

## PLANTS FOR TAXONOMY DEMONSTRATIONS

Access to botanical gardens, or even municipal glasshouses is a valuable resource of teaching material, and to walk around for relatively unstructured live tutorials.

Florists and garden centres are another source of flowers and growing plants.

Many spring flowering trees can be forced into flower in winter by picking branches, bringing them indoors and keeping in warm water. Hazel and willow will produce catkins by this method as early as November, 7 days after bringing indoors.

The following are suggestions of annual species from the larger temperate families. Seed of these annuals is readily available from Herbiseed and can be grown to flowering in 2-3 months, using a heated greenhouse (ideally 25C, with an 18 hour daylength). However, attempts to produce some short-day flowering plants (eg. *Amaranthus*, *Chenopodium*) in the winter can result in premature flowering on atypically small plants.

### AMARANTHACEAE

*Amaranthus retroflexus*

### APIACEAE

Cultivated carrot, parsley (vernalise to stimulate flowering)

*Ammi majus*

The wild species of this family are extremely difficult to germinate in the glasshouse, although *Scandix* and *Aethusa* sometimes germinate and then flower rapidly.

### ASTERACEAE

*Senecio vulgaris* (the fastest to flower)

*Sonchus asper*

*Bellis perennis*

*Bidens pilosa*

*Galinsoga soldanella*

*Calendula arvensis* (is fast to flower)

### BORAGINACEAE

*Myosotis arvensis*

*Amsinkia angustifolia* (deeply lobed cotyledons and yellow flowers)

*Anchusa arvensis*

### BRASSICACEAE

*Arabidopsis thaliana* (probably the fastest to flower)

*Thlaspi arvense*

*Lepidium ruderales*

Garden Iberis (fast to flower)

Garden radish easier to germinate than wild

*Sinapis arvensis* (can be unpredictable to germinate, but faster to flower than cultivated mustard)

### CAMPANULACEAE

Legousia hybrida  
Garden campanula

**CARYOPHYLLACEAE**

Arenaria serpyllifolia  
Stellaria media  
Spergula arvensis  
Agrostemma githago (needs long days to flower)  
Silene dioica

**CHENOPODIACEAE**

Chenopodium album

**CONVOLVULACEAE**

Ipomoea purpurea  
Convolvulus tricolor  
Cuscuta campestris (very easy to grow on carrot)

**CUCURBITAE**

Commercial cucumber is easiest  
Ecballium elaterium, squirting cucumber, is the most fun

**CYPERACEAE**

'umbrella plant' from garden centre?  
Cyperus iria (needs 25-30C, but fast to flower)

**ERICACEAE**

Buy a heather or Azalea from garden centre

**EUPHORBIACEAE**

Euphorbia helioscopia  
Mercurialis annua (very fast to flower, but very unpredictable germination)

**FABACEAE**

Field bean (V.faba) is fast to flower  
Annual lupin  
Vicia sativa  
Trifolium repens

**FUMARIACEAE**

Fumaria officinalis (can be difficult to germinate)

**GERANIACEAE**

Geranium molle  
Geranium dissectum

**IRRIDACEAE**

No annuals available, force bulbs/corms of Freesia, Crocus, Gladiolus, Iris.

**JUNCACEAE**

Juncus bufonius (grows and flowers fast on wet mud)

**LAMIACEAE**

Lamium purpureum  
Galeopsis segetum

**LILIACEAE**

No annuals available, so force some bulbs of Tulip, Colchicum, Muscari, onion

**LINACEAE**

Cultivated linseed

**MALVACEAE**

Malva neglecta (germination slow and sporadic)  
Malva parviflora (germination slow and sporadic)  
Hibiscus trionium (probably the fastest to flower in warm glasshouse)

**ONAGRACEAE**

Epilobium ciliatum  
Garden clarkia  
Oenothera 'annua' (a fast flowering species imported from USA)

**PAPAVERACEAE**

Papaver rhoeas  
Papaver somniferum

**POACEAE**

Poa annua  
Lolium temulentum  
Setaria viridis  
Phalaris minor  
Echinochloa crus-galli

All these are fast to flower, and apart from Poa annua have easy to dissect spikelets.

**PORTULACACEAE**

Portulaca oleracea

**POLYGONACEAE**

Fallopia [Polygonum] convolvulus (seed needs three weeks stratification, but reliable)

Rumex acetosa (probably the fastest Rumex to flower, but needs long days)

**PRIMULACEAE**

Anagallis arvensis (sometimes difficult to germinate)  
Primula from garden centre  
Lysimachia nummularia

**RANUNCULACEAE:**

Ranunculus muricatus  
Consolida orientalis  
Nigella damascena

Ranunculus ficaria (from root tubers)

**ROSACEAE**

Sanguisorba minor (easy to grow as an annual but hardly typical of the family)  
Potentilla supina (grow in warm wet conditions, fast to flower)  
Potentilla erecta  
Force fruit tree or blackthorn blossom?

**RUBIACEAE**

Galium aparine (needs long days to flower)  
Sherardia arvensis

**SCROPULARIACEAE**

Veronica persica  
Misopates orontium

**SOLANACEAE**

Tomato  
Solanum nigrum  
Datura stramonium  
Nicotiana tobacum

**URTICACEAE**

Urtica urens

**VIOLACEAE**

Viola tricolor  
Viola arvensis (lots of biotypes of this spp, intergrading and interbreeding with V. tricolor)

**SEED SUPPLIES AND ADVICE FROM:**

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See also Herbiseed Brief Weed Guide No. 7, 'Producing Weeds for a Demonstration or Competition'.