New Hybrid Foxglove, Digiplexis® Illumination®

Every once in a while a really new plant comes on the market. In 2014 the new hybrid foxglove named Digiplexis® made its debut in the US, showcased for its exotic looking, rainbow hued blooms on tall flower spikes. It was featured on the cover of the May/June 2014 issue of Wisconsin Gardening Magazine (as well as in the March/April 2014 issue of Fine Gardening Magazine and in the June 2014 issue of Garden Gate Magazine), but was available only in limited supplies outside of the western US or by mail order. This year it has made its way to the Midwest, showing up at plant sales and selected nurseries (at least in the Madison area).

This is an unusual plant many years in the making, bred by Charles Valin at the UK breeding company Thompson & Morgan. It is a selection from crosses between the biennial common foxglove, *Digitalis purpurea*, and Canary Island foxglove, *Isoplexis canariensis*, a perennial shrub with unusual orange flowers. This new intergeneric hybrid was given a name combining parts of each of the parents, Digi + plexis = Digiplexis. Although this is touted as an amazing intergeneric hybrid, DNA evidence indicates the genus *Isoplexis* probably belongs in the genus *Digitalis*, so maybe it isn’t all that ground-breaking of a cross, and the genus name should be *Digitalis* rather than the combo name – but the plant itself sure is striking. The real breakthrough is the fact that this hybrid doesn’t just flower for about a month, as most foxgloves would, it flowers non-stop from late spring through hard frost in the autumn. Also, unlike common foxglove which produces a single terminal spike from a flat basal rosette, this plant has a bushy, almost shrubby habit with numerous lateral shoots produced throughout the season. And the plant’s flowers combine the purple shades of common foxglove with the warm orangey colors and jagged petals of *Isoplexis*. 
Digiplexis® is a tender perennial, hardy in zones 8-11, but because of its vigorous growth and rapid flowering, it can be grown as an annual in cooler climates. It combines the fast growth of its herbaceous Digitalis heritage and the large, bushy form of the Isoplexis parent. Plants can get up to 36 inches high and 24 inches wide, eventually forming a woody trunk – although in the Midwest they may not get that large. The heavily-branched foliage is lush and vigorous, with dark green, widely lanceolate leaves with finely toothed margins similar to that of Digitalis purpurea (the ‘Raspberry’ cultivar has much narrower leaves).

The very floriferous plants produce 2-3 foot tall spikes that grow from green buds to be densely packed with individual flowers facing outwards. Each individual flower has pointed petals of equal length, fused at the base, but not quite as tubular as foxglove flowers. Each flower of the original cultivar ‘Flame’ is rosy pink to brick red on the outer tips with soft, creamy-orange throats with faint spots. The stems are strong and mostly upright, although they may end up growing outward and then curving upward from the base of the plant or flop as they age. Old or flopping flower spikes can be pruned out to keep the plant tidy and encourage more blooms. Because it is sterile, it produces no seeds, and therefore the plants put all their energy into blooming, continuing to bloom over a long period of time. It is a very vigorous grower, constantly pushing new flower spikes from lateral shoots in the leaf axils all summer and well into the fall. The flowers are highly attractive to bees, are visited by butterflies, and should be attractive to hummingbirds (although I never saw any visit the plant in my yard even though they were all over adjacent plants).
Digiplexis® needs full sun to perform well, does best in fertile, evenly moist but well-drained soil. The big, multicolored blooms add vibrant vertical color to any bed or border, and can be used as cut flowers. It can be a stunning specimen plant for larger containers. Fertilize regularly and remove old flower spikes to encourage rebloom.

Digiplexis® is vigorous, long-blooming, and beautifully colored. It received the prestigious Plant of the Year Award at the 2012 Chelsea Flower Show and Greenhouse Grower’s 2013 Award of Excellence, so it is something worth trying, even though it has not been trialed extensively. It seems to grow relatively well under our conditions. Several plants planted in the ground at Allen Centennial Gardens on the UW-Madison campus bloomed through the summer of 2014, although the plants never grew very large. And the specimens in the trial gardens at Boerner Botanical Gardens in the Milwaukee area looked quite nice in late July, and probably were much larger and bushier by the end of the season.

Last year I purchased a large plant in late spring in southern California, which survived the trip to Wisconsin squeezed in a suitcase with only minor damage, and quickly re-established in a large container to produce numerous flower spikes for the rest of the season. In the fall I moved the plant into the house in an

The individual flowers have partially fused petals (L), with the stamens hidden under the upper petal (C, as viewed from below). The flowers are highly attractive to bees (R).
only moderately bright area, where it fared reasonably well until mealybugs and spider mites got out of control and destroyed the plant. If pest problems had not been an issue, it might have limped through the winter, but it likely would do much better in very bright conditions, possibly even continuing to bloom through the winter. But the plant was too large to squeeze into my already overcrowded greenhouse (if the plant I have for this season stays smaller, moving it into the greenhouse will be the next experiment in how to overwinter a Digiplexis®). It may not be possible to easily keep this plant from year to year as is possible with many tender perennials grown as annuals in cooler climates, as Digiplexis® requires some vernalization – chilling for at least 4-6 weeks at 38-45F – to set flower buds and will not flower at all without a chill period.

This unique plant is currently being propagated by tissue culture; since it is sterile it cannot be grown from seed.

There are several cultivars now available (as well as others in development):

- ‘Berry Canary’ – has hot pink flowers with creamy yellow to soft pink throats with burgundy speckles on smaller, more compact plants.
- ‘Illumination® Flame’ – was the original one, with bright rose-pink to brick-red flowers with throats transitioning from orange to a pale yellow.
- ‘Illumination® Raspberry’ – has bold raspberry-fuchsia tubular flowers.

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Digiplexis® ‘Illumination® Flame’ (L), ‘Berry Canary’ (C) and ‘Illumination® Raspberry’ (R).

– Susan Mahr, University of Wisconsin - Madison

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**Additional Information:**

- Digiplexis Illumination – on Facebook at www.facebook.com/DigiplexisIllumination