

RHS PLANT TRIALS BULLETIN

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Hydrangea paniculata

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The RHS Trial of *Hydrangea paniculata*

Background to the trial

Although *Hydrangea paniculata* has been cultivated in European gardens for well over a century, for most of that period there has been little choice beyond a handful of very early introductions. *H. paniculata*, the paniced hydrangea, has invariably played second fiddle to the more colourful *H. macrophylla*, or hortensia, even though it is generally easier to grow and more reliably hardy. The first edition of Michael Haworth-Booth's *The Hydrangeas*, published in 1950, included over 300 hortensias, but only 3 types of *H. paniculata*, namely the cultivars 'Floribunda', 'Grandiflora' and 'Praecox'.

After the 1950s, the range of cultivars started to increase with the appearance of the first de Belder introductions and slowly gathered pace in the 1970s and 1980s as new generations of seedlings were raised from existing cultivars. Because of the long lead-time for raising and introducing new plants, only eight cultivars could be listed in the first edition of the *RHS Plant Finder* in 1987. A decade on, there were still only twelve cultivars, four of the early de Belder selections having become more widely available, but subsequent years saw a more rapid increase. In the past 10 years, interest in *H. paniculata* has taken off with many promising new introductions from breeders in Belgium, Holland, France and the USA.

With so many new cultivars coming on to the market, the RHS decided to hold a trial to compare the new cultivars with the old and to select the best ones for the Award of Garden Merit. More than 40 cultivars were assembled in a trial that was considered by many of those involved to be among the most successful woody plant trials yet undertaken by the RHS. At the same time, the first Eurotrials were conducted in the UK, France, Germany and Holland, providing an interesting opportunity to compare trial results between different sites and growing conditions.

H. paniculata in the wild and in cultivation

H. paniculata is native of cool temperate and sub-tropical regions of Japan, China and Sakhalin, where it grows as a deciduous shrub or small tree to 8m in height, at altitudes to about 1300m. It is often stated to be a very variable species in the wild, but not all authors agree on this.

H. paniculata was first described and named in 1829 by the German physician and botanist Philipp Franz von Siebold while working for the Dutch East India Company based on Deshima Island within Nagasaki harbour, Japan. Granted limited access to the mainland to carry out his medical duties, at a time when other foreigners were excluded, Siebold used the opportunity to collect and describe the native plants, including *H. paniculata*. Siebold's determination to explore this closed country eventually resulted in him falling foul of the authorities and he was banished from Japan before the plant could be exported to Europe. Fortunately, he was allowed to return 30 years later, when he succeeded in sending back the cultivated form of *H. paniculata* now known as 'Grandiflora'. This cultivar, also known as the pee gee hydrangea, is probably still the most widely grown.

Other early introductions from Japan include 'Floribunda', discovered by Carl Maximowicz in a Japanese nursery in the 1860s, 'Praecox', raised from seeds collected on Hokkaido Island by Charles Sargent in 1897, and 'Kyushu', introduced as a wild-collected seedling from Kyushu Island by Collingwood Ingram in 1926.

In the 1950s, at the embryonic Kalmthout Arboretum and later at Hemelrijk, Robert and Jelena de Belder began to experiment with raising and selecting seedlings of *H. paniculata*, derived initially from an old plant in their garden of 'Floribunda'. The first and most famous of these,



Front cover:
Hydrangea paniculata
'Limelight'

Right: *Hydrangea paniculata* Trial
August 2008

Inflorescence of *Hydrangea paniculata* showing pink late season colour



'Unique', was reputedly the sole survivor of a batch of young seedlings that had been ravaged by blackbirds. It turned out to be an exceptional plant whose offspring yielded many good new cultivars, including 'Papillon', 'White Lace', PINK DIAMOND, 'Burgundy Lace', 'Brussels Lace', 'White Moth', 'Green Spire' and 'Melody'. Further generations were raised in the 1970s and 1980s by open pollination of these plants, with PINK DIAMOND and 'White Moth', in particular, producing some notable cultivars. The arboretum at Hemelrijk still contains many unnamed plants, and seeds from these are still collected and distributed to nurseries in the hope of raising new cultivars.

Breeders in Europe and the USA have built upon the de Belder legacy, producing cultivars with inflorescences of subtly different shapes and shades of pink, white and green, as well as cultivars of more compact habit. Some of the most striking new cultivars have been raised by Peter Zwijnenburg at Boskoop, including 'Big Ben', 'Phantom', 'Limelight', 'Dolly', 'Silver Dollar' and 'Pink Lady', while significant contributions have also come from Darthuizer in the Netherlands and Michael Dirr in the USA.

As a garden plant, *H. paniculata* has a number of advantages over *H. macrophylla*. It is relatively drought-tolerant, does well in both full sun and partial shade and grows in acid or alkaline soil, as long as the ground is well-drained. Importantly, it is very hardy (to about -30°C in the USA) and as it always flowers on the current season's wood, it is not susceptible to late spring frosts.

Botanical Description

Hydrangea paniculata is a deciduous woody plant with serrate leaves arranged in opposite pairs or clusters of three, and flower heads made up of showy, sterile flowers mixed with smaller, fertile flowers. What sets it apart from other species is the structure of the inflorescence, which is typically a cone-shaped panicle. The only other *Hydrangea* that has flowers arranged in a panicle is *H. arborescens* and that is distinguished by having lobed leaves.

Habit: In the wild may be a lax shrub to about 2m or a small tree to 8m.

Shoots: Somewhat brittle. Downy at first, becoming hairless.

Leaves: Elliptic or ovate, serrate, acuminate, rounded or tapered at the base, 7.5 – 15cm long and about half as wide. Arranged in opposite pairs, or in 3's. Sparsely pubescent above and on the veins below.

Flowers: A mixture of small, yellowish fertile flowers and long-lasting (up to about 8 weeks) sterile flowers with 4 or 5 white sepals, usually entire, often ageing to pink or purplish-pink, particularly on the underside. Flowers are borne in panicles on the current season's growth, opening from the base toward the apex of the panicle. The ovary is semi-inferior.

Fruit: A many-seeded capsule. The seeds have no dormancy and typically germinate in 2 to 4 weeks.

Award of Garden Merit (AGM)

<i>Hydrangea paniculata</i> 'Big Ben'	AGM(H4) 2008
<i>Hydrangea paniculata</i> 'Floribunda'	AGM (H4) 1993*
<i>Hydrangea paniculata</i> 'Grandiflora'	AGM(H4) 1993*
<i>Hydrangea paniculata</i> 'Kyushu'	AGM (H4) 1993
<i>Hydrangea paniculata</i> 'Limelight' ^{PBR}	AGM(H4) 2008
<i>Hydrangea paniculata</i> 'Phantom'	AGM(H4) 2008
<i>Hydrangea paniculata</i> PINK DIAMOND 'Interhydia'	AGM(H4) 1993
<i>Hydrangea paniculata</i> PINKY-WINKY 'Dvppinky' ^{PBR}	AGM(H4) 2008
<i>Hydrangea paniculata</i> 'Silver Dollar'	AGM(H4) 2008
<i>Hydrangea paniculata</i> 'Unique'	AGM (H4) 1993*

* Recommended to be rescinded at the AGM Review in 2012

The following will receive an Award of Garden Merit when available to the public

Hydrangea paniculata 'Dolly'

Hydrangea paniculata 'Pink Lady'

Hardiness rating

H4 = hardy throughout the British Isles

Judging Criteria

The Woody Plant Trials Subcommittee assessed entries in the trial for the Award of Garden Merit using the following criteria:

- Habit
- Bud / Flower / Faded flower
- Floppiness of head
- Foliage

The AGM is only awarded to plants that are:

- Excellent for garden decoration
- Available from nurseries
- Reasonably resistant to pests and diseases
- Of good constitution
- Essentially stable in form and colour
- Reasonably easy to grow

The Trial

Objectives

- To compare and assess new and old cultivars
- To recommend the Award of Garden Merit to those considered to be the best
- To determine correct nomenclature
- To obtain specimens, photographs, and descriptions as a record to be held in the RHS Herbarium at Wisley

Records

- Habit
- Response to pruning
- Stem colour
- Foliage colour (summer and autumn)
- Flowering period
- Inflorescence shape
- Flower colour (early, mid-season and late season)

Entries

68 entries, representing 47 cultivars, were submitted by gardens, nurserymen and individuals in the UK, Netherlands, Belgium and the USA. Details of each cultivar are given in the Selection Table below.

Cultivation

Three plants of each entry were planted in May 2004. All plants were cut down to the base after planting. The plants were grown in the open, with no shade, and watered only during periods of drought. Soil analyses were conducted annually and treatments applied as necessary to eliminate nutrient deficiencies and maintain approximately neutral conditions.

Pruning

All plants were pruned each year in late March. The three plants of each cultivar were used to test three pruning regimes:

- 1 Hard pruning (to two buds)
- 2 Moderate pruning (to four buds)
- 3 Light pruning (removal of previous year's flowerheads only)



Hydrangea paniculata Trial September 2007



1 Hard pruning (to two buds)



2 Moderate pruning (to four buds)

Where there was a response to pruning, the lightly pruned plants were the first to flower and carried more, smaller flowers than the hard-pruned plants, which flowered later, and bore larger, fewer panicles. Those plants subjected to moderate pruning were intermediate in panicle size and time of flowering. Although the hard-pruned plants tended to grow with added vigour, their larger flowerheads were not always advantageous, sometimes producing panicles that could not be supported and flopped.



3 Light pruning (removal of previous year's flowerheads only)



A further pruning demonstration using spare plants was set up in which three plants of each cultivar were medium-pruned at the end of February, March and April. Delaying pruning was found to delay flowering, as illustrated above.

Both techniques proved to be of interest, the first producing varying bloom size and a flowering delay, the second bringing forward or delaying flowering so as to provide a succession of blooms. Either could be used to extend the period of flowering for group plantings. It may also be worth trying more than one technique on the different stems of a single plant, though this was not attempted during the trial period.

AGM descriptions



***Hydrangea paniculata* 'Big Ben'**
AGM(H4)2008

Habit: Upright and slightly spreading, 170 × 180cm.

Foliage: Yellow green 146B.

Stem: Flushed greyed reddish purple 186A, lower stem brown approx. 200D.

Panicle: Half open, conical and tapered.

Fertile floret: Pink in bud opening to white.

Sterile floret: Opening pale green approx. 154D, becoming white with a hint of green, eye white, sometimes flushed pale pink, maturing to deep pink, slightly deeper than 186A.

Scent: Strongly scented.

Flowering: from early August to mid October.

Comments: Outstanding, very free flowering. Attractive red stems, flower goes off to a good pink. Interesting inflorescence with leaves between the florets. Differences in pruning regime appear to have little impact.



***Hydrangea paniculata* 'Dolly'**
AGM subject to availability

Habit: Upright and spreading, 165 × 160 cm.

Foliage: Yellow green between 137B-C.

Stem: Pale green approximately 148C with white lenticels; mature wood silvery brown mixture of 199A-N199C.

Panicle: Half open, conical and tapered.

Fertile floret: White or creamy green buds, flowers white, anthers pale cream.

Sterile floret: Greenish yellow 145A/150C, opening to white with central yellow (paler than 151A) flush.

Flowering: From late July to late Sept.

Comments: Good, undulate, green leaf. Delightfully shaped florets of an attractive creamy colour in the early stages. Has huge character. Very impressive, providing a succession of flowers.



***Hydrangea paniculata* 'Floribunda'**
AGM (H4) 1993*

Habit: Upright to spreading, 190 × 210cm.

Foliage: Dark green 147A, leaves in whorls of three.

Stem: Pale in upper inflorescence grading through purplish pink 186A in lower inflorescence to brown 177B on mature wood.

Panicle: Half open, conical.

Fertile floret: Buds tipped pink.

Sterile floret: Greyed yellow 160C, maturing to white NN155A.

Scent: Spicy.

Flowering: From late July to early September.

Comments: Slender pointed panicles. Will grow into a small tree if unpruned but suitable for a small garden with pruning.



***Hydrangea paniculata* 'Grandiflora'**
AGM (H4)1993*

Habit: Sparse and drooping, 100 × 130cms.

Foliage: Yellow green, much bluer green than 146B.

Stem: Green 147D flushed 186C in lower inflorescence, maturing to mid brown.

Panicle: Very dense, conical and tapered. Upper panicle has numerous small, pinkish red 47B buds.

Fertile floret: Buds strongly flushed pink 55C, petals white, anthers pink.

Sterile floret: Lime green 149B, maturing through greyed yellow 160D to white with pink bosses.

Scent: Slightly scented.

Flowering: From end of July to early October.

Comments: Stems have a tendency to flop due to heavy, very dense panicles. Improves with age. Not as good as 'Phantom'.



E Early season

* Recommended to be rescinded at the AGM Review in 2012

M Mid-season

L Late season



E *Hydrangea paniculata* 'Kyushu'
AGM (H4)1993

Habit: Upright and uneven, 110 × 125cm.
Foliage: Yellow green, slightly darker than 146A, glossy.
Stem: Pale grey green 148D, greener in leaf axils, lower wood pale brown after flowering.
Panicle: Open, narrow and tapered.
Fertile floret: Buds greenish white, petals white.
Sterile floret: Starting greenish yellow 160D, becoming white 155A lightly tinged buff yellow. Only one sterile floret per cluster.
Flowering: From mid July to mid September.
Comments: *Flowers early. Good for small gardens. Very attractive to insects having more fertile flowers than many others. Responds well to hard pruning, producing the best panicles. Sells well and looks good in a pot. Sterile florets remain white.*



E



E *Hydrangea paniculata* 'Limelight' PBR
AGM(H4)2008

Habit: Robust, upright and spreading, 165 × 225cm.
Foliage: Yellow green 146A.
Stem: Pale grey green 148D, lightly blushed pink in places, lower wood pale brown.
Panicle: Very dense, broad, conical and tapered.
Fertile floret: Green buds.
Sterile floret: Pale lime green, nearest 150C, then grading through 150D to white, some buds and floret bosses with pink flush; lime green and pink at season end.
Flowering: From late mid July to early October 2008.
Comments: *Distinct and outstanding, stunning lime green flowers. Medium pruning produces the best effect, otherwise large dense florets have a slight tendency to flop.*



L

Hydrangea paniculata 'Phantom'
AGM(H4)2008

Habit: Upright to spreading, 145 × 195cm.
Foliage: Yellow green, a little greener than 146A.
Stem: Green 147D flushed 186A, strongly so in lower inflorescence, maturing to mid brown.
Panicle: Very dense, conical and rounded.
Fertile floret: Buds flushed pink, petals white, anthers pale pink to white.
Sterile floret: Immature sterile floret greyed yellow 160C, maturing through 160D to white with some florets flushed lime green, deep pink at maturity. Some florets with fertile flowers in centre.
Flowering: From mid July to late September.
Comments: *The stem has great quality, very stiff, supporting panicles well. Performed consistently well throughout the trial. A marvellous plant which supersedes 'Grandiflora'. Slightly rounder panicles than 'Grandiflora' with a beautiful yellow tip.*



E



L

Hydrangea paniculata PINK DIAMOND
'Interhydia'
AGM (H4)1993

Habit: Upright and spreading, 155 × 210cm.
Stem: Red brown in full bloom to brown after flowering.
Panicle: Dense, broad, conical and tapered.
Fertile floret: Buds green with pink tips, petals paler than 155A, becoming very deep pink in autumn, anthers cream, maturing to pale brown.
Sterile floret: Paler than 151C, opening to 155A, flushing at margins, filling with red-purple 59C in autumn.
Flowering: From late July to late October.
Comments: *Known to be impressive but not in trial having small panicles and a greater susceptibility to mineral deficiency than others. Wonderful late colour, a deep glowing pink.*



E



L

E Early season

* Recommended to be rescinded at the AGM Review in 2012

M Mid-season

L Late season



Hydrangea paniculata 'Pink Lady'
AGM subject to availability

Habit: Upright to arching, 170 × 210cm.
Foliage: Green 147A.
Stem: Green in inflorescence, brown 177C elsewhere in later season.
Panicle: Half open to dense, long with a rounded top.
Fertile floret: Cream bud with pink tip.
Sterile floret: Cream maturing to white, becoming flushed with pink 57D at the end of the season.
Flowering: From early July to early October 2008.

Comments: *Distinctive, attractive pink flushing developing around the margin of the cream sterile florets, handsome broad leaf. Benefits from hard pruning, producing larger panicles than unpruned plant.*



Hydrangea paniculata 'Silver Dollar'
AGM(H4)2008

Habit: Upright to moderately spreading, 125 × 165cm.
Foliage: Yellow green, a little greener than 146A.
Stem: White lenticels; lower stem and inflorescence axis flushed pink 187D; lower stem turning brown 200D during and after flowering.
Panicle: Very dense, broadly conical, and rounded.
Fertile floret: Very few, cream in bud then white, perhaps one or two per terminal cluster but covered by the much more numerous sterile florets.
Sterile floret: Ranging from greyed yellow 160B-C to white, some older florets with pink tipped bosses, becoming pink flushed.
Scent: Very slight fragrance.
Flowering: from mid July to late Sept.
Comments: *Distinct compact habit and very dense panicle. Sterile florets mature to a good pink. One of the most compact apart from 'Dharuma'. Strong stems support heavy heads well. Responds well to pruning, resulting in larger panicles and delayed flowering thereby extending the flowering period. Good for small gardens.*



Hydrangea paniculata 'Pinky-Winky'
'Dvppinky' PBR
AGM(H4)2008

Habit: Nicely upright to lightly spreading, compact, 140 × 160cm.
Foliage: Yellow green, greener than 146A, petioles flushed dark red.
Stem: Strongly flushed deep purplish red 187C/D, maturing to brown 175A/B.
Panicle: Dense, conical and tapered.
Fertile floret: Buds tipped pink, petals white.
Sterile floret: Lime green 150C, maturing through greyed yellow 160D to white with pink bosses, very deep pink at the end of the season.
Scent: Spicy.

Flowering: From early August to the first week of October.

Comments: *Very distinct, sturdy and upright. Good dark red stems and pink sterile florets at maturity, probably the deepest pink. Responded well to pruning, displaying the perfect pruning-dependent flowering sequence from unpruned (earliest), to medium and hard pruned (latest). Suitable for small gardens.*



Hydrangea paniculata 'Unique'
AGM (H4)1993*

Habit: Upright to slightly sprawling, 160 × 175cm.
Foliage: Yellow green 146A, mostly in whorls of 3.
Stem: Pale grey green 148D, strongly blushed pink in places, especially in lower inflorescence; lower wood reddish brown.
Panicle: Dense, conical and tapered.
Fertile floret: Buds pink 55C, flowers white, anthers pink-purple.
Sterile floret: Pale lime green, nearest 151C when immature, then grading through 150D to white. Floret bosses and older florets with pink flush.
Flowering: From late July to early October.
Comments: *Did not meet expectations in trial. Much better, older plants can be seen on Battleston Hill where they have more well-developed root systems and space. Probably superseded by more recent introductions.*



Panicle types

The apparent density of the panicle depends on the ratio of sterile to fertile flowers. Plants in the wild usually have inflorescences with many small, fertile flowers and relatively few sterile flowers, giving the flower heads a delicate appearance similar to a lace-cap. Many cultivated forms have a higher proportion of sterile flowers, making the flower heads denser and showier. The density of the panicle is one of the most important ornamental characteristics of a cultivar and a feature that, along with the colour changes that may take place as the panicle matures, helps to make it visually distinctive. Our selection table assigns the panicle density of each cultivar to one of four categories (open, half-open, dense and very dense), according to the ratio of sterile to fertile flowers. This convention was originally introduced during assessment of the Dutch Euro-Trial.

Open	<10% sterile flowers, >90% fertile flowers e.g. 'Kyushu'
Half open	>10% and <50% sterile flowers e.g. 'Big Ben'
Dense	>50% and <80% sterile flowers e.g. 'Dolly'
Very dense	>80% to 100% sterile flowers e.g. 'Phantom' and 'Limelight'

Comparison with other Trials

Reports from the Dutch and French Eurotrials indicate that 'Big Ben', 'Limelight' and 'Phantom' were three of the top four performers in both trials. The other top performers in these trials were PINK-WINKY 'Dvppinky' and 'Mega Pearl'. Of these, only 'Mega Pearl' did not receive the AGM in the Wisley trial.

Nomenclatural notes

'Burgundy Lace'

There was found to be confusion over the identity of 'Burgundy Lace'. Plants from two sources entered as 'Burgundy Lace' were identified as PINK DIAMOND 'Interhydia', while one that most likely was 'Burgundy Lace' had been entered as 'Brussels Lace'. A plant entered as 'Burgundy Lace' Compact Form was found to be indistinguishable from PINK DIAMOND. The flower heads of PINK DIAMOND turn a deeper pink than those of 'Burgundy Lace'.

'Webb's'

'Webb's', originally known as 'Webb's Variety', was not considered to be distinct from 'Grandiflora'.

'Tardiva'

Plants from two sources entered as 'Tardiva' were noted to be very similar to 'Floribunda', although their true identity could not be established. They did not differ significantly in their panicle characteristics or flowering time.

DART'S LITTLE DOT 'Darlido'

Two entries of DART'S LITTLE DOT 'Darlido' turned out to be 'Harry's Souvenir', suggesting that they may have become confused in the trade.

Selection table

'Ammarin'

Compact habit, red stems, dense, blunt panicles. Very distinctive, attractive, white sterile florets, pale pink later. Foliage scorch, reflecting sensitivity to mineral deficiency. Flowering from early August to late September. 150 × 165cm.
Raised and sent by Rein and Mark Bulk Nursery, 1999.



'Big Ben'

Half-open panicle. Outstanding, excellent red stems. Sterile florets go off really well to pink. Ideal for the larger garden. Flowering from early August to mid October. 170 × 180cm.

Raised by Pieter Zwijnenburg Jr, Boskoop, Holland, 1990; sent by C R Sanders.



'Bridal Veil'

An excellent flower arranger's plant with huge rounded, dense, blunt panicles and unusual sterile florets with distinctive serrated margins. Stamens have comparatively long filaments. Plant tends to flop badly. Better grown in some shade. Flowering from late June to late August. 90 × 130cm.

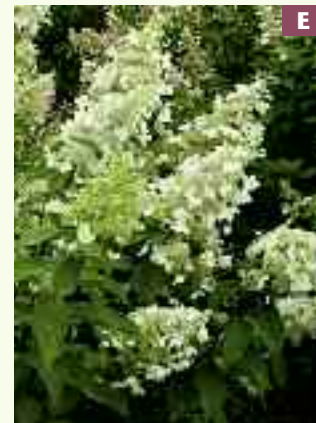
Raised in 1975 and sent on behalf of J de Belder, Kalmthout Arboretum, Belgium. A seedling of 'White Moth'.



'Brussels Lace'

Distinctive fine florets and half open, lacy, tapered panicles; compact habit, staying white in late season. Different pruning regimes seem to have little effect. Flowering from late July to mid September. 120 × 160cm.

Raised in 1975 by R & J de Belder, Kalmthout Arboretum, Belgium; supplied by RHS Wisley. A seedling of 'Unique'.



Selection table



'Burgundy Lace'

Flowering from early August to early October. Open panicle, pink flushed fertile floret buds, sterile floret lightly flushed with pink as it ages, particularly at margins and veins. No differential effects of pruning demonstrated, all plants and panicles an even size. 140 × 150cm.

Raised by R & J de Belder, Kalmthout Arboretum, Belgium in 1975, supplied by the Crown Estate Commissioners.

See nomenclatural notes.

'Dolly'

★★★

Creamy florets gradually develop some pink in dense panicles resembling 'Grandiflora'. Responds well to pruning. Medium pruning is thought preferable as hard pruning produces very large, heavy heads which tend to flop. 165 × 160cm. Flowering from late July to late September.

Raised by Pieter Zwijnenburg Jr, Boskoop, Holland, 1990; supplied by RHS Wisley.

AGM subject to availability.



'Chantilly Lace'

★★

Good habit and clear white florets ageing to pink on a half open to dense panicle. Very free flowering, elegant, light and pretty. One plant died from the effects of honey fungus. Flowering from early August to late September. 140 × 170cm.

A seedling of 'Tardiva' sent by Michael Dirr, selected by Kay Bowman and M Dirr, USA.

EARLY SENSATION 'Bulk' PBR

★★

Excellent foliage and red stems, vigorous. A good succession of dense to half open, rounded panicles similar to those of 'Dharuma,' providing a long lasting display, becoming very deep pink. Would make an excellent hedge. Flowering from mid June to early October. 145 × 200cm.

Raised c.2004, sent by Rein and Mark Bulk Nursery; 'Dharuma' × PINK DIAMOND. Known as QUICKFIRE in the USA.



DART'S LITTLE DOT 'Darlido' PBR

★

Most dwarf of all the entries, open panicle flowering for a long period, late July to late September. Holds flowers up well and doesn't need pruning. Good front of border plant. Flowering from late July to early October. 45 × 105cm.

Introduced pre 1995 by Darthuizer Nurseries. Sent by the raiser.

See nomenclatural notes.

'Everest'

Half open panicle, not considered very distinct and a dirty pink as flowers go over. Flowering from mid July to early September. Improved by hard pruning resulting in better sized panicles. 160 × 190cm.

Raised at the Sir Harold Hillier Gardens & Arboretum 1989, supplied by RHS Wisley and Crown Estate Commissioners.



'Dharuma'

★★

Attractive red stems, early and free flowering, open to half open panicles, compact, bold foliage. Deep pink sterile florets and fruits at maturity. Slower to develop than most, excellent for the small garden. Best left entirely unpruned, it will naturally reach 1 to 1½m. Flowering from mid June to early October. 120 × 115cm.

Imported from Japan, 1989, sent by Rein and Mark Bulk Nursery and C R Sanders. Believed to be *H. paniculata* × *H. heteromalla* resulting in the flattened inflorescence.

'Floribunda' *



Elegant, pointed panicles, creamy florets develop some pink as they age. Requires pruning to prevent it from becoming too large. Flowering from late July to early September. 190 × 210cms.

Introduced by Carl J Maximowicz from Japan to Botanic Gardens of St Petersburg in 1890; distributed throughout Europe by R & J de Belder, Kalmthout Arboretum, Belgium. Supplied by RHS Wisley and the Crown Estate Commissioners.



Height and Spread
Measurements for height and spread relate to the unpruned, approximately four year old plant of each entry.

Performance rating:
The judging scores are summarised by a performance rating from 0 – 3 stars.

★★★ Excellent
★★ Very good
★ Good
none Average to poor, or not judged

E Early season
M Mid-season
L Late season

* Recommended to be rescinded at the AGM Review in 2012



L

'Grandiflora' ★

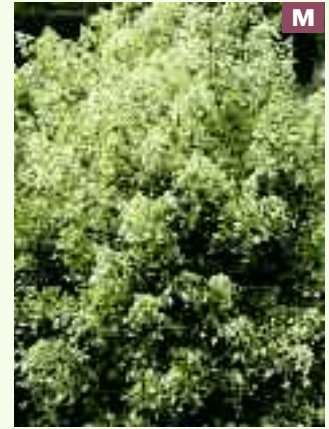
Dense panicles cause stems to flop. Superseded by 'Phantom'. It is better not to prune so as to reduce vigour, panicle size and the tendency to flop. Flowering from the end of August to the end of September. 100 × 130cm. Widely grown in the USA and known as the PG or pee gee hydrangea.

Introduced by Philipp von Siebold in 1862 from Japan; sent by the Crown Estate Commissioners.

Hydrangea paniculata from Taiwan ★

Floriferous, distinctly subtle and dainty, open panicles. Combines well with herbaceous plants and is fantastic for butterflies. A good flower arranger's plant with attractive red stems. Flowering from mid July to late August. 200 × 180cm.

One of a number of introductions from Taiwan by Bleddyn Wynn-Jones, Crûg Farm Plants; sent by Rein and Mark Bulk Nursery.



M



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'Great Escape'

Tall bush with sturdy branches, narrow, open panicles. No pinking of the sterile florets. Flowering from mid July to late August. 185 × 205cm.

Introduced pre 1995 by Darthuizer Nurseries. Sent by the raiser.

'Kyushu' ★★★

Very attractive to insects as it has more fertile florets than many other cultivars. Open panicle, sterile florets are small and remain white. Compact, suiting a small garden but superseded by recent introductions. Does well in a pot. Responds well to hard pruning producing attractive panicles. Flowering from mid July to mid September. 110 × 125cm.

Introduced by Collingwood Ingram from Kyushu, Japan; distributed through Europe by R & J de Belder, Kalmthout Arboretum, Belgium; sent by the Crown Estate Commissioners.



E



M

'Greenspire' ★

Vigorous, open to half open panicle. There are many of this style. No pink at maturity. Flowering from late July to late September. 200 × 220cm.

Raised by R & J de Belder, 1975, a seedling of 'Unique'. Supplied by RHS Wisley and the Crown Estate Commissioners.

'Limelight' PBR ★★★

Stunning and very distinctive, very dense, lime green panicles ageing through cream to pink. Excellent glossy foliage. Medium pruning is recommended, reducing flopping of heavy panicles. Flowering from mid July to early October. 165 × 225cm.

Raised by Pieter Zwijnenburg Jr, Boskoop, Holland in 1990; sent by RHS Wisley.



L



E

'Harry's Souvenir'

All nine plants of this cultivar failed to survive the trial. Low growing, very dense panicles. Arching flowering stems tended to flop. Bright green anthers.

Raised by the Research Station for Nursery Production, Boskoop, Holland; named in memory of Harry van de Laar. Sent by Rein and Mark Bulk Nursery and Ward van Teylingen.

'Last Post' ★★

Compact habit, ideal for the smaller garden. Very pretty, beautifully shaped sterile florets with attractively reflexed sepals on half open panicles which age to pink. Fertile florets pink in bud. Good red stems. Responds well and improved by pruning. Flowering from mid July to early October. 110 × 200cm.

Introduced in 1999 by Darthuizer Nurseries. Sent by the raiser.



E

Selection table



'Martinvast' ★★
 Attractive sterile florets with serrated margins on half open panicles becoming lightly flushed with pink in maturity. Compact and free flowering, good foliage. Flowering from mid July to late September. 110 × 135cm.
 Introduced by J de Belder, named after the Parc de Martinvaast, Cherbourg, France; sent by R Mallet.



'National Arboretum'
 A tall sprawling shrub with brown stems and open panicles. Sterile florets ageing to pale pink. Flowering from mid July to late September. 140 × 170cm.
 Raised by Pieter Zwijnenburg Jr., Boskoop, Holland; sent by RHS Wisley.



'Mega Pearl' ★
 Pearly sterile florets but rather an open habit and crowded, half open panicle. Evidence of foliage scorch. Flowering from late July to early October. 135 × 150cm.
 Raised by Pieter Zwijnenburg Jr, Boskoop, Holland in 1990; supplied by RHS Wisley.



'October Bride'
 Upright to lightly spreading habit and open panicle. Flowering from late July to mid October, until the first frosts. 195 × 225cm.
 Raised by R & J de Belder, Kalmthout Arboretum, Belgium in 1967; a seedling of 'Tardiva'; sent by Derby City Parks Department.



'Mid Late Summer' ★
 Good sturdy plant, very floriferous but crowded, half open panicle goes off to pink and ages gracefully. Not as good as 'Big Ben' and similar to 'Mega Pearl'. Flowering from mid July to early October. 200 × 205cm.
 Raised by Pieter Zwijnenburg Jr, Boskoop, Holland in 1990; sent by RHS Wisley.



'Papillon'
 Poor, sprawling habit. Open to half open panicle. 'Papillon', the French word for butterfly, is said to describe the shape of the sterile florets, however this was not obvious in trial. Flowering from early August to mid September. 160 × 210cm.
 Raised by R & J de Belder, Kalmthout Arboretum, Belgium in 1970; sent by Rein and Mark Bulk Nursery.



'Mustila'
 Poor habit and rather thin, attractive red stems. Early, half open panicles. Flowering from late June to late September. 125 × 100cm.
 Sent by the Research Station, Boskoop, Holland, named in 1998 after the Arboretum Mustila near Elimäki in South Finland founded by A F Tigerstedt in 1902.



'Pee Wee'
 Described as very unique and compact form of the pee gee Hydrangea, 'Grandiflora', but it was not impressive in trial. The pruning regime resulted in big differences between the three plants; the back plant was rather gappy, the medium pruned less so with lots of new growth and the unpruned plant the best. However, the dense panicles on the hard pruned plant went on to flop. Flowering from mid July to early October. 175 × 185cm.
 Raiser unknown, sent by Rein and Mark Bulk Nursery.

Height and Spread
Measurements for height and spread relate to the unpruned, approximately four year old plant of each entry.

Performance rating:
The judging scores are summarised by a performance rating from 0 – 3 stars.

★★★ Excellent
★★ Very good
★ Good
none Average to poor, or not judged

E Early season
M Mid-season
L Late season

* Recommended to be rescinded at the AGM Review in 2012



L

'Phantom'  ★★★

One of the most impressive entries. The stem has great quality, very stiff, supporting the very dense panicles well. Slightly rounder panicles than 'Grandiflora' with a beautiful yellow tip, denser than 'Limelight'. It performed consistently well throughout the trial, a marvellous plant superseding 'Grandiflora'. Flowering from mid July to late September. 145 × 195cm.

Raised by Pieter Zwijnenburg Jr, Boskoop, Holland in 1990; sent by C Lane, C R Sanders and RHS Wisley.

★★★

'Praecox' ★★

★★

A very distinctive flower and lime green early foliage, having substantial impact particularly when unpruned. Free flowering and tough. Broad, half open panicle with elongated, ovate, sterile florets. Excellent edge of woodland plant that can make a very large specimen. Flowering from late June to mid August; the first to flower. 140 × 155cm.

Wild collected in Japan by C S Sargent, founder of the Arnold Arboretum, USA.



E



L

PINK DIAMOND 'Interhydia'  ★★★

This plant showed sensitivity to an apparent mineral deficiency on the trial site, yet is known to perform well, without leaf scorch, elsewhere. The late season colour was magnificent, the dense panicles developing a deep, glowing pink which made the plants stand out from those around them. Flowering from late July to late October. 155 × 210cm.

Raised by R & J de Belder, Kalmthout Arboretum, Belgium in 1980; supplied by RHS Wisley and the Crown Estate Commissioners.

★★★

'Sherwood' ★

★

Attractive, cupped sterile florets on open panicles. Makes a big mound with potential to sprawl. Flowering from late June to late September. 165 × 185cm.

Raised and sent by Sherwood Cottage Nursery.



E



L

'Pink Lady' ★★★

★★★

Distinctive, attractive pink flushing developing around the margin of the cream sterile floret. Half open to dense panicle, handsome broad leaf. Benefits from hard pruning, producing larger panicles than the unpruned plant. Flowering from early July to early October. 170 × 210cm.

Raised by Pieter Zwijnenburg Jr, Boskoop, Holland in 1990; sent by C R Sanders and RHS Wisley.

AGM subject to availability.

'Silver Dollar'  ★★★

★★★

Compact habit and very dense panicles. Sterile florets mature to a good pink. One of the most compact apart from 'Dharuma'. Strong stems support heavy heads well. Responds well to pruning, resulting in larger panicles and delayed flowering thereby extending the flowering period. Good for small gardens. Flowering from mid July to late September. 125 × 165cm.

Raised by Pieter Zwijnenburg Jr, Boskoop, Holland in 1990; supplied by RHS Wisley.



M



L

PINKY-WINKY 'Dvppinky'  ★★★

★★★

Very distinct, sturdy upright and compact. Good dark red stems and pink sterile florets at maturity, probably the deepest pink. Responded well to pruning, displaying the perfect pruning-dependent flowering sequence from unpruned to hard pruned. Suitable for small gardens. Flowering from the middle of July to the first week of October. 140 × 160cm.

Raised at the Research Station Melle, Belgium, 2003; sent by C R Sanders.

'Skylight' ★★

★★

Excellent half open panicles of very good quality, clean, white florets. Demonstrating the greatest difference between the 3 plants, the unpruned plant flowering significantly earlier, far ahead of the medium and hard pruned plants where flowering extends into late October. Flowering from mid July to early October. 165 × 230cm.

Raised by Pieter Zwijnenburg Jr, Boskoop, Holland in 1990; supplied by RHS Wisley.



E

Height and Spread
Measurements for height and spread relate to the unpruned, approximately four year old plant of each entry.

Performance rating:
The judging scores are summarised by a performance rating from 0 – 3 stars.

★★★ Excellent
★★ Very good
★ Good
none Average to poor, or not judged

E Early season
M Mid-season
L Late season

* Recommended to be rescinded at the AGM Review in 2012



STARLIGHT FANTASY 'Degustar' ★★

Distinctive sterile floret on half open to dense panicle. Sinuate leaf and healthy, glossy foliage. Late flowering, florets maturing to light pink. Flowering from mid July to early October. 120 × 130 cm.

Raised by Frères de Gussem, Belgium, PBR applied for. Known in France as 'Perle d'Automne'; sent by M Foster.

VANILLE-FRAISE 'Renhy'® ★★

Low, spreading shrub. The best red stem, but an inherent weakness resulted in very dense panicles flopping, the hard pruned plant holding up best. Appeared to be less weatherproof than many, resulting in early browning of the otherwise wonderful, pink, mature sterile florets. 125 × 185cm. Flowering from mid July to early October.

Bred by Eric Renault, Pépinières Renault, Gorrion, France. Sent by SAPHO.



'Tardiva'

Flowering from late July to early October. 135 × 130cm

Sent by the Crown Estate Commissioners and RHS Wisley.

See nomenclatural notes.

'Vera' ★

'Brussels Lace' type, drab foliage, similar to the wild type. The name probably comes from the Latin word *vera*, meaning truth, plants were often described as var. 'vera' in the past but it is not in general use now. Open to half open panicle, flowering from mid July to early September. 140 × 155cm.

Raised by de Kort, who preceded the de Belders at Kalmthout Arboretum. Sent by Derby City Parks Department.



'Tender Rose' ★

A half open panicle, initially displaying a nice contrast between pink fertile buds and white sterile florets which mature to an unremarkable pale pink. Pruning has no marked effect. Flowering from mid July to late September. 115 × 120cm.

Raised by Darthuizer Nurseries before 1995, selected as a seedling from 'Kyushu'. Sent by Darthuizer Nurseries.

'Webb's'

Flowering from the beginning of August to early October. 135 × 195cm.

Raised by J A Webb, Huntsville, Alabama, USA in 2003. Sent by Rein and Mark Bulk Nursery and RHS Wisley ex P Zwijnenburg Jr.

See nomenclatural notes.



'Unique'* ★★

This cultivar did not meet expectations in trial, although much better, older plants can be seen on Battleston Hill, RHS Wisley Garden. Superseded by more recent introductions. Dense panicles, flowering from late July to early October. 160 × 175cm.

The first introduction of R & J de Belder pre 1970 as a seedling from 'Floribunda'. Sent by the Crown Estate Commissioners and RHS Wisley.

'White Goliath'

syn. 'Goliath'

Named for its vigour than and is similar to many others. A medium, upright, spreading plant with narrow, open panicles, florets flushing pale pink with age. Flowering from mid July to mid September. 170 × 170cm.

A chance seedling at Rein and Mark Bulk Nursery, 2000; sent by the raiser.





E

'White Lace'

Not outstanding or distinctive, only 1 plant of 6 survived the trial. Open panicle, flowering from late June to late August. 130 × 185cm.

Raised by R & J de Belder, Kalmthout Arboretum, Belgium in 1970; sent by C R Sanders and RHS Wisley.



E

'White Lady'

Not represented in the RHS trial, Euro-trial only. Attractive serrate, sterile floret petals. Half open panicles.

Raised by Pieter Zwijnenburg Jr, Boskoop, Holland, 1990.



M

'White Moth' ★

Recommended to be grown in a large garden as a specimen shrub, taking time to reach its full potential. Excellent for shade, it glows in reduced light. Half open, rounded panicles. Pruning produces larger blooms with a tendency to flop, so better simply deadheaded. Flowering from late June to late August. 195 × 190cm.

Raised by R & J de Belder, Kalmthout Arboretum, Belgium in 1975, supplied by RHS Wisley.

For contact details of nurseries that can supply plants see *RHS Plant Finder*, also available online at: www.rhs.org.uk/rhsplantfinder/plantfinder.asp

Woody Plant Trials Sub-committee

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Suppliers of Plants to the Trial

Jelena de Belder (deceased), Hemelrijk, Essen, Belgium.
Rein and Mark Bulk Nursery, Rijnveld 115, 2771 XV Boskoop, The Netherlands.

Crown Estate Commissioners, The Great Park, Windsor, Berkshire SL4 2HT.

Darthuizer Boomkwekerijen Bv, Broekweg 3, 3956 NE Leersum, The Netherlands.

Derby City Parks Dept, Celtic House, Heritage Gate, Friary Street, Derby DE1 1QX.

M Dirr, Georgia, USA

M Foster, Kent

Collection d'Hydrangea Shamrock, Route de l'Eglise 76119 Varengeville sur Mer, France.

Chris Lane, Witch Hazel Nursery, Callways Lane, Newington, Sittingbourne, Kent ME9 7LU.

RHS Garden Wisley, Woking, Surrey GU23 6QB
C R Sanders, Staffordshire

SAPHO, Les Islettes, 49250, La Menitre, France

Sherwood Cottage Nursery, Sherwood Cottage, Newton St Cyres, Exeter EX5 5BT.

Ward van Teylingen, Goudse Rijkweg 326, 2771 BA Boskoop, The Netherlands.

National Collections of Hydrangea

Mr P R Smith, Derby City Parks, 15 Stores Road, Derby, Derbyshire, DE21 4BD. Tel: 01332 641560

Mrs S Newman, The Lakeland Horticultural Society Garden at Holehird, Patterdale Road, Windermere, Cumbria, LA23 1NP. Tel: 01539 446008

Mr S Wingett, The Garden House, Erbistock, Wrexham, LL13 0DL. Tel: 01978 781149

Further reading:

Church, G. 1999. *Hydrangeas*. Cassell.

Dirr, M.A. 2004. *Hydrangeas for American Gardens*. Timber Press.


Haworth-Booth, M. 1984. *The Hydrangeas* (5th ed.) Constable.

Lawson-Hall, T. and Rothera, B. 1995 *Hydrangeas A Garden Guide*. B.T. Batsford.

Mallet, C. 2008. *Hortensienatlas*. 2008. Ulmer.

Van Gelderen, C.J. and Van Gelderen, D.M. 2004. *Encyclopedia of Hydrangeas*. Timber Press.

RHS Plant Trials

With so many different types of gardener and so many different cultivars available to them in each group of plants, it is important that a system of recommendation is in place to help with selection at point of sale. These recommendations must be clear and reliable to ensure that of the thousands of plants available in the UK, a proportion are known to be excellent garden plants. The RHS provides this information through its extensive programme of plant trials held at RHS gardens in the UK. The RHS Award of Garden Merit  signifies the selection of the best cultivars for general garden use.

RHS plant trials serve the professional gardener who wants to know the range of plants available, including the latest breeding and selection programmes, with their distinctive characteristics and provenance. They also serve the amateur who wants to know which plants will grow and perform well in a particular garden situation.

The RHS has an unrivalled resource of knowledge and expertise and is therefore best placed to conduct plant trials for the UK gardening market.

RHS Trials Bulletins

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Fuchsia (hardy): Number 12
Geranium (hardy) Stage 1: Number 10
Geranium (hardy) Stage 2: Number 14
Geranium (hardy) Stage 3: Number 18
Hyacinthaceae (little blue bulbs): Number 11
Hydrangea paniculata: Number 23
Iris (bearded): Number 17
Lavenders (hardy): Number 2
Miscanthus: Number 7
Peppers (sweet): Number 15
Potatoes (salad): Number 8
Potentilla (shrubby): Number 1
Rhododendron yakushimanum and hybrids: Number 13
Runner Beans: Number 19
Saxifrages (silver): Number 9
Sedums (herbaceous): Number 20
Spiraea japonica (with coloured leaves): Number 4

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Online publications, to complement the RHS Plant Trials Bulletins series

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Perovskia: Number 3
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Trials indexes can be obtained from The Trials Office, RHS Garden Wisley, Woking, Surrey GU23 6QB, Email: trials@rhs.org.uk
Trials reports on the web at www.rhs.org.uk/plants/award_plants.asp

The Royal Horticultural Society

The RHS is the UK's leading gardening charity dedicated to advancing horticulture and promoting good gardening. Its charitable work includes providing expert advice and information, advancing horticulture, training the next generation of gardeners, helping school children learn about plants, and conducting research into plants, pests and environmental issues affecting gardeners. The RHS AGM plant trial scheme is an important part of this work.

The RHS receives no government grants and for every pound received from members' subscriptions we need to raise more than twice as much again to fund our charitable work. We also rely on donations and sponsorship to supplement income from our garden operations, flower shows, shops and plant centres.

RHS Herbarium

The RHS Herbarium keeps a record of trial cultivars as dried specimens with detailed descriptions and photographic images. This forms an important reference for the horticultural industry. Any new cultivars are highlighted and a nomenclatural standard specimen is preserved and described.

The RHS Herbarium, stored at RHS Garden Wisley, is the largest active horticultural herbarium in the world. At present the collection contains about 80,000 herbarium specimens and over 40,000 images of plants. Material is actively collected from a wide spectrum of sources including RHS plant trials.

The RHS, the UK's leading gardening charity

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