12-95.

14. Philadelphicus 9-7-7-00.

15. salcugnosus 9-29-8-97.

16. speciosus 9-19-3-98.

17. 9-5-3-98.

18. varii: grandiflorus superbus, trifidus 9-11-6-00.

ERIOCEPHALUS.

1. Greenhouse Evergreen

2. aitri-cultivo half-ripe in spring.

3. africana.