

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)

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