Foxgloves are always a welcome sight, and there were some fine colours and bloom shapes to admire in the RHS Plant Trial of *Digitalis* 2013–2015. These cottage-garden favourites are suited to many styles of garden.

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In the wild, *D. purpurea* thrives in moist, humus-rich soils and is common at woodland edges and in clearings, hedgerows, roadside verges and areas of disturbance caused by tree felling or fire. Breeding work over recent years has produced a wider choice of new foxgloves for gardeners. Many were the subject of an RHS Plant Trial of Digitalis from 2013 to 2015 (see p83). Notable seed-raised selections in the 2013–2015 RHS Plant Trial of *Digitalis*.

### Background

Foxgloves have evolved to be pollinated by long-tongued bees such as carder bees. Petals are fused into a tubular corolla, forming trumpet-shaped, pendant blooms on long spikes. Their broad lower lips allow bees to land, and reflexed hairs help them climb upwards, while deterring entry by smaller insects. The spots or blotches inside the flowers act as nectar guides for bees to follow. Flowers open as pollen-bearers from the bottom of the spike to the top. As each bloom ages, the stamens wither and the female organs mature, allowing better blood circulation, in turn increasing the effectiveness of the kidneys. The toxic glycosides are present in all parts of the plant, and can cause oral and abdominal pain, nausea, diarrhoea and vomiting if ingested in any quantity.

Occasionally, offsets are produced from the main rosette, or the flowering spike breaks or dies before seed set, and the plant then survives another season. Our native species produces flowers on one side of the spike, and will sometimes flower in its first year. Naturalist Carl Linnaeus adopted the name Digitalis purpurea – from the Latin for finger and purple – in his *Species Plantarum* (1753). Later that century, in 1785, its medicinal properties were described by botanist and physician William Withering – often referred to as "the birth of modern pharmacology". Digitalis species contain cardiac glycosides including "digitalis", a compound drug used in modern medicine as a heart stimulant, to slow and strengthen the heartbeat, in the treatment of congestive heart failure and a variety of other conditions, including high blood pressure.

### Selecting foxgloves

Botanists, gardeners and plant breeders are quick to spot variations. Breeders are quick to spot variations, and improve various features. White-flowered foxgloves were popularised by Gertrude Jekyll, and are still useful for lifting a shady corner. Bees perceive ultraviolet, blue and green, and are particularly attracted to pink and purple hues – so white-flowered plants are less likely to be pollinated, unless coloured plants are rogued out. It is relatively easy to see which rosettes of *D. purpurea* will give self-seed around young seedlings, and let them flower for self-seeding to produce more plants.

### Digitalis growing advice

- **Overview:** Digitalis are mostly biennial or short-lived perennials. Some are grown as annuals, others are genuinely perennial.
- **Soil:** Prefer moist, humus-rich soils. Most thrive in an acidic soil, but tolerate a wide range of soil pH, given moisture.
- **Irrigation:** Like plenty of water, especially when grown in full sun.
- **Garden position:** Great in borders, their height contrasting with more rounded plants, in sun or dappled shade. Many grow well in pots, and self-seed freely, which can be encouraged (inset, right).
- **Size:** From 65cm (24in) to 1.5m (59in) or taller.
- **RHS hardiness rating:** Most Digitalis are hardy, H7 to H5 (colder than −20°f / −4°c); H6 (−20 to −15°c / −4 to 5°c) and H7 (−20 to −15°c / −4 to 5°c).

**Digitalis ‘Martina’**

*Described as elegant, airy and graceful; to 1.2m (48in). RHS hardiness rating H5 (see p81). Earned RHS Award of Garden Merit (Agm) (see p83).*

**D purpurea ‘Pam’s Choice’**

*Popular, with pale flowers and prominent dark internal splotches. H6. Agm.*

**D ‘Elise Kelsey’**

*Near-white bells with heavy purple blotching on their insides. H6. Agm.*

**D purpurea ‘Primrose Carousel’**

*Uniform, pale lemon-yellow cultivar. H5.*

**D purpurea ‘Camelot Rose’**

*California bred, F1 hybrid Series. H5. Agm.*

**D purpurea ‘Camelot Cream’**

*Creamy white with purple spotting. H5. Agm.*

**Foxgloves**

*Tubular flowers loved by bumblebees. Dramatic spikes of pinkish purple, popular in woodland edges and their height contrasting with more rounded plants, in sun or dappled shade. Many grow well in pots, and self-seed freely, which can be encouraged (inset, right).*

**British native foxglove Digitalis purpurea is a familiar sight in woodland edges and clearings, indicating a preference for semi-shade in the wild.**

**Notable seed-raised selections in the 2013–2015 RHS Plant Trial of Digitalis**

*PHOTOGRAPHS: RHS / TIM SANDALL*

* notation: Photo / Fazerdase / Andy / Martinhughesjones/

**Foxgloves**
Digitalis purpurea

Notable seed-raised selections in the 2013–2015 RHS Plant Trial of Digitalis

**Digitalis purpurea ‘Dalmatian Crème’ (Dalmatian Series)**

Cream cultivar of compact Series (to 1m/39in). HS. AGM.

**D. purpurea ‘Dalmatian Rose’ (Dalmatian Series)**

Compact, bred in the Netherlands. HS. AGM.

**D. purpurea ‘Dalmatian Peach’ (Dalmatian Series)**

Lovely pale apricot selection. HS. AGM.

**D. purpurea ‘Dalmatian ‘Snow Thimble’**

Perhaps the nearest to a pure-white foxglove yet. H6.

**D. purpurea ‘Purple Carousel’ (Carousel Series)**

Biennial, flowers all around stem. H5.

**D. purpurea f. albiflora**

The white form of common foxglove. Not uncommon in the wild. H7. AGM.

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**Recent introductions**

In the last few years some excellent seed strains have been launched that are great garden plants, and good subjects for containers. Features being selected include first-season flowering, longer-living and well-branched plants, and flowers held all around the stem, in a range of colours. Among these are the Camelot and Dalmatian Series. Camelot foxgloves are F₁ hybrids raised in California, with a colour range of cream, lavender, rose and white, with various degrees of spotting within the flower. They make excellent garden plants, reach 1–1.5m (39–59in), and perform even better in their second year. Camelot Series foxgloves do need good air circulation and humus-rich soil and, raised in warmer climes, they seem slightly more susceptible to foxglove downy mildew than seed strains developed in Europe and the UK.

The Dalmatian Series was bred in the Netherlands. Compact (75–100cm/29–39in) and well-branched, plants have large flowers that emerge pendent but are more horizontal as they mature, making their delicate spotting more visible. I am impressed by this Series’s colour range and versatility both in borders and pots. The Dalmatian Series, raised by Thompson & Morgan, is special in having flowers that face upwards, arranged around the stem, with a colour range of peach, rose, white and yellow, all with speckled throats. Although it is easy to see their beauty, it worries me that wet weather could allow rain to accumulate in the bells and cause rot. Pristine white Digitalis purpurea ‘Snowy Mountain’ (Candy Mountain Series) is speckled with maroon spots, and beautiful. Biennial, it flowers in its second season at 90cm (36in) tall. The Carousel Series is also biennial, producing flowers to 75cm (29in) high around the stem in its second season. A lovely container or garden plant is D. purpurea ‘Primrose Carousel’, the first yellow hybrid to come true from seed. Other colours include purple, lavender, cream, white and orchid.

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**RHS Plant Trial of Digitalis**

The introduction of new Digitalis hybrids and D. purpurea Series and seed strains was the inspiration for this trial. It was planted on the Trials Field at RHS Garden Wisley with 60 perennials, 40 biennials, 10 annuals and three tender species, and ran from June 2013 to September 2015. A further trial in 2016 of selected annuals and first-year flowering biennials was also planted. The aims of the trial were to assess the garden value of a range of biennial and perennial species and cultivars for: floriferousness, length of flowering, shade tolerance; longevity (in perennials); decorative value; the uniformity of seed strains; pest and disease resistance; and overwintering ability. Perennials that earned the RHS Award of Garden Merit (AGM) were: Digitalis ferruginea ‘Gigantea’, D. ‘Glory of Roundway’, D. grandiflora ‘Carillon’, D. lutea, D. parviflora and D. parviflora ‘Milk Chocolate’ + D. ferruginea and D. x mertonensis had their AGMs reconfirmed.

Unusual speckling or blotching of the inside of the bell and split-corona (‘orchid-flowered’) foxgloves can occur in the wild and have been used in breeding. Well-blotched foxgloves include Digitalis purpurea ‘Pam’s Choice’, a 1.5m (59in) biennial with creamy trumpets heavily blotched inside with purple, and similar Digitalis ‘Elsie Kelsey’. More recent is Digitalis purpurea ‘Sugar Plum’, pink flowers strongly mottled inside. Digitalis purpurea ‘Pam’s Split’, an orchid-flowered foxglove to 1.2m (48in), was shown at the RHS Chelsea Flower Show in 2009. Pale pink Digitalis purpurea ‘Serendipity’, whites Digitalis ‘Saltwood Summer’ and Digitalis purpurea f. albiflora ‘Anne Redetzky’, and darker pink Digitalis ‘Foxtrot’ are other examples of orchid-flowered plants.

White-flowered plants are always popular, and foxgloves are no exception. The cleanest white is probably Digitalis purpurea ‘Snow Thimble’, with just a hint of speckling inside the flowers.

Hybrid foxgloves

Breeding programmes to increase longevity and colour ranges have also hybridised different foxglove species. Digitalis lutea and Digitalis purpurea can hybridise spontaneously (named Digitalis x fucata, syn. Digitalis purpurascens); hybrids are reliably perennial, sterile, with small pink or yellowish flowers. Hybrids between Digitalis thapsi and Digitalis purpurea, known as Digitalis x coutinhoi, are also reliably perennial, with deep pink blooms.

Crosses between tender perennial Digitalis sanguinea (formerly Isoplexis canariensis) from Madeira and Digitalis purpurea have had limited success, but hybrids between tender Digitalis canariensis (formerly Isoplexis canariensis) from the Canary Islands and Digitalis purpurea have produced a lovely group of plants, with large flowers in bronze, apricot, rusts and gold, including the Illumination Series. Bred and selected by Charles Valin at Thompson & Morgan, this hybrid is named Digitalis x valinii (a cross tried several times, with variable success). Plants seem to like warmer summers than the UK can provide, so are not reliably perennial here. They are sterile, so can flower continuously for several months. A decision on RHS Awards of Garden Merit for two cultivars (above) is awaited.

Foxgloves provide drama and strong vertical accents in a range of garden habitats, and are important sources of nectar for pollinators. Tolerant of most soil types, happy in sun or dappled shade, with an improving colour range, and flowering from May to September, foxgloves are easy to grow, a delight to behold – and deserve a place in any garden.

NATIONAL PLANT COLLECTIONS

There are two Plant Heritage National Plant Collections of Digitalis (www.nccpg.com):

 Та Pitman, Friends of the Harris Garden, University of Reading, Whiteknights Campus, Reading, Berkshire RG6 6UR 0118 387 4403

 Та Baker, The Botanic Nursery, Coombe Lane, Atworth, Melksham, Wiltshire SN12 8NU 07850 328756

More from the RHS

A report on the Digitalis trial will be available in due course via www.rhs.org.uk/trials

Search for information on past and present RHS Plant Trials at www.rhs.org.uk/grower-guides